OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802

AGREEMENT

35619

THIS AGREEMENT is made and entered, in duplicate, as of July 21, 2020, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on June 2, 2020, by and between AKM Consulting Engineers, a California corporation ("Consultant"), with a place of business at 553 Wald, Irvine, CA 92618, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with as-needed stormwater and pump station related engineering consulting services ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to this Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, annual amount not to exceed Seven Hundred Fifty Thousand Dollars ($750,000), at the rates or charges shown in Exhibit "B".

B. The City's obligation to pay the sum stated above for any one fiscal year shall be contingent upon the City Council of the City appropriating the

necessary funds for such payment by the City in each fiscal year during the term of this Agreement. For the purposes of this Section, a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Agreement will terminate at no additional cost or obligation to the City.

C. Consultant may select the time and place of performance for these services; provided, however, that access to City documents, records and the like, if needed by Consultant, shall be available only during City's normal business hours and provided that milestones for performance, if any, are met.

D. Consultant has requested to receive regular payments. City shall pay Consultant in due course of payments following receipt from Consultant and approval by City of invoices showing the services or task performed, the time expended (if billing is hourly), and the name of the Project. Consultant shall certify on the invoices that Consultant has performed the services in full conformance with this Agreement and is entitled to receive payment. Each invoice shall be accompanied by a progress report indicating the progress to date of services performed and covered by the invoice, including a brief statement of any Project problems and potential causes of delay in performance, and listing those services that are projected for performance by Consultant during the next invoice cycle. Where billing is done and payment is made on an hourly basis, the parties acknowledge that this arrangement is either customary practice for Consultant's profession, industry or business, or is necessary to satisfy audit and legal requirements which may arise due to the fact that City is a municipality.

E. Consultant represents that Consultant has obtained all necessary information on conditions and circumstances that may affect its performance and has conducted site visits, if necessary.

F. CAUTION: Consultant shall not begin work until this

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Agreement has been signed by both parties and until Consultant's evidence of insurance has been delivered to and approved by City.

2. TERM. The term of this Agreement shall commence at midnight on June 9, 2020, and shall terminate at 11:59 p.m. on June 8, 2022, with the option to renew for three additional one-year periods, unless sooner terminated as provided in this Agreement.

3. COORDINATION AND ORGANIZATION.

A. Consultant shall coordinate its performance with City's representative, if any, named in Exhibit "C", attached to this Agreement and incorporated by this reference. Consultant shall advise and inform City's representative of the work in progress on the Project in sufficient detail so as to assist City's representative in making presentations and in holding meetings on the Project. City shall furnish to Consultant information or materials, if any, described in Exhibit "D", attached to this Agreement and incorporated by this reference, and shall perform any other tasks described in the Exhibit.

B. The parties acknowledge that a substantial inducement to City for entering this Agreement was and is the reputation and skill of Consultant's key employee, named in Exhibit "E" attached to this Agreement and incorporated by this reference. City shall have the right to approve any person proposed by Consultant to replace that key employee.

4. INDEPENDENT CONTRACTOR. In performing its services, Consultant is and shall act as an independent contractor and not an employee, representative or agent of City. Consultant shall have control of Consultant's work and the manner in which it is performed. Consultant shall be free to contract for similar services to be performed for others during this Agreement; provided, however, that Consultant acts in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges and agrees that (a) City will not withhold taxes of any kind from Consultant's compensation; (b) City will not secure workers' compensation or pay unemployment insurance to, for or

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on Consultant's behalf; and (c) City will not provide and Consultant is not entitled to any of the usual and customary rights, benefits or privileges of City employees. Consultant expressly warrants that neither Consultant nor any of Consultant's employees or agents shall represent themselves to be employees or agents of City.

5. INSURANCE.

A. As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain, at Consultant's expense for the duration of this Agreement, from insurance companies that are admitted to write insurance in California and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-admitted insurance companies subject to Section 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII by A.M. Best Company, the following insurance:

i. Commercial general liability insurance (equivalent in scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than $1,000,000 per each occurrence and $2,000,000 general aggregate. This coverage shall include but not be limited to broad form contractual liability, cross liability, independent contractors liability, and products and completed operations liability. City, its boards and commissions, and their officials, employees and agents shall be named as additional insureds by endorsement (on City's endorsement form or on an endorsement equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04), and this insurance shall contain no special limitations on the scope of protection given to City, its boards and commissions, and their officials, employees and agents. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

ii. Workers' Compensation insurance as required by the

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California Labor Code and employer's liability insurance in an amount not less than $1,000,000. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

iii. Professional liability or errors and omissions insurance in an amount not less than $1,000,000 per claim.

iv. Commercial automobile liability insurance (equivalent in scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an amount not less than $500,000 combined single limit per accident.

B. Any self-insurance program, self-insured retention, or deductible must be separately approved in writing by City's Risk Manager or designee and shall protect City, its officials, employees and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.

C. Each insurance policy shall be endorsed to state that coverage shall not be reduced, non-renewed or canceled except after thirty (30) days prior written notice to City, shall be primary and not contributing to any other insurance or self-insurance maintained by City, and shall be endorsed to state that coverage maintained by City shall be excess to and shall not contribute to insurance or self-insurance maintained by Consultant. Consultant shall notify City in writing within five (5) days after any insurance has been voided by the insurer or cancelled by the insured.

D. If this coverage is written on a "claims made" basis, it must provide for an extended reporting period of not less than one hundred eighty (180) days, commencing on the date this Agreement expires or is terminated, unless Consultant guarantees that Consultant will provide to City evidence of uninterrupted, continuing coverage for a period of not less than three (3) years, commencing on the date this Agreement expires or is terminated.

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E. Consultant shall require that all subconsultants or contractors that Consultant uses in the performance of these services maintain insurance in compliance with this Section unless otherwise agreed in writing by City's Risk Manager or designee.

F. Prior to the start of performance, Consultant shall deliver to City certificates of insurance and the endorsements for approval as to sufficiency and form. In addition, Consultant shall, within thirty (30) days prior to expiration of the insurance, furnish to City certificates of insurance and endorsements evidencing renewal of the insurance. City reserves the right to require complete certified copies of all policies of Consultant and Consultant's subconsultants and contractors, at any time. Consultant shall make available to City's Risk Manager or designee all books, records and other information relating to this insurance, during normal business hours.

G. Any modification or waiver of these insurance requirements shall only be made with the approval of City's Risk Manager or designee. Not more frequently than once a year, City's Risk Manager or designee may require that Consultant, Consultant's subconsultants and contractors change the amount, scope or types of coverages required in this Section if, in his or her sole opinion, the amount, scope or types of coverages are not adequate.

H. The procuring or existence of insurance shall not be construed or deemed as a limitation on liability relating to Consultant's performance or as full performance of or compliance with the indemnification provisions of this Agreement.

6. ASSIGNMENT AND SUBCONTRACTING. This Agreement contemplates the personal services of Consultant and Consultant's employees, and the parties acknowledge that a substantial inducement to City for entering this Agreement was and is the professional reputation and competence of Consultant and Consultant's employees. Consultant shall not assign its rights or delegate its duties under this Agreement, or any interest in this Agreement, or any portion of it, without the prior approval

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of City, except that Consultant may with the prior approval of the City Manager of City, assign any moneys due or to become due Consultant under this Agreement. Any attempted assignment or delegation shall be void, and any assignee or delegate shall acquire no right or interest by reason of an attempted assignment or delegation. Furthermore, Consultant shall not subcontract any portion of its performance without the prior approval of the City Manager or designee, or substitute an approved subconsultant or contractor without approval prior to the substitution. Nothing stated in this Section shall prevent Consultant from employing as many employees as Consultant deems necessary for performance of this Agreement.

7. CONFLICT OF INTEREST. Consultant, by executing this Agreement, certifies that, at the time Consultant executes this Agreement and for its duration, Consultant does not and will not perform services for any other client which would create a conflict, whether monetary or otherwise, as between the interests of City and the interests of that other client. Consultant further certifies that Consultant does not now have and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. And, Consultant shall obtain similar certifications from Consultant's employees, subconsultants and contractors.

8. MATERIALS. Consultant shall furnish all labor and supervision, supplies, materials, tools, machinery, equipment, appliances, transportation and services necessary to or used in the performance of Consultant's obligations under this Agreement, except as stated in Exhibit "D".

9. OWNERSHIP OF DATA. All materials, information and data prepared, developed or assembled by Consultant or furnished to Consultant in connection with this Agreement, including but not limited to documents, estimates, calculations, studies, maps, graphs, charts, computer disks, computer source documentation, samples, models, reports, summaries, drawings, designs, notes, plans, information, material and

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memorandum ("Data") shall be the exclusive property of City. Data shall be given to City, and City shall have the unrestricted right to use and disclose the Data in any manner and for any purpose without payment of further compensation to Consultant. Copies of Data may be retained by Consultant but Consultant warrants that Data shall not be made available to any person or entity for use without the prior approval of City. This warranty shall survive termination of this Agreement for five (5) years.

10. TERMINATION. Either party shall have the right to terminate this Agreement for any reason or no reason at any time by giving fifteen (15) calendar days prior written notice to the other party. In the event of termination under this Section, City shall pay Consultant for services satisfactorily performed and costs incurred up to the effective date of termination for which Consultant has not been previously paid. The procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant shall deliver to City all Data developed or accumulated in the performance of this Agreement, whether in draft or final form, or in process. And, Consultant acknowledges and agrees that City's obligation to make final payment is conditioned on Consultant's delivery of the Data to City.

11. CONFIDENTIALITY. Consultant shall keep all Data confidential and shall not disclose the Data or use the Data directly or indirectly, other than in the course of performing its services, during the term of this Agreement and for five (5) years following expiration or termination of this Agreement. In addition, Consultant shall keep confidential all information, whether written, oral or visual, obtained by any means whatsoever in the course of performing its services for the same period of time. Consultant shall not disclose any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit of others except for the purpose of this Agreement.

12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for a breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available without breach of this Agreement by Consultant; or (c) a third party who has a right to

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disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.

15. LAW. This Agreement shall be construed in accordance with the laws of the State of California, and the venue for any legal actions brought by any party with respect to this Agreement shall be the County of Los Angeles, State of California for state actions and the Central District of California for any federal actions. Consultant shall cause all work performed in connection with construction of the Project to be performed in compliance with (1) all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable

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federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code); and (2) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

16. PREVAILING WAGES.

A. Consultant agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 *et seq.* City makes no representation or statement that the Project, or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

B. In all bid specifications, contracts and subcontracts for any such Public Work, Consultant shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the contractor to pay not less than the said prevailing rate of wages to all workers employed by the contractor in the execution of this contract. The contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."

17. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter in this Agreement.

18. INDEMNITY.

A. Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified

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Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, including any obligations arising from the Project's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").

B. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

D. The provisions of this Section shall survive the expiration or termination of this Agreement.

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Long Beach, CA 90802

19. AMBIGUITY. In the event of any conflict or ambiguity between this Agreement and any Exhibit, the provisions of this Agreement shall govern.

20. NONDISCRIMINATION.

A. In connection with performance of this Agreement and subject to applicable rules and regulations, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or disability. Consultant shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions 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.

B. It is the policy of City to encourage the participation of Disadvantaged, Minority and Women-Owned Business Enterprises in City's procurement process, and Consultant agrees to use its best efforts to carry out this policy in its use of subconsultants and contractors to the fullest extent consistent with the efficient performance of this Agreement. Consultant may rely on written representations by subconsultants and contractors regarding their status. Consultant shall report to City in May and in December or, in the case of short-term agreements, prior to invoicing for final payment, the names of all subconsultants and contractors hired by Consultant for this Project and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.

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A. During the performance of this Agreement, the Consultant certifies and represents that the Consultant will comply with the EBO. The Consultant agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a contract with the City of Long Beach, the Consultant will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

B. The failure of the Consultant to comply with the EBO will be deemed to be a material breach of the Agreement by the City.

C. If the Consultant fails to comply with the EBO, the City may cancel, terminate or suspend the Agreement, in whole or in part, and monies due or to become due under the Agreement may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.

D. Failure to comply with the EBO may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.

E. If the City determines that the Consultant has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may terminate the Agreement on behalf of the City. Violation of this provision may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

22. NOTICES. Any notice or approval required by this Agreement shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, addressed to Consultant at the address first stated above, and to City at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a copy to the City Engineer at the same address. Notice of change of address shall be given in

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the same manner as stated for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever occurs first.

23. COPYRIGHTS AND PATENT RIGHTS.

A. Consultant shall place the following copyright protection on all Data: © City of Long Beach, California ____, inserting the appropriate year.

B. City reserves the exclusive right to seek and obtain a patent or copyright registration on any Data or other result arising from Consultant's performance of this Agreement. By executing this Agreement, Consultant assigns any ownership interest Consultant may have in the Data to City.

C. Consultant warrants that the Data does not violate or infringe any patent, copyright, trade secret or other proprietary right of any other party. Consultant agrees to and shall protect, defend, indemnify and hold City, its officials and employees harmless from any and all claims, demands, damages, loss, liability, causes of action, costs or expenses (including reasonable attorney's fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.

24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission or other monies based on or from the award of this Agreement. If Consultant breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission or other monies.

25. WAIVER. The acceptance of any services or the payment of any money by City shall not operate as a waiver of any provision of this Agreement or of any right to damages or indemnity stated in this Agreement. The waiver of any breach of this Agreement shall not constitute a waiver of any other or subsequent breach of this

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Agreement.

26. CONTINUATION. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

27. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.

28. ADVERTISING. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

29. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from and copy all books, records, accounts and other documents of Consultant relating to this Agreement.

30. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

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Long Beach, CA 90802

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

AKM Consulting Engineers, a California corporation

July 23, 2020

By _____
Name Zeki Kayiran
Title President

July 23, 2020

By _____
Name Mehmet Kayiran
Title TREASURER

"Consultant"

CITY OF LONG BEACH, a municipal corporation

August 24, 2020

By _____
City Manager

EXECUTED PURSUANT TO SECTION 301 OF THE CITY CHARTER

"City"

This Agreement is approved as to form on Aug. 19, 2020.

CHARLES PARKIN, City Attorney

By _____
Deputy

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EXHIBIT "A"

Scope of Work/Services

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

City of Long Beach

Request For Proposals Number PW19-098

For
Engineering Consulting Services for
Long Beach Storm Water Pump Stations

Release Date:	07/31/2019
Mandatory Pre-Proposal Meeting:	08/07/2019
Questions Due to the City:	08/14/2019
Posting of the Q & A:	08/22/2019
Due Date:	08/29/2019

City Contact: *Carrie Sinohui* *Buyer* *562-570-6362*

See Section 4 for instructions on submitting proposals.

Company Name _____ Contact Person _____

Address _____ City _____ State _____ Zip _____

Telephone (____) _____ Fax (____) _____Federal Tax ID No. _____

E-mail: _____

Prices contained in this proposal are subject to acceptance within _____ calendar days.

I have read, understand, and agree to all terms and conditions herein. Date _____

Signed _____

Print Name & Title _____

Rev 2016 0919

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

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City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

1. OVERVIEW OF PROJECT

I. INTRODUCTION

The City of Long Beach has total of 24 storm water pump stations and currently maintains 23 storm water pump stations. Some of the pump stations date back to the early 1900's and, as a result, many of them do not meet current standards. In 2005, the City developed a storm water master plan and a storm water pump station evaluation. A subsequent study, entitled Storm Water Pump Station Assessment, was completed in December 2015 (2015 Study). This study evaluated 22 pump stations to:

- Determine critical deficiencies which affect the facilities' immediate readiness and reliability to provide flood protection,
- Assess each pump station's overall condition, capacity, and design,
- Provide analysis and recommendations for upgrading them to comply with current codes, criteria, and reliability standards for storm water pumping facilities.

The 2015 Study is attached by this reference and is available electronically on the City's website with this Request for Proposal (RFP).

The City's Public Works Department staff recently conducted additional reviews of the pump stations, and updated the needed improvements identified by the 2015 Study, and prepared a list of deficiencies that developed since the completion of the 2015 Study.

The City, acting through its Public Works Department, is soliciting proposals to retain the services of a professional engineering consultant with specific experience and expertise in the design of new storm water pump stations, as well as upgrades to existing storm water pump stations. The selected consultant(s) is expected to inspect the pump stations; verify the deficiencies identified by the City staff; develop plans, specifications, estimates and contract documents for bidding and construction of the improvements; and provide bidding support and engineering services during the construction of the improvements. The selected consultant(s) will also be required to prepare as needed hydrology and hydraulics study, storm water study, drainage improvements, and/or water quality study. A copy of the City's current Storm Drain Pump Stations and Major Drainage Basins map is attached to this RFP as Exhibit 1.

II. OBJECTIVE

Preserving our neighborhoods is a key element of the Long Beach Strategic Plan. Upgrading of the City's Storm Water Pump Stations is designed to meet that goal.

III. PROGRAM

The City provides for the annual maintenance of its approximately 3,800 catch basins, 379 miles of storm drains, and 24 storm water pump stations within the City's 50 square mile area. The City's pump stations are identified below along with their locations or addresses.

Pump Station Name Location / Street Address

SD-1 6th Street / 6th Street and Deforest

SD-2 7th Street / 7th Street and Deforest

SD-3 Cowles / 1444 W. Cowles Street

SD-4 19th Street / 1233 W. 19th Street

SD-5 27th Street / 2710 Gale Avenue

SD-6 Willow / 901 26th Way

SD-7 Willow Underpass / Willow Street and Terminal Island Freeway

SD-8 San Francisco (N/A) / 1607 San Francisco Avenue (Los Angeles County PS)

SD-9 Atherton / 6919 Atherton Street

SD-10 Willow and 405 Fwy. / Willow Street and Vernon Street

SD-11 Gordon / 114 Gordon Street

SD-12 Artesia / Coachella Avenue and 67th Street

SD-13 North Boundary / 509 Artesia Blvd., E/O LA Co. Flood Control

SD-14 Country Square / 3467 Halbrite Avenue

SD-15 Imperial Estates / 8154 Timor Street

SD-16 Wardlow North / 8001 E. Wardlow Road

SD-17 Wardlow South / 8000 E. Wardlow Road

SD-18 Wardlow Underpass / El Dorado Park at Area 3

SD-19 Lakewood Tunnel / 2901 Lakewood Boulevard

SD-20 Spring Street Tunnel / 4201 E. Spring Street

SD-21 4th and Loma / Alley East of 4th Street on Loma Avenue

SD-22 Dominguez / Carson and LA Co. Flood Control

SD-23 West 8th Street / In Harbor S and 8th Street

SD-24 / 2401 E. South Street

2. ACRONYMS/DEFINITIONS

For purposes of this RFP, the following acronyms/definitions will be used:

Awarded Consultant	The organization/individual that is awarded and had an approved contract with the City of Long Beach, California for the services

identified in this RFP.

City	The City of Long Beach and any department or agency identified herein.
Consultant	Organization/individual submitting a proposal in response to this RFP.
Department / Division	City of Long Beach, Department of Public Works, Engineering Bureau.
Evaluation Committee	An independent committee comprised solely of representatives of the City established to review proposals submitted in response to the RFP, evaluate the proposals, and select a Contractor.
May	Indicates something that is not mandatory but permissible.
RFP	Request for Proposals.
Shall / Must	Indicates a mandatory requirement. Failure to meet a mandatory requirement may result in the rejection of a proposal as non-responsive.
Should	Indicates something that is recommended but not mandatory. If the Contractor fails to provide recommended information, the City may, at its sole option, ask the Contractor to provide the information or evaluate the proposal without the information.
Subcontractor	Third party not directly employed by the Consultant who will provide services identified in this RFP.

3. SCOPE OF PROJECT

The Consultant shall furnish all services as required to perform the design of the improvements to the storm water pump stations identified by the City, provide bidding assistance, and engineering services during construction of the improvements. The Consultant also required to prepare as needed hydrology and hydraulics study, storm water study, drainage improvements, and/or water quality study.

3.1 The following general tasks descriptions are included in the work scope of the proposal:

- Meet with City staff to review schedule, budget, project documents, project goals, format of deliverables and clarify responsibility of each party.

- Develop a Quality Assurance/Quality Control Plan for the project.
- Obtain and review all existing documents related to the storm water pump stations.
- Review the 2015 City of Long Beach Storm Water Pump Station Assessment study.
- Meet with City staff to review the improvements implemented, and maintenance and rehabilitation activities conducted by the City since the 2015 Study.
- Develop a detailed scope of work, schedule, and cost proposal for each identified project for review and evaluation by the City.
- Upon approval of the scope of work and the cost proposal by the City, prepare plans, specifications and implementation cost estimate for each storm water pump station upgrade project, including all related tasks such as topographic surveys and geotechnical investigations. Submit the plans, specifications, and estimates to the City of Long Beach at 60%, 90%, and 100% completion stages for review and comments. Address comments on each submittal, and prepare the final construction documents, including the front end documents and bid sheet for bidding of the project.
- Provide bidding assistance including attendance at the pre-bid meeting, responding to requests for clarifications, preparing addenda, and evaluating the bids, as requested by the City of Long Beach.
- Provide engineering services during construction, including attendance at the pre-construction meeting, responding to requests for information, review shop drawing submittals, review start-up testing and commissioning plans, participate in the start-up testing and commissioning of the projects, preparing as-built plans, and operation and maintenance manuals.
- Provide as needed hydrology and hydraulics study, storm water study, drainage improvements, and/or water quality study.
- Provide project management including a kickoff meeting, progress review meetings, monthly progress review reports and schedule updates. Prepare an agenda for each meeting five (5) working days prior to the meeting, and issue meeting minutes within three (3) working days of the meeting.

3.2 CITY-FURNISHED SERVICES

The City will furnish to Consultant all the available previous storm water and pump station studies, reports, plans, and any other available information that may be helpful to the Consultant in the performance of the project. A copy of the City's Storm Drain Pump Stations and Major Drainage Basins map attached as Exhibit 1 to this RFP. Additionally, the City will provide:

- City of Long Beach Storm Water Pump Station Assessment dated December 30, 2015

- Project management through an assigned Project Manager (PM) as designated by the City Engineer. The City's PM will act as the project focal point.
- Make available upon request, reports, drawings, documents, GIS land base maps, records and other data deemed useful for project development.

4. SUBMITTAL INSTRUCTIONS

4.1 For questions regarding this RFP, submit all inquiries via email to rfppurchasing@longbeach.gov by 11:00 a.m. on 08/14/2019. Responses to the questions will be posted on the City's website longbeach.gov/purchasing under the "Bids/RFPs" tab no later than the date and time shown below. All proposers are recommended to visit the abovementioned City website on a regular basis as the responses may be posted earlier than the date above.

4.1.1 The City will not be responsible for or bound by (1) any oral communication or (2) any other information or contact that occurs outside the official communication process specified herein, unless confirmed in writing by the City Contact.

4.2 **RFP Timeline (times indicated are Pacific Time)**

TASK	*DATE/TIME*
Mandatory pre-proposal meeting/site walk	08/07/2019 @ 02:30 p.m.
Deadline for submitting questions	08/14/2019 @ 11:00 a.m.
Answers to all questions submitted available	08/22/2019 @ 04:00 p.m.
Deadline for submission of proposals	08/29/2019 @ 11:00 a.m.
Evaluation period	08/30/2019 – 09/12/2019
Selection of Consultant	On or about 09/19/2019

NOTE: These dates represent a tentative schedule of events. The City reserves the right to modify these dates at any time, with appropriate notice to prospective Consultants.

4.2.1 **Mandatory Pre-Proposal Meeting**

A mandatory pre-proposal meeting is scheduled for Wednesday, August 7, 2019 at **02:30 p.m.** in the 5th Floor, Conference Room of City Hall. The City

Hall Building is located at 411 West Ocean Boulevard, Long Beach, CA. The purpose of this conference is to provide answers to questions regarding the RFP document. It is recommended that Consultants bring a copy of the RFP document to this meeting, as limited copies will be available.

Public Parking is available at West Broadway Parking, 332 West Broadway, Long Beach, CA. Parking will not be validated.

RSVPs are not required, but helpful in determining the required City staff needed to assist at the conference. Please use the "RSVP" button on the PlanetBids site to RSVP prior to the pre-proposal conference.

4.3 Method of Submission

Electronic proposals shall be submitted via the City's secure online bidding system. All required sections of the proposal must be submitted via the website. Proposer is solely responsible for "on time" submission of their electronic narrative proposal and cost proposal. The Bid Management System will not accept late proposals and no exceptions shall be made. Proposers will receive an e-bid confirmation number with a time stamp from the Bid Management System indicating that their proposal was submitted successfully. The City will only receive those proposals that were transmitted successfully.

RFP cover page shall be signed in ink, scanned and included with narrative proposal in the electronic proposal submission.

Submit proposal online at:
http://www.planetbids.com/portal/portal.cfm?CompanyID=15810

4.4 Proposals must be received by 11:00 a.m. (PT) on 08/29/2019. Proposals that do not arrive by the specified date and time WILL NOT BE ACCEPTED. Consultants may submit their proposal any time prior to the above stated deadline. The City will not be held responsible for proposals mishandled as a result of technical error. Facsimile or telephone proposals will NOT be considered unless otherwise authorized; however, proposals may be modified by fax or written notice provided such notice is received prior to the opening of the proposals.

4.5 Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFP, per the evaluation criteria listed in Section 5.1. The proposal should be presented in a format that corresponds to and references Section 3, Scope of Project; Section 7, Project Specifications; Section 8, Warranty/Maintenance and Service; Section 9, Company Background and References; and Section 10, Cost, and should be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed.

4.6 Colored displays, promotional materials, etc., are not necessary or desired. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.

4.7 The proposal must be signed by the individual(s) legally authorized to bind the Consultant. Consultants shall complete the cover page of the RFP document, sign in ink, and submit electronically with their narrative/technical proposal.

4.8 If complete responses cannot be provided without referencing supporting documentation, such documentation must be provided with the proposal and specific references made to the tab, page, section and/or paragraph where the supplemental information can be found.

4.9 Descriptions on how any and all equipment and/or services will be used to meet the requirements of this RFP shall be given, in detail, along with any additional information documents that are appropriately marked.

4.10 Proposals shall be submitted in two (2) distinct parts - the **narrative/technical proposal** and the **cost proposal**. THE NARRATIVE/TECHNICAL PROPOSAL MUST NOT INCLUDE COST AND PRICING INFORMATION. The narrative/technical proposal will be reviewed first and then the cost proposal. Therefore, each part should be **uploaded separately, but submitted together**.

5. PROPOSAL EVALUATION AND AWARD PROCESS

5.1 Proposals shall be consistently evaluated based upon the following criteria:
- 5.1.1 Demonstrated competence;
- 5.1.2 Experience in performance of comparable engagements;
- 5.1.3 Expertise and availability of key personnel;
- 5.1.4 Financial stability;
- 5.1.5 Conformance with the terms of this RFP; and
- 5.1.6 Reasonableness of cost.

5.2 Proposals shall be kept confidential until a contract is awarded.

5.3 The City may also contact the references provided in response to Section 9.3; contact any Consultant to clarify any response; contact any current users of a Consultant's services; solicit information from any available source concerning any aspect of a proposal; and seek and review any other information deemed pertinent to the evaluation process. The City shall not be obligated to accept the lowest priced proposal, but shall make an award in the best interests of the City of Long Beach.

