FINANCE COMMITTEE AGENDA

Tuesday, January 28, 2020
8:30 AM
Executive Conference Room, Level Three
Brea Civic & Cultural Center, 1 Civic Center Circle, Brea, California

MEMBERS: Mayor Marty Simonoff and Council Member Cecilia Hupp
ALTERNATE: Council Member Christine Marick

Materials related to an item on this agenda submitted to the Finance Committee after distribution of the agenda packet are available for public inspection in the third floor lobby of the Civic and Cultural Center at 1 Civic Center Circle, Brea, CA during normal business hours. Such documents may also be available on the City's website subject to staff's ability to post documents before the meeting.

CALL TO ORDER / ROLL CALL

1. Matters from the Audience

CONSENT

2. Approval of Minutes of January 14, 2020 Meeting

Attachments
01-14-2020 FC Minutes

DISCUSSION

3. Use of Fire Impact Fees - Acquisition of Special Department Equipment for Brea Fire Operations

4. Professional Services Agreement with AKM Consulting Engineers for the 2020 Sewer Master Plan and Contract with PipeTec for CCTV of City Sewer Lines

Attachments
Contract

5. Purchasing Activity under Special City Council Authorization for Quarter Ending December 31, 2019

NOTE: This agenda is subject to amendments up to 72 hours prior to the meeting date.

Attachments

01-14-2020 Minutes

6. Schedule Next Meeting: February 11, 2020

cc: Mayor Pro Tem Steven Vargas
Council Member Glenn Parker

Special Accommodations

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at (714) 990-7757. Notification 48 hours prior to the meeting will enable City staff to make reasonable arrangements to ensure accessibility. (28 CFR 35.102.35.104 ADA Title II)

City of Brea

FINANCE COMMITTEE COMMUNICATION

FROM: Bill Gallardo

DATE: 01/28/2020

SUBJECT: Approval of Minutes of January 14, 2020 Meeting

Attachments

01-14-2020 FC Minutes

FINANCE COMMITTEE MINUTES

Tuesday, January 14, 2020
8:30 AM
Executive Conference Room, Level Three
Brea Civic & Cultural Center, 1 Civic Center Circle, Brea, California

CALL TO ORDER / ROLL CALL

ATTENDEES: Mayor Marty Simonoff, Council Member Cecilia Hupp, Chris Emeterio, John Burks, Tony Olmos, Cindy Russell, Faith Madrazo, Michael Ho, Sean Matlock, Jen Colacion, Marie Dao, Linda Tang, Warren Coleman, Neil Groom and Ana Conrique

1. Matters from the Audience – *None.*

CONSENT

2. Approval of Minutes of November 12, 2019 Meeting – *Approved.*

DISCUSSION

3. Professional Services Agreements for Annual As-Needed Construction Materials and Soils Testing Services for Various Capital Improvement Projects – *Recommended for City Council Approval.*

4. Agreement with Linscott Law & Greenspan for City Traffic Engineering Services – *Recommended for City Council Approval.*

5. Construction Contract for Civic Center Security System Improvement Project No. 7954 – *Committee requested staff to clarify the need for the sole-source contract in the staff report. Recommended for City Council Approval.*

6. Approval of the Application for Participation in the Community Development Block Grant Program (CDBG) for Fiscal Years 2020-21, 2021-22 and 2022-23 – *Recommended for City Council Approval.*

7. Patrol Rifle Replacement – *Recommended for City Council Approval.*

8. Schedule Next Meeting: January 28, 2020

Meeting adjourned: 8:34 am

cc: Mayor Pro Tem Steven Vargas
Council Member Christine Marick
Council Member Glenn Parker

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 01/28/2020

SUBJECT: Use of Fire Impact Fees - Acquisition of Special Department Equipment for Brea Fire Operations

RECOMMENDATION

Authorize $443,000 for the acquisition of the following special equipment to better meet the community's expansion and department's increased needs: Rescue ATV Tow Pickup Truck; "Plymovent" Exhaust Removal Systems; Tri-Band Motorola Radios; UAV Drone; AEDs with EKG capability; SCBA voice amplifiers and other equipment. Authorize an additional appropriation of $340,000 from the "Fire Impact Fee" (Fund 542) reserves to "Fire Operations - Special Department Equipment" (Acct# 110-22-2221-4639)

BACKGROUND/DISCUSSION

Over the last several years, the "Fire Impact Fee" account has grown significantly due to extensive City growth and modifications. In addition, the impact fees have not been utilized during that same time frame. The Fire Department has identified several areas where service delivery can be improved by appropriating the funds as they were intended. Those areas are as follows:

1. **Pickup Truck for Rescue ATV towing** - The new rescue ATV has been in service just under one year and is available to respond to our foothills to evaluate and transport patients with medical emergencies in remote areas with challenging access. At the time of implementation, the trailer used to tow the ATV was attached to the only capable truck which was a 2002 utility truck. This truck has exceeded its normal life expectancy, doesn't meet current safety requirements, and is not adequately equipped for the rescue ATV mission. The replacement pickup truck to be purchased will be built specially for this new mission and is anticipated to cost $70,000. We have come to realize the need for $80,000 and are requesting an additional $10,000 be allocated to this project. Total estimated cost - $80,000.

2. **Exhaust Removal Systems -** The Brea fire stations are behind in the industry standard of exhaust removal system technology. Cancer prevention efforts within the fire service industry indicate much risk associated with the carcinogen Benzene which is heavily found in diesel exhaust. Our fire engines produce tremendous amounts of this carcinogen in the enclosed apparatus bays of the station, which can sufficiently be removed by the "Plymovent" exhaust removal systems utilized by the majority of fire departments across the country today.

3. **UAV (Drone)** - Technological advances in public service operational capability have

included the use of drones for aerial reconnaissance during events which threaten the safety of the general public. Fire and police departments alike are rapidly seeing the benefits in drones for command, search and rescue, preplanning and surveillance purposes to reduce risk and provide efficiencies in their public safety duties. The Brea Fire Department intends to be an industry leader in implementing a fully functioning drone program, while also working to collaborate with the Brea Police Department in any drone needs it may also have.

4. **Tri-Band Radios** - Radios currently used by the Brea Fire Department are not operationally competent due to restrictions which prohibit them from communicating on all bandwidths required to communicate with our surrounding agencies. We are obligated to respond with LA County Fire and Orange County Fire Authority regularly to mitigate everything from isolated medical-aid calls to large complex wildfire incidents. In doing so, we must be able to communicate on the 800MHz system, the UHF system and the VHF system. Unfortunately, our apparatus mounted radios only communicate on the 800MHz system and our portable radios only on the 800MHz and VHF system. Considering the number one reason for Firefighter injury and fatality is related to communication issues, it is imperative we address this issue. In order to solve the ongoing communication issues we are experiencing, we will purchase radios capable of communicating with all of our surrounding agencies for the apparatus and company officers in charge of each crew.

5. **EKG Capable AEDs** - (Automated External Defibrillator) Our Fireline Paramedics are responsible for the advanced life support care of Fire Department members when they are in the remote areas of wildland fire operations. Wildfire incidents take place in the vast areas of terrain that are highly inaccessible at times to vehicle or even aircraft. Fireline Paramedics are assigned to oversee certain geographical areas where crews may be working. In the event that a medical emergency may take place with any of the Firefighters, Fireline Paramedics are the first and possibly only line of defense for life saving measures. Due to the remote areas they work in, Fireline Paramedics must carry all of their equipment in packs on their bodies. Smaller, reduced size and weight equipment is a must. In order to treat emergency cardiac events, Fireline Paramedics need to not only deliver electrical shocks to a patient's heart, but also view the underlying cardiac rhythms which may be causing the life threatening event. These small, lightweight devices are capable of delivering the necessary electricity required for cardioversion and also offer the capability of the Fireline Paramedic to view the heart's rhythm at the time of incident in the remote area.

SUMMARY/FISCAL IMPACT

In order to meet the community's expansion and department's increased needs, it is recommended that Fire Impact Fees collected in order to meet the increased needs of the community be used to acquire special equipment for the Brea Fire Operations at a cost of $443,000.

As of June 30, 2019, funds available in the Fire Impact Fee Fund (Fund 542) are $573,995. The FY 2019-20 Adopted Budget for this fund already includes $103,000 for the acquisition of the Rescue ATV Two Pickup Truck ($70,000), SCBA Voice Amplifiers ($25,000) and other equipment ($8,000). In order to fund the additional cost of the Pickup Truck, and the other recommended special equipment, an appropriation of $340,000 from the Fire Impact Fee Fund (Fund 542) reserve is required. The remaining funds available are $130,995. There is no impact the the City's General Fund.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Chris Nigg, Fire Division Chief
Concurrence: Adam Loeser, Fire Chief

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 01/28/2020

SUBJECT: Professional Services Agreement with AKM Consulting Engineers for the 2020 Sewer Master Plan and Contract with PipeTec for CCTV of City Sewer Lines

RECOMMENDATION

1. Approve a Professional Services Agreement (PSA) between the City of Brea and AKM Consulting Engineers for $373,069 to provide the 2020 Sewer Master Plan Update;
2. Receive Bids;
3. Award bid to PipeTec for $514,824.60 to Clean and CCTV the City Sewer Lines; and
4. Authorize the City Manager or his designee to issue Change Orders up to a "not-to-exceed" amount of 10% of the Contract Price

BACKGROUND/DISCUSSION

The City of Brea provides wastewater collection services to the entire area within its boundaries, as well as unincorporated Orange County and a small portion of Placentia for approximately 14,555 acres. The City's existing wastewater collection is made up of a network of gravity sewers and force mains of over one hundred fourteen (114) miles of varying pipe sizes of 8 inch to 27 inch. The City owns and operates three lift stations.

The overall goals of preparing and implementing a Sewer Master Plan are to evaluate the existing condition of the sewer system; ensure adequate capacity exists to effectively collect and transport sewage generated in the City; and to identify and plan for needed capital improvements to the system. The plan also helps to ensure that the City remains compliant with new and constantly changing State regulations related to sewer system management.

The City's existing Sewer Master Plan and Sanitary Sewer Management Plan were last updated in 2005. At that time, the plan identified over $27 million in needed capital improvements to the system. The improvements include pipe upsizing to increase collection capacity; improvements and repairs to existing pipelines; and lift station improvement projects. Over the years, the City has completed many capital projects that were identified in the 2005 Master Plan along with other areas that surfaced.

Almost 15 years have passed since the Sewer Master Plan was last updated and projects included in that update have since been completed. Moreover, existing sewer infrastructure not rehabilitated as part of the previous plan is now 15 years older. Additionally, new private development projects have been constructed since the last Sewer Master Plan was adopted and their future impacts to the sewer system's capacity and flow as a whole must be evaluated.

The purpose of the proposed 2020 Sewer Master Plan update is to re-evaluate the entire system and to identify capital improvements, if needed, to the system for the next ten years, as well as update regulatory documents as required by the State. The main tasks to be completed as part of this scope of work include:

- Update Sewer Collection System Capacity Analysis;
- Perform a condition assessment of our sewer system;
- Develop a list of prioritized capital improvements for the system;
- Conduct Sewer System Management Plan Audit as required by State regulation; and
- Update the City's Sanitary Sewer Overflow Emergency Response Plan to ensure compliance with existing State regulations

Proposals for these services were requested from nine (9) engineering firms in June of this year with only one proposal being submitted by AKM Consulting Engineers (AKM). Given the limited turnout for proposals, staff reached out to each company to verify why the companies did not submit a proposal. Following are their responses:

Company	RFP Results	Notes/Comments
AKM Consulting Engineers	Submitted by deadline	
Dudek	Declined	Did Not Have Resources
Civiltec	Declined	Did Not Have Resources
VA Consulting	Did Not Submit	No Reason Given
Arcadis	Did Not Submit	No Reason Given
Harris & Associates	Did Not Submit	No Reason Given
Carollo	Declined	Personnel Unavailable
Psomas	Did Not Submit	No Reason Given
RMC	Declined	Personnel Unavailable

Firms cited both existing workloads and prior commitments and insufficient resources to assist the City with the magnitude of the project as reasons they did not submit proposals to the City. AKM prepared the City's previous Sewer Master Plan in 2005 and has a high level of familiarity with the City's sewer collection system. AKM has also provided engineering design services for numerous City Capital Improvement Projects. AKM specializes in the preparation of master plans of this nature and has completed similar plans for numerous public agencies. AKM submitted a cost proposal totaling $373,069 to provide the services noted previously. This cost includes preparation of the Master Plan; updating the City sewer database/inventory; installing sewer flow monitors; contingency; and updating the City's Sewer Auditing report that is required every two years. Staff have reviewed AKM's proposal and the cost is in line with this type of work. Any contingency that is not used in AKM's proposal will not be billed to the City.

To complete the study, the sewer lines require Closed Circuit Television (CCTV) to adequately determine the integrity of the line. The City has over 100 miles of sewer lines which will require CCTV. The last time the sewer lines were CCTV was in 1999, over 20

years ago. To prepare a Sewer Master Plan, the sewer lines must be CCTV to determine any defects, intrusions and or broken material. CCTV is the only way that this can be effectively evaluated. Staff prepared a bid package for over 100 miles of the City's sewer lines to be cleaned and CCTV by a contractor. The bid package was publicly advertised with a bid opening date of January 2, 2020.

On January 2, 2020, eight bids were received with the following results:

1. PipeTec, Inc.	$514,824.60
2.Tunnel Works	$575,392.20
3. Houston & Harris	$650,496.02
4. Empire Pipe Cleaning & Equipment, Inc.	$690,470.64
5. National Plant Services, Inc.	$805,549.08
6. Pro Pipe Professional Pipe Services	$884,286.96
7. Nor-Cal Pipeline Services	$896,400.48
8. DownStream Services, Inc	$1,011,478.92

The lowest responsive bidder was PipeTec in the amount of $514,824.60. Staff has reviewed the bids and this is within the Engineer's estimate.

The cost to prepare the master plan update totals $887,893.60, which includes updating the City's Sewer Auditing report to ensure compliance with State regulations.

SUMMARY/FISCAL IMPACT

The cost to prepare the 2020 Sewer Master Plan Update is $887,893.60 which includes the cleaning of the sewer lines, CCTV and updating the City's Sewer Auditing report. Adequate funds from the Sewer Fund in the amount of $1,000,000 have been budgeted within the FY 2019-20 Capital Improvement Program Project #7609 to cover the costs of this project. The last Sewer Master Plan was adopted in 2005 and the City sewer lines were last videoed in 1999. The City's sewer infrastructure needs to be re-evaluated to identify defects, deficiencies and capacity issues. This evaluation will provide a road map and plan for capital projects to replace, repair and/or upsize lines to continue a safe sewer collection system.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Warren Coleman, Sr. Management Analyst
Concurrence: Michael Ho, P.E., Deputy Director of Public Works / City Engineer
Tony Olmos, P.E., Director of Public Works

Attachments

Contract

PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement ("Agreement") is dated _____ for reference purposes and is executed by the City of Brea, a California municipal corporation ("City") and AKM Consulting Engineers, a California Corporation ("Consultant").

R E C I T A L S

A. City has issued a Request for Proposal for the Sewer System Master Plan Update. A full, true and correct copy of such solicitation is attached as Exhibit A.

B. Consultant has submitted a proposal for the performance of such services. A full, true and correct copy of such proposal is attached as Exhibit B.

C. The parties have executed this Agreement to provide for Consultant's performance of such services on City's behalf.

NOW, THEREFORE, the parties agree as follows:

1. Definitions: The following definitions shall apply to the following terms, except where the context of this Agreement otherwise requires:

   (a) Tasks: Professional services as described in Exhibit A including (i) preparation of plans, maps, reports, and documents (collectively, "documents"); and (ii) presentation, both oral and in writing, of such documents to City as required.

   (b) Services: Such professional services as are necessary to be performed by Consultant in order to complete the assigned Tasks.

   (c) Completion of Tasks: The date of completion of all assigned Tasks, including any and all procedures, documents, meetings and oral presentations regarding the completion of Tasks as set forth in Exhibits A.

2. Term: This Agreement is effective as of _____ and shall remain in full force and effect until _____, or unless terminated pursuant to Section 8 below.

3. Consultant Responsibilities:

(a) Consultant shall undertake and complete the assigned Tasks in accordance with Exhibit A and applicable laws, all to the reasonable satisfaction of City.

(b) Consultant shall supply copies of all documents, including all supplemental technical documents, in accordance with Exhibit A. City may thereafter review and forward to Consultant comments regarding such documents and Consultant shall thereafter make such revisions to such documents as are deemed necessary. City shall receive revised documents in such form and in the quantities determined necessary by City.

(c) Consultant shall, at its sole cost and expense, secure and hire such other persons as may, in the opinion of Consultant, be necessary to comply with the terms of this Agreement. In the event any such other persons are retained by Consultant, Consultant warrants that such persons shall be fully qualified to perform the services. Consultant further agrees that no subcontractor shall be retained by Consultant except as may otherwise be set forth in Exhibit B and upon the prior written approval of City.

4. Compensation:

(a) City shall pay Consultant pursuant to the provisions of Exhibit B for services performed pursuant to this Agreement. Such sum(s) shall cover the costs of all staff time and all other direct and indirect costs or fees, including the work of employees and subcontractors to Consultant, except as may otherwise be set forth in Exhibit B.

(b) Payments to Consultant shall be made by City in accordance with the invoices submitted by Consultant, on a monthly basis, and such invoices shall be paid within a reasonable time after receipt by City. All charges shall be in accordance with Consultant's proposal either with respect to hourly rates, time and materials, or lump sum amounts for individual tasks, as approved, in writing, by City.

(c) Consultant agrees that, in no event, shall City be required to pay to Consultant any sum in excess of 95% of the maximum payable hereunder prior to receipt by City of all final documents. Final payment shall be made not later than 60 days after presentation of final documents and acceptance by City.

(d) Additional services: Payments for additional services, requested in writing by City and not included in Consultant's proposal, shall be paid on a reimbursement basis in accordance with the fee schedule set forth in Exhibit B. Charges for additional services shall be invoiced on a monthly basis and shall be paid by City within a reasonable time after invoices are received by City.

(e) Rate Changes: The fee schedule in Exhibit B shall not be revised during the term of the Contract (including any extension periods) without prior approval by CITY's City Council.

5. Compensation Limit:

(a) Term Limit: In no event shall Consultant, or any person claiming by or through Consultant, be paid an amount in excess of three hundred seventy three thousand sixty nine dollars ($373,069) during the term of this Agreement.

(b) Developer-Reimbursed Cost Exclusion: Developer-reimbursed costs associated with Tasks performed for private development projects are not subject to the annual compensation limit and shall not be considered in any calculation of unspent allocation.

6. City Responsibilities: City shall provide to Consultant:

(a) Information and assistance as set forth in Exhibit A.

(b) Photographically reproducible copies of maps and other information, if available, which Consultant considers necessary in order to complete the Tasks.

(c) Such information as is generally available from City files applicable to the Tasks.

(d) Assistance, if necessary, in obtaining information from other governmental agencies and/or private parties. However, it shall be Consultant's responsibility to make all initial contact with respect to the gathering of such information.

7. Ownership of Documents: All documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by Consultant pursuant to this Agreement shall be considered the property of City and, upon payment for services performed by Consultant, such documents and other identified materials shall be delivered to City by Consultant. Consultant may, however, make and retain copies of such documents and materials as Consultant may desire.

8. Termination: If Consultant breaches this Agreement and fails to cure such breach within seven days of written notice, then City may immediately terminate this Agreement for cause. City may terminate this Agreement for convenience upon 15 days prior written notice to Consultant. Consultant shall not be compensated for any work performed after City's issuance of a Notice of Termination. Consultant shall provide to City any and all documents, whether in draft or final form, prepared by Consultant as of the date of termination. Consultant may not terminate this Agreement except for cause.

9. Notices and Designated Representatives: Any notices, invoices, or other documents related to this Agreement shall be deemed received on: (a) the day of delivery, if delivered by hand during the receiving party's regular business hours or by e-mail or facsimile before or during the receiving party's regular business hours; (b) the business day after delivery, if delivered by e-mail or facsimile after the receiving party's regular business hours; or (c) on the second business day following deposit in the United States mail, postage prepaid, to the addresses listed below, or to such other addresses as the parties may, from time to time, designate in writing. The below named individuals, furthermore, shall be those persons primarily responsible for the performance by the parties under this Agreement:

CITY REPRESENTATIVE	CONSULTANT REPRESENTATIVE
Michael S. Ho, P.E.	AKM Consulting Engineers
Deputy Director of Public Works/City Engineer	Zeki Kayiran, President
1 Civic Center Circle	553 Wald
Brea, CA 92821	Irvine, CA 92618
michaelh@ci.brea.ca.us	zkayiran@akmce.com

10. Insurance: Consultant shall not commence work under this Agreement until it has obtained all insurance required hereunder in a company or companies acceptable to City, nor shall Consultant allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained. Consultant shall take out and maintain at all times during the term of this Agreement the following policies of insurance:

(a) Compensation insurance: Before beginning work, Consultant shall furnish to City a certificate of insurance as proof that it has taken out full compensation insurance for all persons whom Consultant may employ directly or through subcontractors in carrying out the services, in accordance with the laws of the State of California. Further, such policy of insurance shall provide that the insurer waives all rights of subrogation against City and its elected officials, officers, employees and agents.

In accordance with the provisions of Labor Code Section 3700, every contractor shall secure the payment of compensation to its employees. Consultant, by executing this Agreement, certifies as follows: "I am aware of the provisions of Section 3700 of the labor Code which require every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of work of this contract."

(b) For all operations of Consultant or any subcontractor in performing the work provided for herein, insurance with the following minimum limits and coverage:

(1) Commercial General Liability (occurrence) - for bodily injury, death and property damage for products/completed operations and any and all other activities undertaken by the Consultant in the performance of this Agreement - - or - -:

(2) (Alternative to Commercial General Liability) - Comprehensive, broad form General Public Liability (occurrence) - for bodily injury, death and property damage arising out of any activities undertaken by Consultant in the performance of this Agreement.

(3) Comprehensive Automobile Liability (occurrence) - for bodily injury, death and property damage insuring against all liability arising out of the use of any vehicle.

(4) Professional Errors and Omissions Liability - insuring against all liability arising out of professional errors and/or omissions, providing protection of at least two million dollars and zero cents ($2,000,000.00) for errors and/or omissions ("malpractice") of Consultant in the performance of this Agreement . Such policy may be subject to a deductible or retention in an amount acceptable to City and shall further be subject to the provisions of subsections (2) and (6) of paragraph (c) of this Section. If a "claims made" policy is provided, such policy shall be maintained in effect from the date of performance of services on City's behalf until three years after the date the services are accepted as completed. Coverage for the post-completion period may be provided by renewal or replacement of the policy for each of the three years or by a three-year extended reporting period endorsement which reinstates all limits for the extended reported period. If any such policy and/or policies have a retroactive date, that date shall be no later than the date of first performance of services on behalf of City. Renewal or replacement policies shall not allow for any advancement of such retroactive date. Each such policy or policies shall include a standard "notice of circumstances" provision.

(5) Other required insurance, endorsements or exclusions as required by Exhibit A.

(6) The policies of insurance required in this Section shall have no less than the following limits of coverage:

(i) $2,000,000 (Two Million Dollars) for bodily injury or death;

(ii) $2,000,000 (Two Million Dollars) for property damage;

(iii) The total of the limits specified in subsections (i) and (ii), above, where a combined single limit is provided.

(c) The policies of insurance required in subsections (1), (2) and (3) above shall:

(1) Be subject to no deductible amount unless otherwise provided, or approved in writing by City;

(2) Be issued by an insurance company approved in writing by City, which is admitted and licensed to do business in the State of California and which is rated A VII or better according to the most recent A.M. Best Co. Rating Guide;

(3) Name as additional insureds City, its elected officials, officers, employees, attorneys and agents, and any other parties, including subcontractors, specified by City to be included;

(4) Specify that it acts as primary insurance and that no insurance held or owned by the designated additional insureds shall be called upon to cover a loss under said policy;

(5) Specify that it applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability;

(6) Contain a clause substantially in the following words: "It is hereby understood and agreed that this policy may not be canceled nor the amount of coverage thereof reduced until thirty (30) days after receipt by the City of Brea of written notice of such cancellation or reduction of coverage as evidenced by receipt of a registered letter."

(7) Specify that any failure to comply with reporting or other provisions of the required policy, including breaches of warranty, shall not affect the coverage required to be provided;

(8) Specify that the insurer waives all rights of subrogation against any of the named additional insureds; and

(9) Specify that any and all costs of adjusting and/or defending any claim against any insured, including court costs and attorneys' fees, shall be paid in addition to and shall not deplete any policy limits.

(10) Otherwise be in form satisfactory to City.

(d) Prior to commencing performance under this Agreement, Consultant shall furnish City with original endorsements, or copies of each required policy, effecting and evidencing the insurance coverage required by this Agreement. The endorsements shall be signed by a person authorized by the insurer(s) to bind coverage on its behalf. All endorsements or policies shall be received and approved by City before Consultant commences performance. If performance of this Agreement shall extend beyond one year, then Consultant shall provide City with the required policies or endorsements evidencing renewal of the required policies of insurance prior to the expiration of any required policies of insurance.

11. Indemnification: Other than in the performance of professional services and to the fullest extent permitted by law, Consultant shall indemnify, defend and hold City, its employees, agents and officials harmless from and against their tort liability, (including liability for claims, suits, actions, expenses or costs of any kind, whether actual, alleged or threatened, actual attorney's fees incurred by City, court costs, interest or defense costs including expert witness fees), where the same arise out of, in whole or in part, the performance of the Agreement by Consultant (or any individual or entity that Consultant shall bear the legal liability thereof) and which result in bodily injury or property damage to any individual or entity, including the employees or officials of Consultant.

In addition to the foregoing, Consultant shall indemnify, defend and hold harmless City and its officials and employees from and against any and all losses, liabilities, damages, costs and expenses, including reasonable attorney's fees and costs to the extent the same are caused by the professional negligence of Consultant (or any entity or individual that Consultant shall bear the legal liability thereof) in the performance of professional services pursuant to this Agreement.

12. Assignment: No assignment of this Agreement or of any part or obligation of performance hereunder shall be made, either in whole or in part, by Consultant without the prior written consent of City.

13. Damages: In the event that Consultant fails to submit to City the completed project, together with all documents and supplemental material required hereunder, in public hearing form to the reasonable satisfaction of City, within the time set forth herein,

or as may be extended by written consent of the parties, Consultant shall pay to City, as liquidated damages and not as a penalty, the sum of N/A dollars ($000.00) per day for each day Consultant is in default unless the default is caused by City or by acts of God, acts of the public enemy, fire, floods, epidemics, or quarantine restrictions. Consultant acknowledges that such sum represents a reasonable endeavor by the parties to estimate a fair compensation for the foreseeable losses that might result from such a default in performance by Consultant.

14. Independent Contractor: The parties agree that Consultant and its employers, officers and agents are independent contractors under this Agreement and shall not be construed for any purpose to be employees of City.

15. Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of California.

16. Attorneys' Fees: In the event any legal proceeding is instituted to enforce any term or provision of the Agreement, the prevailing party shall be entitled to recover attorneys' fees and costs from the opposing party in an amount determined by the court to be reasonable.

17. Exhibits. The attached Exhibits A and B are incorporated into this Agreement by reference. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of an Exhibit, the provisions of this Agreement shall prevail.

18. Entire Agreement: This Agreement supersedes any and all other agreements, either oral or in writing, between the parties with respect to the subject matter herein. Each party to this Agreement acknowledges that no representation by any party which is not embodied herein nor any other agreement, statement, or promise not contained in this Agreement shall be valid and binding. Any modification of this Agreement shall be effective only if it is in writing signed by both parties.

TO EXECUTE THIS AGREEMENT, the parties have caused their authorized representatives to sign below.

AKM Consulting Engineers, Inc.