5.4 The City reserves the right to request clarification of any proposal term from prospective Consultants.

5.5 Selected Consultant(s) will be notified in writing. Any award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Consultants unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the City reserves the right to negotiate a contract with another Consultant or withdraw the RFP.

5.6 Any contract resulting from this RFP shall not be effective unless and until approved by the City Council / City Manager, as applicable.

5.7 The City prefers to award to a single Consultant but reserves the right to award contract to multiple Consultants. The City reserves the right in its sole discretion to award all services to one Consultant, or to award separate services or groups of services to various Consultants.

6. PROTEST PROCEDURES

6.1 Who May Protest

Only a proposer who has actually submitted a proposal is eligible to protest a contract awarded through a Request for Proposals (RFP). A proposer may not rely on the protest submitted by another proposer but must pursue its own protest.

6.2 Time for Protest

The City will post a notice of the intent to award a contract at least ten (10) business days before an award is made. The notice will be available to all proposers who submitted a proposal via the City's electronic bid notification system at http://www.longbeach.gov/purchasing/default.asp. A proposer desiring to submit a protest for a proposal must do so within five (5) business days of the electronic notification of intent to award. The City Purchasing Agent must receive the protest by the close of business on the fifth (5th) business day following posting of notification of intent to award the contract. Proposers are responsible for registering with the City's electronic bid notification system and maintaining an updated Consultant profile. The City is not responsible for proposers' failure to obtain notification for any reason, including but not limited to failure to maintain updated email addresses, failure to open/read electronic messages and failure of their own computer/technology equipment. The City's RFP justification memo will be available for review by protestors once the notification of intent to award has been posted via the City's electronic bid notification system.

6.3 Form of Protest

The protest must be in writing and signed by the individual who signed the proposal or, if the proposer is a corporation, by an officer of the corporation, and addressed to the City Purchasing Agent. Protests may be submitted via US Mail, hand delivery or email, and must include a valid email address, street address and phone number sufficient to ensure that the City's decision concerning the protest will be received. Protests must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, and must refer to specific portions of the RFP and attachments upon which the protest is based. Once the protest is received by the City Purchasing Agent, the City will not accept additional information on the protest unless the City requests it.

6.4 City Response to Protest

The City Purchasing Agent or designee will respond with a decision regarding the protest within five (5) business days of receipt of protest by email or US Mail to the address provided in the protest. This decision shall be final.

6.5 Limitation of Remedy

The procedure and time limits set forth herein are mandatory and are the proposer's sole and exclusive remedy in the event of a protest. The proposer's failure to comply with these procedures shall constitute a waiver of any right to further pursue a protest, including filing a Government Code Claim or initiation of legal proceedings.

7. PROJECT SPECIFICATIONS

7.1 AutoCAD, Civil 3D, 2017 version in the corporate office of the Consultant, and conform to Department of Public Works, Engineering Bureau standards.

7.2 ArcGIS Version 10.1 (license: ArcInfo) or later.

7.3 Hydraulic Institute Standards

7.4 Los Angeles County Flood Control District Design Manual Pump Station

7.5 All other applicable codes, including but not limited to OSHA, NEC.

8. WARRANTY/MAINTENANCE AND SERVICE

Please specify in detail the following:

8.1 The length and terms of any warranty/maintenance and service provided by Consultant

8.2 For this project, Consultants must specify if subcontractors will perform warranty/ maintenance/service, location(s) where warranty/maintenance/service will be performed, along with contact name and phone number for each location.

9. COMPANY BACKGROUND AND REFERENCES

9.1 Primary Consultant Information

Consultants must provide a company profile. Information provided shall include:

- Company ownership. If incorporated, the state in which the company is incorporated and the date of incorporation. An out-of-state Consultant must register with the State of California Secretary of State before a contract can be executed (http://www.sos.ca.gov/business/). (Not required to submit with proposal).
- Location of the company offices.
- Location of the office servicing any California account(s).
- Number of employees both locally and nationally. Specify the number of full time and part-time employees residing in Long Beach.
- Location(s) from which employees will be assigned.
- Name, address and telephone number of the Consultant's point of contact for a contract resulting from this RFP.
- Company background/history and why Consultant is qualified to provide the services described in this RFP.
- Length of time Consultant has been providing services described in this RFP to the **public and/or private sector**. Please provide a brief description.
- Resumes for key staff to be responsible for performance of any contract resulting from this RFP.
- Financial stability: Proposers must provide financial statements giving the City enough information to determine financial stability. These statements may include, but are not limited to:

  a) Financial Statement or Annual Report;
  b) Business tax return;
  c) Statement of income and related earnings

The level and term of documentation required from the proposer to satisfy the City will be commensurate with the size and complexity of the contract and proposers should submit accordingly. If the information submitted by the

proposer, or available from other sources, is insufficient to satisfy the City as to the proposer's contractual responsibility, the City may request additional information from the proposer or may deem the proposal non-responsive. The City's determination of the proposer's responsibility, for the purposes of this RFP, shall be final.

9.2 Subcontractor Information

9.2.1 Does this proposal include the use of subcontractors?

Yes _____ No _____ Initials _____

If "Yes", Consultant must:

9.2.1.1 Identify specific subcontractors and the specific requirements of this RFP for which each proposed subcontractor will perform services.

9.2.1.2 Provide the same information for any subcontractors as is indicated in Section 9.1 for the Consultant as primary consultant.

9.2.1.3 References as specified in Section 9.3 below must also be provided for any proposed subcontractors.

9.2.1.4 The City requires that the awarded Consultant provide proof of payment of any subcontractors used for this project. Proposals shall include a plan by which the City will be notified of such payments.

9.2.1.5 Primary consultant shall not allow any subcontractor to commence work until all insurance required of subcontractor is obtained.

9.3 References

Consultants should provide a minimum of five (5) references from similar projects performed for state and/or large local government clients within the last five years. Information provided shall include:

- Client name;
- Project description;
- Project dates (starting and ending);
- Staff assigned to reference engagement that will be designated for work per this RFP;
- Client project manager name and telephone number.

9.4 Business License

The Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. In some cases, the City may require a regulatory permit and/or evidence of a State or Federal license. Prior to issuing a business license, certain business types will require the business license application and/or business location to be reviewed by the Development Services, Fire, Health, and/or Police Departments.

For more information, go to www.longbeach.gov/finance/business_license.

10. COST

10.1 Consultants must provide a schedule of rates, which will be applicable for each year of assignment.

11. BONDS

11.1 Faithful Performance Bond

The successful proposer shall submit a Faithful Performance Bond for 100 percent of cost of bid. Successful bidder shall only be required to submit bond if award is made and notice is given from the City. The cost of the bond shall be included in the bid, and in the successful bidder's invoice. The bond will be issued to the City Long Beach, Purchasing Division, Long Beach City Hall, 411 West Ocean Blvd., 6th Floor, Long Beach, California 90802 and shall be submitted within ten (10) calendar days after notice of award. The Bond shall be submitted upon forms included herein or secured at the Office of the City Purchasing Agent (address above). The successful bidder shall use only the bond form supplied by the City.

A corporation must have the bond executed by two (2) authorized officers. If the bond is executed by only one (1) authorized officer or a person not listed in Section 313 of the California Corporations Code, then the corporation must attach a certified copy of a resolution of its Board of Directors authorizing execution by said individual(s).

11.2 Labor and Materials Bond

The Consultant shall submit a Labor and Materials Bond to the City Purchasing Agent, Long Beach City Hall, 411 West Ocean Blvd., Plaza Level, Long Beach, California 90802, if the total bid amount is more than $25,000.00. The amount of the bond shall be (Contractor shall complete) $_____ (which is 100 percent of the Contract amount) and shall be submitted within ten (10) calendar days after

notice of award. The Bond shall be submitted upon forms included herein or secured at the Office of the City Purchasing Agent (address above).

A corporation must have the bond executed by two (2) authorized officers. If the bond is executed by only one (1) authorized officer or a person not listed in section 313 of the California Corporations Code, then the corporation must attach a certified copy of a resolution of its Board of Directors authorizing execution by said individual(s).

11.3 Notarial Acknowledgments Required with Bonds

Signatures of all principals and sureties shall be accompanied by the appropriate Notarial Acknowledgements. A Notarial Acknowledgement shall accompany each signature of each Principal and a Notarial Acknowledgement shall accompany the signature of the Surety. All bonds require the signatures of all principals and sureties, accompanied by the appropriate Notarial Acknowledgements, whether the company is located inside or outside the State of California.

12. ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE

Any Contract arising from this procurement process may be funded in whole or in part by various granting entities. Pursuant to said grants, the Awarded Consultant(s) is required to comply with (and to incorporate into its agreements with any sub-consultants) the following provisions in the performance of the Contract, as applicable.

12.1 Order of Precedence – In the event of conflicts or discrepancies between these Federal grant funding provisions and any other Contract document, the Federal grant provisions shall take precedence.

12.2 Access to Consultant's Records – The Awarded Consultant(s) shall provide the City, the Office of State and Local Government Coordination and Preparedness, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of the Awarded Consultant(s) which are directly pertinent to the work performed under the Contract for the purposes of making audit, examination, excerpts or transcriptions.

12.3 Americans with Disabilities Act – The Awarded Consultant(s) hereby certifies that it will comply, as applicable, with the Americans with Disabilities Act of 1990 ("ADA"), 42 USC §§ 12101 et seq., and its implementing regulations, including Subtitle A, Title II of the ADA. The Awarded Consultant(s) will provide, as applicable, reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the ADA. The Awarded Consultant(s) will not discriminate against persons with disabilities nor against persons due to their relationship to or

association with a person with a disability. Any contract entered into by the Awarded Consultant(s) (or any subcontract thereof), relating to this Agreement, shall be subject to the provisions of this paragraph.

12.4 Compliance with Contract Work Hours and Safety Standard Act – The Awarded Consultant(s) shall comply with the requirements of §§ 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C §§ 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5).

12.5 Compliance with Copeland "Anti-Kickback" Act – The Awarded Consultant(s) shall comply with the requirements of the Copeland "Anti-Kickback" Act (18 U.S.C. § 874) as supplemented in the Department of Labor regulations (29 CFR Part 3).

12.6 Compliance with Davis-Bacon Act – The Awarded Consultant(s) shall comply with the requirements of the Davis-Bacon ACT (40 U.S.C. §§ 276 to 276-a7) as supplemented by Department of Labor regulations (29 CFR Part 5) where applicable and shall provide the City with all applicable payroll records on a weekly basis.

12.7 Copyright – The Awarded Consultant(s) acknowledges the existence of requirements and regulations of the awarding Federal agency relating to copyrights and right in data, including, but not limited to those set forth in 44 CFR Part 13.34 which states: "The Federal awarding agency reserves royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) Any rights of copyright to which a grantee, subgrantee or a contractor purchases ownership with grant support." The Awarded Consultant(s) shall comply with 25 CFR 85.34.

12.8 Drug-Free Workplace – The Awarded Consultant(s) hereby certifies that it shall provide or shall continue to provide a drug-free workplace as required by the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701), and implemented at 44 CFR Part 17.

12.9 Energy Efficiency – The Awarded Consultant(s) shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State of California's energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).

12.10 Environmental Legislation – The Awarded Consultant(s) shall comply with all applicable standards, orders or requirements issued under § 306 of the Clean Air Act (42 U.S.C. 1857 (h)), § 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).

12.11 System for Award Management (SAM) – In accordance with Executive Orders 12549 and 12689 concerning suspension and debarment, contracts must prohibit

consultants from awarding any subcontract to persons (individuals or organizations) listed as having an active exclusion of the Federal System for Awards Management Database (www.sam.gov).

12.12 Minority, Women and Other Business Enterprise Outreach – In accordance with CalEMA/Grantor directives, as applicable, firms who represent small business enterprises (SBEs), minority business enterprises (MBEs) and women business enterprises (WBEs) are encouraged to participate in competition for this opportunity. Any such enterprise shall include the appropriate SBE/MBE/WBE certification along with its proposal. The Awarded Consultant(s) agrees that, to the extent consultants or subcontractors are utilized, the Awarded Consultant(s) shall use small, minority, women-owned, or disadvantaged business concerns and contractors or subcontractors to the extent practicable and shall take the affirmative steps as set forth in 49 CFR §13.36(e).

12.13 National Preservation Acts – The Awarded Consultant(s) shall assist City (if necessary) in assuring compliance with § 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321).

12.14 Non-discrimination; Equal Employment Opportunity – The Awarded Consultant(s) hereby assures the City that in performing its obligations pursuant to the Contract, it will comply with all applicable nondiscrimination requirements as set forth in 44 CFR Part 13.36. In addition, the Awarded Consultant(s) shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Opportunity Employment," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60), and where applicable to the nondiscrimination provisions of the Omnibus Crime Control and Safe Street Acts of 1968 (42 U.S.C. § 3789d), the Victims of Crimes Act (42 U.S.C. § 10604(e)), the Juvenile Justice and Delinquency Prevention Act (42 U.S.C. § 5672(b)), the Civil Rights Act of 1964 (42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (29 U.S.C. § 794), the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12131-34), the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86), and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-07), see Executive Order 13279 (equal protection of the laws for faith-based and community organizations). This provision must be incorporated by Awarded Consultant(s) into any subcontract exceeding $10,000.

12.15 Patent Rights – The Awarded Consultant(s) acknowledges the existence of requirements and regulations of the awarding Federal agency relating to patent rights with respect to any discovery or invention which arises or is developed in the course or under this Contract, including, but not limited to those regulations and requirements set forth in 44 CFR Part 13.36. Any discovery or invention that arises

during the course of this Contract shall be immediately reported to the Department's project management team. The awarding Federal agency shall determine how rights in the invention/discovery shall be allocated consistent with "Government Patent Policy" and 37 CFR Part 401.

12.16 Payments, Reports, Records, Retention and Enforcement – The Awarded Consultant(s) acknowledges the requirements and regulations set forth in 44 CFR Parts 13.36 through 13.42 and 49 CFR Part 18 and agrees to cooperate with the City in order to allow the City to comply with said requirements. The Awarded Consultant(s) shall retain all of its records relating to the project for a period of five (5) years after City makes final payment to the Awarded Consultant(s) and all other pending matters are closed.

12.17 Publications – All publications created and/or published with funding under any contract arising from this RFP shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security."

12.18 Rights to Data – The Grantor and the City shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produces under this Contract or are published copyrighted data with the notice of 17 U.S.C § 401 or 402, the Grantor acquires the data under copyright license as set forth in 48 CFR 27.404(f)(2) instead of unlimited rights (4 CFR 27.404(a)).

12.19 Rights to Use Inventions – City and all grantors and/or awarding Federal Agency shall have an unencumbered right, and a non-exclusive, irrevocable, royalty –free license, to use, manufacture, improve upon and all others to do so for all governmental purposes, any invention developed under the Contract.

13. TERMS, CONDITIONS AND EXCEPTIONS

13.1 This contract will be for a period of 24 months with three annual renewal options at the discretion of the City. The contract term will not exceed 60 months.

13.2 The City reserves the right to alter, amend, or modify any provisions of this RFP, or to withdraw this RFP, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of the City to do so.

13.3 The City reserves the right to waive informalities and minor irregularities in proposals received.

13.4 The City reserves the right to reject any or all proposals received prior to contract award.

13.5 The City shall not be obligated to accept the lowest priced proposal, but will make an award in the best interests of the City of Long Beach after all factors have been evaluated.

13.6 Any irregularities or lack of clarity in the RFP should be brought to the Purchasing Division designee's attention as soon as possible so that corrective addenda may be furnished to prospective Contractors.

13.7 Proposals must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and the Consultant's standard contract language. The omission of these documents may render a proposal non-responsive.

13.8 Alterations, modifications or variations to a proposal may not be considered unless authorized by the RFP or by addendum or amendment.

13.9 Proposals which appear unrealistic in the terms of technical commitments, lack of technical competence, or are indicative of failure to comprehend the complexity and risk of this contract, may be rejected.

13.10 Proposals may be withdrawn by written or facsimile notice received prior to the proposal opening time.

13.11 The price and amount of this proposal must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other Consultant or prospective Consultant.

13.12 No attempt may be made at any time to induce any firm or person to refrain from submitting a proposal or to submit any intentionally high or noncompetitive proposal. All proposals must be made in good faith and without collusion.

13.13 Prices offered by Consultants in their proposals are an irrevocable offer for the term of the contract and any contract extensions. The awarded Consultant(s) agrees to provide the purchased services at the costs, rates and fees as set forth in their proposal in response to this RFP. No other costs, rates or fees shall be payable to the awarded Consultant(s) for implementation of their proposal.

13.14 The City is not liable for any costs incurred by Consultants prior to entering into a formal contract. Costs of developing the proposals or any other such expenses incurred by the Consultant in responding to the RFP, are entirely the responsibility of the Consultant, and shall not be reimbursed in any manner by the City.

13.15 Proposal will become public record after the award of a contract unless the proposal or specific parts of the proposal can be shown to be exempt by law. Each Consultant may clearly label all or part of a proposal as "CONFIDENTIAL" provided that the Consultant thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the information.

13.16 A proposal submitted in response to this RFP must identify any subcontractors, and outline the contractual relationship between the awarded Consultant(s) and each subcontractor. An official of each proposed subcontractor must sign, and include as part of the proposal submitted in response to this RFP, a statement to the effect that the subcontractor has read and will agree to abide by the awarded Consultant's obligations.

13.17 The awarded Consultant(s) will be the sole point of contract responsibility. The City will look solely to the awarded Consultant(s) for the performance of all contractual obligations which may result from an award based on this RFP, and the awarded Consultant(s) shall not be relieved for the non-performance of any or all subcontractors.

13.18 The awarded Consultant(s) must maintain, for the duration of its contract, insurance coverages as required by the City. Work on the contract shall not begin until after the awarded Consultant(s) has(have) submitted acceptable evidence of the required insurance coverages.

13.19 Each Consultant must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFP. Any such relationship that might be perceived or represented as a conflict should be disclosed. The City reserves the right to disqualify any Consultant on the grounds of actual or apparent conflict of interest.

13.20 Each Consultant must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Consultant or in which the Consultant has been judged guilty or liable. Failure to comply with the terms of this provision will disqualify any proposal. The City reserves the right to reject any proposal based upon the Consultant's prior history with the City or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious

demeanor, significant failure(s) to meet contract milestones or other contractual failures.

13.21 The City will not be liable for Federal, State, or Local excise taxes.

13.22 Execution of **Attachment A** of this RFP shall constitute an agreement to all terms and conditions specified in the RFP, including, without limitation, the **Attachment B** contract form and all terms and conditions therein, except such terms and conditions that the Consultant expressly excludes.

13.23 The City reserves the right to negotiate final contract terms with any Consultant selected. The contract between the parties will consist of the RFP together with any modifications thereto, and the awarded Consultant's proposal, together with any modifications and clarifications thereto that are submitted at the request of the City during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the RFP, any modifications and clarifications to the awarded Consultant's proposal, and the awarded Consultant's proposal. Specific exceptions to this general rule may be noted in the final executed contract.

13.24 Consultant understands and acknowledges that the representations above are material and important, and will be relied on by the City in evaluation of the proposal. Any Consultant misrepresentation shall be treated as fraudulent concealment from the City of the true facts relating to the proposal.

13.25 No announcement concerning the award of a contract as a result of this RFP may be made without the prior written approval of the City.

13.26 Proposers are advised that any contract awarded pursuant to this procurement process that exceeds $100,000 shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq, the Equal Benefits Ordinance. Proposers shall refer to **Attachment G** for further information regarding the requirements of the ordinance.

All Proposers shall complete and return, with their bid, the Equal Benefits Ordinance Compliance form contained in **Attachment G**. Unless otherwise specified in the procurement package, Proposers do not need to submit with their bid supporting documentation proving compliance. However, supporting documentation verifying that the benefits are provided equally shall be required if the proposer is selected for award of a contract.

13.27 All work performed in connection with construction shall be performed in compliance with all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable

federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code), and (b) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, including attorneys' fees, court costs, expert and witness fees, and other costs and fees of litigation, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Contract, including any obligations arising from the Project's Consultant's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 et seq. or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Contract (collectively "Claims" or individually "Claim").

In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

If the Consultant elects to use subcontractors, Consultant agrees to require its subcontractors to indemnify Indemnified Parties and to provide insurance coverage to the same extent as Consultant.

The provisions of this Section shall survive the expiration or termination of this Contract.

Consultant agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply

with the requirements of California Labor Code sections 1770 *et seq.* City makes no representation or statement that the project or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

In all bid specifications, contracts and subcontracts for any such Public Work, Consultant shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the consultant to pay not less than the said prevailing rate of wages to all workers employed by the consultant in the execution of this contract. The consultant expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Attachment A

CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFP

I have read, understand and agree to comply with the terms and conditions specified in this Request for Proposal. Any exceptions MUST be documented.

SIGNATURE _____

EXCEPTIONS: Attach additional sheets if necessary. Please use this format.

EXCEPTION SUMMARY FORM

RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (PROVIDE A DETAILED EXPLANATION)

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Attachment B

PRO-FORMA AGREEMENT

[Depending on service, a different pro-forma agreement may be used. Contact Purchasing or your department's attorney.]

[requirements may also change; contact Risk Management.]

AGREEMENT

THIS AGREEMENT is made and entered, in duplicate, as of _____, 20__ for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on _____, 20__, by and between _____, a _____ corporation, partnership, limited liability company, dba ("Consultant"), with a place of business at _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, the City requires specialized services requiring unique skills to be performed in connection with _____ ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to this Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed _____ Dollars ($_____), at the rates or charges shown in Exhibit "B".

B. The City's obligation to pay the sum stated above for any one

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fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of this Agreement. For the purposes of this Section, a fiscal year commences on October 1 of the year and continues through September 30 of the following year. In the event that the City Council of the City fails to appropriate the necessary funds for any fiscal year, then, and in that event, the Agreement will terminate at no additional cost or obligation to the City.

C. Consultant may select the time and place of performance for these services provided, however, that access to City documents, records, and the like, if needed by Consultant, shall be available only during City's normal business hours and provided that milestones for performance, if any, are met.

D. Consultant has requested to receive regular payments. City shall pay Consultant in due course of payments following receipt from Consultant and approval by City of invoices showing the services or task performed, the time expended (if billing is hourly), and the name of the Project. Consultant shall certify on the invoices that Consultant has performed the services in full conformance with this Agreement and is entitled to receive payment. Each invoice shall be accompanied by a progress report indicating the progress to date of services performed and covered by the invoice, including a brief statement of any Project problems and potential causes of delay in performance, and listing those services that are projected for performance by Consultant during the next invoice cycle. Where billing is done and payment is made on an hourly basis, the parties acknowledge that this arrangement is either customary practice for Consultant's profession, industry, or business, or is necessary to satisfy audit and legal requirements which may arise due to the fact that City is a municipality.

E. Consultant represents that Consultant has obtained all necessary information on conditions and circumstances that may affect its performance and has conducted site visits, if necessary.

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F. CAUTION: Consultant shall not begin work until this Agreement has been signed by both parties and until Consultant's evidence of insurance has been delivered to and approved by the City.

2. TERM. The term of this Agreement shall commence at midnight on _____, 20_, and shall terminate at 11:59 p.m. on _____, 20__, unless sooner terminated as provided in this Agreement, or unless the services or the Project is completed sooner.

3. COORDINATION AND ORGANIZATION.

A. Consultant shall coordinate its performance with City's representative, if any, named in Exhibit "C", attached to this Agreement and incorporated by this reference. Consultant shall advise and inform City's representative of the work in progress on the Project in sufficient detail so as to assist City's representative in making presentations and in holding meetings on the Project. City shall furnish to Consultant information or materials, if any, described in Exhibit "D" attached to this Agreement and incorporated by this reference, and shall perform any other tasks described in the Exhibit.

B. The parties acknowledge that a substantial inducement to City for entering this Agreement was and is the reputation and skill of Consultant's key employee, named in Exhibit "E" attached to this Agreement and incorporated by this reference. City shall have the right to approve any person proposed by Consultant to replace that key employee.

4. INDEPENDENT CONTRACTOR. In performing its services, Consultant is and shall act as an independent contractor and not an employee, representative, or agent of City. Consultant shall have control of Consultant's work and the manner in which it is performed. Consultant shall be free to contract for similar services to be performed for others during this Agreement provided, however, that Consultant acts in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges and agrees that a) City will not withhold taxes of any kind from Consultant's compensation,

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b) City will not secure workers' compensation or pay unemployment insurance to, for or on Consultant's behalf, and c) City will not provide and Consultant is not entitled to any of the usual and customary rights, benefits or privileges of City employees. Consultant expressly warrants that neither Consultant nor any of Consultant's employees or agents shall represent themselves to be employees or agents of City.

5. INSURANCE.

A. As a condition precedent to the effectiveness of this Agreement, Consultant shall procure and maintain, at Consultant's expense for the duration of this Agreement, from insurance companies that are admitted to write insurance in California and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-admitted insurance companies subject to Section 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII by A.M. Best Company the following insurance:

i. Commercial general liability insurance (equivalent in scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less than $1,000,000 per each occurrence and $2,000,000 general aggregate. This coverage shall include but not be limited to broad form contractual liability, cross liability, independent contractors liability, and products and completed operations liability. The City, its boards and commissions, and their officials, employees and agents shall be named as additional insureds by endorsement (on City's endorsement form or on an endorsement equivalent in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04), and this insurance shall contain no special limitations on the scope of protection given to the City, its boards and commissions, and their officials, employees and agents. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

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ii. Workers' Compensation insurance as required by the California Labor Code and employer's liability insurance in an amount not less than $1,000,000. This policy shall be endorsed to state that the insurer waives its right of subrogation against City, its boards and commissions, and their officials, employees and agents.

iii. Professional liability or errors and omissions insurance in an amount not less than $1,000,000 per claim.

iv. Commercial automobile liability insurance (equivalent in scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in an amount not less than $500,000 combined single limit per accident.

B. Any self-insurance program, self-insured retention, or deductible must be separately approved in writing by City's Risk Manager or designee and shall protect City, its officials, employees and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.

C. Each insurance policy shall be endorsed to state that coverage shall not be reduced, non-renewed, or canceled except after thirty (30) days prior written notice to City, shall be primary and not contributing to any other insurance or self-insurance maintained by City, and shall be endorsed to state that coverage maintained by City shall be excess to and shall not contribute to insurance or self-insurance maintained by Consultant. Consultant shall notify the City in writing within five (5) days after any insurance has been voided by the insurer or cancelled by the insured.

D. If this coverage is written on a "claims made" basis, it must provide for an extended reporting period of not less than one hundred eighty (180) days, commencing on the date this Agreement expires or is terminated, unless Consultant guarantees that Consultant will provide to the City evidence of uninterrupted, continuing coverage for a period of not less than three (3) years,

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commencing on the date this Agreement expires or is terminated.

E. Consultant shall require that all subconsultants or contractors which Consultant uses in the performance of these services maintain insurance in compliance with this Section unless otherwise agreed in writing by City's Risk Manager or designee.

F. Prior to the start of performance, Consultant shall deliver to City certificates of insurance and the endorsements for approval as to sufficiency and form. In addition, Consultant, shall, within thirty (30) days prior to expiration of the insurance, furnish to City certificates of insurance and endorsements evidencing renewal of the insurance. City reserves the right to require complete certified copies of all policies of Consultant and Consultant's subconsultants and contractors, at any time. Consultant shall make available to City's Risk Manager or designee all books, records and other information relating to this insurance, during normal business hours.

G. Any modification or waiver of these insurance requirements shall only be made with the approval of City's Risk Manager or designee. Not more frequently than once a year, the City's Risk Manager or designee may require that Consultant, Consultant's subconsultants and contractors change the amount, scope or types of coverages required in this Section if, in his or her sole opinion, the amount, scope, or types of coverages are not adequate.

H. The procuring or existence of insurance shall not be construed or deemed as a limitation on liability relating to Consultant's performance or as full performance of or compliance with the indemnification provisions of this Agreement.

6. ASSIGNMENT AND SUBCONTRACTING. This Agreement contemplates the personal services of Consultant and Consultant's employees, and the parties acknowledge that a substantial inducement to City for entering this Agreement was and is the professional reputation and competence of Consultant and Consultant's employees. Consultant shall not assign its rights or delegate its duties under this

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Agreement, or any interest in this Agreement, or any portion of it, without the prior approval of City, except that Consultant may with the prior approval of the City Manager of City, assign any moneys due or to become due the Consultant under this Agreement. Any attempted assignment or delegation shall be void, and any assignee or delegate shall acquire no right or interest by reason of an attempted assignment or delegation. Furthermore, Consultant shall not subcontract any portion of its performance without the prior approval of the City Manager or designee, or substitute an approved subconsultant or contractor without approval prior to the substitution. Nothing stated in this Section shall prevent Consultant from employing as many employees as Consultant deems necessary for performance of this Agreement.

7. CONFLICT OF INTEREST. Consultant, by executing this Agreement, certifies that, at the time Consultant executes this Agreement and for its duration, Consultant does not and will not perform services for any other client which would create a conflict, whether monetary or otherwise, as between the interests of City and the interests of that other client. Consultant further certifies that Consultant does not now have and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. And, Consultant shall obtain similar certifications from Consultant's employees, subconsultants and contractors.

8. MATERIALS. Consultant shall furnish all labor and supervision, supplies, materials, tools, machinery, equipment, appliances, transportation, and services necessary to or used in the performance of Consultant's obligations under this Agreement, except as stated in Exhibit "D".

9. OWNERSHIP OF DATA. All materials, information and data prepared, developed, or assembled by Consultant or furnished to Consultant in connection with this Agreement, including but not limited to documents, estimates, calculations, studies, maps, graphs, charts, computer disks, computer source documentation, samples,

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models, reports, summaries, drawings, designs, notes, plans, information, material, and memorandum ("Data") shall be the exclusive property of City. Data shall be given to City, and City shall have the unrestricted right to use and disclose the Data in any manner and for any purpose without payment of further compensation to Consultant. Copies of Data may be retained by Consultant but Consultant warrants that Data shall not be made available to any person or entity for use without the prior approval of City. This warranty shall survive termination of this Agreement for five (5) years.

10. TERMINATION. Either party shall have the right to terminate this Agreement for any reason or no reason at any time by giving fifteen (15) calendar days prior written notice to the other party. In the event of termination under this Section, City shall pay Consultant for services satisfactorily performed and costs incurred up to the effective date of termination for which Consultant has not been previously paid. The procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant shall deliver to City all Data developed or accumulated in the performance of this Agreement, whether in draft or final form, or in process. And, Consultant acknowledges and agrees that City's obligation to make final payment is conditioned on Consultant's delivery of the Data to the City.

11. CONFIDENTIALITY. Consultant shall keep the Data confidential and shall not disclose the Data or use the Data directly or indirectly other than in the course of performing its services, during the term of this Agreement and for five (5) years following expiration or termination of this Agreement. In addition, Consultant shall keep confidential all information, whether written, oral, or visual, obtained by any means whatsoever in the course of performing its services for the same period of time. Consultant shall not disclose any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit of others except for the purpose of this Agreement.

12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for a breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available

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without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by the City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes the City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.

15. LAW. This Agreement shall be governed by and construed pursuant to the laws of the State of California (except those provisions of California law pertaining to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and regulations of and obtain all permits, licenses, and certificates required by all federal, state and local governmental authorities.

16. ENTIRE AGREEMENT. This Agreement, including all Exhibits,

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constitutes the entire understanding between the parties and supersedes all other agreements, oral or written, with respect to the subject matter in this Agreement.

17. INDEMNITY.

A. Consultant shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").

B. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

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D. To the extent this Agreement is a professional service agreement for work or services performed by a design professional (architect, landscape architect, professional engineer or professional land surveyor), the provisions of this Section regarding Consultant's duty to defend and indemnify shall be limited as provided in California Civil Code Section 2782.8, and shall apply only to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

E. The provisions of this Section shall survive the expiration or termination of this Agreement.

18. AMBIGUITY. In the event of any conflict or ambiguity between this Agreement and any Exhibit, the provisions of this Agreement shall govern.

19. NONDISCRIMINATION.

A. In connection with performance of this Agreement and subject to applicable rules and regulations, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap, or disability. Consultant shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions 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.

B. It is the policy of City to encourage the participation of Disadvantaged, Minority and Women-owned Business Enterprises in City's procurement process, and Consultant agrees to use its best efforts to carry out this policy in its use of subconsultants and contractors to the fullest extent consistent with the efficient performance of this Agreement. Consultant may rely on written representations by subconsultants and contractors regarding their status. Consultant shall report to City in May and in December or, in the case of short-term

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agreements, prior to invoicing for final payment, the names of all subconsultants and contractors hired by Consultant for this Project and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

20. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in accordance with the provisions of the Ordinance, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time.

A. During the performance of this Agreement, the Consultant certifies and represents that the Consultant will comply with the EBO. The Consultant agrees to post the following statement in conspicuous places at its place of business available to employees and applicants for employment:

"During the performance of a contract with the City of Long Beach, the Consultant will provide equal benefits to employees with spouses and its employees with domestic partners. Additional information about the City of Long Beach's Equal Benefits Ordinance may be obtained from the City of Long Beach Business Services Division at 562-570-6200."

B. The failure of the Consultant to comply with the EBO will be deemed to be a material breach of the Agreement by the City.

C. If the Consultant fails to comply with the EBO, the City may cancel, terminate or suspend the Agreement, in whole or in part, and monies due or to become due under the Agreement may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.

D. Failure to comply with the EBO may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code 2.93 et seq., Contractor Responsibility.

E. If the City determines that the Consultant has set up or used its contracting entity for the purpose of evading the intent of the EBO, the City may

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terminate the Agreement on behalf of the City. Violation of this provision may be used as evidence against the Consultant in actions taken pursuant to the provisions of Long Beach Municipal Code section 2.93 et seq., Contractor Responsibility.

21. NOTICES. Any notice or approval required by this Agreement shall be in writing and personally delivered or deposited in the U.S. Postal Service, first class, postage prepaid, addressed to Consultant at the address first stated above, and to the City at 333 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager with a copy to the City Engineer at the same address. Notice of change of address shall be given in the same manner as stated for other notices. Notice shall be deemed given on the date deposited in the mail or on the date personal delivery is made, whichever occurs first.

22. COPYRIGHTS AND PATENT RIGHTS.

A. Consultant shall place the following copyright protection on all Data: © City of Long Beach, California ____, inserting the appropriate year.

B. City reserves the exclusive right to seek and obtain a patent or copyright registration on any Data or other result arising from Consultant's performance of this Agreement. By executing this Agreement, Consultant assigns any ownership interest Consultant may have in the Data to the City.

C. Consultant warrants that the Data does not violate or infringe any patent, copyright, trade secret or other proprietary right of any other party. Consultant agrees to and shall protect, defend, indemnify and hold City, its officials and employees harmless from any and all claims, demands, damages, loss, liability, causes of action, costs or expenses (including reasonable attorneys' fees) whether or not reduced to judgment, arising from any breach or alleged breach of this warranty.

23. COVENANT AGAINST CONTINGENT FEES. Consultant warrants that Consultant has not employed or retained any entity or person to solicit or obtain this Agreement and that Consultant has not paid or agreed to pay any entity or person any fee, commission, or other monies based on or from the award of this Agreement. If Consultant

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Long Beach, CA 90802-4664

breaches this warranty, City shall have the right to terminate this Agreement immediately notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments due under this Agreement or otherwise recover the full amount of the fee, commission, or other monies.

24. WAIVER. The acceptance of any services or the payment of any money by City shall not operate as a waiver of any provision of this Agreement or of any right to damages or indemnity stated in this Agreement. The waiver of any breach of this Agreement shall not constitute a waiver of any other or subsequent breach of this Agreement.

25. CONTINUATION. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22, and 28 prior to termination or expiration of this Agreement.

26. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.

27. ADVERTISING. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

28. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from, and copy all books, records, accounts, and other documents of Consultant relating to this Agreement.

29. THIRD PARTY BENEFICIARY. This Agreement is not intended or

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

(NAME OF CONSULTANT)

_____, 2017 By_____
Name_____
Title_____

_____, 2017 By_____
Name_____
Title_____

"Consultant"

CITY OF LONG BEACH, a municipal corporation

_____, 2017 By_____
City Manager

"City"

This Agreement is approved as to form on _____, 2017.

CHARLES PARKIN, City Attorney

By _____
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Long Beach, CA 90802-4664

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Attachment C

Statement of Non-collusion

The proposal is submitted as a firm and fixed request valid and open for 90 days from the submission deadline.

This proposal is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named; the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham proposal and the proposer has not in any manner sought by collusion to secure for himself or herself an advantage over any other proposer.

In addition, this organization and its members are not now and will not in the future be engaged in any activity resulting in a conflict of interest, real or apparent, in the selection, award, or administration of a subcontract.

_____

Authorized signature and date

_____

Print Name & Title

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Attachment D

Debarment, Suspension, Ineligibility and Voluntary Exclusion Certification

Please read Acceptance of Certification and Instructions for Certification before completing

As a current or potential vendor for the City of Long Beach (City) your firm, through its business relationship with the City, may be the recipient of federal grant funds. As such, the City is required to document that neither your business entity or organization, nor any of your principals are debarred, suspended, ineligible, or have voluntarily been excluded from receiving federal grant funds. Consistent with Executive Order No. 12549 Title 2 CFR Part 180 Subpart C, all potential recipients of federal grant funds are required to comply with the requirements specified below. By submission of proposal/bid/agreement, the undersigned, under penalty of perjury, certifies that the participant, nor any of its principals in the capacity of owner, director, partner, officer, manager, or other person with substantial influence in the development or outcome of a covered transaction, whether or not employed by the participant:

- Are not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal department or agency;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been suspended, debarred, voluntarily excluded or declared ineligible by a federal agency;
- Do not presently have a proposed debarment proceeding pending;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been indicted or convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, had one or more public transactions (Federal, State, or local) terminated for cause or default.

If reorganization, management turnover, or a shift or change of principals' status occurs, written notice must be submitted within 21 days. Subsequent disclosure of unfavorable information will be subject to thorough review and remedial action. Updated versions of this certification may be requested on a routine basis.

Where the potential prospective recipient of Federal assistance funds is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to the applicable bid/agreement/proposal.

_____
Business/Contractor/Agency

_____ _____
Name of Authorized Representative | Title of Authorized Representative

_____ _____
Signature of Authorized Representative | Date

r20141001

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Acceptance of Certification

1. This bid/agreement/proposal or like document has the potential to be a recipient of Federal funds. In order to be in compliance with Code of Federal Regulations, the City requires this completed form. By signing and submitting this document, the prospective bidder/proposer is providing the certification and acknowledgement as follows:
2. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
4. The potential recipient of Federal assistance funds agrees by submitting this bid/agreement/proposal or like document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

Instructions for completing the form, *Attachment –Debarment Certification*

1. The City of Long Beach sometimes receives Federal funding on certain purchases/projects. To ensure that the City is in compliance with Federal regulations we require this form to be completed.
2. The City of Long Beach checks the System for Award Management at *www.sam.gov* to make sure that Contractors who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective contractors should perform a search on this website for your company and or persons associated with your business.
3. If your business is in compliance with the conditions in the form, please have the appropriate person complete and sign this form and return with your bid/proposal/agreement.
4. If at any time, your business or persons associated with your business become debarred or suspended, we require that you inform us of this change in status.
5. If there are any exceptions to the certification, please include an attachment. Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception, indicate to whom it applies, initiating agency and dates of action.
6. Note: Providing false information may result in criminal prosecution or administrative sanctions.

If you have any questions on how to complete this form, please contact the Purchasing Division in the City of Long Beach Business Services Bureau at 562-570-6200.

Rev 12.11.13

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Attachment E

W-9 Request for Taxpayer Identification Number and Certification

[W-9 Form must be signed and dated.]

[Form-Fillable PDF available at http://www.irs.gov/pub/irs-pdf/fw9.pdf]

[Vendor Application Form is for internal City use only.]

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only one of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any) _____
Exemption from FATCA reporting code (if any) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
___ - ___ - ____

or

Employer identification number
__ - _____

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here | Signature of U.S. person ▶ | Date ▶

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

City of Long Beach
Purchasing Division
333 West Ocean Boulevard, 7th Floor
Long Beach, CA 90802

Attachment F

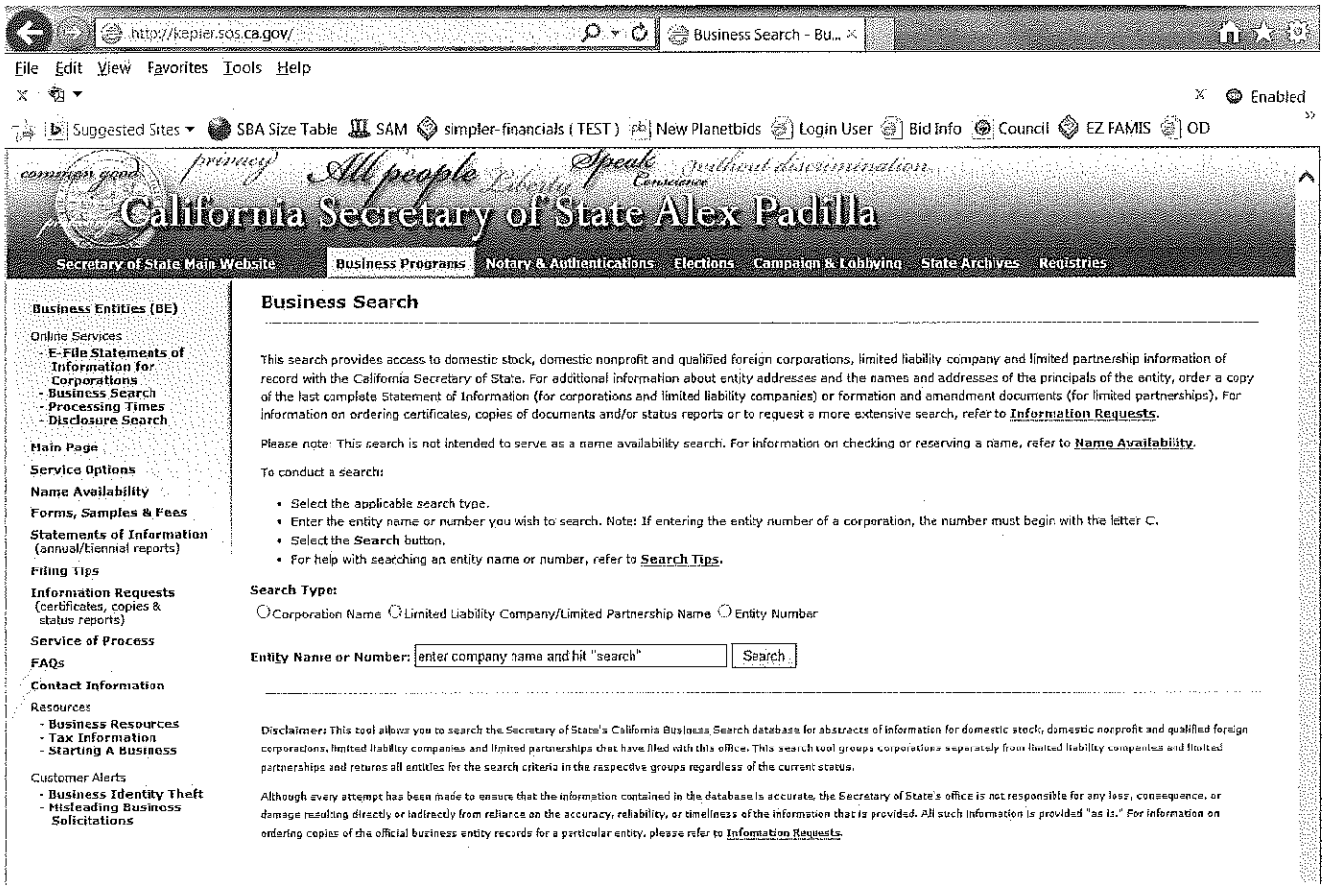
Secretary of State Certification

Please provide print out showing your business is registered with the California Secretary of State.

(Note, individual and sole proprietor companies are not required to register)

Awarded vendors/contractors must be registered with the California Secretary of State prior to contract execution. For more information, please consult:

www.kepler.sos.ca.gov/



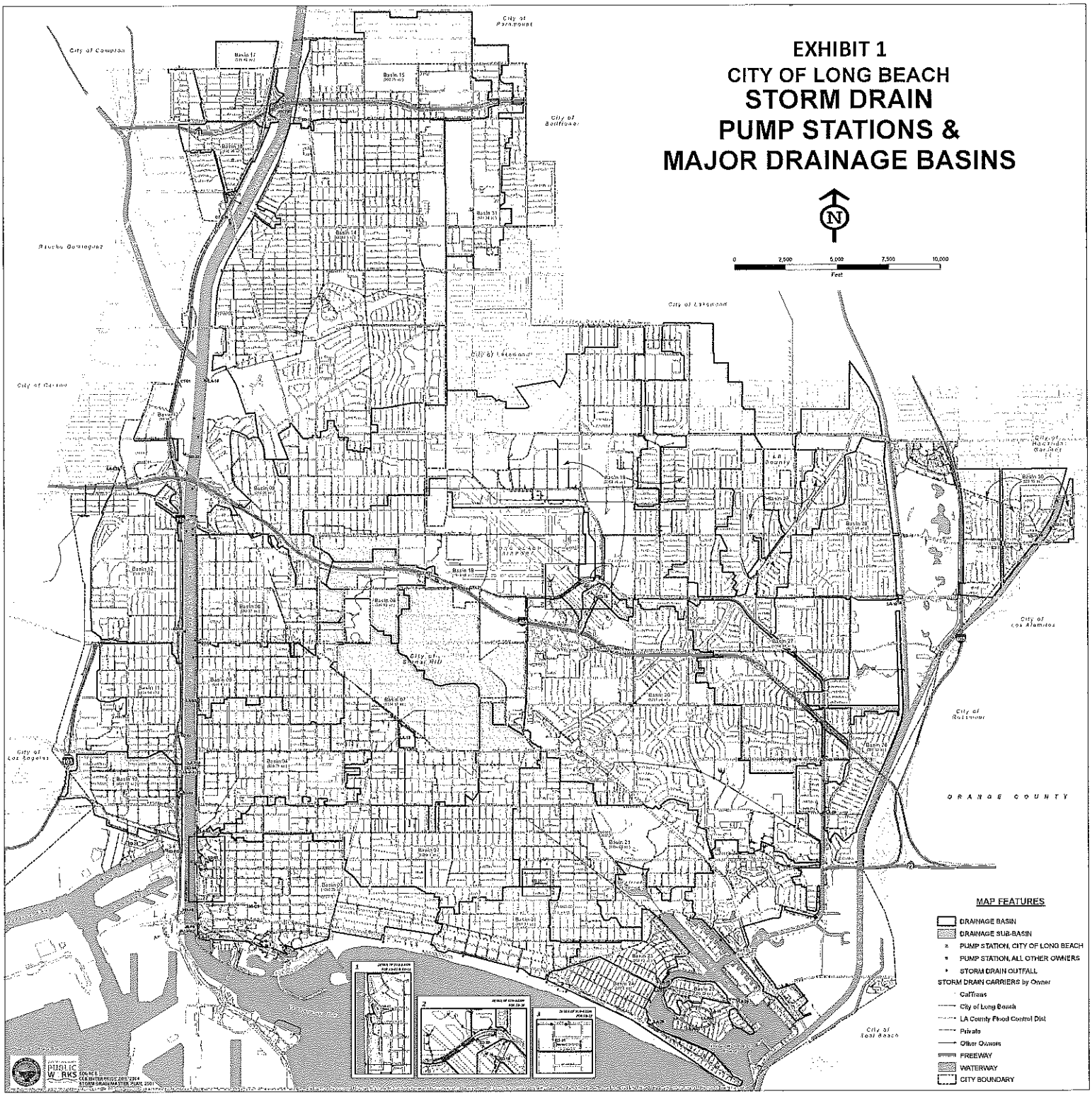


EXHIBIT 1
CITY OF LONG BEACH
STORM DRAIN
PUMP STATIONS &
MAJOR DRAINAGE BASINS
N
0
2,500
5,000
7,500
10,000
Feet
City of Compton
City of Paramount
City of Bellflower
City of Lakewood
City of Carson
City of Hawaiian Gardens
City of Los Alamitos
City of Rossmoor
City of Los Angeles
ORANGE COUNTY
City of Seal Beach
MAP FEATURES
DRAINAGE BASIN
DRAINAGE SUB-BASIN
PUMP STATION, CITY OF LONG BEACH
PUMP STATION, ALL OTHER OWNERS
STORM DRAIN OUTFALL
STORM DRAIN CARRIERS by Owner
CalTrans
City of Long Beach
LA County Flood Control Dist
Private
Other Owners
FREEWAY
WATERWAY
CITY BOUNDARY

EXHIBIT "B"

Rates or Charges

Water Resources
Infrastructure
Construction Management

AKM Consulting Engineers
553 Wald
Irvine, CA 92618
Telephone: 949.753.7333 Facsimile: 949.753.7320
www.akmce.com

October 21, 2019

City of Long Beach
ATTN: Tommy Ryan
Purchasing Division
411 West Ocean Blvd., 6th Floor
Long Beach, CA 90802

Subject: Rate Schedule - Proposal for Engineering Consulting Services for Long Beach Stormwater Pump Stations (PW 19-098)

Dear Mr. Ryan:

In response to your request for proposals dated September 12, 2019, and Addendum 1 dated October 11, 2019, AKM Consulting Engineers is pleased to submit our rate schedule to provide engineering services for the Long Beach Stormwater Pump Stations project.

We appreciate the opportunity to submit this fee proposal and look forward to working with the City of Long Beach. If you have any questions or require any additional information, please do not hesitate to contact the undersigned.

Very truly yours,

AKM Consulting Engineers

Zeki Kayiran, P.E.
Principal

AKM Consulting Engineers

Labor Classification	Hourly Rate 2020	Hourly Rate 2021	Hourly Rate 2022	Hourly Rate 2023	Hourly Rate 2024
Principal	$225	$232	$239	$246	$253
Principal Engineer	$225	$232	$239	$246	$253
Project Manager	$219	$225	$232	$239	$246
Project Engineer	$208	$214	$221	$227	$234
Senior Construction Manager	$207	$213	$219	$226	$233
QA/QC Manager	$207	$213	$219	$226	$233
Senior Engineer	$191	$197	$203	$209	$215
Senior Field Engineer / Inspector	$175	$180	$186	$191	$197
Field Engineer / Inspector	$154	$158	$163	$168	$173
Associate Engineer	$149	$153	$158	$162	$167
Staff Engineer	$132	$135	$140	$144	$148
Financial Analyst	$121	$125	$128	$132	$136
Senior Designer / Senior CADD Technician	$104	$107	$110	$114	$117
Designer / CADD Technician	$97	$99	$102	$105	$109
Assistant Engineer	$95	$98	$101	$104	$107
Engineering Technician	$88	$91	$93	$96	$99
Engineering Aide	$74	$76	$79	$81	$84
Office Support	$74	$76	$79	$81	$84
Data or Word Processing	$72	$74	$77	$79	$81

Out of pocket expenses (blueprinting, reproduction and printing, delivery, etc.) will be invoiced at cost plus 10%. Subcontracted services will be marked up 10% in order to cover costs associated with administration, coordination and management of subcontractors. Mileage will be invoiced at $0.65/mile. This schedule of rates is in effect until December 31, 2023, at which time it may be adjusted.

Q3

RATE SCHEDULE FOR PROFESSIONAL SERVICES

The compensation to Q3 Engineers Inc. for professional services is set forth below.

PERSONNEL CHARGES

Q3 Inc. shall be paid in accordance with the following rate schedule:

Labor Classification	Hourly Rate 2020	Hourly Rate 2021	Hourly Rate 2022	Hourly Rate 2023	Hourly Rate 2024
Principal Engineer	$247	$255	$262	$270	$278
Senior Engineer	$201	$207	$213	$219	$226
Project Engineer	$155	$159	$164	$169	$174
Principal Designer	$134	$138	$142	$146	$151
CADD / Designer	$101	$104	$107	$110	$114
Administration	$81	$84	$86	$89	$92

Overtime premium of 1.5 shall be applied to the above rates for non-exempt employees (CAD & Clerical/admin), when requested in advance by the Client. Time spent in either local or inter-city travel will be charged as defined above. A maximum of eight (8) hours per day will be made for travel time.

EXPENSES

All expenses shall be approved by the Client in advance and in writing. Personal automobile use for project travel shall be billed at $.62/mile Materials and equipment purchased, leased or rented by Q3 Engineers Inc specifically on behalf of Client shall be billed at cost.

SUBCONTRACTORS

Subcontractors and consultants shall be billed at cost plus five percent (5%).

ENTERPRISE AUTOMATION

Labor Classification	Hourly Rate 2020	Hourly Rate 2021	Hourly Rate 2022	Hourly Rate 2023	Hourly Rate 2024
Project Engineer1	$195	$200	$205	$210	$215
Project Engineer 2	$210	$215	$220	$225	$230
Lead Engineer	$220	$225	$230	$235	$240
Project Manager	$235	$240	$245	$250	$255
Architect	$275	$280	$285	$290	$295
Engineering Intern	$100	$105	$110	$115	$120
CAD	$150	$155	$160	$165	$170
Admin	$100	$105	$110	$115	$120

Travel time is charged as regular Engineering time.

Rate classifications charged by engineers are based on a project role/responsibility basis, not title.

Service calls covered by an Enterprise Automation service contract are prioritized whilst all other service requests are dependent on existing schedules and the availability of engineering staff.

Service calls not covered by a service contract are charged at double time with a 4 hour minimum.

Unless otherwise arranged, overtime rates are:
Time and a half outside of normal business hours, or time in excess of 8 hours per day
Double time Saturday, Sunday and holidays, or time in excess of 12 hours per day
Personal vehicle mileage as per the published IRS mileage rate
Meals and incidentals GSA established per diem rate
Expenses at cost (i.e. travel costs, telephone bills, mailing, freight charges, etc.)
Subcontractors cost + 10%
Materials cost + 10% (i.e. shrink wrapped software, hardware, PLC panels, etc.)