_____	_____
Signature	Signature
Zeki Kayiran	Mehmet Kayiran
Printed Name	Printed Name
□ Chairperson ☒ President □ Vice President	□ Secretary □ Asst. Secretary
	☒ Chief Finance Officer □ Asst. Treasurer

[Pursuant to California Corporations Code Section 313, both signature lines must be executed unless the signatory holds at least one of the offices designated on each line.]

City of Brea

_____

Mayor

EXHIBIT A

SCOPE OF SERVICES

Project Understanding

Background **-** The City of Brea (City) owns and operates a sewer collection system that provides service to a population of about 44,000. The sewer service area includes the entire area within the corporate boundaries, as well as portions of unincorporated Orange County and a small portion of the City of Placentia. The City's sewer collection system is comprised of approximately 114.3 miles of pipe ranging in diameter from 8-inches to 27-inches. The majority of the collection system pipes are vitrified clay pipe. The system dates back to the 1920's, but a large portion of it was built from 1960 to 1980. There are three sewage lift stations and associated forcemains. Wastewater generated in the City's service area is generally conveyed south and west to one of several points of connection with the Orange County Sanitation District's (OCSD) sewer system.

Previous Studies - The City's last sewer master plan was completed in 2005. The current hydraulic model was developed at that time and was calibrated to flow monitoring data collected in December 1999. This information is outdated considering the changes in water use that Southern California communities have experienced during the recent drought periods. The City has also completed all of the recommended improvements outlined in the 2005 Sewer Master Plan. The model in therefore in need of an update to reflect the sewers constructed since 2005 as well as the change in loads.

The City's latest Sewer System Management Plan (SSMP) was completed in 2016. The plan ensured compliance with current Waste Discharge Requirements (WDR) and NPDES orders. A bi-annual audit is required to evaluate the City's performance in operating and maintaining its sewer system.

Purpose - The City desires to prepare a sewer master plan, which will:

- Evaluate the capacity of its system through a well calibrated hydraulic model, and the ability of the system to handle the existing and future peak flows from the service area.
- Identify existing hydraulic deficiencies
- Provide recommendations for upgrades to the system which will be able to convey the ultimate flows
- Assess the condition of the sewer lift stations
- Provide potential solutions of localized siphons and other maintenance issue areas
- Develop a comprehensive prioritized Capital Improvement Program with cost estimates
- Complete a Sewer System Management Plan program audit

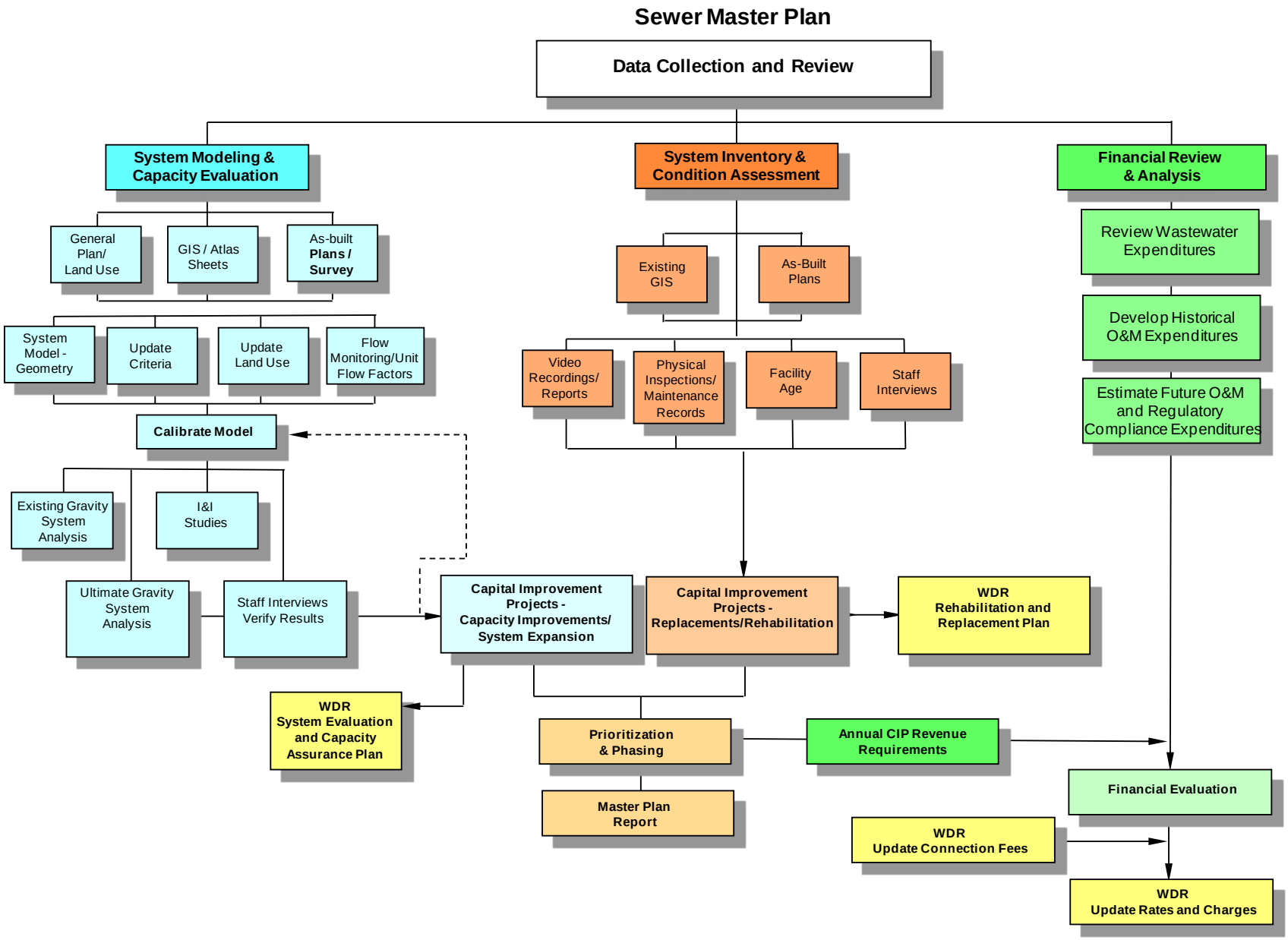
Detailed Work Plan

Our approach to the work is based upon our extensive experience in delivering high quality work within schedule and budget. The flow chart illustrated on Page 34 summarizes the key elements of a sewer master plan study. Not all tasks shown in the flow chart, such as condition assessment of the gravity sewer system or financial review and analysis, are included in this proposal, but are provided to show the elements of a complete sewer master planning project.

Task 1: Project Management and Meetings

Project management activities ensure adherence to schedule and budget, communication between AKM and the City, and implementation of an effective quality assurance/quality control (QA/QC) program will include the following:

- Kickoff meeting to establish lines of communication, review scope of work, data requests, and schedule, discuss the City's expectations, and gain insight into specific issues


Sewer Master Plan
Data Collection and Review
System Modeling & Capacity Evaluation
System Inventory & Condition Assessment
Financial Review & Analysis
General Plan/ Land Use
GIS / Atlas Sheets
As-built Plans / Survey
Existing GIS
As-Built Plans
Review Wastewater Expenditures
Develop Historical O&M Expenditures
System Model - Geometry
Update Criteria
Update Land Use
Flow Monitoring/Unit Flow Factors
Video Recordings/ Reports
Physical Inspections/ Maintenance Records
Facility Age
Staff Interviews
Estimate Future O&M and Regulatory Compliance Expenditures
Calibrate Model
Existing Gravity System Analysis
I&I Studies
Ultimate Gravity System Analysis
Staff Interviews Verify Results
Capital Improvement Projects - Capacity Improvements/ System Expansion
Capital Improvement Projects - Replacements/Rehabilitation
WDR Rehabilitation and Replacement Plan
WDR System Evaluation and Capacity Assurance Plan
Prioritization & Phasing
Annual CIP Revenue Requirements
Master Plan Report
Financial Evaluation
WDR Update Connection Fees
WDR Update Rates and Charges

- Monthly meetings as needed, with prepared agendas and follow-up meeting minutes
- Monthly status reports & billing statements listing tasks, budgets, and percent complete
- Updated project schedule as needed

Task 2: Data Collection and Review

We will retrieve and review all relevant documents including the following: 2005 Sewer Master Plan; 2016 Sewer System Management Plan and latest SSMP Audit; Existing sewer atlas maps; Existing scanned sewer as-built drawings for sewers constructed since 2005 (not in the current Sewer GIS) and for all siphons/hot spot locations; GIS data; Planning data; Lift station information; Operation & Maintenance records of the sewer facilities; Water meter records by billing period and customer class; Bid results for recent construction projects; and Current Capital Improvement Program information.

Task 3: Sewer Hydraulic Model Development

The sewer hydraulic model is an essential element of any master planning effort for documenting the existing system, evaluating existing hydraulic capacity for compliance with the adopted criteria, determining the adequacy of the system to handle future developments, and formulating the capacity improvement recommendations.

We propose to utilize the InfoSewer software by Innovyze, for developing the hydraulic sewer model. This is a commercially available, non-proprietary software that is fully GIS integrated, allowing for easy import/export of data to and from the existing Sewer GIS.

3.1 Model Geometry - We will utilize the City's current Sewer GIS (last updated in 2009) as the basis of the hydraulic model. In addition, we will review and utilize approximately 100 sheets of Engineering Record Plans and incorporate the sewer main and manhole information into the City's Sewer GIS and model. The information collected will include the following at a minimum: year of

plan, pipe diameter, material, length, and invert elevations, and manhole diameter, invert, and rim elevation.

The hydraulic model will include all City owned sewer pipes (excluding laterals and private lines), manholes, large point source flows and tributary area boundaries. We feel it is important to model the entire system in case a future spill should occur, so that the City can show its due diligence in previously analyzing the hydraulic capacity of the entire system. A complete system model can also be used in other evaluations, and constitute the complete map of the system as required by the Operation and Maintenance Program of the Sewer System Management Plan.

We will delineate the tributary area to nearly every manhole using the Theissen Polygons method. If manholes are clustered together in one area, only one tributary area will be created. The tributary area, along with unit flow factors or point sources for high sewage generators will be used to calculate the average flow tributary to each manhole.

3.2 Flow Monitoring and Unit Flow Factors – We will select locations to flow monitor and develop sewer unit flow factors for various land use types. Based on our experience, flow monitoring becomes more and more unreliable as the flow depth in the sewer pipe decreases. More accurate measurements result from larger tributary areas, resulting in larger flows with sufficient flow depth. Typically, unit flow factors can be developed for single family residential land uses from sewer flow monitoring data because large areas of single family residential uses can usually be isolated and flow monitored at one or more locations. It is more difficult to isolate large areas of multi-family, commercial, industrial, and institutional land uses. Additionally, because of large variation in industrial land use types and their flow generation, unit flow factors are even more difficult to develop for this land use. We will generate sewer flows from water use for industrial,

and possibly some of the commercial areas. If needed, we will utilize water use records to supplement the flow monitoring information to develop the unit flow factors. For example, if a large tributary area encompasses commercial and industrial uses, we can install a flow monitor to capture the total sewage flows but then we can separate out the portion from commercial areas and the portion from the industrial uses by analyzing the water use of each. Depending upon what information is available, we can develop unit flow factors based on acreages, dwelling units, building square footage, population or a combination.

3.3 Peaking Relationships - Flow monitoring data will be obtained in 15 minute intervals for each site. We will generate dry weather peaking criteria based upon the diurnal flows recorded by the flow monitors. It is anticipated that different peaking relationships may be used for the various sewersheds to reflect their land uses, size, and specific conditions. We will recommend a wet weather peaking relationship as well based upon our experience.

3.4 Model Calibration - *Per discussions with the City, we included 16 flow monitors for 7 days to capture dry weather data.*

We will utilize the flow monitoring information to calibrate the model with the existing system and existing land uses. Model calibration work will be performed with the dry weather flows. Calibration will first involve matching the model average and peak flows to the flow monitoring results. Unit flow factors and peaking relationships will be adjusted until a close match is obtained.

Task 4: Capacity Analysis

4.1 Collection System Hydraulic Analysis - We will review and update the City's criteria for depth to diameter ratios, such as for pipes 15-inch and smaller, and 18-inch and larger.

The analyses conducted with the peak dry weather flows for calibrating the model will constitute the existing system analysis. We will identify the deficiencies based on the criteria

selected, and formulate replacement and/or relief projects to mitigate the capacity deficiencies. Depending on the location of the calculated deficiencies, we may request additional flow monitoring to verify the calculated deficiencies.

The following scenarios will be analyzed:

1. Existing system with current flow conditions
2. Existing system with future flow conditions (includes future development loads)
3. Existing system plus recommended improvements with future flow conditions

The future flow conditions will include loads anticipated to contribute to the sewer system by the major development projects currently under construction and under review. Details of each development (land use type, number of dwelling units, etc.) will be provided by the City's planning department. We will utilize the developed unit flow factors for each land use type to estimate future sewage loads.

4.2 Lift Station Hydraulic Analysis – We will review and update the City's lift station criteria for wet well capacity, pump capacity, number of pumps, storage, emergency power, and other redundancies to minimize the possibility of overflows. We will evaluate the City owned sewer lift stations. This work will include review of construction plans, design calculations, pump curves, shop drawings, SCADA data, and maintenance records, as well as a thorough field review. If the lift station has flow meters, we will utilize the information from the flow meters for capacity analysis, as well as the adequacy of the wet wells to preclude frequent cycling of the equipment. We will also analyze the lift stations for average, peak dry weather, and peak wet weather capacity. We will then determine if the appropriate level of redundancy as well as emergency wet well capacity is available to avoid overflows. We will determine if each the lift station meets the criteria established and

current industry standards. We will then make recommendations for bringing it up to current standards. We will also interview the City's engineering and O&M staff to develop insight into the existing facilities.

Task 5 – Condition Assessment

5.1 Closed Circuit Television Inspections – Not included in current scope

5.2 Collection System Condition Assessment – Not included in current scope

5.3 Lift Station Condition Assessment – Condition assessments of the three lift stations will be conducted. We will review available maintenance records pertaining to each of the lift stations. We will visit each lift station to conduct a thorough inspection of the facilities. We will interview City O&M staff to gain insight into the operation and maintenance of each of the lift stations. We will document all necessary information for evaluating the condition of the lift stations.