Water Resources
Infrastructure
Construction Management

AKM Consulting Engineers
553 Wald
Irvine, CA 92618
Telephone: 949.753.7333 Facsimile: 949.753.7320
www.akmce.com

October 18, 2019

City of Long Beach
ATTN: Tommy Ryan
Purchasing Division
411 West Ocean Blvd., 6th Floor
Long Beach, CA 90802

Subject: Proposal for Engineering Consulting Services for Long Beach Stormwater Pump Stations (PW 19-098)

Dear Mr. Ryan:

In response to your request for proposals dated September 12, 2019, and Addendum 1 dated October 11, 2019, AKM Consulting Engineers is pleased to submit our proposal to provide engineering services for the Long Beach Stormwater Pump Stations project. As requested, our proposal elaborates on AKM's relevant experience and capabilities. AKM Consulting Engineers is a multi-disciplined professional organization that specializes in providing water resources engineering and related services to a client list of over 70 cities and public agencies in the Southern California area. From our office located in Irvine, California, AKM can provide immediate, responsive and effective service to the City of Long Beach.

Based upon our review of the scope of work, participation in the mandatory pre-proposal meeting, review of available related materials, and our experience with similar work, we have assembled a Project Team with extensive experience and expertise in stormwater pump station design and construction management to undertake the subject project, and complete it within the desired schedule.

The AKM Project Team will be under the overall direction of **Zeki Kayiran, P.E.**, who will serve as the Project Director/Project Manager. Mr. Kayiran has over 45 years of experience in the preparation of hydrologic and hydraulic studies, drainage master plans; and planning, design and construction management of stormwater pump stations, storm drains, channels, and detention basins. He has been the design engineer, project engineer, and project manager for eighteen (18) stormwater pump stations, including upgrades to the City of Long Beach's SD 03 Westside Stormwater Pump Station. He served as an expert witness for Orange County Flood Control District on a major stormwater pump station construction project, which resulted in a very favorable settlement for the District. He will be assisted by **John Loague, P.E.**, **Gary Hobson, P.E**, and **Nadeem Majaj, P.E.**, who will serve as Project Manager or Project Engineer depending upon the projects' needs. Mr. Loague's experience includes ten (10) stormwater pump stations, as well as evaluation of 22 City of Long Beach stormwater pump stations. Gary Hobson was the Project Engineer for the improvements to the SD-03 Westside Stormwater Pump Station, as well as a member of the AKM project team responsible for evaluating the City's 22 stormwater pump stations. He is currently serving as the Project Engineer for the design of the repairs to six (6) City of Long Beach stormwater pump stations (SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21). Nadeem Majaj served as the Chief Engineer for Orange County Flood Control District, and was responsible for overseeing the design, construction, and maintenance of the Flood Control District's stormwater pump stations. They will be supported by **Mr. Morgan Ying, P.E., Q.S.D.** for hydrologic and hydraulic studies and hydraulic design; and three project/lead design engineers - **Jared Lee, P.E.** **Darrik Baker, P.E.**; and **Jon Nitta, P.E.** **Emin Kayiran, CPII** will provide QA/QC and constructability reviews of the design projects.

Our Project Team includes two (2) specialty sub-consultants to provide full range of services to the City of Long Beach on the project: Enterprise Automation, for pump station controls and SCADA evaluation and design; and Q3, Inc., for electrical engineering. We will obtain the services of a qualified CCTV inspection company for any work requiring these services. For other minor tasks requiring outside services, such as CCTV inspection, we will utilize the services of a qualified, NASSCO certified company, either on the City's approved list, or one we have worked with previously on the SD 03 Stormwater Pump Station project.

This project team brings unsurpassed experience and expertise in stormwater pump station evaluation, design, and construction management/inspection, which will result in technically superior and implementable projects for the City of Long Beach.

We appreciate the opportunity to submit our proposal, and look forward to being of service to the City of Long Beach on this most important project. Should you have any questions or require any additional information, please do not hesitate in contacting the undersigned.

Very truly yours,

AKM Consulting Engineers

Zeki Kayiran, P.E.

Principal

TABLE OF CONTENTS

***Rate Schedule, Forms, Financial Information, and Addendum acknowledgement are being submitted separately as requested*

COMPANY BACKGROUND

AKM Consulting Engineers is a single office, multi-disciplined professional organization that specializes in providing water resources engineering and related services to public agencies. Main contact information is as follows:

Legal Name of Firm	AKM Consulting Engineers, Inc.
Date of Incorporation	August 3, 1990
Contact Information	Mr. Zeki Kayiran. PE zkayiran@akmce.com Telephone: 949-753-7333 Fax: 949-753-7320
General Description	California Corporation
Location	553 Wald, Irvine, CA 92618
Number of Employees	24 Full Time (10 Registered Engineers and 7 construction managers / inspectors); **One (1) full time employee resides in Long Beach.**
Federal Employer ID	33-0422066

All of AKM's stormwater pump station projects have been for **public agencies.** AKM staff's stormwater pump station design experience dates back to **1980**, when Zeki Kayiran and Gary Hobson completed the design of a new stormwater pump station (**San Juan Creek Stormwater Pump Station**) for **Orange County Flood Control District** in accordance with **Los Angeles County Flood Control District's Pump Station Design Manual and Hydraulic Institute Standards.** They provided engineering services during construction of the facility in 1981. AKM's stormwater pump station experience dates back to **1999,** when Zeki Kayiran and John Loague of AKM evaluated the **Sandalwood and Walnut Stormwater Pump Stations**, and prepared a preliminary design report for the City of Fountain Valley. In 2001, AKM prepared plans, specifications, and estimates for the improvements recommended by the Preliminary Design Report. Due to lack of funding, the projects were not constructed. AKM updated the design of these two pump stations based on the most current conditions in 2016 and 2018. The construction of Sandalwood Stormwater Pump station was completed in 2017, and Walnut Stormwater Pump Station in 2019. Additionally, AKM has completed stormwater pump station projects for Alameda Corridor Transportation Authority/Los Angeles County Flood Control District, San Bernardino County Flood Control District, Orange County Flood Control District, and the Cities of Seal Beach, Long Beach, and Cypress.

The scope of services offered by AKM includes all facets of planning, design and construction management/inspection for stormwater, potable water, recycled water, and wastewater projects. We have a long and distinguished record of providing on-call services to public agencies through which we have maintained their hydraulic models; conducted repair and rehabilitation project design services; as well as implemented capital improvement facility designs and construction management/support services. A full listing of services offered by AKM is as follows:

STORM WATER , POTABLE WATER, RECYCLED WATER, AND WASTEWATER

- Master Plans
- Hydrologic Studies
- Hydraulic Analyses
- Stormwater Pump Stations
- Hydraulic Structures
- Retarding/Detention Basins
- Storm Drains,
- Channels
- Special Studies
- Permitting and Regulatory Compliance
- Water Treatment Storm Drains and Channels
- Water Reclamation
- Potable and Recycled Water Pump Stations
- Wells
- Reservoirs
- Transmission and Distribution Pipelines
- Hydraulic Model Maintenance, Update, Recalibration
- Sewer Pump Stations and Forcemains
- Sewer Collection Facilities

PLANNING

- Project Planning
- Storm Water, Potable Water, Recycled Water, and Waste Water Master Plans
- Facility Planning
- Economic and Financial Planning
- Conjunctive Use Planning
- Sewer System Management Plans
- Rate Studies
- Urban Water Management Plans
- Water Supply Assessments

TECHNICAL SERVICES

- Supervisory Control and Data Acquisition (SCADA)
- Geographic Information Systems (GIS)
- Scheduling
- CADD (Microstation, AutoCAD)

CONSTRUCTION MANAGEMENT, INSPECTION, AND ENGINEERING SUPPORT DURING CONSTRUCTION

- Contract Administration
- Inspection
- Construction Management
- Resident and Field Services
- Equipment Procurement
- Shop Drawing and RFI Review
- Progress Review Meetings
- Start-Up and Acceptance
- Project Close-Out
- Estimating
- Litigation Support
- Expert Witness Services

The City's RFP Number PW10-098, **Section 3** provides a detailed scope of work, which we acknowledge in its entirety. It includes all items necessary for successful completion of planning, design, bidding, and construction of upgrades to existing stormwater pump stations, and new stormwater pump stations. Within the scope of work, the most important task is to refine the tasks in close coordination and cooperation with the City staff to produce a biddable, buildable, maintainable, and properly operating facility with a long useful life.

AKM Consulting Engineers has completed stormwater pump station planning, design, and construction management/inspection services Los Angeles County Flood Control District/Alameda Corridor Transportation Authority, Orange County Flood Control District, San Bernardino County Flood Control District, and the Cities of Long Beach, Seal Beach, Cypress, and Fountain Valley utilizing the **software and standards listed in Section 7 of the RFP Number PW19-098**, including the **Hydraulic Institute Standards, Los Angeles County Flood Control District Design Manual Pump Station, National Electric Code, and OSHA standards**. Our project Director/Manager, Zeki Kayiran, taught stormwater pump station design in accordance with these standards as part of a graduate level hydraulic design class at California State University, Long Beach. Because of our extensive experience and expertise, and proven track record in stormwater pump station planning, design and construction, AKM is well qualified to undertake these projects for the City of Long Beach.

Section 9.2.1.4 of the RFP requires description of a plan of notifying the City of Long Beach of payments to subconsultants. AKM pays its subconsultants within 15 days of receiving payment from our clients. With each monthly billing, we will include a statement showing the date of receipt of payment from the City, and the date and amount of payment made to the subconsultants.

PROJECT MANAGEMENT

In undertaking its assignments, AKM employs an "Integrated Project Management" approach to deliver successful projects. The goal of the Integrated Project Management is to provide a technically superior product on schedule and within budget. Integrated Project Management commences with project identification, establishes a work program, and executes the project while providing continuous project quality improvements. In this approach, the project management and internal quality control are very important elements.

During project identification, the intent and purpose of the project are determined with extensive interaction with the client. Thereupon, a work plan is established and a resource loaded work breakdown structure and schedule are prepared. The schedule and work breakdown structure are integrated with the special needs of the project and the client.

The project is executed by the technical staff. Quality Control function is carried out to provide independent checking of the project and address constructability and bidability issues.

The project is regularly reviewed by the Project Manager who monitors progress against the established work breakdown structure and schedule. Any technical difficulties, schedule slips or previously unforeseen conditions are immediately recognized, quantified and addressed. The status is reported to the client in regular project status reports. As a result, interactive, responsive and proactive project management is utilized.

QUALITY CONTROL PLAN

A key element in the successful completion of any project is the implementation of a quality assurance/quality control program. Our quality control plan includes the Project Team and experts selected specifically for each project, consisting of a QA/QC Manager and members of our construction management team.

Our Project Managers review the work weekly with the Project Engineers for technical content and schedule. This allows us to address any issues in a timely manner, and maintains our projects on schedule. Our assigned Quality

Control Manager reviews the work product bi-weekly, and prior to any milestone submittal. His/her comments are discussed with the Project Manager and Project Engineer following each QA/QC review, and they are addressed immediately. The reviews include completeness and accuracy of the work product. Milestone submittals include

constructability and bidability review of the projects by our construction management professionals.

Our QA/QC Program requires our subconsultant to implement a similar program, and certification that QA/QC program has been implemented. We will then review the work as we review the in-house work prior to submittal to the client.

AKM'S INTEGRATED PROJECT MANAGEMENT

PROJECT IDENTIFICATION

- Listen to Client/User
- Ascertain Project Needs
- Identify Problems/Constraints
- Review Schedule and Budget
- Review Site and Data
- Determine Expectations
- Determine Approval Process and Permitting Agencies
- Establish Scope of Technical Services

WORK PROGRAM

- Establish Work Plan and Schedule
- Establish Work Breakdown Structure (WBS)
- Determine Resources
- Review and Adjust the Work Plan and Schedule
- Establish Project Milestones

TECHNICAL EXECUTION

- Project Execution
- Concept and Criteria Review by AKM Principal Engineer not directly involved with any day to day project details
- Discipline Check
- Internal QC and Constructability Review by QA/QC Team

PROJECT MANAGEMENT

- Technical Review
- Progress Reporting
- Comparison of Progress with WBS and Resource Loaded Schedule
- Resolution of Discrepancies
- Identification of Sources and Impacts
- Development of Mitigation
- Continuous Coordination
- QA/QC Completion

TECHNICAL STAFF

The technical staff of AKM is comprised of recognized experts in stormwater pump station planning, evaluation, design, construction management, inspection, operations, and management. They have long tenure with the company providing on call and as needed services to public agencies. Every assignment is managed by principals of the firm to ensure that the project receives detailed attention. All work is thoroughly reviewed by senior company officers and construction management staff prior to any milestone submittal or issuance of project documents, which results in successful projects. Resumes are included in Appendix A.

STRENGTH AND STABILITY OF THE FIRM

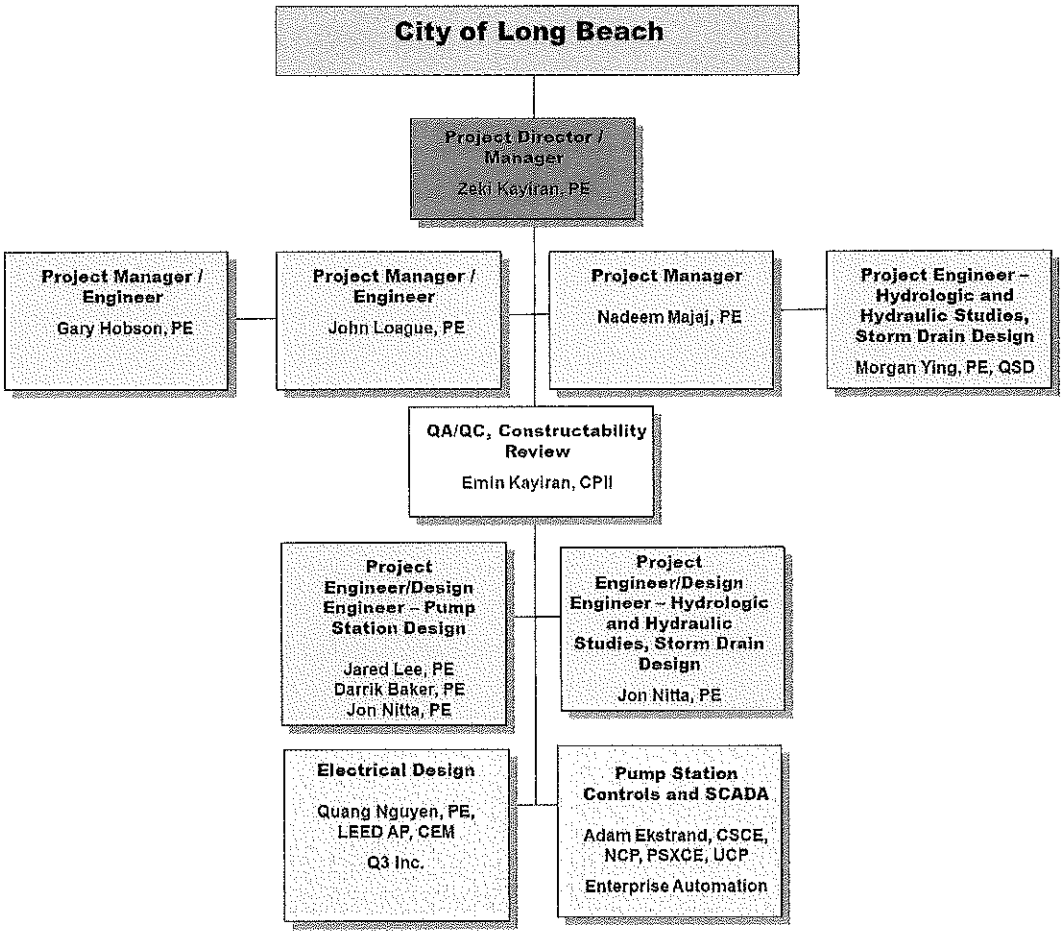
AKM Consulting Engineers has been providing stormwater pump station engineering and construction management/inspection services for over 25 years. Our staff's experience in stormwater pump station design extends back 37 years. Over 90% of our work has consistently been with repeat clients, which is a testament to the quality of our work. Our staff has long tenure with AKM. The requested forms and financial statements are included as a separate submission PDF as requested in Planetbids.

COMPUTER APPLICATIONS

The achievement of superior engineering services is assisted by the continued implementation of advanced computer applications, modeling software, techniques and products. The office maintains continuously updated in-house library of CADD and other software, including **AutoCAD Civil 3D, 2017 version, ArcGIS 10.6**, and Los Angeles County Flood Control District hydrology and hydraulic programs.

PROJECT TEAM

AKM Consulting Engineers provides an in-house multi-disciplinary staff of professionals who are recognized specialists in their areas of expertise. The staff members have superb technical training and academic backgrounds. Furthermore, they regularly attend technical seminars to keep abreast of the professional developments in their fields. We have included two (2) sub-consultants in our project team to comprehensively address all the potential needs of the identified projects.



Our **Project Team Organization** is illustrated in this section. Brief descriptions of the experience of key Project Team members proposed for this project are provided below. Resumes including a list of related projects completed by the key staff are included in Appendix A. Detailed descriptions of sample projects are included in "Related Experience" of our submittal.

Project Team
ZEKI KAYIRAN, PE - AKM Consulting Engineers, Irvine **Project Role:** Project Director / Manager **Registration:** RCE CA 1978 (C29330) **Education:** M.S, Civil Engineering – California State University Long Beach; B.S., Civil Engineering – Robert College; **Years of Experience**: 45 **Years with AKM**: 29
The Project Team will undertake this assignment under the overall direction of Zeki Kayiran, P.E., who will serve as the Project Director/Manager, responsible for coordinating all activities with the City of Long Beach. He will be the primary representative to the City of Long Beach and will be involved in all project related issues. He will assure the availability of corporate resources necessary to satisfactorily complete the work. He will provide these services from AKM's office in Irvine. Mr. Kayiran is a Principal of AKM. His background includes the evaluation and design of **18 stormwater pump stations**, as well as **evaluation of 22 stormwater pump stations for the City of Long Beach**. He was a part time instructor at California State University, Long Beach, where he taught fluid mechanics and hydraulic design classes, including **design of stormwater pump stations** in accordance with the Los Angeles County Flood Control District's Pump Station Design Manual. He served as an expert witness for Orange County Flood Control

District on a major stormwater pump station construction project, which resulted in a very favorable settlement for the Flood Control District. He currently serves as an expert witness to the City of Long Beach City Attorney's office on flood related cases.

JOHN LOAGUE, PE - AKM Consulting Engineers, Irvine
Project Role: Project Manager / Engineer **Registration:** RCE CA 1993 (C50292) **Education:** B.S., Chemical Engineering- California State University Long Beach **Years of Experience:** 35; **Years with AKM:** 27

Mr. John Loague, P.E., a Principal with AKM Consulting Engineers, has over 35 years of experience in water resources engineering. He has served as design engineer, project engineer, or project manager for ten (10) stormwater pump station evaluations, designs and construction management/inspections, as well as a lead Project Team member for evaluation of 22 City of Long Beach stormwater pump stations. He will coordinate the activities of the professional staff, and attend the review and coordination meetings with the City. He will evaluate condition of the pump stations, be responsible for the overall design effort, and provide construction support services. He will coordinate, manage, direct and review the work of support staff, and subconsultants. He will provide these services from AKM's office in Irvine.

GARY HOBSON, PE – AKM Consulting Engineers, Irvine
Role: Project Manager / Engineer **Registration**: RCE CA 1986 (C40779) **Education**: B.S., Secondary Education, IUPUI; Post Graduate Studies, Civil Engineering, IUPUI **Years of Experience**: 42 ; **Years with AKM**: 17

Mr. Gary Hobson, P.E., a Principal Engineer with AKM Consulting Engineers. He has been a design engineer, project engineer, project manager, or QA/QC Manager on 11 stormwater pump station projects. He will coordinate the activities of the professional staff, and attend the review and coordination meetings with the City. He will evaluate condition of the pump stations, be responsible for the overall design effort, and provide construction support services. He will coordinate, manage, direct and review the work of support staff, and subconsultants. He will provide these services from AKM's office in Irvine.

NADEEM MAJAJ, PE – AKM Consulting Engineers, Irvine
Role: Project Manager **Registration**: RCE CA 1989 (C44552) **Education**: M.S. Civil Engineering Water Resources – California State University Long Beach; B.S. Civil Engineering – California State Polytechnic University Pomona **Years of Experience**: 34 ; **Years with AKM**: 1

Mr. Nadeem Majaj, P.E., a Principal Engineer with AKM Consulting Engineers. He had a 25 year career with the Orange County Flood Control District where he performed design of improvements to existing stormwater pump stations. He served as the Chief Engineer of Orange County Flood Control District, where he was in charge of the planning, design and construction of new stormwater pump stations; improvements to existing pump stations, as well as maintenance of all. He will serve as a Project Manager or a Project Engineer, and will coordinate the activities of the professional staff, and attend the review and coordination meetings with the City. He will evaluate condition of the pump stations, be responsible for the overall design effort, and provide construction support services. He will coordinate, manage, direct and review the work of support staff, and subconsultants. He will provide these services from AKM's office in Irvine.

MORGAN YING, PE, QSD – AKM Consulting Engineers, Irvine
Project Role: Project Engineer - Hydrologic and Hydraulic Studies **Registration**: RCE CA 1984 (C038983), QSD CA 2012 (22686) **Education**: M.S. in Civil Engineering, California State University, Long Beach, California; B. S. in Hydraulic Engineering, Tamkang University, Taiwan **Years of Experience**: 34 **Years with AKM**: 24

Mr. Morgan Ying, P.E.,Q.S.D,, is a Senior Associate with AKM Consulting Engineers. He is a water resources specialist with over 36 years of experience with a background in the fields of hydrologic analysis and hydraulic design, sediment transportation, and flood control engineering. He will be responsible for performing hydrologic and hydraulic studies and design of storm drain facilities. He has worked successfully with Los Angeles, Orange, Riverside, San Bernardino, and San Diego County Flood Control Agencies, and numerous municipalities in storm drain, channel, and pump station projects. He will provide these services from AKM's office in Irvine.

JARED LEE, PE – AKM Consulting Engineers, Irvine
Project Role: Project Engineer/Design Engineer – Pump Stations **Registration**: RCE CA 2007 (C71422); **Education**: B.S. in Mechanical Engineering – University of California Los Angeles; **Years of Experience**: 17; **Years with AKM**: 17

Mr. Jared Lee, P.E. has over 17 years of water resources engineering experience, including the preparation of plans, specifications and cost estimates, and providing construction support services. He has completed pump station and pipeline projects for the Cities of Seal Beach, Fountain Valley, Garden Grove, Huntington Beach, Tustin, Santa Fe Springs, Arcadia, Alhambra, and West Basin Municipal Water District. He served as a design engineer and project engineer of storm water pump station projects for the Cities of Seal Beach, Fountain Valley and Cypress, as well as for Orange County Flood Control District. His responsibilities will include completion of plans, specifications and estimates for the assigned projects and assisting Project Managers with project coordination and interfacing with AKM subconsultants. Mr. Lee will also provide engineering services during construction of the projects, including responding to RFIs and RFCs, review of submittals, and startup and commissioning services. He will provide these services from AKM's office in Irvine.

DARRIK BAKER, PE – AKM Consulting Engineers, Irvine
Project Role: Project Engineer/Design Engineer – Pump Stations **Registration**: RCE CA 2017 (C87498); **Education**: M.S. Environmental Engineering – University of California Irvine; B.S. Environmental Engineering – University of California Irvine; **Years of Experience**: 4; **Years with AKM**: 4

Mr. Darrik Baker, P.E. has over 4 years of water resources engineering experience, which includes the preparation of plans, specifications, and cost estimates, as well as engineering services during the construction of pump stations, pipelines, wells, reservoir improvements, treatment facilities, and rehabilitation projects. His recent experience includes the preparation of plans, specification, and estimates for the six (6) storm water pump station repair projects (SD-05, SD-09, SD-10, SD-11, SD-17 and SD-21) for the City of Long Beach. His responsibilities will include completion of plans, specifications and estimates for the assigned projects and assisting Project Managers with project coordination and interfacing with AKM subconsultants. Mr. Baker will also provide engineering services during construction of the projects, including responding to RFIs, review of submittals, and startup and commissioning services. He will provide these services from AKM's office in Irvine.

JON NITTA, PE – AKM Consulting Engineers, Irvine
Project Role: Hydrologic and Hydraulic Studies; Project Engineer/Design Engineer - Storm Drains; Design Engineer - Pump Stations **Registration**: RCE CA 2006 (C696987); NASCCO PACP, MACP, LACP (U-1106-4046) **Education**: B.S. Civil Engineering, University of California Los Angeles; **Years of Experience**: 17; **Years with AKM**: 17

Mr. Jon Nitta, P.E. is an expert in preparing master plans of drainage; hydrologic and hydraulic studies; storm drain design; as well as pump station evaluation and design. He served as the Lead Engineer during the assessment of 22 City of Long Beach storm water pump stations, as well as a design engineer for the Myra 2 and 3 Storm Water Pump Stations for the City of Cypress. His responsibilities will include conducting hydrologic and hydraulic analyses, and completion of plans, specifications and estimates for the assigned storm drain and pump station projects. He will assist Project Managers with project coordination and interfacing with AKM subconsultants. Mr. Nitta will also provide engineering services during construction of the projects, including responding to RFIs, review of submittals, and startup and commissioning services. He will be responsible for pump station design. He will provide these services from AKM's office in Irvine.

EMIN KAYIRAN, CPII – AKM Consulting Engineers, Irvine
Project Role: QA/QC, Constructability Review **Registration**: APWA – Certified Public Infrastructure Inspector; Qualified Compliance Inspector of Stormwater; **Years of Experience**: 15; **Years with AKM**: 15

Mr. Emin Kayiran, CPII, who has been a Construction Manager, Senior Resident Engineer, and Inspector with AKM for over 15 years, has a broad background in construction management, inspection, and scheduling. Mr. Kayiran co-authored 2019 APWA Construction Inspection Manual's Module 21, Pumping and Treatment Facilities for Water and Wastewater.

His experience includes management and inspection of pump and lift stations; electrical, control and SCADA systems; treatment facilities; storm drain, water, recycled water and sewer pipelines; street improvements; wells; reservoirs; concrete structures; protective coatings and linings; management of hazardous materials removal; shoring systems; dewatering; and ground settlement monitoring. Additionally, Mr. Kayiran has

provided shop drawing review, claims management, cost control, change order preparation, change order negotiation, startup testing and inspections, warrantee inspections, warrantee work coordination with contractors, utility coordination and constructability review services. He has served as an on-call construction manager for the City of Cypress, City of Long Beach, and West Basin Municipal Water District; and an on-call construction inspector for the City of Seal Beach.

He inspected and managed the construction of West End Stormwater Pump Station for the City of Seal Beach, and Myra 2 and 3 Stormwater Pump Stations for the City of Cypress. He performed constructability reviews of Seaside Way Storm Drain, Westside Storm Drain Improvements Phase 3, LM MUST, and the Bellflower – Spring Bridge Repair projects for the City of Long Beach.

He will provide QA/QC and constructability review on projects, and assist with construction support as needed. He will provide these services from AKM's office in Irvine.

Subconsultant

QUANG NGUYEN, PE, LEED AP, CEM, MBA – Q3 Engineers
Project Role: Electrical and Controls Engineering
Registration: Registered Electrical Engineer CA E15706; WI 37163; Certified Energy Manager; LEED Accredited Professional; NCEES

Q3 is an electrical engineering consulting and design firm. They have provided electrical and controls engineering and design services for lift stations, pump stations, treatment plants, storm and wastewater facilities, industrial facilities, and cogeneration power plants. Q3 has a long term commitment to sustainable design and energy efficiency. They work diligently to create resource power system upgrades throughout major wastewater treatment facilities; power systems for water treatment facilities; automation and SCADA for dispersed water production and treatment facilities; power and control systems for wastewater pump facilities; standby power generation for wastewater treatment facilities. AKM and Q3 have worked together on pump station designs for the past 15 years.

Electrical Engineering will be under the direction of Mr. Quang Nguyen, PE, LEED AP, CEM, MBA, who has over 25 years of electrical engineering and design experience in water and waste water facilities, cogeneration power plants, and industrial facilities.

ADAM EKSTRAND – Enterprise Automation
Project Role: Pump Station Controls and SCADA
Registration: Citect SCADA Certified Expert (CSCE); Networking Certified Processional (NCP); PlantStruxure Certified Expert (PSXCE); Unity Pro Certified Professional (UCP)

Enterprise Automation was established in 1998 as a source for all phases of control systems integration. Services include: SCADA configuration; data network design, testing, startup and training; O&M documentation; MES systems; design consultation; specific development; panel design; and PLC programming. Enterprise Automation is made up of a team of 25 employees, and is headquartered in Irvine, California. Enterprise Automation is one of only seven systems integrators in California who have passed the rigorous audit process to become certified CSIA. EA carries the most Wonderware certifications of any integrator in California, is Wonderware/AVEVA Endorsed partner, and the only Schneider Electric Master Alliance Partner in the USA. Work will be performed under the direction of Mr. Adam Ekstrand, Lead Engineer. Mr. Ekstrand is a fifth year lead engineer with experience in industrial automation and controls concentrated on water and wastewater, including specialization in network architecture, PLC programming, advanced SCADA programming, SCADA standards development, virtualization, functional specification development, critical process cutover planning, field inspections, SCADA preventative maintenance, and project execution planning.

RELATED EXPERIENCE AND REFERENCES

AKM Consulting Engineers has a long and distinguished track record in the performance of high quality engineering services, especially in planning, design, and construction support/management of stormwater pump stations, storm drains, and peak flow attenuation facilities.

AKM has evaluated the condition and capacity of existing stormwater pump stations; prepared preliminary design studies formulating and evaluating alternatives; prepared preliminary design reports and basis of design reports;

developed plans, specifications, and estimates; provided bidding, construction support and/ or management and inspection services. These include:

- Six (6) Stormwater Pump Stations for the City of Long Beach (Upgrade) - Current
- Walnut Stormwater Pump Station for the City of Fountain Valley (Upgrade) - 2019
- Sandalwood Stormwater Pump Station for the City of Fountain Valley (Upgrade) - 2017
- West End Stormwater Pump Station Repairs for the City of Seal Beach (Upgrade) – 2017
- Myra Stormwater Pump Station No 3 for the City of Cypress (Upgrade) - Design: 2014; Engineering During Construction, Construction Management and Inspection: 2015
- Stormwater Pump Station Assessment for the City of Long Beach (Assessment) – 2015
- Haster Retarding Basin and Stormwater Pump Station for Orange County Public Works/Flood Control District (New facility) – Design: 2012; Engineering During Construction: 2014 – Post Project Performance 2015-2025
- SD 03 Westside Stormwater Pump Station for the City of Long Beach (Upgrade) – Design: 2011; Engineering During Construction: 2012
- Myra Stormwater Pump Station No 2 for the City of Cypress (Upgrade) - Design: 2011; Engineering During Construction, Construction Management and Inspection: 2012
- West End Pump Station Interim Improvements for the City of Seal Beach (Upgrade) – Design 2007; Engineering During Construction, Construction Management and Inspection: 2008
- Myra Stormwater Pump Station No.1, 2, and 3 Preliminary Design Reports for the City of Cypress - 2008
- Aloe (Zoe Avenue) Stormwater Pump Station for Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (New) - 2002
- Brooks Basin Diversion Structure and Stormwater Pump Station for San Bernardino County Flood Control District (New) - 1996

Detailed descriptions of representative projects completed by our Project Team within the last 5 years, along with references are provided below.

6 PUMP STATION REPAIRS
CITY OF LONG BEACH – 411 WEST OCEAN BOULEVARD, LONG BEACH, CA 90802
CONTACT: MR. ARTHUR COX, MANAGER, PUBLIC SERVICE BUREAU (562) 570-2780
ARTHUR.COX@LONGBEACH.GOV
CONSTRUCTION COST : $1,500,000 (EST.) **A/E FEES**: $247,000 **PROJECT DATES**: 7/2019 – 12/2019
AKM STAFF: Z. KAYIRAN (PM), G. HOBSON (PE), D. BAKER (DE), J. NITTA (DE)

AKM completed evaluation of City of Long Beach's 22 storm water pump stations in 2015. The evaluation results were documented in the report entitled City of Long Beach Stormwater Pump Station Assessment. The City completed some of the projects recommended by the assessment report.

AKM and the City Engineering and Public Works staff conducted field reviews of 11 pump stations in 2019 to document the additional deficiencies that developed since 2015. AKM prepared scopes of work for improvements to six (6) of these pump stations – SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21.

The projects, the design of which are currently being completed, consist of:

SD-05

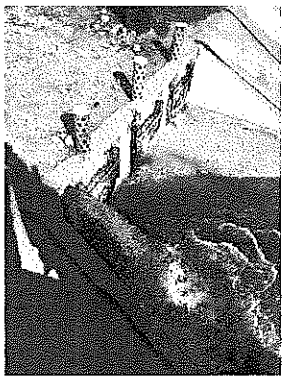
- Replacement of the sump pump with a slide rail submersible chopper type sump pump and conduits and wires to the pump control panel

SD-09

- Replacement of the sump pump with a slide rail submersible sump pump and its discharge pipe, along with its conduits and wires to the pump control panel
- Replacement of the three (3) main pump 30-inch diameter discharge pipes and flap gates
- Installation of two 36-inch diameter gravity drain pipe in-line duck-bill type check valves

SD-10

- Enlargement of the floor opening and replacement of existing submersible pump with a new slide rail submersible pump
- Improvements to the sump to create better suction conditions for the new pump and maintenance walkway access
- Modifications to the pump control panel door to provide better access to the panel



SD-11

- Replacement of the sump pump with a slide rail chopper type submersible pump
- Installation of security signage
- Installation of explosion proof lighting in the wet well
- Replacement of two damaged doors
- Installation of the missing flap gate on the 42-inch influent storm drain pipe
- Installation of a new wet well access hatch over the stairway

SD-17

- Replacement of the sump pump with a slide-rail submersible pump
- Replacement of main Pump No.1 with a new axial flow pump

SD-21

- Replacement of the wet well manhole and pumps with a new wet well and slide rail submersible pumps
- Replacement of the pump station motor control center and telemetry system
- Replacement of the discharge piping to reduce outlet velocities

WALNUT STORMWATER PUMP STATION UPGRADES
CITY OF FOUNTAIN VALLEY – 10200 SLATER AVENUE, FOUNTAIN VALLEY, CA 92708
CONTACT: MR. MARK LEWIS, DIRECTOR OF PUBLIC WORKS (714) 593-4435 MARK.LEWIS@FOUNTAINVALLEY.ORG
CONSTRUCTION COST:$5,300,000 **A/E FEES:** 2018 UPDATE $325,000; **A/E FEES – ENGINEERING DURING CONSTRUCTION:** $180,000
PROJECT DATES: DESIGN COMPLETION: 8/2018; ENGINEERING DURING CONSTRUCTION COMPLETION: 12/2019
AKM STAFF: Z. KAYIRAN (PIC), J. LOAGUE (PM); J. LEE (PE)

The Walnut Pump Station services a drainage area of 0.48 square miles of primarily single-family residential land use. Pump station capacity is 360 cfs.

West of the pump station, stormwater is conveyed to the facility via 27-inch and 60-inch storm drains. Stormwater collected on the east side of Talbert Channel is conveyed beneath the channel by a 54-inch pipe. All stormwater collected at the Walnut Pumping Station is discharged to Talbert Channel.

The Pump Station was originally constructed in 1964, and was enlarged to its current 4-pump configuration in 1979. It consists of a small block building housing natural gas engines and pumps, a below-ground sump, and a paved yard. The facility is enclosed by a block perimeter wall which is also a common wall with single-family residential homes to the north and west.

The existing station's equipment was original (50 years old) and obsolete. Repair parts for the engines could no longer be obtained, and the pumps' column and bowl assemblies had experienced significant corrosion, and were near failure. The facility's redwood trash rack was largely ineffective, causing periodic pump clogging and the pumping of debris to the downstream channel. The existing electrical equipment, also original to the facility, had

also become obsolete and potentially hazardous to operate.

AKM prepared a Deficiency Report for the facility which summarized all of the facility's issues, risks to the community, and provided a recommended implementation schedule for presentation to City Council for funding. A Preliminary Design Report was also prepared, which provided greater detail regarding the station's capacity and condition, and recommended improvements to rehabilitate the existing facility in lieu of constructing an entirely new pumping station.

AKM prepared construction plans and specifications based upon the PDR recommended improvements which included all new electrical, mechanical, and control equipment; new 316 stainless steel trash rack; modernization of the existing building; urban run-off diversion system to the local sewer; SCADA control through the City's fiber optic network; new site paving and entrance gate; and new air condition electrical control building with bathroom facilities.

Mechanical Improvements

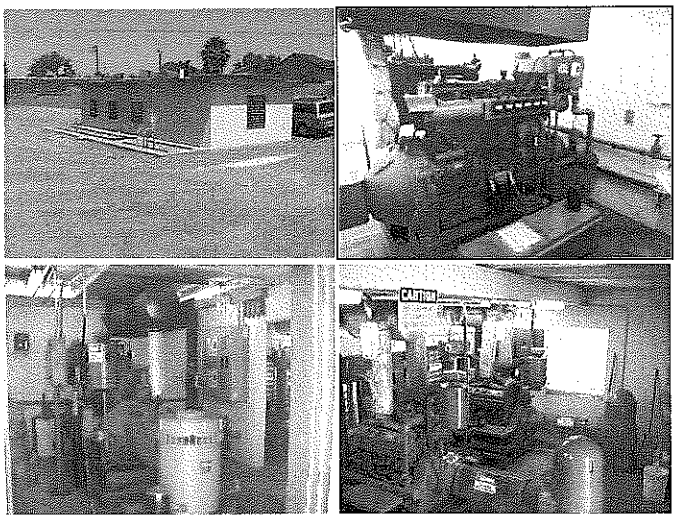
- Four (4) CAT 3408, 18 liter, natural gas engines (250 hp each)
- Four (4) Cascade 42 AP propeller pumps (40,000 gpm each), with 3:1 reduction ratio right angle gear drive
- one (1), 10 hp, recessed impeller, nuisance flow submersible pump
- Urban run-off diversion piping to the local sewer
- New natural gas service, coordinated through SCG Company

Electrical Improvements

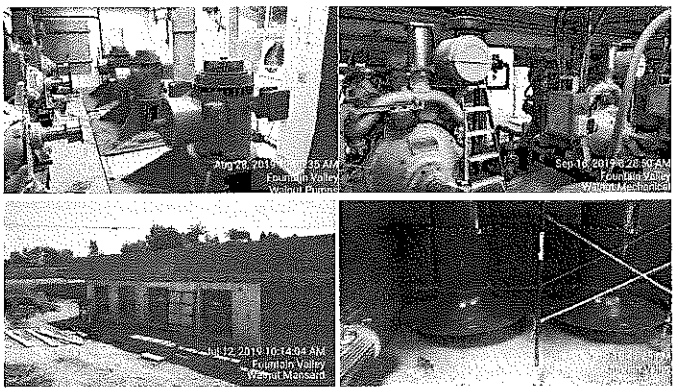
- New 480 volt, 3 phase electrical service
- New motor control center
- New PLC based control system
- New engine control panel
- New sump pump and building fan control system

Building Improvements

- New air conditioned electrical building with bathroom
- New roofing system with equipment removal hatches
- Stucco coating of building exterior and perimeter walls
- Sound paneling on all walls and ceilings
- New acoustic doors and louvers
- New 316 stainless steel trash rack



Before Construction



During Construction

The project was developed so that the station improvements could be constructed during the non-rainy season (April – October). Extensive planning was performed during the design phase to ensure the project was bid far enough in advance to ensure long lead time equipment would be delivered to the site in time to complete the work within the required construction window.

AKM also provided engineering support services during the construction period and start-up services.

WEST END PUMP STATION AUDIT
CITY OF SEAL BEACH – 211 EIGHTH STREET, SEAL BACH, CA 90740
CONTACT: MR. STEVE MYRTER, DIRECTOR OF PUBLIC WORKS (562) 431-2527 X 1321
SMYRTER@SEALBEACHCA.GOV
A/E FEES: $26,000 **PROJECT DATES**: 1/2017 – 5/2017
AKM STAFF: Z. KAYIRAN (PM), J. LOAGUE (PE), J. LEE (DE)

The West End Pump Station was constructed in 1959. It serves a tributary area of 173 acres. The original pump station's total capacity of 111.4 cfs was less than the capacity required by the current criteria, which is to provide protection from the Expected Value 100-year Flood (295 cfs). Its influent storm drain system is very shallow, and has 15 houses constructed over it between Corsair Way and the pump station. Additionally, there are several oil and gas lines that cross the pump station site. The shallow influent storm drain, the houses constructed over it, and the existing utilities on the pump station site impose extreme constraints on what can be done to improve it.

The West End Pump Station was evaluated by several studies. Due to funding limitations, only interim improvements were constructed in 2008, which increased the pump station's capacity to over 200 cfs (approximately 10-year protection). However, the existing drainage system cannot convey more than 115 cfs to the pump station.

The Pump Station's Main Pump No. 2 experienced failures in December 2016 and January 2017. The City of Seal Beach hired AKM to assist with evaluation of the pump station, repair of the pumps, and provide other repair as well as operation and maintenance recommendations for its future problem-free operations.

AKM evaluated the pump station and recommended that the pumps be removed, inspected, and repaired as necessary by the pump manufacturer (Cascade). Upon inspection, the Pump No. 2 failure cause was identified as a long nylon rope that was lodged between the impeller and the bowl. The pump was found to be in good condition. There was damage to Pump No. 1 shaft due to prior attempts to remove the pump. The pumps were repaired, reassembled, and re-installed at the pump station.

AKM, along with the City engineering and maintenance staff, observed the operation of the pump station, and recommended adjustments to the controls including increasing the minimum VFD speed and the rate of acceleration upon startup to increase torque.

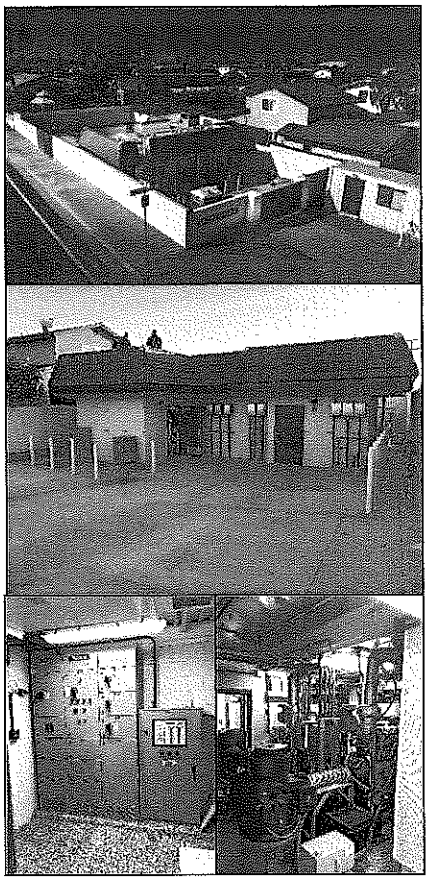
AKM also observed the pump station operation during the storm of February 17, 2017. Pump No. 2, which was the lead pump, started and operated with no problems until 5:30pm. Pump No. 1 was then switched to the lead position. It too operated without problems until about 8:00pm, when it failed. Pump No. 2 started automatically as it was programmed. Following the storm, a plastic bag that was lodged between the impeller and the bowl was removed from the failed pump, and the pump operated properly.

To minimize the possibility of a similar problem, AKM recommended accelerating the motor more rapidly on start-up, modifications to the trash rack providing smaller openings, installation of a low level sump pump, operation and maintenance of the catch basin screens and catch basins on the tributary storm drain system, as well as a specific annual maintenance program. The pump station has operated without problems since.

As part of this assignment, AKM attended City Council meetings and provided responses to questions from the public and the Council, and prepared a final West End Pump Station Audit report which included responses to written questions from the public.

SANDALWOOD STORMWATER PUMP STATION UPGRADES
CITY OF FOUNTAIN VALLEY – 16489 SANDALWOOD STREET, FOUNTAIN VALLEY, CA 92708
CONTACT: MR. MARK SPRAGUE, UTILITIES MANAGER (714) 593-4609
MARK.SPRAGUE@FOUNTAINVALLEY.ORG
CONSTRUCTION COST : $5,000,000 **A/E FEES**: $153,984 (ORIGINAL); $100,660 (UPDATE); $500,000 (UPDATE); **A/E FEES – CM AND INSPECTION**: $287,000
PROJECT DATES: ORIGINAL DESIGN: 2001; UPDATED DESIGN: 2004; UPDATED DESIGN 2016 ENGINEERING DURING CONSTRUCTION AND CONSTRUCTION MANAGEMENT AND INSPECTION: 2017
AKM STAFF: Z. KAYIRAN (PM), J. LOAGUE (PE), J. LEE (DESIGN ENGINEER)

The Sandalwood Pump Station is located on Heil Avenue, between Bushard Street and Magnolia Street in the City of Fountain Valley. The station services a small 100 acre drainage area consisting primarily of single family homes. Total station capacity is 90 CFS.



Stormwater is conveyed to the facility via 42-inch and 30-inch storm drains. The pump station discharges to a 66-inch pipe which ultimately terminates at the Ocean View Channel near the 405 Freeway.

The original pump station was constructed in 1965, and enlarged in 1979 to add a third pump. It consisted of a small block building housing the natural gas engines, a below grade sump and paved yard enclosed by a block wall.

The existing pump station was original (over 50 years old) and obsolete. The 60 HP natural gas engines were undersized and would overheat when the pumps were operated at full speed. Parts for engine repairs were no longer available. The pumps were in extremely poor condition. All were severely corroded, and had holes in the column pipe assembly. The redwood trash rack was largely ineffective, which resulted in frequent pump clogging, and the pumping of debris to the downstream channel. The electrical equipment was also obsolete and hazardous to operate.

AKM was retained by the City to prepare a Deficiency Report for the facility summarizing issues, risks to the community, and provided a recommended implementation schedule for presentation to City Council for funding of upgrades. A Preliminary Design Report (PDR) was also prepared which provided greater detail regarding station capacity and condition, and recommended improvements to rehabilitate the existing facility in lieu of constructing an entirely new pumping station.

AKM prepared construction plans and specifications for the PDR recommended improvements, which included all new electrical, mechanical, and control equipment; new 316 stainless steel trash rack; building modernization; urban run-off diversion system to the local sewer; SCADA control through the City's fiber optic network; new site pavement and entrance gate; and new air conditioned control building.

Mechanical Improvements

- Three (3) CAT 3304, 7 liter, natural gas engines (95 HP each)
- Three (3) Cascade 24 AP, propeller pumps (14,400 GPM each) with 5:2 reduction ratio right angle gear drive
- One (1) 10 HP, recessed impeller nuisance flow pump (500 GPM)
- Urban run-off diversion piping to the local sewer
- New natural gas service, coordinated through SCG

Electrical Improvements

- New 240 volt, 3 phase, electrical service
- New motor control center
- New PLC based control system
- New engine control panel
- New sump pump and building fan control systems
- New emergency generator connection

Building Improvements

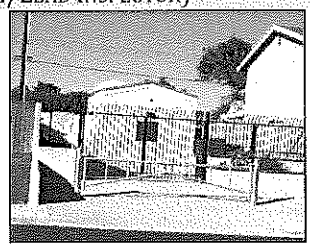
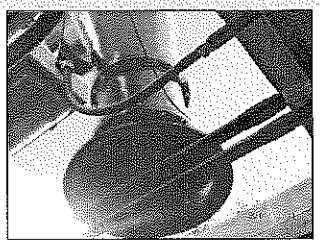
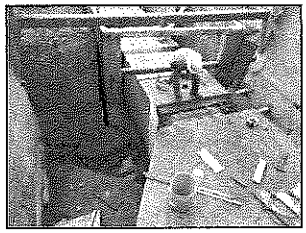
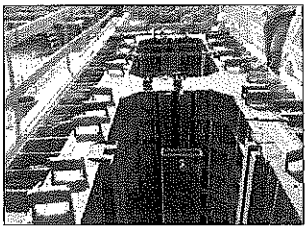
- New air conditioned electrical building
- New roofing system with equipment removal watches
- Stucco coating of building exterior and perimeter walls
- Sound paneling on all walls and ceiling

- New acoustic doors and louvers
- New 316 stainless steel trash rack

The project was developed so that the station improvements could be constructed during the non-rainy season (April-October). Extensive planning was undertaken to ensure the project was bid far enough in advance to ensure long lead time equipment would be delivered in time to complete the work within the required construction.

AKM provided construction management, inspection, and engineering support service to complete the project.

MYRA STORMWATER PUMP STATION #3
CITY OF CYPRESS - 5275 ORANGE AVENUE, CYPRESS, CA 90630
CONTACT: MR. DOUG DANCS, COMMUNITY DEVELOPMENT DIRECTOR (714) 229-6744
DDANCS@CYPRESSCA.ORG
CONSTRUCTION COST: PUMP STATION: $2,835,000; IN-LINE DETENTION BASIN AND STORM DRAINS: $9,800,000; **A/E FEES:** PDR $25,000; DESIGN: $900,000; CM AND INSPECTION: $950,000
PROJECT DATES: PDR: 2008; PUMP STATION DESIGN: 2014; ENGINEERING DURING CONSTRUCTION, CONSTRUCTION MANAGEMENT AND INSPECTION: 2015; IN-LINE DETENTION BASIN AND STORM DRAINS DESIGN: 2016; ENGINEERING DURING CONSTRUCTION, CONSTRUCTION MANAGEMENT AND INSPECTION: 2017
AKM STAFF: Z. KAYIRAN (PM); J. LOAGUE (PE-PUMP STATION); M. YING (PE-STORM DRAINS AND SEWERS) J. LEE (DE), J. NITTA (DE); E. KAYIRAN (CM/LEAD INSPECTOR)

The City's Master Plan of Drainage Update completed by AKM in 2007 determined that Pump Station No.3 could not provide the flood protection in accordance with the established criteria (Expected Value 100-year Flood). The pump station is located on a 30-foot wide lot between two single family residential structures. The groundwater in the area is about 3 feet below the street surface.

AKM completed a preliminary design report in 2008, which evaluated two alternative solutions. One alternative was to purchase property near the existing pump station, construct a new pump station, and convert the existing pump station site to a neighborhood park. The second alternative was to construct an in-line detention basin on Myra Avenue, tributary storm drain system, and upgrading of the existing pump station at the existing capacity utilizing the existing wet well. Due to uncertainty with property availability, Alternative 2 was selected for implementation. This work included CCTV inspection of the existing discharge pipes to determine their condition.

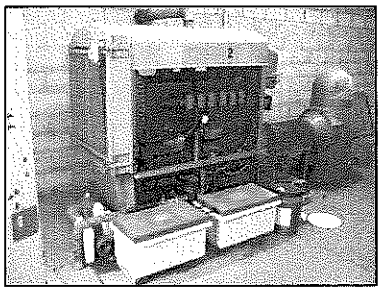
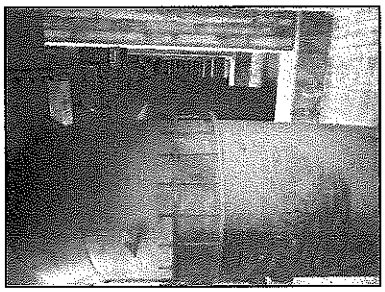
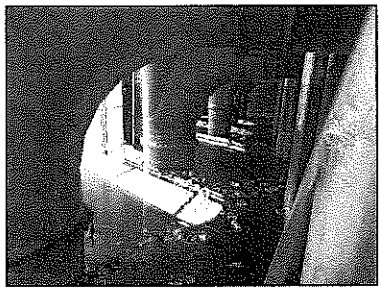
AKM prepared final plans, specifications, and estimates for the recommended facility, which consists of a 2,000 foot long 13' (W) x 4.5' (H) reinforced concrete box in-line detention basin, tributary storm drain system, and the upgrades to the pump station.

The pump station improvements consisted of modifications to the wet well to bring it into compliance with the Hydraulic Institute Standards, replacement of the existing pumps with two new 30 cfs capacity variable frequency drive operated axial flow pumps (total capacity of 60 cfs), a new building, a 250 KW natural gas engine standby generator, and replacement of portions of the structurally damaged discharge pipes adjacent to the wet well.

AKM prepared specifications for pre-purchasing of the pumps, motors, and variable frequency drives by the City to allow pump station operation prior to October 15, 2015. The project plans included a detailed phasing plan to allow bypass pumping until the pump station became operational.

AKM also provided bidding support, and complete construction inspection and management services for the construction of the pump station, in-line detention basin, and the tributary storm drain system.

STORMWATER PUMP STATION ASSESSMENT
CITY OF LONG BEACH – 411 WEST OCEAN BOULEVARD, LONG BEACH, CA 90802
CONTACT: MR. ARTHUR COX, MANAGER, PUBLIC SERVICE BUREAU (562) 570-2780
ARTHUR.COX@LONGBEACH.GOV
CONSTRUCTION COST : $35,400,000 **A/E FEES**: $251,624
PROJECT DATES: 6/2014 - 12/2015
AKM STAFF: Z. KAYIRAN (PM); G. HOBSON (PE); J. LOAGUE (PE), J. NITTA (PE); M. YING (PE), J. LEE (DE)

The City's Pump Station Assessment was developed to evaluate 22 of the City's stormwater pump stations. Its purpose was to:

- Determine critical deficiencies which effect the facilities' immediate readiness and reliability to provide flood protection,
- Evaluate each pump station's overall condition, capacity, and design,
- Provide analysis and recommendations for upgrading these facilities to comply with current codes, criteria, and reliability standards for stormwater pumping facilities.

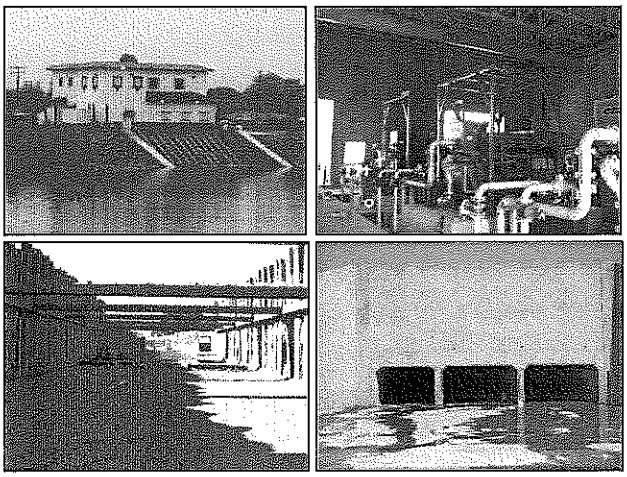
The scope of work for the project included review of the 2005 Stormwater Master Plan and Pump Station Evaluation reports; Stormwater Pump Station SD-03 Evaluation Report; Review of all existing documents and as-built drawings; field review of all 22 pump stations, interviewing the City staff; evaluation of each pump station's structure, forebay and influent storm drains, wet well, access, pump and motors/engines, discharge piping, ventilation, electric service, SCADA, and security; formulation of improvements and their estimated implementation costs with priorities, and documenting the study in a final report.