Task 6 –Review Known Hot Spot Locations

There are 59 known hot spot locations (list provided by City) in the City's sewer system. Per the 2016 SSMP, the City updates its hot spot list on a monthly bases or more frequently as needed. Locations are added to the hot spot list if it is found to be a location of frequent fats, oils, and grease (FOG) or debris buildup, flow issues, or root issues. Per the 2016 SSMP, there is only one siphon location in the system, but the RFP suggests there may be more than one location. The City would like to have the hot spot and siphon locations reviewed and possible solutions provided as a part of the Sewer Master Plan recommendations. For purposes of this proposal, we have assumed that there are approximately 65 hot spot locations to review and make recommendations for.

We will review CCTV inspections for all hot spot locations except for the siphons, which cannot typically be inspected due to the vertical bends in the lines and the bypass flow requirements. We

will confirm the presence of grease, debris, roots and/or flow issues caused by such defects as sags and offset joints. We will interview City staff about the problems experienced in the field and make recommendations for maintenance programs, improvements, and/or further investigations.

We will review as-built plans for the siphons and interview City staff about problems experienced in the field. If possible, we will make recommendations for flow diversions to eliminate the siphons from the system.

Task 7 –Review Jurisdictional Codes

We will review all the latest Federal, State, and Local Regulations and appraise City staff on the status. The primary regulation that will guide the study is the State General Waste Discharge Requirements.

Task 8 – Capital Improvement Program

We will develop a prioritized Sewer Capital Improvement Program (CIP) with cost estimates based upon the collection system and pump station hydraulic analyses and the condition assessments. The highest priorities will be given to verified capacity deficiencies and structural defects that may fail and cause overflows.

Task 9 – Sewer Master Plan Document

The work effort and the results will be presented in a Sewer Master Plan report. At a minimum, the report will include: Executive Summary, Introduction, Study Area, Criteria, Existing System, Future System, Hydraulic Model, Capacity Analysis, Condition Assessment, and Capital Improvement Program.

The report will include clear exhibits of appropriate scale to illustrate the data used, analyses performed, and the recommendations. Appendices will include the backup information utilized in

formulating the recommended improvements.

We will submit a draft report (5 copies) for City review. We will then meet with the City to discuss the review comments. Following the incorporation of City staff comments, we will submit one electronic copy and five (5) bound copies of the Final Sewer Master Plan report.

Task 10 – Public Meeting Presentations

Our Cost Proposal includes time to attend two (2) public meetings to present the findings of the Sewer Master Plan. We will work with City staff in preparing presentation materials, such as power point presentations, and either make presentations, or support the City staff in making the presentations.

Task 11 – Sewer System Management Plan Audit

We will prepare a SSMP Audit report that shall focus on evaluating the effectiveness of the SSMP and the City's compliance with the SSMP requirements identified in the State Water Resources Control Board's Order No. 2006-003. The audit report will include the identification of any deficiencies in the SSMP and the recommendations to correct them. It will focus on the previous two years (2017-2018) since the audit is a bi-annual report. We will request the following additional data for the SSMP Audit:

- Overflow Response Plan
- Sewer Design Standards
- FOG Program Documentation
- Sewer cleaning log database for 2017-2018 (including hot spots)
- Sewer lift station maintenance logs for 2017-2018
- Legal Authority Documentation
- Sewer Design Standards
- SSO reports for 2017-2018

- Any complaint records related to the sewer system for 2017-2018
- Any emergency sewer repair records for 2017-2018

We will provide five (5) hard copies and one (1) electronic PDF file of the draft report. Upon review, the City will provide comments. A final report will then be generated which integrates the City's comments. Five (5) hard copies and one (1) electronic PDF file of the Final report will be provided.

Quality Control Plan

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 of the projects by our construction management professionals.

Our QA/QC Program will require our sub-consultant 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.

Exceptions / Deviations

AKM Consulting Engineers does not have any exceptions or deviations from the RFP. AKM accepts the contract requirements of the proposed professional services agreement as set forth in Section IV of the RFP.

EXHIBIT B

FEE

Water Resources
Infrastructure
Construction Management

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Irvine, CA 92618
Telephone: 949.753.7333 Facsimile: 949.753.7320
www.akmce.com

November 21, 2019

City of Brea – Public Works Department

Engineering Division

1 Civic and Cultural Center

Brea, CA 92821

Attn: Mr. Michael Ho, P.E., Deputy Director of Public Works / City Engineer

Subject: Sewer System Master Plan Update

Dear Mr. Ho:

In response to your request for proposals dated August 16, 2019, Addendum 1 (8/19/19), Addendum 2 (9/13/19), Addendum 3 (9/18/19), and subsequent discussions regarding condition assessment of the gravity sewer system and temporary flow monitoring, AKM Consulting Engineers is pleased to submit our proposal to provide professional engineering services for the Sewer System Master Plan Update for the City of Brea. Our submittal elaborates on AKM's unsurpassed ability and project experience in master planning. AKM Consulting Engineers is a multi-disciplinary professional organization that specializes in providing water resources engineering and related services to a client list of over 80 cities and public agencies in the Southern California area. From our office located in Irvine, with a staff specializing in water resources projects, AKM can provide immediate, responsive and effective service to the City of Brea (City).

Contact information for this proposal is:

Zeki Kayiran, P.E., Principal Email: zkayiran@akmce.com

AKM Consulting Engineers, Inc. Address: 553 Wald, Irvine, CA 92618

Phone: 949-753-7333 FAX: 949-753-7320

California Secretary of State Entity Number: C1569366

Federal Employer ID: 33-0422066 Number of Employees: 25

The project team for the Sewer Master Plan project includes:

- ***Mr. Zeki Kayiran, P.E.*** a Principal with AKM for over 29 years, has 45 years of water resources engineering and management expertise and has been responsible for the completion of 38 sewer master plans, master plan updates, and Sewer System Management Plans (SSMP), and has provided expert witness services to several public agencies on issues involving their sewer systems. Mr. Kayiran will serve as the Project Manager.
- ***Ms. Diann Pay, P.E.***, a Principal Engineer with AKM for 23 years, is our Director of Planning and has been responsible for successful completion of 32 sewer system master plans, master plan updates, and SSMPs. She will serve as the Project Engineer.

Our Project Team includes two (2) local sub-consultants to assist AKM in providing superior technical services for the project as follows:

1. DCSE will provide GIS services

   Contact Person: Ms. Haritha Vendra Email: hvendra@dcse.com

   Address: 23461 S. Pointe Dr, Ste 300, Laguna Hills, CA 92653

   Phone: 949-465-3417 FAX: 949-586-8141

2. ADS Environmental Services will perform flow monitoring services.

   Contact Person: Mr. Paul Mitchell, P.E. Email: PMitchell@idexcorp.com

Address: 15201 Springdale St, Huntington Beach, CA 92649

Phone: 714-379-9778 xt.223 FAX: 714-379-9588

We have reviewed all available documents in detail, and familiarized ourselves with the City's sewer system. We have the resources to complete the project within the schedule provided in our proposal

The members of our project team have personally served as the engineer-in-responsible-charge for the development of these master plans. Combined as a group, we offer the City of Brea a superb team that will provide full efficiency and attention to all elements of project detail as well as technical and managerial depth ensuring the development of a successful sewer master plan update.

We appreciate the opportunity to submit our proposal, and look forward to being of service to the City of Brea on this most important project. Our proposal is valid for 90 days from the date of this submittal. Should you have any questions or require any additional information, please do not hesitate to contact the undersigned or Ms. Diann Pay.

Sincerely,

AKM Consulting Engineers

Zeki Kayiran, P.E.

Principal

Table of Contents

Qualifications, Related Experience, and References of Offeror

AKM Consulting Engineers is a multi-disciplined professional organization that has specialized in providing wastewater, potable water, recycled water, and stormwater engineering and related services to public agencies in Southern California since its inception in 1990. AKM is a Small Business Enterprise (SBE) and a California Corporation. Contact information for this proposal is:

Contact information for this proposal is:

Zeki Kayiran, P.E., Principal — Email: zkayiran@akmce.com
AKM Consulting Engineers, Inc. — Address: 553 Wald, Irvine, CA 92618
Phone: 949-753-7333 — FAX: 949-753-7320

California Secretary of State Entity Number: C1569366

Federal Employer ID: 33-0422066 Number of Employees: 25

The scope of services offered by AKM includes all facets of planning, design and construction management for wastewater, potable water, recycled water, and flood control projects. AKM has a

long and distinguished record of providing services to public agencies, through which we have maintained their hydraulic models; conducted repair and rehabilitation project 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:

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

POTABLE WATER, RECYCLED WATER, WASTEWATER, AND FLOOD CONTROL	
▪ Master Plans	▪ Transmission and Distribution Pipelines
▪ Water Treatment	▪ Reservoirs
▪ Water Reclamation	▪ Capital and Facilities Plans
▪ Water and Recycled Water Pump Stations	▪ Improvement Plans
▪ Wells	▪ Hydraulic Analysis
▪ Sewer Pump Stations and Forcemains	▪ Hydraulic Structures
▪ Stormwater Pump Stations	▪ Permitting and Regulatory Compliance
▪ Sewer Collection Facilities	▪ Water Quality
▪ Storm Drains and Channels	

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

CONSTRUCTION SUPPORT	
▪ Contract Administration	▪ Procurement
▪ Inspection	▪ Start-Up and Acceptance
▪ Construction Management	▪ Project Close-Out
▪ Resident and Field Services	▪ Estimating

STRENGTH AND STABILITY OF THE FIRM

AKM Consulting Engineers has been providing water resources engineering planning, condition assessment, design, and construction management/inspection services to public agencies for over 28 years. Over 90% of our work has consistently been with repeat clients, which is a testament to the quality of our work.

FIRM'S FINANCIAL CONDITION

Since its inception, AKM has remained in outstanding financial standing. AKM is willing and able to submit a complete financial statement for the past two years if asked by City of Brea. Our financial statement will include a balance sheet and income statement.

TECHNICAL STAFF

The technical staff of AKM is comprised of recognized experts in water resources planning, design, construction, operations, and management. 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.

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 in-house CADD capabilities, and engineering design work and computations are computer based. An in-house library of standard software application packages is maintained and continually updated. Our expertise in hydraulic modeling and analysis is simply unsurpassed.

PREVIOUS EXPERIENCE

AKM has completed 38 sewer master plans/sewer system management plans and updates, including the Cities of Alhambra, Brea (2), Camarillo, Corona, Cypress (2), El Segundo (2), Fountain Valley (2), Inglewood, La Habra, Los Angeles, Manhattan Beach, Newport Beach (2), Norwalk, Ontario (3), Palos Verdes Estates (2), Redondo Beach, San Clemente, Seal Beach (3), Stanton (2), as well as for East Orange County Water District, Irvine Ranch Water District, Garden Grove Sanitary District (3) and Camarillo Sanitary District. Our Project Team members have been responsible for several other sewer master plans prior to their employment with AKM. Our experience includes all elements similar to the City of Brea's system, individually and in whole.

AKM has an immense history of providing wastewater system planning, design, and construction management services, as well as regulatory compliance assistance to public agencies. Our efforts in preparing components of the Waste Discharge Requirements for the Garden Grove Sanitary District were instrumental in a very favorable settlement of the Orange County Coastkeeper's lawsuit against the Garden Grove Sanitary District. In April 2006, AKM completed a three year contract with the City of Los Angeles Bureau of Sanitation assisting with condition assessment and capacity evaluation as part of the City's effort to comply with the terms of a settlement agreement resulting from a third party lawsuit. AKM established procedures for developing hydraulic models of Los Angeles' over 230 secondary systems by preparing the first such model for the City utilizing H2OMap Sewer. The Bureau of Sanitation has adopted the procedures developed by AKM for capacity evaluation of its secondary systems utilizing the updated versions of the computer program.

AKM's project team members have provided expert witness services to several of our clients on sewer facility construction, as well as Coastkeeper/NGO/State initiated lawsuits related to SSOs.

AKM staff was involved in the development of the Statewide General Waste Discharge Requirements by participating in the stakeholder meetings and extensively commenting on the draft Order. AKM, in cooperation with OCSD, developed the wastewater system evaluation tools for ASCE's Infrastructure Report Card. We have developed well calibrated models for all of our clients, and continue to maintain many of the models. Our proposed Project Engineer and Staff Engineer performing the gravity sewer condition assessment are NASSCO certified Pipeline, Manhole, and Lateral Assessors.

Specific examples of AKM's experience are included below. These projects are directly relevant for consideration within the content of the proposed project. All projects were performed by the individuals listed in this proposal and required a level of performance and addressed technical issues similar to those required by the proposed project.

SEWER MASTER PLAN - EAST ORANGE COUNTY WATER DISTRICT
AKM STAFF: Z. KAYIRAN (PIC), D. PAY (PM), J. NITTA (PE), H. HERRERA (STAFF ENGINEER)

East Orange County Water District provides sewer service to an area of approximately 10,000 acres and 18,000 customers. The gravity sewer system consists of approximately 171 miles of pipe, ranging in size from 4-inches to 27-inches.

The scope of work included the development of a calibrated hydraulic model, development of system evaluation criteria, determination of future development areas and loads, hydraulic capacity analysis, condition assessment of pipes and 500 manholes, and a risk analysis to prioritize gravity pipes and develop recommendations for future inspection, rehabilitation, and/or replacement work.

The gravity sewer risk analysis was conducted utilizing Innovyze's InfoMaster program, an ArcGIS based asset integrity management and capital planning software package. AKM compiled 7 years of historical CCTV data and used it along with the hydraulic model results to develop a likelihood of failure (LoF) for each pipe. The proximity to waterways and maximum rate of flow were utilized to develop the consequence of failure (CoF) for each pipe. The LoF and CoF were then used to assign each pipe a risk priority and a decision tree was created to also assign each pipe with an associated action item for future inspection and/or maintenance.