The total anticipated costs for all stormwater pump station improvements is $35.4 million.

HASTER RETARDING BASIN AND STORMWATER PUMP STATION
ORANGE COUNTY PUBLIC WORKS – 300 NORTH FLOWER STREET, SANTA ANA, CA 92703
CONTACT: JIM VOLZ, P.E., SENIOR CIVIL ENGINEER (714) 647 3904 JAMES.VOLZ@OCPW.OCGOV.COM
CONSTRUCTION COST: $26,000,000 **A/E FEES**: DESIGN - $1,746,807; ENGINEERING DURING CONSTRUCTION/INSPECTION; $1,106,898; POST PERFORMANCE REPORT - $20,000/YEAR
PROJECT DATES: DESIGN –2012; ENGINEERING DURING CONSTRUCTION/ MECHANICAL AND ELECTRICAL INSPECTIONS – 2012 - 2014; POST PERFORMANCE REPORT – 2015 - 2025
AKM STAFF: Z. KAYIRAN (PD), J. LOAGUE (PM), M. YING (PE - HYDRAULIC ANALYSIS, HYDROLOGIC STUDIES, STORM DRAIN DESIGN), J. LEE (PE – PUMP STATION DESIGN); J. NITTA (DE); G. HOBSON (QA/QC), G. DEITER (CONSTRUCTABILITY REVIEW, MECHANICAL INSPECTIONS, STARTUP AND COMMISSIONING)

Haster Basin was a 200 acre-foot retarding basin located on a 22 acre site in the City of Garden Grove. The Orange County Flood Control District retained AKM to evaluate alternatives and prepare construction documents to allow the Basin to attenuate the 100-year expected value peak flow from the upstream (2,200 cfs) to the downstream channel capacity of 400 cfs. AKM's scope of work included the preparation of a comprehensive Preliminary Design Report, design of improvements to meet the identified project objectives; and a Basis of Design Report documenting the steps and calculations used in the design of the project. The final project includes a 460 cfs pump station incorporating three 153.4 cfs mixed flow pumps operated by three 845 HP natural gas/LPG engines; re-grading of the existing Basin to increase its existing volume by 50 ac-ft; water quality features in accordance with the County's Drainage Area Management Plan; various site improvements to facilitate maintenance access to the facility, and joint use of the overall site as a community park with 2 soccer fields, and architectural enhancements to the proposed pump station building consistent with the character of the surrounding area. AKM verified the hydrologic studies and conducted hydraulic analyses of the East Garden Grove-Wintersburg Channel to ascertain

that the outflow from the basin could be safely conveyed downstream. AKM developed modifications to a 100-ft long section of the channel to increase its capacity from 400 cfs to 460 cfs, which in turn reduced the required flood flow storage volume and allowed the planning and construction of two soccer fields at the site.



The project included 700 feet of triple box culvert inlet drain (double 11.5' W X 6' H and a 9' W X 6' H). AKM processed the structural design of the pump station, channel modifications, and the triple box inlet channel through the County's Building Department. AKM provided engineering services during construction, as well as startup and commissioning of the $26 million project, which started in 2012, and was completed in 2014.

AKM has been preparing Post Project Performance Reports in support of the $15 million State of California Grant for the project.

The following is from an e-mail from Vincent Gin (OC Public Works Project Manager) to Shane Silsby (Director of OC Public Works) and Kevin Onuma (Deputy Director, OC Public Works Operations and Maintenance) regarding AKM's performance on the project:

"More than most projects in my experience, the consultant, AKM Consulting Engineers, was especially emotionally engaged in the project. Zeki Kayiran, John Logue, and Glen Deiter are not only technical experts in an esoteric and highly specialized field, but performed beyond our expectations. And we learned from them--our knowledge base is now greater than before expressly because of our work with AKM. It was a privilege to work with AKM and witness their high level of competence, and I don't say that easily about any consultant."

SUBCONSULTANT INFORMATION AND EXPERIENCE

Q3 Inc.

Q3 is an electrical engineering consulting and design firm, incorporated in 2006. They have provided electrical and controls engineering and design services for pump stations, treatment plants, storm and wastewater facilities, industrial facilities, and cogeneration power plants. Q3 has a long term commitment to sustainable design and energy efficiency. They work diligently to create resource power system upgrades throughout major wastewater treatment facilities; power systems for water treatment facilities; automation and SCADA for dispersed water production and treatment facilities; power and control systems for wastewater pump facilities; standby power generation for wastewater treatment facilities. AKM and Q3 have worked together on several successful pump station projects for the past 15 years. They are well qualified to perform the services required by these projects.

Legal Name of Firm	Q3, Inc.
Date of Incorporation	March 28, 2006
Contact Information	Mr. Quang Nguyen. PE, CEM, LEED AP qnguyen@q3inc.com Telephone: (714) 465 -5200 Fax: (714) 242-9499
General Description	California Corporation C2831738
Location	17162 Gothard Street, Huntington Beach, CA 92647
Number of Employees	8 Full Time
Federal Employer ID	86-1165649

East Orange County Water District –Emergency Generator and ATS Project
Contact: Jeff Smyth jsmyth@eocwd.com
This project was an addition of a new ATS and new Emergency Generator to an existing electrical switchgear at Sidehill Booster Pump Station.

Inland Empire Utility Agency – Lewis Lift Station
Contact: Lisa Munoz lmunoz@ieua.org
This project is a new sewer lift station located in Chino for a new development consisting of four new pumps, one automatic transfer switch and one new emergency backup generator.

City of Huntington Beach – Downtown Lighting Upgrade Project
Contact: Bob Stachelski (714) 536-5523 bstachelski@surgcity-hb.org
This project is the design for new street lighting in the downtown Huntington Beach area consisting of approximately 100 new light poles with new electrical circuits to replace existing light poles and existing circuits.

City of Costa Mesa – Multiple Parks Lighting
Contact: Baltazar Mejia, PE (714) 754-5291 baltazar.mejia@costamesaca.gov
This project consisted of new park lighting design for five parks in the City of Costa Mesa.

Orange County Sanitation District - Theo Lacy Jail – New Sewer Grinders Project
Contact: Tom Tran (714) 935-7540 ttran@ocsd.org
This project consisted of a three (3) new in-line sewer grinder.

Enterprise Automation

Enterprise Automation was established in 1998 as a source for all phases of control systems integration. It was incorporated in 2006. Services include: SCADA configuration; data network design, testing, startup and training; O&M documentation; MES systems; design consultation; specific development; panel design; and PLC programming. Enterprise Automation is one of only seven systems integrators in California who have passed the rigorous audit process to become certified CSIA. EA carries the most Wonderware certifications of any integrator in California, is Wonderware/AVEVA Endorsed partner, and the only Schneider Electric Master Alliance Partner in the USA. Enterprise Automation's work will be performed under the direction of Mr. Adam Ekstrand, Lead Engineer with experience in industrial automation and controls concentrated on water and wastewater, including specialization in network architecture, PLC programming, advanced SCADA programming, SCADA standards development, virtualization, functional specification development, critical process cutover planning, field inspections, SCADA preventative maintenance, and project execution planning. EA has been providing services to the City of Long Beach, and is well qualified to undertake these projects. AKM and EA are currently working on a project for the Water Replenishment District of Southern California at the Leo J. Vander Lans Advanced Water Treatment Facility in Long Beach.

Legal Name of Firm	Enterprise Automation (Partners in Control, Inc.)
Date of Incorporation	September 5, 2006
Contact Information	Mr. Luke Stephenson Luke.Stephenson@eaintegrator.com Telephone: (949) 769 -6000 Fax: (949) 769-6005
General Description	S Corporation C2926584
Location	210 Goddard, Irvine, CA 92618
Number of Employees	26 Full Time
Federal Employer ID	20-5546755

Section 9.2.1.4 of the RFP requires description of a plan of notifying the City of Long Beach of payments to subconsultants. AKM pays its subconsultants within 15 days of receiving payment from our clients. With each monthly billing, we will include a statement showing the date of receipt of payment from the City, and the date and amount of payment made to the subconsultants.

Primaries Upgrade – Encina Wastewater Authority, Carlsbad CA (2021)
Contact: Scott McClelland, Assistant General Manager (760) 268-8837 smcclelland@enciajpa.com

In 2017, the Authority contracted Enterprise Automation as their consultant for as-needed professional services for SCADA systems integration and support. This scope included executing a thorough "state of the system" audit for their 40 MGD, peak 110 MGD wastewater treatment plant, completing a SCADA hardware and software evaluation to select a replacement HMI and PLC platform, development of a SCADA evolution design/implementation plan, developing SCADA standards for their chosen platform, and performing all

integration services for the next eight years. Enterprise Automation's consultative scope also includes auditing their four adjacent lift stations and water recycling facility, and development of their OT Master Plan. Enterprise Automation direct to client under 5 year MSA.

Project Elements include: Design workshops to create programming functional specifications for design engineer's control; narratives and loop descriptions; Panel template design and detailed design; Fiber network infrastructure design; PLC/HMI programming; MCC programming and testing.

Similar scope and complexity elements / Innovative or unique elements of the work: Developing functional program descriptions using pre-built standards; Migration of existing system while maintaining operations; Manufacturer skid integration.

SCADA Services – Water Replenishment District of Southern California (2020)
Contact: Phuong Watson (562) 921-5521 pwatson@wrd.org

In February 2017, Enterprise Automation was awarded a three-year professional services agreement by WRD. The original intent of the contract was to engage Enterprise Automation to integrate platforms at their 5 treatment facilities and 350 groundwater wells into a single, centralized, SCADA system. After demonstrating our consultative capabilities and project management expertise, the scope of our services was expanded to replace WRD's SCADA consultant. This scope included development and management of WRD's SCADA standards and oversight and management of two SCADA systems integrators executing work on WRD assets. Enterprise Automation direct to client under 3 year MSA.

Project Elements include: Wonderware System Platform; SE UnityPro; Standards development and management; Enterprise Historian management; Detailed custom reporting; Secure remote data sharing and transfer with regulatory agencies

Similar scope and complexity elements / Innovative or unique elements of the work: Designing and programming new operational control using existing standards; Migration of existing system while maintaining operations; Manufacturer skid integration

SCADA Upgrades – City of West Sacramento (2020)
Contact: Mike Llapitan, Solutions Architect (707) 473-3175 mike.llapitan@california.wonderware.com

Enterprise Automation has been engaged to provide automation consulting and SCADA construction management services for a project to upgrade the City's water and wastewater SCADA system. The project includes replacing their existing GE iFix HMI with a new Wonderware platform and upgrading 38 RTU cabinets which use a combination of Allen Bradley and Modicon PLCs. Enterprise Automation is the acting project coordinator and management consultant for Wonderware California who is the prime. Enterprise Automation is responsible for providing system architecture design support, monitoring the HMI and PLC integrators' progress on milestones and deliverables, and overseeing quality. Enterprise Automation as Subcontractor to Wonderware California (Prime).

Project Elements include: Wonderware System Platform; AB RSLogix 5000 (plant hardware/software conversion); SE UnityPro (remote sites, new programming); PLC/HMI configuration in CCM (formerly Prometheus); Radio telemetry; New virtualized platform design and setup (VMware); Intellitrac and GISize software

Similar scope and complexity elements / Innovative or unique elements of the work: Designing and programming new operational control using existing standards; Migration of existing system while maintaining operations; Multiple remote sites and PLC programs to manage.

Appendix A – Resumes

Mr. Zeki Kayiran, P.E.

Project Role: *Project Director / Manager*

Professional Registration: *Registered Civil Engineer, California (C29330)*

Education: *Master of Science, Civil Engineering – California State University, Long Beach; Bachelor of Science, Civil Engineering – Robert College*

Years of Experience: *45*

Years with AKM: *29*

Mr. Kayiran provides comprehensive technical and management expertise in the planning and design of a wide variety of water resources engineering projects. His professional background includes a blend of consulting engineering and academic experience, including part-time instruction in the field of fluid mechanics and hydraulic design at California State University, Long Beach. As part of a graduate level hydraulic design class, he taught stormwater pump station design per the Los Angeles County Flood Control District's Pump Station Design Manual. For the past thirteen years, he has been a Client Consultant for UC Irvine's Senior Design Project class, teaching a group of senior students pump station design. Mr. Kayiran's experience includes the following:

- **Six Storm Water Pump Station Improvements Project for the City of Long Beach (Current)** – Project Manager responsible for conducting field reviews with City staff to verify the current deficiencies at the SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21; formulating repair scopes of work, and preparation of plans, specifications, and estimates for the repair work at each station.

- **Walnut Stormwater Pump Station for the City of Fountain Valley (2019)**– Principal-in-Charge and QA/QC Manager for preparation of a preliminary design study evaluating the condition and capacity of the pump station; as well as final plans, specifications and estimates for upgrading of a 360 cfs capacity stormwater pump station. The project included a detailed hydrologic study of the tributary watershed for verification of the design flows; refurbishment of four (4) 90 cfs axial flow pumps; installation of three (3) 250 HP natural gas/LPG engines and right-angle gear drives; a 500 gpm sump pump; new electrical switchgear and controls; new telemetry system; roof replacement; architectural enhancements to the building; and an urban run-off diversion system

- **Sandalwood Stormwater Pump Station for the City of Fountain Valley (2017)** – Project Manager responsible for the preparation of a preliminary design study including hydrologic study of the tributary watershed; as well as final plans, specifications and estimates for upgrading of an existing 90 cfs capacity pump station. The project included replacement of three (3) 30 cfs axial flow pumps, three (3) 100 HP natural gas/LPG engines, a 500 gpm sump pump, telemetry system, an urban run-off diversion system, and structural and architectural improvements to the facility.

- **West End Stormwater Pump Station Audit and Repairs for the City of Seal Beach (2017)** – Project Manager responsible for evaluation of the cause of main pump failures, overseeing pump inspections and repairs at Cascade Pump Company shop, recommending improvements at the pump station to minimize trash entry into the forebay and wet well; providing maintenance recommendations for all equipment in the pump station; documenting the work in the West End Pump Station Audit report; and attending City Council Meetings and participating in presentations to the Council and the residents/businesses.

- **Storm Water Pump Station Assessment for the City of Long Beach (2015)** – Project Manager responsible for evaluation of the condition and capacity of 22 City owned storm water pump stations, development of a capital improvement program, and documenting the study in a report.

- **Myra In-line Detention Basin and Storm Water Pump Station No. 3 for the City of Cypress (2015)** – Project Manager responsible for preparation of a preliminary design report, and final design for the project consisting of 2,000 feet of 14' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Denni Street and Bloomfield Avenue south of Carbon Creek Channel, improvements to the existing pump station wet well, a superstructure to house the new pumps and electrical equipment, two 30 cfs axial flow pumps with 125 HP VFD operated motors, a 250 kW natural gas emergency generator, and electrical, controls and SCADA system to provide expected value 100 year flood protection to the tributary area in sump condition. The project included preparation of specifications for pre-purchasing the pumps, motors, and VFDs to allow completion of construction prior to the next rainy season.

- **Haster Basin and Storm Water Pump Station for Orange County Public Works (2014-Continuing)** - Project Director responsible for alternatives evaluation, preparation of a Preliminary Design Report, Basis of Design Report, final design, and engineering services during construction for a 250 acre-foot flow-through retarding basin and a 460 cfs capacity pump station (three 153.4 cfs axial flow pumps driven by 845 HP natural gas/LPG engines) to provide expected value 100-year protection to a 2,000 acre watershed in Anaheim and Garden Grove. The project included urban runoff water quality enhancements, grading to provide space for recreational features including two soccer fields, and providing bidding and construction support services. AKM prepares annual Post Project Reports, which are required by the $15 million State of California Grant for the project.
- **SD 03 Stormwater Pump Station Improvements for the City of Long Beach (2012)** - Project Manager responsible for preparing a preliminary design report evaluating alternatives, final design, and bidding and construction support services for the project which replaced the existing capacity deficient pumps with three 70-cfs mixed flow pumps, operated by 350 HP VFDs to provide Capital Flood (50-year storm) protection to the tributary area, and implemented hydraulic, electrical, and structural improvements. The project included installation of suction umbrellas to maximize the storage capacity in the wet well, wet well improvements to bring it into compliance with the Hydraulic Institute Standards, a 1 megawatt natural gas engine standby generator, relining of the existing 36-inch discharge pipes between the pump station and the Los Angeles River, replacement of the roof, and improvements to the pump station building.
- **Myra In-line Detention Basin and Storm Water Pump Station No. 2 for the City of Cypress (2012)** – Project Manager responsible for preparation of a preliminary design report which developed and evaluated alternative projects to eliminate the condition and capacity deficiencies; final design; and complete construction inspection and management services for the project consisting of 1,351 feet of 14' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Moody Street and Denni Street south of Carbon Creek Channel; improvements to the existing pump station wet well, a new superstructure to house the new pumps and electrical equipment; two 33 cfs axial flow pumps with 125 HP VFD operated motors, a 250 kW natural gas emergency generator, and SCADA control system to provide expected value 100 year flood protection to the tributary area. The project included pre-purchasing of the pumps, motors, and VFDs to allow completion of construction prior to the rainy season.
- **West End Stormwater Pump Station for the City of Seal Beach (2008)** – Project Manager responsible for preliminary design studies developing and evaluating six alternatives, preparation of final contract documents, and complete construction inspection and management services for improvements to an existing pump station that had less than 5-year protection capacity. The project included a bypass pumping system; implemented improvements to the existing sump structure; installed two new 100 cfs axial flow pumps operated by 350 HP VFDs, which improved the flood protection to the 170 acre tributary area adjacent to the San Gabriel River levee; a new 3.5 cfs sump pump; a superstructure to house the motors and electrical equipment; replaced portions of the discharge pipes with larger pipes; and a back-up 350 kW natural gas engine generator to operate the facility during commercial power outages.
- **Myra Stormwater Pump Station No. 1 Preliminary Design Report for the City of Cypress – (2008)** - Project Manager responsible for formulating and evaluating three alternatives to provide adequate capacity (increase from 90 to 128 cfs); and improve hydraulic and condition deficiencies for the pump station that serves an 86 acre tributary area in sump condition; preparation of a preliminary design report; and recommending a project for implementation. The alternatives evaluated consisted of purchasing property adjacent to the existing pump station and constructing a new station (recommended alternative); constructing a new pump station at the school property on the south side of Myra Avenue; and constructing an in-line detention basin along Myra Avenue, and upgrading the existing pump station.
- **Aloe (Zoe Avenue) Stormwater Pump Station for the Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (2002)** – Project Manager responsible for preparation of preliminary design studies, final contract documents, and construction support services including startup testing of the facility which provided peak design flow retarding capacity in the wet well, and a 54 cfs capacity stormwater pump station with 4-27 cfs capacity, VFD operated pumps, a 350 KW natural gas engine standby

generator; a flow splitting structure to convey the discharge to two separate systems; and influent an outlet drains.

- **West State Street Channel, Flow Splitting Facility and Brooks Basin Storm Water Pump Station for the San Bernardino County Flood Control District (1996)** - Project Manager responsible for hydrologic and hydraulic studies, and design of a flow splitting structure diverting flows to Brooks Basin (groundwater recharge and flood flow retarding basin) to reduce the peak flow in the West State Street Channel from 3,000 cfs to 750 cfs, downstream rectangular channel, and **a pump station with two 70 cfs mixed flow pumps** to make flood detention volume available in the groundwater recharge basin. The flow-splitting structure design was verified through a hydraulic physical model at California State University, Long Beach.
- **San Juan Creek Stormwater Pump Station for Orange County Public Works/Flood Control District (1981)** – Project Engineer responsible for preparation of plans, specifications, and estimates, and providing construction support services a for the facility with a single 30 cfs axial flow pump driven by a natural gas/propane engine to provide flood protection to the South East Regional Reclamation Authority's J.B. Latham Water Reclamation Plant, and the adjacent mobile home park along the north levee of San Juan Creek in Dana Point.
- **Electric Avenue Storm Drain for the City of Seal Beach (2011)** – Project Manager responsible for design of 1,150 feet of the 66-inch relief drain and laterals to provide expected value 100-year protection to the easterly portion of Old Town draining to the Orange County Flood Control District's Seal Beach Stormwater Pump Station.
- **Master Plan of Drainage for the City of Seal Beach (2008)** – Project Manager for the preparation of the City's first Master Plan of Drainage in 1999 and update in 2008 including criteria development, system inventory, GSI, hydrologic and hydraulic studies, prioritization; cost estimates, report preparation, and Council presentation.
- **Master Plan of Drainage Update for the City of Cypress (2007)** – Project Manager for the preparation of the update to the 1996 Master Plan, including establishment of criteria, system inventory and GIS, hydrologic and hydraulic analyses, formulation of replacement and relief facilities, as well as system extensions to meet criteria; prioritization; cost estimates; report preparation; and Council presentation.
- **Master Plan of Drainage for the City of Inglewood (2007)** – Project Engineer for the preparation the Master Plan of Drainage, including establishment of criteria, system inventory and GIS, hydrologic and hydraulic analyses, formulation of replacement and relief facilities, as well as system extensions to meet criteria; prioritization; cost estimates; and report preparation.
- **Project No. 58 Drain Relocation for ACTA/Los Angeles County Department of Public Works (2001)** – Project Manager responsible for preliminary design studies and preparation of final plans, specifications, and estimates for the relocation Project No. 58 Drain, which extended along 25th Street east of Alameda Street accommodate the Alameda Corridor improvements and construction of the Corridor railroad tracts over the box. The project consisted of 5,000 feet of 12' W x 10' H reinforced concrete box along the north side and across the railroad tracks, one squash box, and upstream and downstream transitions to the 9'-7"Wx11'-6"H box drain.
- **Alagundo Drain and In-Line Detention Basin for ACTA/Los Angeles County Department of Public Works (2001)** – Project Manager responsible for hydrologic studies, hydraulic analyses, preparation of a preliminary Design Report, and final plans, specifications, and estimates for a bypass storm drain (1200 ft of 24-inch) and an **inline detention basin (13'Wx7'H and 700 ft long)** which detained the flows above 14 cfs (2-year capacity available in the outlet drain) to provide 25-year protection to the tributary area which drained to LA County's Glen Avenue Drain.

Mr. John Loague, P.E.

Role: *Project Manager / Engineer*

Professional Registration:

Registered Civil Engineer, California 1993, C-50292

Education:

Bachelor of Science in Chemical Engineering- California State University, Long Beach, California

Years of Experience: *33*

Years with AKM: *27*

Mr. Loague has a broad background in the water resources engineering field encompassing the planning, design and construction management of pump stations, wells, transmission and distribution facilities, storage, and treatment facilities. He has been responsible for successful completion of over 100 pump stations, including nine (9) stormwater pump station evaluation and design projects. Mr. Loague's relevant experience includes the following projects:

- **Walnut Storm Water Pump Station for the City of Fountain Valley (2019)**– Project Manager responsible for the preparation of a preliminary design study evaluating the condition and capacity of the pump station; as well as final plans, specifications and estimates for upgrading of a 360 cfs capacity stormwater pump station. The project included a detailed hydrologic study of the tributary watershed for verification of the design flows; refurbishment of four (4) 90 cfs axial flow pumps; installation of three (3) 250 HP natural gas/LPG engines and right-angle gear drives; a 500 gpm sump pump; new electrical switchgear and controls; new telemetry system; roof replacement; architectural enhancements to the building; and an urban run-off diversion system.

- **Sandalwood Storm Water Pump Station for the City of Fountain Valley (2017)**– Project Engineer responsible for the preparation of a preliminary design study including hydrologic study of the tributary watershed; final plans, specifications and estimates for upgrading of an existing 90 cfs capacity pump station; as well as providing engineering services during construction. The project included replacement of three (3) 30 cfs axial flow pumps, three (3) 100 HP natural gas/LPG engines, a 500 gpm sump pump, telemetry system, an urban run-off diversion system, and structural and architectural improvements to the facility.

- **West End Storm Water Pump Station Audit and Repairs for the City of Seal Beach (2017)** – Project Engineer responsible for evaluation of the cause of main pump failures, overseeing pump inspections and repairs at Cascade Pump Company shop, recommending improvements at the pump station to minimize trash entry into the forebay and wet well; providing maintenance recommendations for all equipment in the pump station; documenting the work in the West End Pump Station Audit report; and attending City Council Meetings and participating in presentations to the Council and the residents/businesses.

- **Haster Retarding Basin and Storm Water Pump Station for Orange County Public Works/Flood Control District (2014-Continuing)** - Project Manager responsible for hydrologic and hydraulic studies, alternatives evaluation, preparation of a Preliminary Design Report, Basis of Design Report, final design, and engineering services during construction for a 250 acre-foot flow-through retarding basin and a 460 cfs capacity pump station (three 153.4 cfs axial flow pumps driven by 845 HP natural gas/LPG engines) to provide expected value 100-year protection to a 2,000 acre watershed in Anaheim and Garden Grove. The project included two sump pumps (125 HP, 3,000 gpm and 25 HP 500 gpm), urban runoff water quality enhancements, grading to provide space for recreational features including two soccer fields, and providing bidding and construction support services.

- **SD 03 Stormwater Pump Station Improvements for the City of Long Beach (2012)** – Quality Control Manager for the project which replaced the existing capacity deficient pumps with three 70-cfs, 350 HP VFD operated pumps to provide Capital Flood (50-year storm) protection to the tributary area. The project included installation of suction umbrellas to maximize the storage capacity in the wet well, wet well improvements to bring it into compliance with the Hydraulic Institute Standards, a 1 megawatt natural gas engine standby generator, and relining of the existing 36-inch discharge pipes between the pump station and the Los Angeles River.

- **Myra Storm Water Pump Station No. 2 for the City of Cypress (2012)** – Project Engineer responsible for preparation of a preliminary design report which developed and evaluated alternative projects to eliminate the

condition and capacity deficiencies; final design; and complete construction inspection and management services for the project consisting of improvements to the existing pump station wet well, a superstructure to house the new pumps and electrical equipment; two 33 cfs axial flow pumps with 125 HP VFD operated motors, a 250 kW natural gas emergency generator, and SCADA control system to provide expected value 100 year flood protection to the tributary area . The project included pre-purchasing the pumps, motors, and VFDs to allow completion of construction prior to the rainy season.

- **West End Storm Water Pump Station for the City of Seal Beach (2008)** – Project Engineer responsible for preliminary design studies developing and evaluating six alternatives, preparation of final contract documents, and complete construction inspection and management services for improvements to an existing pump station that had less than 5- year protection capacity. The project included a bypass pumping system; implemented improvements to the existing sump structure; installed two new 100 cfs axial flow pumps operated by 350 HP VFDs, which improved the flood protection to the 170 acre tributary area adjacent to the San Gabriel River levee; a new 3.5 cfs sump pump; a superstructure to house the motors and electrical equipment; replaced portions of the discharge pipes with larger pipes; and provided a back-up 350 kW natural gas engine generator to operate the facility during commercial power outages.