SEWER SYSTEM REHABILITATION PLAN - GARDEN GROVE SANITARY DISTRICT
AKM STAFF: Z. KAYIRAN (PM), D. PAY (PE), J. NITTA (SSMP UPDATE), H. HERRERA (CONDITION ASSESSMENT, PHASE I), N. LOWE (CONDITION ASSESSMENT, PHASE I)

Garden Grove Sanitary District's wastewater collection system consists of 1,698,223 feet (321.6 miles) of gravity sewers ranging in size from 4-inch to 24-inch in diameter, and three (3) pump stations. It serves most of the areas within the City of Garden Grove boundaries, as well as portions of the Cities of Anaheim, Stanton, and Orange, and unincorporated Orange County territories, and conveys the tributary wastewater flows to Orange County Sanitation District trunk and interceptor sewers. The service area population is 180,000.

AKM Consulting Engineers has been performing the sewer system planning work for the Garden Grove Sanitary District since 1999. AKM completed the District's System Evaluation and Capacity Assurance Plan, and the Operation and Maintenance Plan of the SSMP, and recommended replacement, repair, and rehabilitation project. The Operation and Maintenance Plan included CCTV inspection and condition assessment of 1,800,000 feet of gravity sewers, and three sewer pump stations, and preparation of the Sewer System Rehabilitation Plan.

As a follow up to the initial inspections, AKM conducted CCTV inspection of the first 300,000 feet of gravity sewers, conducted condition assessment, and provided a new Sewer System Rehabilitation Plan in 2018. The plan included repair, rehabilitation, and replacement projects.

SEWER MASTER PLAN - CITY OF CLAREMONT
AKM STAFF: Z. KAYIRAN (PIC), D. PAY (PM), J. NITTA (PE), H. HERRERA (STAFF ENGINEER), N. LOWE (STAFF ENGINEER)

The City of Claremont's existing wastewater collection system service area is approximately 7,484 acres. The system is made up of 638,048 feet of gravity pipe, ranging in size from 4-inches to 18-inches. The system also includes one pump station and 374 feet of 6-inch ACP force main. There is approximately 2,643 manholes and cleanouts. All of the wastewater collected by the City is transported to one of the County Sanitation Districts of Los Angeles County's (CSDLC) trunk sewers. The wastewater eventually is treated at the CSDLC San Jose Creek Water Reclamation Plan (SJCWRP).

The objective of this study was to evaluate the capacity of the City's sewer collection system and provide a framework for undertaking the construction of new and replacement facilities for serving the wastewater collection needs in an efficient and cost effective manner, as well as evaluate and update the sewer connection fees. AKM verified sewer system geometry/mapping, delineated tributary areas, conducted flow monitoring, developed sewage unit flow factors and peaking relationships, and ultimately developed a calibrated hydraulic model. The model was then used to evaluate the capacity of the collection system pipes and identify existing and future capacity deficiencies. Capital improvement project recommendations with cost estimates were included in the Master Plan document.

The total buy-in cost was calculated based upon the replacement value of the existing facilities and the recommended improvement project costs for the next 5 years. Sewer connection fees for an equivalent residential unit (ERU) was then determined based upon the ratio of the buy-in cost and the total number of ERUs.

SEWER MASTER PLAN - CITY OF CULVER CITY
AKM STAFF: Z. KAYIRAN (PIC), D. PAY (PM), J. NITTA (PE), H. HERRERA (STAFF ENGINEER), N. LOWE (STAFF ENGINEER)

The City of Culver City's existing sewage collection system is made up of a network of gravity sewers and seven (7) sewer lift stations. The gravity system consists of approximately 87 miles (457,617 feet) of pipe with sizes ranging from 4-inches to 24-inches in diameter, and 2,000 manholes. Sewage from a portion of the City of Los Angeles territories enters Culver City's sewer system. This sewage along with all of the sewage generated within Culver City's service area are transported to one of the City of Los Angeles Outfall Sewers for further conveyance to the Hyperion Water Reclamation Plant. The City is under contract with the City of Los Angeles to treat an average of 6.7 mgd. At the time of the Master Plan study, the total sewage generation within the City's service area was estimated at 3.77 mgd.

In 2016, Culver City had an estimated resident population of 40,448, and a daytime population estimated at about 100,000 due to the industries located within the City. The City encompasses approximately 5 square miles of residential, commercial, and industrial land.

The scope of work of the Sewer Master Plan (SMP) included the development of a calibrated hydraulic model, development of system evaluation criteria, hydraulic capacity analysis,

condition assessment of lift stations, evaluation of the SCADA system, and the development of a comprehensive capital improvement program.

COLLABORATION WITH SUBCONSULTANTS

DCSE has collaborated with AKM on multiple master plan projects. DCSE has assisted AKM in reviewing as-built construction plans, making corrections/additions to GIS files, creating system atlas maps, locating service meters, and preparing data for importation to hydraulic model software. The following are a list of projects DCSE was a sub-consultant to AKM:

- East Orange County Water District – Sewer GIS corrections/additions
- City of Ontario Water Master Plan - Hydraulic Model Geometry
- Moulton Niguel Water District Recycled Water Master Plan – Hydraulic Model Geometry
- Montebello Land & Water Company - Water GIS including GPS meter location, atlas maps
- City of Buena Park Water Master Plan - Hydraulic Model Geometry

ADS Environmental Services has collaborated with AKM on numerous sewer master plan projects, providing temporary sewer flow monitoring services. The following is a list of projects ADS was a sub-consultant to AKM:

- Irvine Ranch Water District Sewer Master Plan – Flow monitoring at 65 sites
- City of Culver City Sewer Master Plan – Flow Monitoring at 8 sites
- City of Claremont Sewer Master Plan – Flow Monitoring at 6 sites
- City of Brea Sewer Master Plan – Flow Monitoring at 16 sites
- City of Cypress Sewer Master Plan – Flow Monitoring at 6 sites
- City of Fountain Valley Sewer Master Plan – Flow Monitoring at 6 sites
- City of La Habra Sewer Master Plan – Flow Monitoring at 18 sites
- City of Manhattan Beach Sewer Master Plan – Flow Monitoring at 8 sites

- City of Norwalk Capacity Assurance Plan – Flow Monitoring at 3 sites
- City of Seal Beach Sewer Master Plan – Flow Monitoring at 3 sites
- City of Stanton Sewer Master Plan – Flow Monitoring at 5 sites

REFERENCES

AKM Consulting Engineers has completed, and/or is currently working on construction management assignments for the following clients. Contacts are listed for your reference to confirm the quality of our work and responsiveness provided by AKM. Sample projects experiences and descriptions are listed in the Section above.

East Orange County Water District – 185 N. McPherson Road, Orange, CA 92869

Contact: Ms. Lisa Ohlund, General Manager

Phone: (714) 538-5815 **Email:** lohlund@eocwd.com

Garden Grove Sanitary District – 13802 Newhope St, Garden Grove, CA 92843

Contact: Mr. Brent Hayes, Public Works Supervisor

Phone: (714)741-5976 **Email:** brenth@ci.garden-grove.ca.us

City of Claremont – 207 Harvard Avenue, Claremont, CA 91711

Contact: Mr. Vincent Ramos, Associate Engineer

Phone: (909) 399-5395 **Email:** vramos@ci.claremont.ca.us

City of Culver City – 9770 Culver Boulevard, Culver City, CA 90232

Contact: Mr. Mate Gaspar, Engineering Manager

Phone: (310) 253-5602 **Email:** mate.gaspar@culvercity.org

Proposed Staffing and Project Organization

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.

AKM's Project Team is well qualified to undertake the scope of services and provide superior technical and project management services. All personnel assigned to this project are recognized technical specialists in the development of calibrated wastewater collection system models and capacity evaluations, condition assessment, master plans, and sewer system management plans. All proposed AKM staff is located in its Irvine, California office. The key staff assigned to the project will not be reassigned. They are listed in the table below, along with their estimated time commitments to the project. They will be fully committed to the project tasks when a task is being worked on as needed in general accordance with the schedule.

The following provides brief descriptions of their roles and experience. Resumes describing specific experience of the Team members are included in this section.

ZEKI KAYIRAN, PE - AKM Consulting Engineers**; Position:** Principal; **Project Role:** Project Manager; **Registration:** RCE CA 1978 (C29330); **Education:** M.S, Civil Engineering – CSULB; B.S., Civil Engineering – Robert College; **Years of Experience**: 45; **Years with AKM:** 29; **Time Availability: 30**%
Zeki Kayiran, P.E. a Principal with AKM, has been responsible for completion of 39 sewer master plans/sewer system management plans and updates, 55 sewer pump station designs, and numerous gravity sewer and forcemain projects. He has served as the contract District

Engineer for the Garden Grove Sanitary District, and provided special services to the City of Los Angeles Bureau of Sanitation including developing procedures for secondary system capacity evaluation, and primary system wet weather trigger flows. He has served as public agency expert witness on wastewater system related issues. He will serve as the Project Manager for this project.
DIANN PAY, PE – AKM Consulting Engineers; **Position:** Project Engineer; **Project Role:** Project Engineer; **Registration**: RCE CA 2002 (C60298); NASCCO PACP, MACP, LACP Certified (U-1003-947); **Education:** M.S. in Environmental Water Resources, UC Berkeley; B.S. in Civil Engineering, UCLA; **Years of Experience**: 23; **Years with AKM:** 23; **Time Availability: 50**%
Ms. Diann Pay, P.E., a Principal Engineer with AKM is our Director of Planning and has been responsible for the successful completion of 34 sewer master plans/sewer system management plans and updates. Ms. Pay is a NASSCO certified pipeline, manhole, and lateral assessor. She oversees maintenance of several calibrated hydraulic models for our clients, and conducts special studies on an as needed basis. She has developed modeling manuals and trained the staffs of the City of Corona and Garden Grove Sanitary District in the use of the models. She will serve as the Project Engineer for this project.
JOHN LOAGUE, PE - AKM Consulting Engineers; **Position:** Principal**; Project Role:** QA/QC Manager; **Registration:** RCE CA 1993, C-50292; **Education:** B.S., Chemical Engineering-California State University Long Beach; **Years of Experience**: 34; **Years with AKM:** 26; **Time Availability:** 5%
Mr. John Loague, P.E., an AKM Principal, has served as the project manager, project engineer,

or quality assurance manager on 13 sewer master plan assignments. He has extensive experience in the design of sewer pump stations, siphons, and gravity sewers, including replacement and rehabilitation projects. He will be responsible for the quality assurance and quality control for the project, reviewing the work throughout its development to ascertain that AKM's commitment to delivering highest possible quality work is met.
HALY HERRERA - AKM Consulting Engineers; **Position:** Associate Engineer; **Project Role:** Gravity Main Condition Assessment; **Professional Registration:** NASCCO PACP, MACP, LACP Certified (U-1014-06022537); **Education**: B.S. Civil Engineering UC Irvine; **Years of Experience**: 6; **Years with AKM:** 6; **Time Availability:** 50%
Ms. Haly Herrera is an Associate Engineer for AKM Consulting Engineers. She has specialized in the planning of wastewater, water, and recycled/non-domestic water systems. She has completed condition assessments and risk assessments for the Garden Grove Sanitary District, East Orange County Water District, and Irvine Ranch Water District. She also worked on developing rehabilitation and replacement recommendations for over 170 specific locations for the City of Redondo Beach sewer system. She will be responsible for the condition assessment of the collection system, and assisting with the development of improvement recommendations.
NICHOLAS LOWE, EIT - AKM Consulting Engineers; **Position:** Associate Engineer**; Project Role:** Hydraulic Model & Analysis; **Education**: B.S. Civil Engineering UC Irvine; **Years of Experience**: 5; **Years with AKM:** 5; **Time Availability:** 70%
Mr. Lowe is a staff engineer for AKM Consulting Engineers. In this capacity he specializes in planning and design of water, recycled/non-domestic water, and wastewater systems. His

sewer modeling experience includes developing and updating models for the cities of Claremont, Seal Beach, and Culver City. He was assisted with the Regional Connection Study for the City of Ontario and the Sewer Master Plan for the Irvine Ranch Water District.
STEVE PATTERSON – AKM Consulting Engineers; **Position:** Senior Field Engineer/Inspector; **Project Role:** Lift Station Assessment; **Years of Experience**: 32; **Years with AKM:** 11; **Time Availability:** 10%
Mr. Steve Patterson, a Construction Manager/Senior Resident Engineer, has over 30 years of public infrastructure construction, operation, maintenance, and design experience. Mr. Patterson has significant experience managing and inspecting construction with an emphasis in public works capital improvement projects. He has served as a Utilities Operations Supervisor for a municipally owned water/wastewater utility. Additionally, Mr. Patterson has thorough knowledge of, and training in occupational hazards and safety precautions and requirements as they pertain to the construction, operations and repair of public works infrastructure. Mr. Patterson is also thoroughly familiar with the requirements of Caltrans and the U.S. Army Corp. of Engineers for State and Federally funded local projects. He will be responsible for the lift station assessments for this project.
HARITHA VENDRA – DCSE; **Project Role:** GIS Services; **Registration:** GISP 90290; EIT 116976; **Education:** M.S. Civil Engineering – University of Texas; B.S. Civil Engineering – Osmania University, India; **Years of Experience**: 15; **Time Availability:** 100%
DCSE is a California based Engineering and GIS consulting firm specializing in developing solutions to help municipal and quasi-government agencies, engineering firms and private utilities. DCSE has the knowledgeable staff and the well-rounded expertise to provide a broad range of integrated GIS

services, from needs assessment and implementation to GIS data conversion, Geodatabase migration, and advanced application development. DCSE's principals have been involved with GIS since the middle 1980's. For more than a decade they have applied GIS solutions to a variety of problems and have developed a diverse set of GIS skills. GIS Services will be under the direction of Ms. Haritha Vendra.

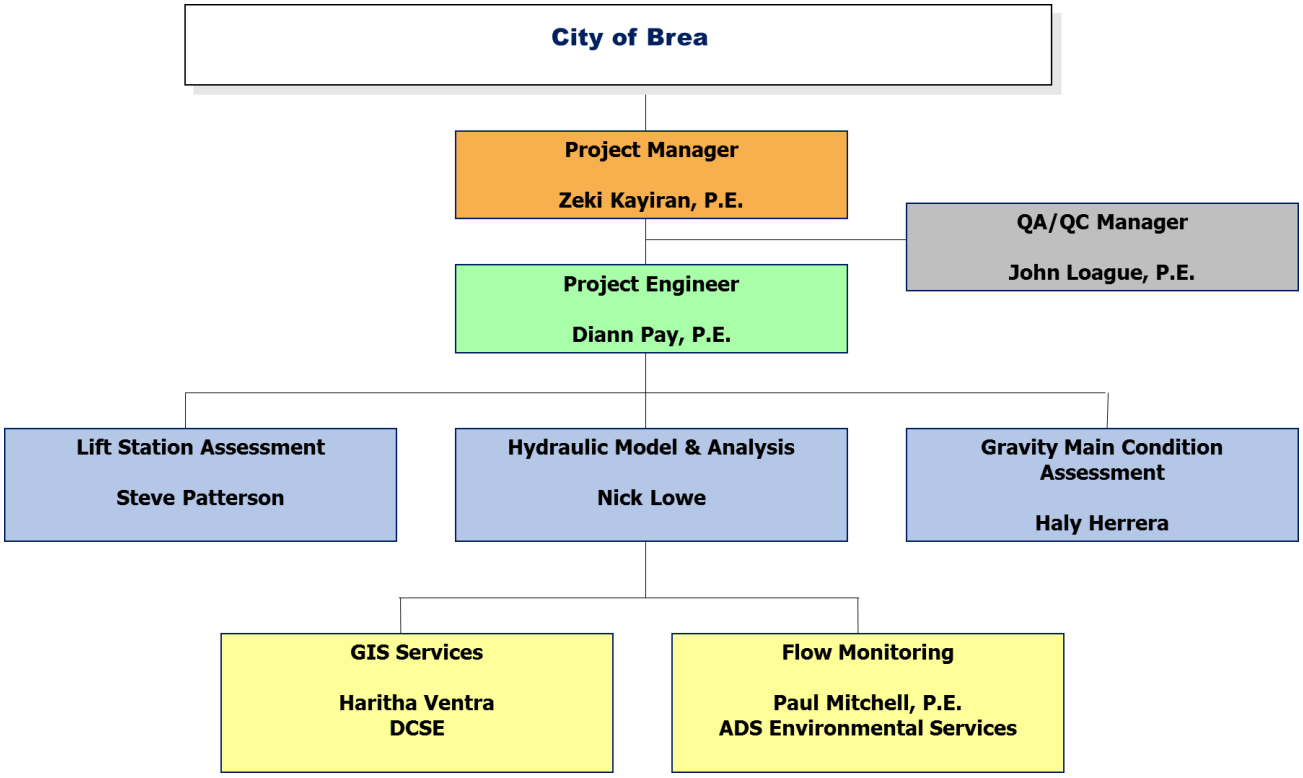
PAUL MITCHELL, PE – ADS Environmental Services; **Project Role:** Flow Monitoring; **Registration:** RCE CA 049436, NV PE016878; **Education:** M.S. Program Core Courses – CSU Long Beach; B.S. Chemical Engineering – Cal State Polytechnic University Pomona; **Years of Experience**: 25; **Time Availability:** 100%

ADS Environmental Services, a division of ADS LLC, provides industry-leading solutions for wastewater flow monitoring, data analysis, reporting and field services. ADS has completed over 4,000 flow monitoring projects in over 3 billion linear feet of pipe, becoming the most respected collection system flow information services company in North America. The scope of projects range from short-term studies such as one flow monitor for one week to hundreds of flow monitors installed for years. Virtually every large municipality in California has utilized ADS services to assist them with their important flow monitoring projects including cities with EPA and RWQCB enforcement orders. AKM used the services of ADS on nearly all of our sewer master plan projects, dating back to 1995.

Flow monitoring work will be performed under the direction of Mr. Paul Mitchell, PE. Mr. Mitchell has over 25 years of experience with emphasis in wastewater collection systems, municipal waste, and environmental assessment/ site remediation.

PROJECT ORGANIZATIONAL CHART

The Project Team organization is illustrated on the Project Organizational Chart. In addition to the key personnel shown on the organizational chart, AKM has 15 additional support personnel available to assist on the project, as necessary. Key personnel will be available for the extent proposed for the duration of the project, and shall not be removed or replaced without the prior written consent of the City.



Mr. Zeki Kayiran, P.E.

Position: *Principal*

Project Role*: Project Manager*

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, a Principal with AKM, provides comprehensive technical and management expertise in the planning, design, and construction management of a wide variety of 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. Mr. Kayiran's sewer system planning experience includes the following:

- Sewer Master Plan, City of Ontario – Principal in Charge
- Sewer Master Plan, Culver City – Principal in Charge
- Sewer Master Plan, City of Claremont – Principal in Charge
- Sewer Master Plan, City of Seal Beach – Principal in Charge
- East Orange County Water District Sewer Master Plan – Principal in Charge
- Regional Connection Study, City of Ontario – Principal in Charge
- Sewer System Rehabilitation Plan, Garden Grove Sanitary District – Project Manager
- Sewer Collection System Master Plan, Irvine Ranch Water District – Principal in Charge
- Sewer Condition Assessment,City of Redondo Beach – Principal in Charge
- System Evaluation and Capacity Assurance Plan,City of El Segundo – Principal in Charge
- Sewer Master Plan and Update,City of Stanton – Principal-in-Charge
- Sewer Master Plan, City of Ontario Old Model Colony – Project Manager
- Waste Discharge Requirements Compliance, Garden Grove Sanitary District – Project Manager

- Sewer System CCTV Inspection, Condition Assessment, and Design of Replacement and Rehabilitation Projects at Various Locations, City of Redondo Beach – Project Manager
- Wastewater Master Plan, City of Manhattan Beach – Project Manager
- Waste Discharge Requirements Compliance, City of Newport Beach - Project Manager
- Sewer Master Plan, City of Newport Beach - Project Manager
- Sewer System Management Plan, City of Norwalk – Project Manager
- Sewer System Management Plan, Camarillo Sanitary District – Project Manager
- Sewer Master Plan, City of Alhambra (2) – Project Manager
- Sewer System Master Plan and Rate Study, City of El Segundo (2) - Project Manager
- Sewer System Management Plan and Rate Study, City of Brea (3) - Project Manager
- Sewer Master Plan and Rate Study, City of Fountain Valley (2) - Project Manager
- Sewer Master Plan, City of Ontario New Model Colony – Project Manager
- Sewer System Management Plan, City of Inglewood - Project Manager
- Sewer Master Plan and Rate Study, City of Cypress – Project Manager
- Lift Station No. 7, No. 3, and No. 2, City of Alhambra – Project Manager
- Sewer Pump Station No. 6, No. 3 and No. 2, Camarillo Sanitary District – Principal in Charge
- Ward Sewage Lift Station Upgrade, City of Fountain Valley – Principal in Charge
- Edgewater Sewage Lift Station, City of Huntington Beach - Principal in Charge
- Pump Station No. 1 and No. 7, City of El Segundo – Project Manager
- Rocky Point and Paseo Del Mar Lift Stations, City of Palos Verdes Estates – Project Manager
- Tiffany and Belgrave Sewer Pump Stations, Garden Grove Sanitary District – Project Manager
- Pump Station No. 35, City of Seal Beach – Project Manager

Ms. Diann Pay, P.E.

Position: *Project Engineer*

Project Role: *Project Engineer*

Professional Registration

Registered Civil Engineer, California, C60298

NASCCO PACP, MACP, LACP Certified [U-1003-947]

Education:

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

Masters of Science in Environmental Water Resources, University of California, Berkeley

Years of Experience*: 23*

Years with AKM*: 23*

Ms. Pay is the Director of Planning for AKM Consulting Engineers. In this capacity she specializes in planning and design of water, recycled/non-domestic water, and wastewater systems. Ms. Pay's previous sewer master planning and sewer system related projects includes:

- Ontario Sewer Master Plan Update – Project Manager
- East Orange County Water District Sewer Master Plan – Project Manager
- Ontario Regional Connection Study – Project Manager
- Sewer Master Plan for Culver City – Project Manager
- Sewer Master Plan Update for the City of Seal Beach – Project Manager
- Sewer Collection System Master Plan for the Irvine Ranch Water District – Project Manager
- Sewer Master Plan for the City of Claremont – Project Manager
- Sewer Condition Assessment for the City of Redondo Beach – Project Manager
- System Evaluation and Capacity Assurance Plan for the City of El Segundo –Project Manager
- Rehabilitation & Replacement Program, Phase 1 for the Garden Grove Sanitary District – Project Manager
- WDR Compliance for the Garden Grove Sanitary District – Project Engineer
- OMC & NMC Sewer Master Plan Update for the City of Ontario (3) - Project Engineer

- Sewer Hydraulic Model User's Manual and Tutorials for the Garden Grove Sanitary District - Project Engineer
- System Evaluation and Capacity Assurance Plan, Rehabilitation and Replacement Program, Operation and Maintenance Program for the City of Redondo Beach - Project Engineer
- Sewer Master Plan for the City of Manhattan Beach - Project Engineer
- Sewer Master Plan for the City of Newport Beach - Project Engineer
- Sewer System Rehabilitation Plan for the City of Alhambra – Project Engineer
- Waste Discharge Requirements Compliance for the City of Brea (2) - Project Engineer
- Sewer System Management Plan for the Camarillo Sanitary District – Project Engineer
- System Management Plan for the City of Norwalk Sewer – Project Engineer
- Sewer Master Plan for the City of Stanton – Project Engineer
- Sewer Master Plan for the City of Cypress (2) - Project Engineer
- Coast Trunk Sewer for the Garden Grove Sanitary District – Engineer
- Sewer Master Plan for the City of Alhambra – Project Engineer
- Sewer System Management Plan for the City of Inglewood – Project Engineer
- Sewer Master Plan for the City of Fountain Valley (2) - Project Engineer
- Sewer Master Plan for the City of Alhambra (2007) – Project Engineer
- Brookhurst Triangle Relief Sewer for the Garden Grove Sanitary District – Engineer
- Sewer Master Plan for the City of Seal Beach (2) - Staff Engineer
- Sewer Master Plan for the City of La Habra – Project Engineer
- Sewer Master Plan for the City of Palos Verdes Estates (2) – Project Engineer
- Sewer System Master Plan for the City of Corona – Lead Engineer

Mr. John Loague, P.E.

Position: *Principal*

Project Role: *QA/QC*

Registration:

Registered Civil Engineer, California, C-50292

Education:

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

Years of Experience*: 34*

Years with AKM*: 26*

Mr. Loague, a Principal with AKM, has a broad background in the civil engineering field encompassing the planning, design and construction management of pumping, pipeline and transmission facilities, storage, and treatment facilities, as well as sewage collection systems, and reclamation facilities. Illustrative of Mr. Loague's Sewer Master Plan experience includes:

- Sewer Master Plan Update for the City of Seal Beach – QA/QC
- Sewer Master Plan for Culver City – QA/QC
- Sewer Master Plan for the City of Claremont – QA/QC
- SECAP and O&M Program for the City of Redondo Beach – Lead Engineer & QA/QC
- Sewer Master Plan for the City of Manhattan Beach – QA/QC
- Sewer System Management Plan and Rate Study for the City of Norwalk (2) – QA/QC
- Sewer System Management Plan and Rate Study for the City of Brea (3) – QA/QC
- Sewer Master Plan for the City of Alhambra (2) – QA/QC
- Sewer Master Plan for the City of Ontario New Model Colony – QA/QC
- Sewer Master Plan for the City of Fountain Valley (2) – Project Engineer
- Sewer System Master Plan, and SECAP for the City of El Segundo (2) – Project Engineer & QA/QC
- Sewer System Management Plan and Rate Study for the City of Seal Beach – Project Engineer
- Sewer Master Plan for the Garden Grove Sanitary District (2) - QA/QC
- Sewer Master Plan for the City of San Clemente - Project Engineer

Ms. Haly Herrera

Position: *Associate Engineer*

Project Role: *Gravity Main Condition Assessment*

Registration:

NASSCO U-1014-06022537

Education:

Bachelor of Science in Civil Engineering, University of California, Irvine

Years of Experience*: 6*

Years with AKM*: 6*

Ms. Herrera is an Associate Engineer with AKM Consulting Engineers. In this capacity she has specialized in the planning of water, recycled/non-domestic water, and wastewater systems. She is a certified pipeline, manhole, and lateral assessor by the NASSCO Pipeline Assessment and Certification Program. Her related experience includes:

- Rehabilitation and Replacement Program, Phase I for the Garden Grove Sanitary District – Staff Engineer
- Sewer Condition Assessment for the City of Redondo Beach – Staff Engineer
- Sewer Master Plan Update for the City of Ontario – Staff Engineer
- East Orange County Water District Sewer Master Plan and Septic Tank Conversion Study – Staff Engineer
- Sewer Master Plan for Irvine Ranch Water Department – Staff Engineer
- Sewer Collection System Master Plan for the Irvine Ranch Water District – Staff Engineer
- System Evaluation and Capacity Assurance Plan for the City of El Segundo – Staff Engineer
- City of Camarillo Sewer Pump Station No. 2 Analysis – Staff Engineer
- Moulton Niguel Water District Del Avion Pump Station Analysis – Staff Engineer

Mr. Nicholas Lowe, EIT

Position: *Associate Engineer*

Project Role: *Hydraulic Model & Analysis*

Registration: *EIT License No. 148682*

Education:

Bachelor of Science in Civil Engineering, University of California, Irvine

Years of Experience*: 5*

Years with AKM*: 5*

Mr. Lowe is a staff engineer for AKM Consulting Engineers. In this capacity he specializes in planning and design of water, recycled/non-domestic water, and wastewater systems. He has also served as construction inspector for various AKM construction management projects. Mr. Lowe's previous experience encompasses a wide range of water resource projects:

- Sewer Master Plan for City of Culver City – Staff Engineer
- Sewer Master Plan Update for the City of Seal Beach – Staff Engineer
- Regional Connection Study for the City of Ontario – Staff Engineer
- Sewer Master Plan for Irvine Ranch Water Department – Staff Engineer
- Sewer Master Plan for the City of Claremont – Staff Engineer
- Butterfield Lift Station Force Main Partial Replacement Project for the City of Chino Hills - Staff Engineer
- Title 22 Filter 9 Repair Project for West Basin Municipal Water District – Construction Inspector
- Sewer Condition Assessment for the City of Redondo Beach – Staff Engineer
- Imperial Headgates and Weir Pond for Orange County Water District –Resident Engineer
- Edward C. Little Water Reclamation Facility Clean-in-Place Waste Discharge Project – Assistant Field Engineer / Inspector