- **Myra Storm Water Pump Station No. 1 Preliminary Design Report for the City of Cypress (2008)** – Project Engineer responsible for preliminary design of pump station alternatives identified by the project team. The alternatives aimed to provide adequate capacity (increase from 90 to 128 cfs); and improve hydraulic and condition deficiencies for the pump station that serves an 86 acre tributary area in sump condition; preparation of a preliminary design report; and recommending a project for implementation. The alternatives evaluated consisted of purchasing property adjacent to the existing pump station and constructing a new station (recommended alternative); constructing a new pump station at the school property on the south side of Myra Avenue; and constructing an in-line detention basin along Myra Avenue, and upgrading the existing pump station.

- **Aloe (Zoe Avenue) Storm Water Pump Station for the Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (2002)** – Project Engineer responsible for preparation of preliminary design studies, final contract documents, and construction support services including startup testing for the facility which provided peak design flow retarding capacity in the wet well, and a 54 cfs capacity stormwater pump station with 4-27 cfs capacity, VFD operated pumps, a 350 KW natural gas engine standby generator; a flow splitting structure to convey the discharge to two separate systems; and influent an outlet drains. The project was necessitated by the construction of the Alameda Mid-Corridor Trench (50 feet wide and 35 feet deep), which required routing of the storm drains under the trench, and pumping.

- **Brooks Basin Storm Water Pump Station for the San Bernardino County Flood Control District (1996)** – Project Engineer responsible for the preparation of plans, specifications and estimates for a pump station with **two 70 cfs mixed flow pumps** driven by 500 HP natural gas engines, and a sump pump. The pump station was designed to make flood retarding volume available in the groundwater recharge basin, and reduce the high confidence 100-year flood peak flow in the West State Street Channel from 3,000 cfs to 750 cfs, which was the maximum flow that could be discharged to San Antonio Creek Channel.

Mr. Gary J. Hobson, P.E.

Role: *Project Manager / Engineer*

Professional Registration:

Registered Civil Engineer, California 1986 (C40779); Arizona 1989 (23777); Maryland 2006 (33551)

Education:

B.S., Secondary Education, Indiana University Purdue University at Indianapolis

Post Graduate Studies, Civil Engineering, Indiana University Purdue University at Indianapolis

Years of Experience: *41*

Years with AKM: *16*

Mr. Hobson's professional experience covers client and project management, planning, design, and construction support services for a variety of public works projects in both local and federal government sectors. Specific areas of expertise include storm water, water, wastewater, and water reuse systems. Mr. Hobson participated in quality control and value engineering teams for multi-disciplinary engineering projects. His related experience includes the following projects:

- **Six Storm Water Pump Station Improvements Project for the City of Long Beach (Current)** – Project Engineer responsible for conducting field reviews with City staff to verify the current deficiencies at the SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21; formulating repair scopes of work, and preparation of plans, specifications, and estimates for the repair work at each station.

- **Storm Water Pump Station Assessment for the City of Long Beach (2015)** – Alternate Project Engineer responsible for evaluation of the condition and capacity of 22 City owned storm water pump stations, development of a capital improvement program, and documenting the study in a report.

- **Myra Avenue In-line Detention Basin and Storm Water Pump Station No. 3 for the City of Cypress (2015)** – Quality Control Manager responsible for review of the Preliminary Design Report, and final plans and specifications for the project consisting of 2,000 feet of 14' W x 4.5' H in-line detention basin in Myra Avenue between Denni Street and Bloomfield Avenue south of Carbon Creek Channel, improvements to the existing sump, a superstructure to house the new pumps and electrical equipment, two 30 cfs axial flow pumps with 125 HP VFD operated motors, a 250 kW natural gas emergency generator, and SCADA control system to provide expected value 100 year flood protection to the tributary area in sump condition.

- **Haster Retarding Basin and Stormwater Pump Station for Orange County Public Works (2014)** – Quality Control Manager responsible for reviewing the hydrologic and hydraulic studies, alternatives evaluation, Preliminary Design Report, Basis of Design Report, and final design of the project, which included re-grading of the existing 200 acre-foot retarding basin to provide 250 acre-foot flow-through retarding basin; a 460 cfs capacity pump station (three 153.4 cfs axial flow pumps driven by 845 HP natural gas/LPG engines) to provide expected value 100-year protection to a 2,000 acre watershed in Anaheim and Garden Grove. The project included urban runoff water quality enhancements, and grading to provide space for recreational features including two soccer fields.

- **SD 03 Stormwater Pump Station Improvements for the City of Long Beach (2012)** – Project Engineer responsible for preparation of a preliminary design report investigating four (4) alternatives; and final plans, specifications, and estimates; and bidding and construction support services for the project which replaced the existing capacity deficient pumps with three 70-cfs capacity, 350 HP VFD operated mixed flow pumps to provide Capital Flood (50-year storm) protection to the tributary area. The project included installation of suction umbrellas to maximize the storage capacity in the wet well; wet well improvements to bring it into compliance with the Hydraulic Institute Standards; a 1 megawatt natural gas engine standby generator; relining of the 36-inch discharge pipes between the pump station and the Los Angeles River; replacement of the roof; cat-walks to provide access to the pumps discharge pipe flexible couplings; and improvements to the building.

- **Myra Avenue Storm Water Pump Station No. 2 for the City of Cypress (2012)** – Quality Control Manager responsible for review of the Preliminary Design Report, and final plans and specifications for the project consisting of improvements to the existing sump, a superstructure to house the new pumps and electrical equipment, two 33 cfs axial flow pumps with 125 HP VFD operated motors, a 250 kW natural gas emergency

generator, and SCADA control system to provide expected value 100 year flood protection to the tributary area, which is in sump condition.

- **San Juan Creek Storm Water Pump Station for Orange County Flood Control District (1981)**– Design Engineer responsible for hydrologic and hydraulic studies, preparation of plans, specifications, and estimates; and bidding and construction support services for a 30 cfs capacity pump station with a 100 HP natural gas engine driven axial flow pump with propane back-up to provide protection to the South East Regional Reclamation Authority's J.B. Latham Treatment Plant and the adjacent mobile home park in Dana Point.
- **Flomar Drive Storm Drain for the City of Whittier (2008)** – Quality Control Manager responsible for review of the project consisting of 1,575 feet of facilities varying in size from 6'W x 3.5'H reinforced concrete box at the downstream end of the project to 24-inch reinforced concrete pipe at the upstream end. The Flomar Drain tributary area covers 68 acres in a sump condition was served by an existing reinforced concrete box with a capacity of 30 cfs. The project required the relocation of a private garage to provide space for the new storm drain.
- **Wasson Canyon Channel and Debris Basin for the US Army Corps of Engineers and Riverside County Flood Control & Water Conservation District (1989)** – Project Engineer responsible for preparation of plans, specifications, and estimates for 1,200 feet of vertical wall channel with two box culverts; inlet and outlet transition structures, debris loading calculations, basin grading and spillway design for an earth dam structure on Wasson Canyon Channel located immediately west of the I-15 Freeway in Lake Elsinore.
- **Storm Drainage System Master Plan for the City of Manhattan Beach (1996)** - Project Manager responsible for the development of hydrologic studies, hydraulic models to assess the impact of 10, 25, and 50-year storms on local/regional facilities in conformance with Los Angeles County criteria, and evaluation of local drainage problems, formulation of the capital improvement program, and .
- **Drainage Area Master Plan Updates for the County of San Diego (1990)** - Project Engineer responsible for hydrologic and hydraulic studies for seven (7) separate drainage zones in unincorporated county areas; : sizing of needed facilities, cost estimates, and determination of developer impact fees associated with future development
- **City-wide Flood Control Master Drainage Plan for the City of National City (1989)** - Project Manager responsible for preparing a city-wide Flood Control Master Drainage Plan for all pipes larger than 18" in diameter for the City of National City in conformance with San Diego County Flood Control criteria.
- **Slater Channel for the City of Huntington Beach (1984)** – Project Engineer responsible for hydraulic analyses and design of recommended improvements to 3,500 feet of trapezoidal channel upstream of Slater Stormwater Pump Station.
- **Oso Creek Channel for the Orange County Public Works/Flood Control District (1983)** – Lead Design Engineer responsible for hydraulic analysis; preparation of plans, specifications, and estimates; and construction support services for 5,000 feet of 32 feet wide vertical wall channel, 800 feet of double 16'Wx16'H reinforced concrete box channel, downstream drop structure and upstream and downstream transitions to natural channels between Avery Parkway and City of San Juan Capistrano.
- **SERRA Treatment Plant Flood Protection for the South East Regional Reclamation Authority (1982)** - Project Engineer responsible for hydrologic and hydraulic studies, and design of storm drains, box culverts, levee and retaining walls to protect against the 100-year flood in Dana Point for the South East Regional Reclamation Authority.

Mr. Nadeem Majaj, PE
Role: *Project Manager*
Professional Registration
Registered Civil Engineer, California 1989 (44552)
Education
M.S. Civil Engineering Water Resources – California State University Long Beach; B.S. Civil Engineering – California State Polytechnic University Pomona
Years of Experience: *34*

Mr. Majaj's professional background includes 34 years of service to public agencies ranging from assistant engineer to Chief Engineer for Orange County Public Works Department/Flood Control District, and Director of Public Works/City Engineer for the Cities of Chino Hills and San Bernardino.

During his tenure at the County of Orange, he managed the design of upgrades to existing pump stations, and oversaw the planning, design, and construction of new stormwater pump stations. His experience includes:

- **Director of Public Works/City Engineer for the City of Chino Hills** (April 16, 2012 to July 26, 2019) Mr. Majaj managed the department with 76 positions with a $75 million annual budget. He oversaw the design and construction administration of public infrastructure with a $10 million annual Capital Improvement Program, including street paving, sidewalks, water facilities, sewer facilities, storm drains, parks and City buildings. The position also required close interaction with the City Manager, Mayor, Council members, City Commissions as well as other City departments.

- **Director of Public Works for the City of San Bernardino** (November 1, 2010 to April 9, 2012) – Mr. Majaj managed the Administration, Engineering, Fleet Management, Integrated Waste and Operations/Maintenance divisions, with over 260 employees with a $100 million annual budget including a $55 million Capital Improvement Program. The position required close interaction with the Mayor, City Council and the City Manager. The position also included frequent interaction with community groups to share the new vision of the Public Works Department and the City.

- **Assistant Director/Chief Engineer for Orange County Public Works/Flood Control District** (January 2008 to Oct. 2010) – Mr. Majaj provided leadership for six public works divisions (Roads and Transportation, Operations and Maintenance, Project Management including Utilities and Regulatory Permits, County Surveyor, Construction and Flood Control) with over 450 personnel and an annual budget of over $400 million. He also served as the chairman of the National Pollution Discharge Elimination System (NPDES) – Technical Advisory Committee for the County of Orange. He was a key participant in state and federal legislative and appropriations advocacy efforts for the County's public works programs. This included providing testimony at State Senatorial hearings and annual trips to Washington DC to advocate for funding County projects and promoting County issues. This also included co-chairmanship of the California State Association of Counties' (CSAC) Flood Control Policy committee. During this period, he oversaw the planning and design of the **Los Alamitos Stormwater Pump Station** (4-200 cfs pumps with space for a fifth pump discharging to San Gabriel River) and **Haster Stormwater Pump Station** (3-154 cfs pumps), and managed the operation and maintenance of the Flood Control District's seven (7) stormwater pump stations (Rossmoor, Cypress, Cypress Auxiliary, Seal Beach, Huntington Beach, South Park, and Harbor-Edinger).

- **Division Manager for Orange County Public Works/Flood Control Division** (May 2004 to January 2008) - Responsible for leading the effort in protecting the County of Orange from the threat of floods, including directing the activities of the $2 billion Santa Ana River Mainstem Project and implementing the Capital Improvement Program (CIP). The position involved business and financial strategic planning to manage the flood control fund with an annual budget in excess of $140 million (with a staff of 55), as well as incoming funds from Federal and State appropriations. During this period, Mr. Majaj oversaw the preparation of the **Cypress Retarding Basin/Cypress Pump Station Hydrology Report**, which evaluated alternatives to eliminate the capacity deficiency at the Cypress Stormwater Pump Station, and developed a recommended project consisting of an **18.6 acre-foot retarding basin and a 130 cfs stormwater pump station** in Veterans Park.

- **Manager for Orange County Public Works / Flood Control Design & Project Management** (September 2001 to May 2004) – Mr. Majaj was responsible for implementing CIP projects which included: a) engineering of channels, retarding basins, pump stations, dams and other hydraulic structures, b) securing environmental permits from resource agencies and c) preparing construction bid packages. This section included 22 engineers and technicians. During this period, Mr. Majaj oversaw the preparation of the contract documents for **Rossmoor Stormwater Pump Station**, a facility with four (4) 150 cfs pumps and space for a fifth pump, discharging into Coyote Creek Channel.
- **Senior Civil Engineer for Orange County Public Works Design Division** (September 1994 to September 2001) - Mr. Majaj was responsible for supervising engineering staff consisting of six engineers and technicians in order to meet schedules and provide innovative yet economic designs of public works facilities. He was responsible for design of the improvements to **Harbor-Edinger Stormwater Pump Station**, a facility with two (2) 40 cfs capacity pumps, which had experienced engine failures due to frequent cycling of the pumps.

Mr. Morgan Ying, P.E., Q.S.D.

Role: *Project Engineer – Hydrologic and Hydraulic Studies, Storm Drain Design*

Professional Registration:

Registered Civil Engineer, California, 1984 (C038983)

Qualified SWPPP Developer QSD California 2012 (22686)

Education:

Master of Science in Civil Engineering, California State University, Long Beach, California

Bachelor of Engineering in Hydraulic Engineering, Tamkang University, Taiwan

Years of Experience: *34*

Years with AKM: *24*

Mr. Ying has over 30 years of experience in stormwater and wastewater projects including special studies, master planning, design, and providing construction support services. Mr. Ying has worked on Drainage Master Plans, hydrologic studies, hydraulic analyses, flood control facility design, and construction support services for Orange, Los Angeles, San Bernardino, and Riverside County Flood Control Districts, as well as numerous municipal agencies. He has conducted base flood elevation studies in Zone A areas in West Long Beach, as well as in Port of Long Beach (Toyota Logistics site), and participated in hydrologic and hydraulic studies in support of flood related litigation for the City of Long Beach City Attorney's office. His related experience includes:

- **Myra In-line Detention Basin and Storm Water Pump Station No. 3 for the City of Cypress (2015)** – Lead Drainage Design Engineer responsible for preparation of a preliminary design report evaluating alternative improvements, and final design for the project consisting of 2,000 feet of 14' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Denni Street and Bloomfield Avenue south of Carbon Creek Channel, improvements to the existing pump station wet well, and the tributary storm drains.

- **Haster Retarding Basin and Storm Water Pump Station for the Orange County Public Works/Flood Control District (2014)** – Lead Drainage Engineer responsible for hydrologic and hydraulic studies, Preliminary Design Report, Basis of Design Report, and design of improvements. Conducted flood routing with several basin grading and pumping alternatives, and recommended a revision to the existing downstream channel to increase its capacity from 400 cfs to 460 cfs, which reduced the required basin volume, and allowed the incorporation of two soccer fields at the site. Completed the on-site drainage facility design, East Garden Grove-Wintersburg Channel (County Facility No. C05) triple box inlet drain (double 11.5' W x 6' H RCB and single 9' W x 6' H); and modifications to the outlet channel, and provided engineering services during construction.

- **Myra In-line Detention Basin and Storm Water Pump Station No. 2 for the City of Cypress (2012)** – Lead Drainage Engineer responsible for formulating and evaluating alternative projects to eliminate the condition and capacity deficiencies; preparation of a preliminary design report; final design; and engineering during construction services for the project consisting of 1,351 feet of 14' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Moody Street and Denni Street south of Carbon Creek Channel; improvements to the existing pump station wet well, a new superstructure to house the new 33 cfs axial flow pumps to provide expected value 100-year flood protection to the tributary area.

- **Myra Avenue Storm Water Pump Station No. 1 Preliminary Design Report for the City of Cypress (2008)** – Lead Drainage Design Engineer responsible for formulating and evaluating three alternatives to provide adequate capacity (increase from 90 to 128 cfs); and improve hydraulic and condition deficiencies for the pump station that serves an 86 acre tributary area in sump condition; preparation of a preliminary design report; and recommending a project for implementation. The alternatives evaluated consisted of purchasing property adjacent to the existing pump station and constructing a new station (recommended alternative); constructing a new pump station at the school property on the south side of Myra Avenue; and constructing an in-line detention basin along Myra Avenue, and upgrading the existing pump station.

- **West End Storm Water Pump Station for the City of Seal Beach (2008)** – Lead Drainage Engineer responsible for preliminary design studies developing and evaluating six alternatives and recommending a project for implementation to provide expected value 100-year flood protection to the 170 acre tributary area adjacent to San Gabriel River. The recommended project was an adjacent parallel pump station, and a parallel influent storm drain to convey the peak 100-year expected value runoff to the facility.

- **Aloe (Zoe Avenue) Stormwater Pump Station for the Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (2002)** – Lead Drainage Design Engineer responsible for preparation of preliminary design studies, final contract documents, and construction support services for the facility which provided peak design flow retarding capacity in the wet well, and a 54 cfs capacity stormwater pump station with 4-27 cfs capacity, VFD operated pumps, a flow splitting structure to convey the discharge to two separate systems; and influent an outlet storm drains.
- **Alagundo Drain and in-line Detention Basin for the Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (2001)** – Lead Drainage Design Engineer responsible for the preparation of a preliminary design report and final plans, specifications and estimates for a by-pass storm drain in Alameda Street and El Segundo Boulevard to convey the peak flow from a 2-year storm to Glen Avenue Drain, and a 700 ft long, 13 ft wide and 7 ft high in-line detention basin in El Segundo Boulevard to reduce the peak flow from a 25-year storm to the capacity of Glen Avenue Drain in Compton and Los Angeles County.
- **Electric Avenue Storm Drain for the City of Seal Beach (2011) –** Project Engineer responsible for design of 1,150 feet of the 66-inch relief drain and laterals to provide expected value 100-year protection to the easterly portion of Old Town draining to the Orange County Flood Control District's Seal Beach Stormwater Pump Station.
- **Deficiency Study of Orange County Flood Control District Regional Facilities (2011)** – Project Engineer responsible for the preparation and reviewing of county's regional channel inventory list (267 miles), determination of existing channel capacity, reviewing the County's hydrologic data, identifying the deficient reaches, formulating planning level projects to eliminate the deficiencies, and estimating project costs for improving the deficient reaches.
- **Flomar Drive Storm Drain for the City of Whittier (2008)** – Project Engineer responsible for the preparation of hydrologic and hydraulic studies to provide Capital Flood protection to a 68 acre tributary area in sump conditions; formulating and evaluating alternatives; and final plans, specifications, and estimates for the project consisting of 1,575 feet of facilities varying in size from 6' W x 3.5' H reinforced concrete box at the downstream end of the project to 24-inch reinforced concrete pipe at the upstream end. The project included relocating a private garage to provide space for the new box culvert drain.
- **Master Plan of Drainage for the City of Seal Beach (2008)** – Project Engineer responsible for preparation the City's first Master Plan of Drainage in 1999, and subsequent update in 2008. The 2008 update utilized a detailed topographic map of the City for delineation of drainage areas and sub-areas; updated the criteria; included the improvements implemented since the 1990 Master Plan; conducted detailed hydrologic studies to develop design discharges; hydraulic analyses to determine replacement and relief facilities; and a prioritized capital improvement program.
- **Various On-Call Service Projects for Orange County Public Works (2008)** – Project Engineer responsible for plan checking of Trabuco Creek Fish Ladder Project, Great Park hydrology studies, and San Juan Creek Stream Bank Revetment for PA-1 Project, which included the reviewing of hydrologic studies, conceptual planning, preliminary channel design plans, and floodplain analysis.
- **Project No. 9921 Drain Relocation for the Alameda Corridor Transportation Authority/Los Angeles County Department of Public Works (2001)** – Lead Engineer responsible for alternatives evaluation and design of relocation the existing 6'-9" W x 8'-0" H box culvert with a 7'-9" W x 9'-0" H reinforced concrete box between Santa Fe Avenue and Los Angeles River to provide Capital Flood Protection to the tributary watershed which became a sump with the Corridor improvements.
- **Hydraulic Study of Dominguez Channel from Los Angeles Harbor to Main Street in Carson for Alameda Corridor Transportation Authority** (1999) – Lead Drainage Engineer responsible for field verifying and updating as-constructed channel conditions, hydraulic analysis of the pre-project and post-project conditions with the Capital Flood peak discharge, providing bridge pier recommendations for the new Corridor bridges to maintain the desired water surface elevation at Main Street, and completion of the final project report.

Mr. Jon Nitta, P.E.

Role: *Project Engineer – Pump Station Design, Hydrologic and Hydraulic Studies, Storm Drain Design*

Professional Registration:

Registered Civil Engineer, California [2006] C69987

NASCCO PACP, MACP and LACP Certified [U-1106-4046]

Education:

Bachelor of Science in Civil Engineering - University of California, Los Angeles

Years of Experience: *17*

Years with AKM: *17*

Mr. Nitta has extensive background in water resources engineering including hydrologic and hydraulic studies, drainage facility design, and condition assessment. His background includes four recent drainage master plans, and numerous flood control facility designs. His experience includes:

- **Six Storm Water Pump Station Improvements Project for the City of Long Beach (Current)** – Design Engineer for improvement project designs at the SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21 Storm Water Pump Stations, and preparation of plans, specifications, and estimates for the repair work at each station.

- **Stormwater Master Plan and Management System Update for the City of Long Beach (2018)** – Lead Engineer - City of Long Beach's last stormwater master plan was prepared in 2005. Since then, the City adopted a new General Plan with revised zoning. Additionally, the City conducted a detailed evaluation of its stormwater pump stations (completed by AKM in 2015). Further, AKM conducted a study of the areas in West Long Beach, west of the Los Angeles River, that were designated as Zone A on the Federal Emergency Management Agency 2016 Flood Insurance Rate Maps (FIRM). This study determined Base Flood Elevations in the area, and developed recommended projects to remove the entire area from Zone A designation, as well as their implementation costs. AKM conducted hydrologic and hydraulic studies with the current information, prepared a new capital improvement program with cost estimates, which incorporated the Zone A study and the Stormwater Pump Station Evaluation Study.

- **Storm Water Pump Station Assessment for the City of Long Beach (2015)** – Lead Engineer responsible for conducting field reviews, and evaluation of the condition and capacity of 22 City owned storm water pump stations, development of a capital improvement program, and documenting the study in a report.

- **Deficiency Study for Orange County Flood Control District (2011)** – Staff Engineer responsible for the preparation of a report that included an inventory list, capacity analysis, and construction cost estimates for all of Orange County Flood Control District's (OCFCD) 78 regional storm channels (267 miles), 27 retarding basins, and 8 storm water pump stations. The Deficiency Study is used for the Orange County Public Works Annual Business Plan, as data to supplement the current inventory of flood control facilities, and for the Orange County American Society of Civil Engineers' infrastructure grading report card.
- **Etiwanda Area Master Plan of Drainage Update for the City of Rancho Cucamonga (2009)** - Staff Engineer responsible for updating of the master plan including hydrologic studies, hydraulic analyses to identify the necessary ultimate regional, secondary regional, master plan, and local drainage facilities for the area east of Day Creek, and tributary to Etiwanda and San Sevaine Creeks.
- **Myra Storm Water Pump Station No.1 Preliminary Design Report for the City of Cypress (2008)** - Staff Engineer responsible for conducting hydrologic studies and hydraulic analyses of alternatives to eliminate the capacity deficiency in the existing facility, and formulating a recommended project including a storm water pump station and the tributary storm drain system.
- **Myra Storm Water Pump Station No.s 2 and 3 Preliminary Design Report for the City of Cypress (2008)** - Staff Engineer responsible for the hydrologic studies and hydraulic analyses for evaluating alternatives to eliminate the capacity deficiency in the existing pump stations, and formulating and evaluating two alternatives for consideration by the City. Alternatives included a parallel new pump station, and an in-line detention basin to attenuate the peak flow to the capacity of the existing pump station.
- **Myra Avenue In-line Detention Basin and Storm Water Pump Station No. 3 for the City of Cypress (2015)** – Staff Engineer for final hydrologic studies and hydraulic analysis, and design of improvements consisting of 2,000 feet of 14' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Denni Street and Bloomfield Avenue south of Carbon Creek Channel, improvements to the existing pump station wet

well; two new 30 cfs axial flow pumps with 125 HP VFD operated motors, and a 250 kW natural gas emergency generator to provide expected value 100 year flood protection to the tributary area in sump condition. The project included preparation of specifications for pre-purchasing the pumps, motors, and VFDs to allow completion prior to the next rainy season.

- **Myra Avenue In-line Detention Basin and Storm Water Pump Station No. 2 for the City of Cypress (2012)** – Staff Engineer for final hydrologic studies and hydraulic analysis, and for preparation of final design of the improvements consisting of 1,351 feet of 13' W x 4.5' H reinforced concrete box in-line detention basin in Myra Avenue between Moody Street and Denni Street south of Carbon Creek Channel; improvements to the existing pump station wet well; two new 33 cfs axial flow pumps with 125 HP VFD operated motors, and a 250 kW natural gas emergency generator to provide expected value 100 year flood protection to the tributary area . The project included pre-purchasing the pumps, motors, and VFDs to allow completion prior to the rainy season.
- **Candleberry Storm Drain for the City of Seal Beach (2008)** – Staff Engineer responsible for design of 425 feet of single 10' (w) x 3' (h); 134 feet of single 7' (w) x 2'-3" (h) RCB relief drain and laterals to provide expected value 100-year protection to a portion of College Park East area which drains to Old Ranch Golf Course. The project also included relocation and improvements of sewer system.
- **Master Plan of Drainage for the City of Seal Beach (2008)** – Staff Engineer for the preparation the City's Master Plan of Drainage Update in 2008, including system inventory and GIS, hydrologic and hydraulic analyses (WSPG), development of replacement and relief facilities as well as upstream extensions to meet criteria, prioritization, cost estimate development and report preparation.
- **Master Plan of Drainage Update for the City of Cypress (2007)** – Staff Engineer for the preparation of the update to the 1996 Master Plan of Drainage, including establishment of criteria, system inventory and GIS, hydrologic and hydraulic analyses (WSPG) formulation of replacement and relief facilities, as well as system extensions to meet criteria; prioritization; cost estimates; and report preparation.
- **Master Plan of Drainage for the City of Inglewood (2007)** - Lead Hydrology Engineer for the preparation the Master Plan of Drainage for the 10 square mile drainage area including hydrologic studies to develop design discharges utilizing MODRAT, and hydraulic analyses using WSPG.
- **Electric Avenue Storm Drain for the City of Seal Beach** – Staff Engineer responsible for detailed hydrologic studies, hydraulic analyses, and design of the 66" relief drain and laterals to provide expected value 100-year protection to a portion of Old Town draining to the Seal Beach Pump Station.
- **Flomar Drain for the City of Whittier/USACE (2006)** – Staff Engineer responsible for the coordination with LACDPW and US Army Corps, and design of 1,575 feet of 6' (w) x 3.5' (h) reinforced concrete box. This project was funded and administered by the US Army Corp of Engineers.

Mr. Jared Lee, P.E.