Mr. Steve Patterson

Position: *Senior Field Engineer/Inspector*

Project Role: *Lift Station Assessment*

Years of Experience*: 32*

Years with AKM*: 11*

Certifications and Affiliations*:*

AWWA Cross Connection Control Specialist; NPDES Storm Water Quality Training for Construction Site Activities; California Department of Public Health Water Treatment Operator; California Department of Public Health Water Distribution Operator; Orange County Health Department Backflow Device Tester; Cla-Val, Engineering, Maintenance and Design ; California Rural Water Distribution System Maintenance and Design; OSHA HAZWOPER; NIMS 700; CJPIA: Management Academy; Haestad Methods: Water System Design and Hydraulic Modeling; First Aide & CPR

Mr. Patterson is a Construction Manager with AKM Consulting Engineers, and has over 30 years of experience in the Water/Wastewater Utilities field, during which time water distribution system design, construction, operations, maintenance, and repair, of water and wastewater infrastructure have been the emphasis of his career. Examples of these projects are as follows:

- Lift Station No. 7 for the City of Alhambra – CM
- Del Avion Wastewater Wet Well Rehabilitation, Moulton Niguel Water District - CM and RE
- Elimination of Sewer Pump Station 7 & Improvements to Sewer Pump Station 1, City of El Segundo – CM
- Structural Improvements & Recoating of Colima Reservoirs No. 2 and No. 3, Orchard Dale Water District – CM
- Sewer Lift Station No 3 Project, City of Alhambra – CM
- Paseo Del Mar Sewer Pump Station for the City of Palos Verdes Estates – CM and RE
- Rocky Point Sewer Pump Station, City of Palos Verdes Estates – Lead Inspector
- Partridge Lift Station & Thunderbird Sewer Project, Garden Grove Sanitary District – Lead inspector
- Tiffany Pump Station, Garden Grove Sanitary District – RE

Ms. Haritha Vendra

Project Role: *GIS Services*

Education:

Masters in Civil Engineering with Specialization in Water Resources, University of Texas at Arlington, Arlington, TX, December 2001

Bachelor of Science in Civil Engineering, Osmania University (Hyderabad, India), May 1996

Professional Registration:

GISP 90290; EIT License 116976

Years of Experience*: 15*

GIS Professional with over 15 years of experience in GIS data migration and conversions, and hydraulic modeling.

GIS Skills

Data conversion standard development; Spatial Analysis using 3D, raster and vector data; Utility network analysis; Route analysis; Data migration; Quality Assurance / Quality Control; Metadata Development; Setting up multi-user geodatabases with a versioned environment, Developing workflow for users to edit, maintain, and publish geodatabase; User Needs Analysis, Specs development; GIS task automation; GIS software installation and testing.

GIS and Hydraulic Modeling Projects

- East Orange County Water District – Sewer GIS corrections/additions
- City of Ontario Water Master Plan - Hydraulic Model Geometry
- Moulton Niguel Water District Recycled Water Master Plan – Hydraulic Model Geometry
- Montebello Land & Water Company - Water GIS including GPS meter location, atlas maps
- City of Buena Park Water Master Plan - Hydraulic Model Geometry
- Irvine Ranch Water District GIS Conversion
- Contra Costa Water District GIS
- City of Glendale Water System GIS
- City of Oceanside CMMS –GIS Integrations
- Moulton Niguel Water District Asset Management Enabled GIS

Mr. Paul Mitchell, PE

Project Role: *Flow Monitoring*

Professional Registration:

RCE California 049435; PE NV 016878

Education: *M.S. Civil and Environmental Engineering – CSU Long Beach; B.S. Chemical Engineering – Cal State Polytechnic University Pomona*

Years of Experience*: 25*

Paul has over 30 years of technical and engineering experience with an emphasis in wastewater collection systems, municipal waste, and environmental assessment/site remediation. He currently serves as Senior Region Engineer and Project Manager. His background includes work with long-term flow monitoring services for model verification, capacity studies for siphons, pump stations, and critical sewer segments, infiltration and inflow (I/I) analysis and prioritization studies, sewer system evaluation surveys such as physical inspections, smoke testing, as well as technical reporting and presentation.

Examples of sewer flow monitoring projects and studies that Mr. Mitchell has worked on include:

- East Bay Municipal Utility District, Wet Weather Sewer Flow Monitoring Study - Senior Project Manager
- City of San Jose, Numerous Sewer Flow Monitoring Studies - Sr. Project Manager
- City of Los Angeles, Wet Weather Sewer Flow Monitoring Study - Sr. Project Manager
- Orange County Sanitation District, Rain Dependent I&I Study - Sr. Project Manager
- San Francisco Public Utilities Commission, Wet Weather Sewer FM Study - Advisor.
- City of San Bernardino, Temporary Sewer Flow Monitoring Study - Sr. Project Manager
- Santa Cruz Count, Temporary Sewer Flow Monitoring Study - Sr. Project Manager
- City of Santa Barbara, Rain Dependent Inflow and Infiltration Study - Sr. Project Manager
- City of Burbank, Rain Dependent Inflow and Infiltration Study - Sr. Project Manager
- City of Fullerton, Rain Dependent Inflow and Infiltration Study - Sr. Project Manager

Project Understanding

Background **-** The City of Brea (City) owns and operates a sewer collection system that provides service to a population of about 44,000. The sewer service area includes the entire area within the corporate boundaries, as well as portions of unincorporated Orange County and a small portion of the City of Placentia. The City's sewer collection system is comprised of approximately 114.3 miles of pipe ranging in diameter from 8-inches to 27-inches. The majority of the collection system pipes are vitrified clay pipe. The system dates back to the 1920's, but a large portion of it was built from 1960 to 1980. There are three sewage lift stations and associated forcemains. Wastewater generated in the City's service area is generally conveyed south and west to one of several points of connection with the Orange County Sanitation District's (OCSD) sewer system.

Previous Studies - The City's last sewer master plan was completed in 2005. The current hydraulic model was developed at that time and was calibrated to flow monitoring data collected in December 1999. This information is outdated considering the changes in water use that Southern California communities have experienced during the recent drought periods. The City has also completed all of the recommended improvements outlined in the 2005 Sewer Master Plan. The model in therefore in need of an update to reflect the sewers constructed since 2005 as well as the change in loads.

The City's latest Sewer System Management Plan (SSMP) was completed in 2016. The plan ensured compliance with current Waste Discharge Requirements (WDR) and NPDES orders. A bi-annual audit is required to evaluate the City's performance in operating and maintaining its sewer system.

Purpose - The City desires to prepare a sewer master plan, which will:

- Evaluate the capacity of its system through a well calibrated hydraulic model, and the ability of the system to handle the existing and future peak flows from the service area.
- Identify existing hydraulic deficiencies
- Provide recommendations for upgrades to the system which will be able to convey the ultimate flows
- Assess the condition of the sewer lift stations
- Provide potential solutions of localized siphons and other maintenance issue areas
- Develop a comprehensive prioritized Capital Improvement Program with cost estimates
- Complete a Sewer System Management Plan program audit

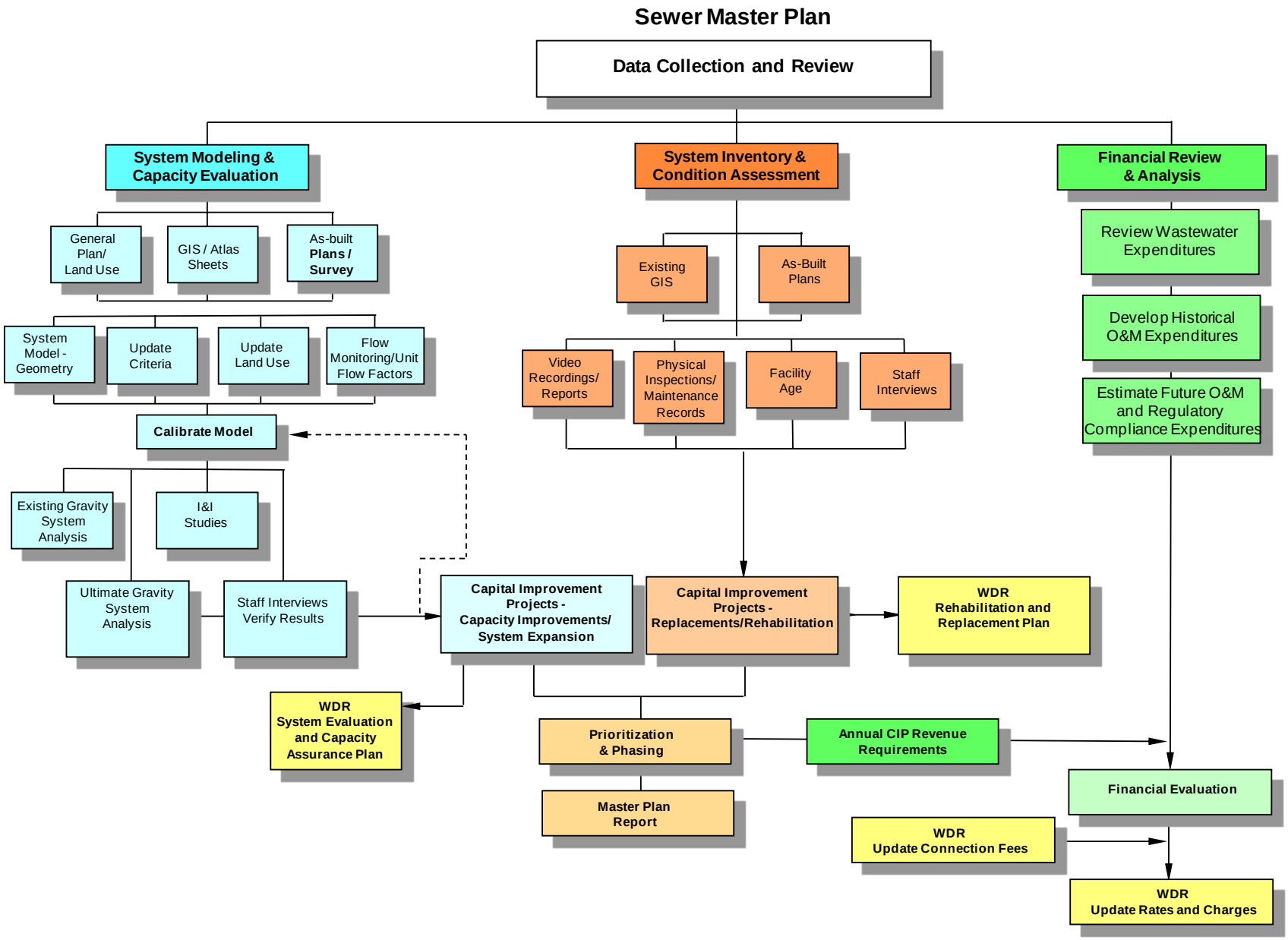
Detailed Work Plan

Our approach to the work is based upon our extensive experience in delivering high quality work within schedule and budget. The flow chart illustrated on Page 34 summarizes the key elements of a sewer master plan study. Not all tasks shown in the flow chart, such as condition assessment of the gravity sewer system or financial review and analysis, are included in this proposal, but are provided to show the elements of a complete sewer master planning project.

Task 1: Project Management and Meetings

Project management activities ensure adherence to schedule and budget, communication between AKM and the City, and implementation of an effective quality assurance/quality control (QA/QC) program will include the following:

- Kickoff meeting to establish lines of communication, review scope of work, data requests, and schedule, discuss the City's expectations, and gain insight into specific issues


Sewer Master Plan
Data Collection and Review
System Modeling & Capacity Evaluation
System Inventory & Condition Assessment
Financial Review & Analysis
General Plan/ Land Use
GIS / Atlas Sheets
As-built Plans / Survey
Existing GIS
As-Built Plans
Review Wastewater Expenditures
Develop Historical O&M Expenditures
System Model - Geometry
Update Criteria
Update Land Use
Flow Monitoring/Unit Flow Factors
Video Recordings/ Reports
Physical Inspections/ Maintenance Records
Facility Age
Staff Interviews
Estimate Future O&M and Regulatory Compliance Expenditures
Calibrate Model
Existing Gravity System Analysis
I&I Studies
Ultimate Gravity System Analysis
Staff Interviews Verify Results
Capital Improvement Projects - Capacity Improvements/ System Expansion
Capital Improvement Projects - Replacements/Rehabilitation
WDR Rehabilitation and Replacement Plan
WDR System Evaluation and Capacity Assurance Plan
Prioritization & Phasing
Annual CIP Revenue Requirements
Master Plan Report
Financial Evaluation
WDR Update Connection Fees
WDR Update Rates and Charges

- Monthly meetings as needed, with prepared agendas and follow-up meeting minutes
- Monthly status reports & billing statements listing tasks, budgets, and percent complete
- Updated project schedule as needed

Task 2: Data Collection and Review

We will retrieve and review all relevant documents including the following: 2005 Sewer Master Plan; 2016 Sewer System Management Plan and latest SSMP Audit; Existing sewer atlas maps; Existing scanned sewer as-built drawings for sewers constructed since 2005 (not in the current Sewer GIS) and for all siphons/hot spot locations; GIS data; Planning data; Lift station information; Operation & Maintenance records of the sewer facilities; Water meter records by billing period and customer class; Bid results for recent construction projects; and Current Capital Improvement Program information.

Task 3: Sewer Hydraulic Model Development

The sewer hydraulic model is an essential element of any master planning effort for documenting the existing system, evaluating existing hydraulic capacity for compliance with the adopted criteria, determining the adequacy of the system to handle future developments, and formulating the capacity improvement recommendations.

We propose to utilize the InfoSewer software by Innovyze, for developing the hydraulic sewer model. This is a commercially available, non-proprietary software that is fully GIS integrated, allowing for easy import/export of data to and from the existing Sewer GIS.