Role: *Project Engineer*

Professional Registration

Registered Civil Engineer, California 2007 (C71422)

Education

Bachelor of Science in Mechanical Engineering University of California, Los Angeles, California

Years of Experience: *17*

Years with AKM: *17*

Mr. Lee is a Senior Engineer with AKM Consulting Engineers. His previous experience encompasses a range of water resources and drainage projects and assignments related to hydraulics and hydrology, as well as detailed design, including preparation of plans, specifications and cost estimates. Illustrative of Mr. Lee's experience includes:

- **Walnut Storm Water Pump Station for the City of Fountain Valley (2019)**– Project Engineer responsible for the preparation of a preliminary design study evaluating the condition and capacity of the pump station; as well as final plans, specifications and estimates for upgrading of a 360 cfs capacity stormwater pump station. The project included a detailed hydrologic study of the tributary watershed for verification of the design flows; refurbishment of four (4) 90 cfs axial flow pumps; installation of three (3) 250 HP natural gas/LPG engines and right-angle gear drives; a 500 gpm sump pump; new electrical switchgear and controls; new telemetry system; roof replacement; architectural enhancements to the building; and an urban run-off diversion system.

- **Sandalwood Storm Water Pump Station for the City of Fountain Valley (2017)**– Project Engineer responsible for the preparation of a preliminary design study including hydrologic study of the tributary watershed; final plans, specifications and estimates for upgrading of an existing 90 cfs capacity pump station; as well as providing engineering services during construction. The project included replacement of three (3) 30 cfs axial flow pumps, three (3) 100 HP natural gas/LPG engines, a 500 gpm sump pump, telemetry system, an urban run-off diversion system, and structural and architectural improvements to the facility.

- **West End Storm Water Pump Station Audit and Repairs for the City of Seal Beach (2017)** – Staff Engineer for the project consisting of evaluation of the cause of main pump failures, overseeing pump inspections and repairs at Cascade Pump Company factory, recommending improvements at the pump station to minimize trash entry into the forebay and wet well; providing maintenance recommendations for all equipment in the pump station; and documenting the work in the West End Pump Station Audit report.

- **Haster Retarding Basin and Storm Water Pump Station for Orange County Public Works/Flood Control District (2014-Continuing)** – Lead Design Engineer responsible for final design, and engineering services during construction for a 250 acre-foot flow-through retarding basin and a 460 cfs capacity pump station (three 153.4 cfs axial flow pumps driven by 845 HP natural gas/LPG engines) to provide expected value 100-year protection to a 2,000 acre watershed in Anaheim and Garden Grove. The project included two sump pumps (125 HP, 3,000 gpm and 25 HP 500 gpm), urban runoff water quality enhancements, grading to provide space for recreational features including two soccer fields, and providing bidding and construction support services.

- **Haster Retarding Basin and Pump Station Post-Performance Report for the Orange County Resources Development and Management Department (2015-Continuing)** – Project Engineer responsible for preparing a Post-Performance Report that is required by the State of California, Department of Water Resources (DWR). The report specifically addresses tasks identified in the Project's 2012 Project Monitoring Plan hydraulic studies and provides a checklist for all items that need to be monitored annually.

- **Myra Stormwater Pump Station No. 3 for the City of Cypress (2015)** - Staff Engineer responsible for preparation of plans, specifications, and estimates for a storm drain pump station with two 30 cfs axial flow pumps, trash rack and RCB storm drain, electrical equipment housed inside a block building, emergency generator, and appurtenant facilities.

- **Myra Storm Water Pump Station No. 2 for the City of Cypress (2012)** - Staff Engineer responsible for preparation of plans, specifications, and estimates for the project an Myra Avenue between Moody Street and Denni Street south of Carbon Creek Channel; consisting of improvements to the existing pump station wet well, a superstructure to house the new pumps and electrical equipment; two 33 cfs axial flow pumps with 125 HP

VFD operated motors, a 250 kW natural gas emergency generator, and SCADA control system to provide expected value 100 year flood protection to the tributary area . The project included pre-purchasing the pumps, motors, and VFDs to allow completion prior to the rainy season.

- **West End Storm Water Pump Station for the City of Seal Beach (2008)** – Project Engineer responsible for preliminary design studies developing and evaluating six alternatives, preparation of final contract documents, and complete construction inspection and management services for improvements to an existing pump station that had less than 5- year protection capacity. The project included a bypass pumping system; implemented improvements to the existing sump structure; installed two new 100 cfs axial flow pumps operated by 350 HP VFDs, which improved the flood protection to the 170 acre tributary area adjacent to the San Gabriel River levee; a new 3.5 cfs sump pump; a superstructure to house the motors and electrical equipment; replaced portions of the discharge pipes with larger pipes; and provided a back-up 350 kW natural gas engine generator to operate the facility during commercial power outages.
- **City Yard Drainage, Sewer Diversion Project for the City of Redondo Beach (2015) –** Project Engineer responsible for preparation of plans, specifications, and estimates for construction of a new 120 gpm pump station. The work includes installation of a new wet well, clarifier, motor operated plug valve deactivated by a rain gauge, and asphalt repaving.
- **Rehabilitation of Reservoir No. 1 Booster Pump Station for the City of Fountain Valley (2013)** – Lead Design Engineer for the project which consisted of replacement of an existing aged and inefficient booster pump station with one natural gas engine and two electric motor driven pumps, pumping into a closed system, with a new pump station with four 1900 gpm pumps to provide greater operational flexibility for the system with multiple wells and a second booster pump station pumping into the system.
- **Beverly Manor Booster Pump Station for the City of Seal Beach(2019)** – Lead Design Engineer for preparation of plans, specifications and estimates for the replacement of three (3) natural gas engines with three (3) electric motors; upgrade chlorine system with 200 lb/day on-site hypochlorite generating system; replacement of metal storage building with new block building; and installation of electrical upgrades.
- **Torrance Booster Pump Station for the West Basin Municipal Water District (2012)** – Staff Engineer for preparation of plans, specifications and estimates for a new pump station building featuring three (3) 350 gpm vertical turbine pumps and two (2) 150 gpm jockey pumps. Pump station includes a new sodium hypochlorite system, a new block building, and installation of electrical equipment.
- **Camino Real Booster Pump Station for the City of Arcadia (2009)** – Staff Engineer responsible for preparation of plans, specifications and estimates for a pump station with three (3) 2500 gpm pumps, emergency generator, and appurtenant facilities which will replace two (2) existing booster pumping facilities.
- **Well No. 12 for the City of Santa Fe Springs (2013)** – Lead Design Engineer for preparation of a preliminary design report; and plans, specifications, and estimates for the equipping of the well, a 100 lb/day on-site chlorine generation system, well building, and site improvements.

Mr. Darrik Baker, PE
Role: *Project Engineer*
Professional Registration
Registered Civil Engineer, California 2017 (C87498)
Education
Master of Science in Environmental Engineering, University of California Irvine; Bachelor of Science in Environmental Engineering, University of California Irvine
Years of Experience: *4*
Years with AKM: *4*

Mr. Baker is an Associate Engineer for AKM Consulting Engineers. His previous experience encompasses a range of water resources projects including preparation of plans, specifications and cost estimates. Illustrative of Mr. Baker's experience includes:

- **Six Storm Water Pump Station Improvements Project for the City of Long Beach (Current)** – Design Engineer responsible for conducting field reviews and design of improvements at the SD-05, SD-09, SD-10, SD-11, SD-17, and SD-21 Storm Water Pump Stations, and preparation of plans, specifications, and estimates for the repair work at each station.

- **Torrance Circle Diversion and Infiltration Project for the City of Redondo Beach (2019)** – Design Engineer responsible for the preparation of plans, specifications, and cost estimates for the design of a stormwater infiltration basin and stormwater trash collection system. This project took low-flows generated by the Torrance Circle watershed (118 ac) and diverted water from a 36-inch RCP storm drain to be percolated in Veteran's Park. TMDL flows are treated further downstream by an Aqua-Shield treatment unit.

- **Linda Vista Complex Pump Station Improvements Phase 2 for the City of Anaheim (2019)** – Design Engineer responsible for the preparation of plans for the design and construction of an upgrade to a multi-zone potable water pump station. The project generally included the replacement of five 400-zone pumps and six 555-zone pumps, new VFD's and motor control center's housed in a new electrical building, new electrical feed system (12 kV downgraded to 480V) upgraded surge tanks and piping, and other miscellaneous improvement. The portion of the work Mr. Baker contributed to included site perimeter CMU wall modifications, fencing screening, minor site demolition, suction pipe trench gallery hatch improvements, and surge tank and piping upgrades for each discharge zone.

- **Simon Ranch Booster Pump Station and Pipeline for the City of Tustin (2019)** – Design Engineer responsible for the preparation of a preliminary design report, plans, and specifications for the construction of a new underground 1,700 gpm water booster station to replace an existing facility which was in poor condition and had insufficient capacity. This project also consisted of approximately 4,100 LF of Zone 1 and Zone 3 pipelines, ranging from 8" up to 16", to greatly enhance fire protection. AKM also assisted the City with the identification of easement requirements and prepared traffic control plans for the work.

- **Reeves Booster Pump Station for the City of San Clemente (2018)** – Design Engineer responsible for the preparation of plans and specifications for the construction of a new 2,500 gpm water booster station to provide additional head at a Local Transmission Main (LTM) turnout when system pressures were inadequate to fill the nearest reservoir. This project included vertical turbine pumps with variable frequency drives, indoor check valve and metering facilities, a surge anticipator valve, and provisions for bypassing the pump station with a temporary diesel pump.

- **Reata Booster Pump Station for the City of San Clemente (2018)** – Design Engineer responsible for the preparation of plans and specifications for the construction of a 1,700 gpm water booster station to replace an existing facility which was in poor condition and had insufficient capacity. This project included vertical turbine pumps, discharge and backfeed metering facilities, a surge anticipator valve, a continuous water quality analyzer for the on-site reservoir, and provisions for bypassing the pump station with a temporary diesel pump.

- **Blanco Booster Pump Station for the City of San Clemente (2018)** – Design Engineer responsible for the preparation of plans and specifications for the construction of a 1,500 gpm water booster station to replace an existing facility which was in poor condition and had insufficient capacity. This project included vertical turbine pumps, discharge and backfeed metering facilities, and a surge anticipator valve, and provisions for bypassing the pump station with a temporary diesel pump.

- **City Parking Structure Drainage Rehabilitation for the City of Chino Hills (2018)** – Design Engineer

responsible for the preparation of plans and cost estimates for the design of a stormwater diversion system at the City Hall's parking structure. This project included two diversion speed bumps and catch basins on the top deck, which collected 97% of the surface flow and diverted it down the side of the parking structure through an 8-inch wall-mounted PVC pipe, ultimately discharging into a nearby storm drain catch basin. Additionally, the duplex sump pump system in the basement level was replaced as a further redundancy to prevent flooding in the parking structure.

- **AES Sewer Design Revision 1 project for Alamitos Energy, LLC (2017)** – Design Engineer responsible for the preparation of plans for the design of an industrial process water forcemain across the Studebaker Bridge and Loynes Bridge in the City of Long Beach. This project included approx. 400-LF of 4-inch stainless steel forcemain pipe and 12-inch galvanized steel casing pipe structurally supported across two bridges over the Los Cerritos Channel. This bridge crossing design was a portion of a larger project encompassing a total of 2,500-LF of on-site and off-site pipeline work which ultimately discharges into the City of Long Beach sewer system. Engineering construction support was also provided, and included review of shop drawing submittals and addressing RFI's for the forcemain and sewer pump stations.
- **Butterfield Forcemain Relocation at Pine Avenue and Chino Creek for the City of Chino Hills (2015)** – Design Engineer responsible for the preparation of plans, specifications, and cost estimates for lowering the 10-inch, concrete encased, forcemain below Chino Creek (under 96-inch culverts) inside a steel casing jacked and bored under the triple 96-inch culverts.
- **Installation of Maintenance Access Structures and Replacement of Isolation Valve at the Groundwater Recovery Facility for South Coast Water District (2016)** – Design Engineer responsible for the preparation of plans, specifications, and cost estimates for a new manhole access structure constructed on-site over an existing 18-inch outfall pipe. To provide further increase the ease for cleaning and maintenance, a vault structure was constructed off-site over the connection between the 18" GRF outfall and the 42" Chiquita Land Outfall.

Mr. Emin Kayiran, CPII
Role: *QA/QC, Constructability Review*
Professional Registration
APWA – Certified Public Infrastructure Inspector
Education
B.S. in Business Administration; Finance and Entrepreneurship, University of Arizona, Tucson; Civil Engineering Studies, Civil Engineering/ Construction Management, Cal State University, Long Beach
Years Experience: *15*
Years with AKM: *15*

Mr. Emin Kayiran, CPII, is the Director of Construction Management Services with AKM. He has over 15 years of responsible experience in the inspection and construction management of pump stations and pumping facilities, pipelines, treatment facilities, forcemains, complex reinforced concrete structures including, concrete tanks within treatment facilities, sumps, wet wells and valve vaults, sheet piling, deep excavations, ground remediation, dewatering, shut-downs, tie-ins, commissioning and testing, installation of emergency power generators and automatic transfer switches, electrical and control systems for water resources facilities, as well as special protective linings and coatings. Mr. Kayiran also possesses a wealth of experience in managing, coordinating and overseeing materials testing, and special inspections during the construction of water resources facilities. Several of the Mr. Kayiran's completed projects involved close coordination amongst the project owner, their operations staff, outside stakeholders and the Contractor in order to achieve varying project objectives within constrained project sites and scheduling timeframes.

Mr. Kayiran recently served as a Subject Matter Expert for the American Public Works Association in support of an overhaul of their public infrastructure inspection training and certification material. During this effort, he co-authored a new training module on the inspection of pumping and treatment facilities for inclusion in the updated manual which was published in 2019. Mr. Kayiran wrote an article regarding construction inspection entitled "CPII as a standard of practice" which was published in the September 2014 edition of APWA Reporter. He was recently a co-presenter and speaker for "De-mystifying Risk" an Engineering News Record webinar.

Additionally, Mr. Kayiran has provided claims management, cost control, change order preparation, change order negotiation, warrantee inspections, schedule review and analysis, warrantee work coordination with contractors and constructability review services to special districts and municipal agencies. He is trained in schedule and delay analysis including Primavera P6. His experience includes:

- **Myra 3 In-Line Detention Basin, Storm Drain, and Sewer Improvements for the City of Cypress (2017)** - Construction Manager for the project which consisted of removal and reconstruction of sewers, cleaning and relining of existing sewers, constructing approximately 2000 feet of 13' (W) x 4.5' (H) reinforced concrete box on Myra Avenue as well as a lateral storm drain system on intersecting side streets; and reconstructing full sections of street pavement on Myra Avenue between Bloomfield Street and Denni Street; removal and replacement of curb, gutter, cross gutter, and spandrels at eleven (11) intersections; curb-ramps with detectable warning surface, and grinding 2 inches of AC pavement and recapping of full street width along streets within the tract that the project was constructed.
- **Imperial Headgates and Weir Pond Project for Orange County Water District (2017) –** Construction Manager and Resident Engineer – Emin Kayiran provided construction management and field engineering for the Imperial Headgates and Weir Pond Rehabilitation Project. The project include the following: supply and installation of a new trash rack and monorail gripper system for river debris removal; removal and replacement of electrical conduits and panels inside the Control Building; removal and replacement of Control Building and Generator Building roofs, access hatches, and ventilation fans; replacement of three (3) 54-inch square cast-iron slide gates and five (5) electrical actuators; installation of two Doppler flow meters in the Bypass Conduits; integration of new signals from cleaning system and flow meters to existing SCADA system; construction of concrete retaining walls and slab in support of new monorail and gripper trash racks cleaning system; demolition of existing flume structure, Weir No. 1 and drain pipe slide gate and structure, and existing Weir No. 2 and drain pipe slide gate and structure; construction of new flume structure and related pressure transducer system, new Weir No. 1 with new drain slide gate and structure, new sharp crested Weir No. 2 with new drain slide gate and structure, and related pressure transducer system; regrading of existing Weir Ponds 1 and 2; and testing, training and startup.

- **Myra Storm Water Pump Station No. 3 for the City of Cypress (2016)** - Constructability Review of the design work, and Construction Manager for the project which involved the reconstruction of an existing pump station including demolition of the existing inlet pipeline and on site facilities, construction of a new 4.5-foot by 4.5-foot reinforced concrete box pump station inlet line, a new reinforced concrete trash rack structure, reinforced concrete transition and junction structures, removal of the existing pump station equipment and the installation of a temporary bypass pumping system, removal and reconstruction of the existing pump station top slab; new sections of 30-inch fusion bonded epoxy lined and coated steel discharge piping; a reinforced concrete masonry unit (CMU) block and stucco coated pump station superstructure; new reinforced concrete generator pad and 250 KW emergency generator; new switchboard and SCE service transformer; motor control center, pump station control panel and integration with the City's existing SCADA system, two (2) City furnished variable frequency drives and two (2) City furnished 13,500 GPM pumps; witnessing the testing of the pumps; testing, startup and operator training. The project site was on a 29 foot wide lot between two houses, and required sheet pile shoring, dewatering, and a settlement and inclinometer monitoring program.
- **Myra Storm Water Pump Station No. 2 for the City of Cypress (2013)** – Constructability Review of the design work and Construction Manager for the project which involved the reconstruction of an existing pump station including demolition of the existing inlet pipeline and on site facilities, a new reinforced concrete trash rack structure, reinforced concrete transition and junction structures, removal of the existing pump station equipment and the installation of a temporary bypass pumping system, removal and reconstruction of the existing pump station top slab; new sections of 30-inch fusion bonded epoxy lined and coated steel discharge piping; a reinforced concrete masonry unit (CMU) block and stucco coated pump station superstructure; new reinforced concrete generator pad and 250 KW emergency generator; new switchboard and SCE service transformer; motor control center, pump station control panel and integration with the City's existing SCADA system, two (2) City furnished variable frequency drives and two (2) City furnished 14,800 GPM pumps; witnessing the testing of the pumps; testing, startup and operator training. The project site was on a 30 foot wide lot between two houses, and required sheet pile shoring, dewatering, and a settlement and inclinometer monitoring program.
- **Myra Avenue In-Line Detention Basin No. 2 for the City of Cypress (2014)** – Construction Manager and Resident Engineer during the construction of the Myra Avenue Storm Drain (SD2) project. The Project consists of three (3) major construction tasks. The first task entails the removal and reconstruction of existing 8-inch VCP gravity sewer lines which will tie into existing manholes on Myra Avenue, recoating of three (3) existing manholes with an epoxy/polyurethane coating, construction of one (1) new manhole and the construction of concrete encasements around existing VCP sewer lines. The sewer work is necessary in order to install the proposed detention basin. The second task entails construction of approximately 1,351 linear feet of a 14-foot wide by 4.5-foot high precast reinforced concrete box to serve as an inline detention basin for a recently reconstructed stormwater pump station, construction of reinforced concrete pipe tributary lines, associated manholes, associated junction structures, reconstruction of cross gutters, and ten (10) new concrete catch basin structures. The third task involves reconstruction of the asphalt concrete paving on Myra Avenue between Moody and Denni including the construction of curb ramps with detectable warning surfaces. In addition, the construction contract requires the installation of supplemental supervisory control and data acquisition (SCADA) equipment at the City of Cypress City Hall Public Works area. The project required a continuous dewatering system as well as settlement monitoring program during dewatering and excavation.
- **Inspection Services for Storm Drain Improvements at Valley View Street for the City of Cypress (2013)** – Project Resident Engineer during the construction of approximately 450-linear of 24-inch reinforced concrete pipe, construction of two (2) new catch basins, a new storm drain manhole along the new alignment, a junction structure, a reinforced concrete box section to avoid a SCE duct bank, replacement of 300 linear feet of 8-inch vitrified clay pipe with 10-inch vitrified clay pipe, re-channelizing two (2) existing manholes, asphalt paving repair and sidewalk, curb and gutter replacement.
- **West End Storm Water Pump Station for the City of Seal Beach (2008)** – Resident Engineer for upgrade of the existing storm water pump station, doubling its capacity; demolition of portions of existing facility; structural modifications to the existing sump; installation of two 350-hp, 45,000-gpm VFD operated pumps, construction of a bypass system maintained during the removal and replacement of the existing pumps; new electrical, controls, integration of a new telemetry panel with the existing SCADA system, and switchgear; new building to house the equipment; and yard paving.

Mr. Quang Nguyen, P.E., CEM, LEED AP, MBA

Q3 Inc. Engineers

Role: *Electrical Engienering*

Professional Registration:

RCE CA (15709); AZ, AR, CO, FL, HI, ID, IL, MT, NV, TX, TN, WI, WA, VA; California Contractos License 980871; Washington EIT 18062; Certified Energy Manager; NCEES 18897

Education:

MBA – USC Marshall School of Business; B.S. EE – University of California Irvine

Years of Experience: *26+*

Mr. Nguyen has 26 years of project, construction management and engineering design experience in energy projects, fast track/design-build projects and national roll out projects for restaurants, telecommunication facilities, (POP sites, switch centers, data centers, call centers,) office facilities, retail, hospitals, military facilities.

INDUSTRIAL

- Eastside Water Treatment Plant – Chino CA
- Lewis Regional Park Storm Water Pump Station – Chino CA
- City of Fountain Valley Reservoir #1 – Pump Station Replacement
- City of Garden Grove New Well #31
- Domestic Water Interconnection Project, Irvine Ranch Water District – Irvine CA
- Weymouth Filtration Plant- Oxidation Retrofit Project, Domestic Water Interconnection Project, San Dimas, CA
- Lift Station #16596, City of Chino, Chino Hills, CA
- City of Colton Pump Station, City of Colton, Colton, CA
- State College Blvd. Storm Water Pump Station, City of Fullerton, Fullerton, CA
- Jensen Filtration Plant- New Thickeners Project, Metropolitan Water District, Granada Hills, CA
- Orange Grove Booster Pumping Station, City of Arcadia, Arcadia, CA
- Water Well #28 and Booster Pumping Station, City of South Gate, City of South Gate, CA
- HB Sewer Stations #26 and #28, City of Huntington Beach, Huntington Beach, CA
- El Estero Waste Water Facility New Booster Pump Project, City of Santa Barbara, Santa Barbara, CA
- Convention Way Monument Sign at Harbor Blvd. Project, City of Anaheim, Anaheim, CA
- Puente Hills Intermodal Facility, LA County Sanitation District, Puente Hills, CA
- Rattlesnake ILP Strainers Replacement Project, Irvine Ranch Water District, Irvine, CA

COGENERATION POWER PLANTS

- Encogen 200MW Cogeneration Power Plant – Bellingham WA
- Coyote Springs 200MW Cogeneration Power Plant – Portland OR

ENERGY

- Hohenfels US Army Garrison Lighting Audit – Germany
- MARFORRES Marines Reserves Training Facilities Lighting Audit – Multiple Cities (US)
- Street Lighting Assessment, City of Compton, Compton, CA
- Street Lighting Assessment, City of El Paso, El Paso, TX

PV SOLAR PROJECTS

- Dandy Cooling PV System – Oxnard, CA
- MTO IT 117kW PV Solar System – Los Angeles, CA
- Sun Lee Inc. 100kW PV Solar System – Hayward, CA
- MXF Design Inc. 40kW PV Solar System – Los Angeles, CA
- Batth Dehydrator Caruethers 537kW PV Solar System
- Magnolia Citrus Porterville 565kW PV Solar System
- Victor Packing – 25kW PV Solar System
- Kermit Koontz Education Complex 100kW PV Solar System, Fresno CA

ENTERPRISE AUTOMATION

Mr. Adam Ekstrand

Enterprise Automation

Role: *Lead Engineer*

Professional Registration:

Citect SCADA Certified Expert, Networking Certified Professional, PlantStruxure Certified Expert, Unity Pro Certified Professional

Education:

B.S. Electrical Engineering – Cal Poly Pomona

Years of Experience: *26+*

Mr. Ekstrand is a Fifth year lead engineer with experience in industrial automation and controls concentrated on water and wastewater, including specialization in network architecture, PLC programming, advanced SCADA programming, SCADA standards development, virtualization, functional specification development, critical process cutover planning, field inspections, SCADA preventative maintenance, and project execution planning.

• **Rancho California Water District Distribution System SCADA Upgrade** Lead Engineer on a contract that upgraded RCWD's water distribution SCADA system. The system upgrade involved replacing the legacy RSView32 system, MSSQL based zone optimization engine, and multiple Kepware communication drivers, with a virtualized Microsoft Domain based redundant CitectSCADA system. The new system replaced several driver variations with Modbus gateways over 900MHz radios to over 140 remote sites. Responsibilities included project team technical oversight, tag database conversion, cutover workshops, quality assurance, and lead programming for zone based pump energy optimization engine.

• **Rancho California Water District Water Recycling Facility Controls Platform Upgrade** Lead Engineer for platform upgrade implementation which included consolidating 8 computers and 25 network devices into enterprise class servers running virtualized computers with VMWare. Platform includes redundant InTouch 7.0 servers, thin clients, firewall for remote access, and UPS backup power. Network backbone replacement included redundant industrial managed switches, redundant power supplies, and redundant fiber optic ring install with self-healing configurations for SCADA communications with 10 redundant GE PLCs. Plant processes remained online and were not impacted at any phase of cutovers.

- **Sweetwater Authority Desalination Facility Controls Upgrade** - Lead Engineer for upgrade and expansion of complete control system for a groundwater desalination facility that was upgraded from 4MGD to 10MGD capacity. The plant required controls for 11 wells, 9 chemical injection systems, 6 reverse osmosis trains, 2 iron and manganese removal trains, 2 pumping stations and various miscellaneous systems. Project scope included function specifications for all plant equipment, design of fiber optic, coaxial and radio communication networks, design of 10 PLC I/O panels and 21 VFD panels. Configuration and testing activities included Unity Pro PLC programming for 12 PLCs, Citect SCADA screen development, as well as plant startup and commissioning services.

- **McCommas Bluff Landfill Landfill Gas Processing** - PLC panel designer for 8 Allen Bradley remote I/O panels for a landfill gas processing plant that removes contaminants from landfill gas prior to supplying it to a natural gas pipeline. The panels were located in a class 1 division 2 hazardous environment and required the use of intrinsic barriers for the I/O and a positive pressure system for the enclosure.

- **Sweetwater Authority Hydroelectric Station** - Lead engineer for design support and programming to install a hydroelectric station between a water distribution pipeline and a water treatment plant providing the required pressure reduction and offsetting the plant's energy costs. The project included coordination with the station design team to develop the detailed control strategy that allowed the station to produce power while also satisfying the needs of both the pipeline and the treatment plant. The solution included the design of a new Schneider Electric based PLC panel as well as Unity Pro and CitectSCADA programming.

- **Encina Wastewater Authority Sewage Lift Station** - PLC programmer for a new 8-pump sewage lift station. Allen Bradley PLC programming involved logic for triple redundant wet well level sensors, parallel advanced multi-pump failovers, a wet well cleaning sequence and 4 different modes of pump control including VFD speed control. Control and monitoring of various other auxillary devices was also required including raw sewage grinders, gas detection, vacuum eductors, sump pumps, a foul air treatment system and emergency generator.

EXHIBIT "C"

City's Representative:

Myung Chun, Civil Engineer

Public Works

(562) 570-6206

EXHIBIT "D"

Additional Materials/Information Furnished:

NONE

EXHIBIT "E"

Contractor's Key Employee:

Zeki Kayiran, P.E.
949-753-7333