3.1 Model Geometry - We will utilize the City's current Sewer GIS (last updated in 2009) as the basis of the hydraulic model. In addition, we will review and utilize approximately 100 sheets of Engineering Record Plans and incorporate the sewer main and manhole information into the City's Sewer GIS and model. The information collected will include the following at a minimum: year of

plan, pipe diameter, material, length, and invert elevations, and manhole diameter, invert, and rim elevation.

The hydraulic model will include all City owned sewer pipes (excluding laterals and private lines), manholes, large point source flows and tributary area boundaries. We feel it is important to model the entire system in case a future spill should occur, so that the City can show its due diligence in previously analyzing the hydraulic capacity of the entire system. A complete system model can also be used in other evaluations, and constitute the complete map of the system as required by the Operation and Maintenance Program of the Sewer System Management Plan.

We will delineate the tributary area to nearly every manhole using the Theissen Polygons method. If manholes are clustered together in one area, only one tributary area will be created. The tributary area, along with unit flow factors or point sources for high sewage generators will be used to calculate the average flow tributary to each manhole.

3.2 Flow Monitoring and Unit Flow Factors – We will select locations to flow monitor and develop sewer unit flow factors for various land use types. Based on our experience, flow monitoring becomes more and more unreliable as the flow depth in the sewer pipe decreases. More accurate measurements result from larger tributary areas, resulting in larger flows with sufficient flow depth. Typically, unit flow factors can be developed for single family residential land uses from sewer flow monitoring data because large areas of single family residential uses can usually be isolated and flow monitored at one or more locations. It is more difficult to isolate large areas of multi-family, commercial, industrial, and institutional land uses. Additionally, because of large variation in industrial land use types and their flow generation, unit flow factors are even more difficult to develop for this land use. We will generate sewer flows from water use for industrial,

and possibly some of the commercial areas. If needed, we will utilize water use records to supplement the flow monitoring information to develop the unit flow factors. For example, if a large tributary area encompasses commercial and industrial uses, we can install a flow monitor to capture the total sewage flows but then we can separate out the portion from commercial areas and the portion from the industrial uses by analyzing the water use of each. Depending upon what information is available, we can develop unit flow factors based on acreages, dwelling units, building square footage, population or a combination.

3.3 Peaking Relationships - Flow monitoring data will be obtained in 15 minute intervals for each site. We will generate dry weather peaking criteria based upon the diurnal flows recorded by the flow monitors. It is anticipated that different peaking relationships may be used for the various sewersheds to reflect their land uses, size, and specific conditions. We will recommend a wet weather peaking relationship as well based upon our experience.

3.4 Model Calibration - *Per discussions with the City, we included 16 flow monitors for 7 days to capture dry weather data.*

We will utilize the flow monitoring information to calibrate the model with the existing system and existing land uses. Model calibration work will be performed with the dry weather flows. Calibration will first involve matching the model average and peak flows to the flow monitoring results. Unit flow factors and peaking relationships will be adjusted until a close match is obtained.

Task 4: Capacity Analysis

4.1 Collection System Hydraulic Analysis - We will review and update the City's criteria for depth to diameter ratios, such as for pipes 15-inch and smaller, and 18-inch and larger.

The analyses conducted with the peak dry weather flows for calibrating the model will constitute the existing system analysis. We will identify the deficiencies based on the criteria

selected, and formulate replacement and/or relief projects to mitigate the capacity deficiencies. Depending on the location of the calculated deficiencies, we may request additional flow monitoring to verify the calculated deficiencies.

The following scenarios will be analyzed:

1. Existing system with current flow conditions
2. Existing system with future flow conditions (includes future development loads)
3. Existing system plus recommended improvements with future flow conditions

The future flow conditions will include loads anticipated to contribute to the sewer system by the major development projects currently under construction and under review. Details of each development (land use type, number of dwelling units, etc.) will be provided by the City's planning department. We will utilize the developed unit flow factors for each land use type to estimate future sewage loads.

4.2 Lift Station Hydraulic Analysis – We will review and update the City's lift station criteria for wet well capacity, pump capacity, number of pumps, storage, emergency power, and other redundancies to minimize the possibility of overflows. We will evaluate the City owned sewer lift stations. This work will include review of construction plans, design calculations, pump curves, shop drawings, SCADA data, and maintenance records, as well as a thorough field review. If the lift station has flow meters, we will utilize the information from the flow meters for capacity analysis, as well as the adequacy of the wet wells to preclude frequent cycling of the equipment. We will also analyze the lift stations for average, peak dry weather, and peak wet weather capacity. We will then determine if the appropriate level of redundancy as well as emergency wet well capacity is available to avoid overflows. We will determine if each the lift station meets the criteria established and

current industry standards. We will then make recommendations for bringing it up to current standards. We will also interview the City's engineering and O&M staff to develop insight into the existing facilities.

Task 5 – Condition Assessment

5.1 Closed Circuit Television Inspections – Not included in current scope

5.2 Collection System Condition Assessment – Not included in current scope

5.3 Lift Station Condition Assessment – Condition assessments of the three lift stations will be conducted. We will review available maintenance records pertaining to each of the lift stations. We will visit each lift station to conduct a thorough inspection of the facilities. We will interview City O&M staff to gain insight into the operation and maintenance of each of the lift stations. We will document all necessary information for evaluating the condition of the lift stations.

Task 6 –Review Known Hot Spot Locations

There are 59 known hot spot locations (list provided by City) in the City's sewer system. Per the 2016 SSMP, the City updates its hot spot list on a monthly bases or more frequently as needed. Locations are added to the hot spot list if it is found to be a location of frequent fats, oils, and grease (FOG) or debris buildup, flow issues, or root issues. Per the 2016 SSMP, there is only one siphon location in the system, but the RFP suggests there may be more than one location. The City would like to have the hot spot and siphon locations reviewed and possible solutions provided as a part of the Sewer Master Plan recommendations. For purposes of this proposal, we have assumed that there are approximately 65 hot spot locations to review and make recommendations for.

We will review CCTV inspections for all hot spot locations except for the siphons, which cannot typically be inspected due to the vertical bends in the lines and the bypass flow requirements. We

will confirm the presence of grease, debris, roots and/or flow issues caused by such defects as sags and offset joints. We will interview City staff about the problems experienced in the field and make recommendations for maintenance programs, improvements, and/or further investigations.

We will review as-built plans for the siphons and interview City staff about problems experienced in the field. If possible, we will make recommendations for flow diversions to eliminate the siphons from the system.

Task 7 –Review Jurisdictional Codes

We will review all the latest Federal, State, and Local Regulations and appraise City staff on the status. The primary regulation that will guide the study is the State General Waste Discharge Requirements.

Task 8 – Capital Improvement Program

We will develop a prioritized Sewer Capital Improvement Program (CIP) with cost estimates based upon the collection system and pump station hydraulic analyses and the condition assessments. The highest priorities will be given to verified capacity deficiencies and structural defects that may fail and cause overflows.

Task 9 – Sewer Master Plan Document

The work effort and the results will be presented in a Sewer Master Plan report. At a minimum, the report will include: Executive Summary, Introduction, Study Area, Criteria, Existing System, Future System, Hydraulic Model, Capacity Analysis, Condition Assessment, and Capital Improvement Program.

The report will include clear exhibits of appropriate scale to illustrate the data used, analyses performed, and the recommendations. Appendices will include the backup information utilized in

formulating the recommended improvements.

We will submit a draft report (5 copies) for City review. We will then meet with the City to discuss the review comments. Following the incorporation of City staff comments, we will submit one electronic copy and five (5) bound copies of the Final Sewer Master Plan report.

Task 10 – Public Meeting Presentations

Our Cost Proposal includes time to attend two (2) public meetings to present the findings of the Sewer Master Plan. We will work with City staff in preparing presentation materials, such as power point presentations, and either make presentations, or support the City staff in making the presentations.

Task 11 – Sewer System Management Plan Audit

We will prepare a SSMP Audit report that shall focus on evaluating the effectiveness of the SSMP and the City's compliance with the SSMP requirements identified in the State Water Resources Control Board's Order No. 2006-003. The audit report will include the identification of any deficiencies in the SSMP and the recommendations to correct them. It will focus on the previous two years (2017-2018) since the audit is a bi-annual report. We will request the following additional data for the SSMP Audit:

- Overflow Response Plan
- Sewer Design Standards
- FOG Program Documentation
- Sewer cleaning log database for 2017-2018 (including hot spots)
- Sewer lift station maintenance logs for 2017-2018
- Legal Authority Documentation
- Sewer Design Standards
- SSO reports for 2017-2018

- Any complaint records related to the sewer system for 2017-2018
- Any emergency sewer repair records for 2017-2018

We will provide five (5) hard copies and one (1) electronic PDF file of the draft report. Upon review, the City will provide comments. A final report will then be generated which integrates the City's comments. Five (5) hard copies and one (1) electronic PDF file of the Final report will be provided.

Quality Control Plan

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 of the projects by our construction management professionals.

Our QA/QC Program will require our sub-consultant 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.

Exceptions / Deviations

AKM Consulting Engineers does not have any exceptions or deviations from the RFP. AKM accepts the contract requirements of the proposed professional services agreement as set forth in Section IV of the RFP.

Fee Proposal

AKM's current rate schedule is shown on Page 42. The fee proposal is shown on Page 48. Rates will not be revised during the term of the Contract without prior approval by the City Council. Our fee proposal is based upon review of 100 sheets of plans in updating the existing GIS.

Labor Classification	Hourly Rate
Principal	$225
Principal Engineer	$225
Project Manager	$219
Project Engineer	$208
Senior Construction Manager	$207
QA/QC Manager	$207
Senior Engineer	$191
Senior Field Engineer / Inspector	$175
Field Engineer / Inspector	$154
Associate Engineer	$149
Staff Engineer	$132
Financial Analyst	$121
Senior Designer / Senior CADD Technician	$104
Designer / CADD Technician	$97
Assistant Engineer	$95
Engineering Technician	$88
Engineering Aide	$74
Office Support	$74
Data or Word Processing	$72

Past and Present Contracts Form

As requested, the "Status of Past and Present Contracts" form is provided on Page 43.

Project Schedule

The City requested that the Sewer Master Plan be completed by June 30, 2020. We will endeavor to meet the desired schedule if all information needed for the project can be provided to AKM in a timely manner. The scheduling of the flow monitoring work and the number of plan sheets needed to be reviewed to update the GIS may result in extending the schedule. The proposed project schedule is shown on Page 44.

STAFF HOUR & FEE ESTIMATE
City of Brea
Sewer System Master Plan Update
November 21, 2019

	Project Manager (hr)	Project Engineer (hr)	Hydraulic Model & Analysis (hr)	Condition Assess-ment (hr)	Lift Station Assess-ment (hr)	QA/QC Manager (hr)	Admin Support (hr)	Total Hours	Labor Cost ($)	Sub-Consultant ($)	Expenses ($)	Total Cost ($)
Task 1 - Project Management and Meetings	**24**	**48**	**16**	**16**	**4**	**4**	**0**	**112**	**$21,536**	**$0**	**$500**	**$22,036**
Project Management and Meetings	24	48	16	16	4	4			$21,536		$500	$22,036
Task 2 - Data Collection and Review	**4**	**16**	**24**	**16**	**8**	**0**	**0**	**68**	**$11,564**	**$0**	**$0**	**$11,564**
Data Collection and Review	4	16	24	16	8				$11,564			$11,564
Task 3 - Sewer Hydraulic Model Development	**44**	**112**	**264**	**0**	**0**	**0**	**0**	**420**	**$72,268**	**$76,689**	**$0**	**$148,957**
Task 3.1 - Model Geometry		8	24						$5,240	$12,000		$17,240
Task 3.2 - Flow Monitoring (16) and Unit Flow Factors	32	64	160						$44,160	$64,689		$108,849
Task 3.3 - Peaking Relationships	8	16	40						$11,040			$11,040
Task 3.4 - Model Calibration	4	24	40						$11,828			$11,828
Task 4 - Capacity Analysis	**12**	**24**	**32**	**0**	**8**	**4**	**0**	**80**	**$14,616**	**$0**	**$0**	**$14,616**
Task 4.1 - Collection System Hydraulic Analysis	8	16	24			2			$9,070			$9,070
Task 4.2 - Lift Station Hydraulic Analysis	4	8	8		8	2			$5,546			$5,546
Task 5 - Condition Assessment	**8**	**16**	**8**	**0**	**40**	**4**	**0**	**76**	**$14,100**	**$0**	**$0**	**$14,100**
Task 5.3 - Lift Station Condition Assessment	8	16	8		40	4			$14,100			$14,100
Task 6 - Review Known Hot Spot Locations	**24**	**40**	**0**	**60**	**0**	**4**	**0**	**128**	**$23,344**	**$0**	**$0**	**$23,344**
Review Known Hot Spot Locations	24	40		60		4			$23,344			$23,344
Task 7 - Review Jurisdictional Codes	**4**	**8**	**0**	**0**	**0**	**0**	**0**	**12**	**$2,540**	**$0**	**$0**	**$2,540**
Review Jurisdictional Codes	4	8							$2,540			$2,540
Task 8 - Capital Improvement Program	**8**	**24**	**16**	**16**	**16**	**4**	**0**	**84**	**$15,140**	**$0**	**$0**	**$15,140**
Capital Improvement Program	8	24	16	16	16	4			$15,140			$15,140
Task 9 - Sewer Master Plan Document	**36**	**84**	**56**	**56**	**20**	**12**	**28**	**292**	**$50,100**	**$0**	**$2,000**	**$52,100**
9.1 - Draft Master Plan Report	24	60	40	40	16	8	20		$35,592		$1,000	$36,592
9.2 - Final Master Plan Report	12	24	16	16	4	4	8		$14,508		$1,000	$15,508
Task 10 - Public Meeting Presentations	**12**	**24**	**0**	**0**	**0**	**0**	**4**	**40**	**$7,916**	**$0**	**$0**	**$7,916**
Public Meeting Presentations	12	24					4	40	$7,916			$7,916
Task 11 - Sewer System Management Plan Audit	**24**	**40**	**80**	**0**	**0**	**0**	**16**	**160**	**$26,680**	**$0**	**$500**	**$27,180**
Sewer System Management Plan Audit	24	40	80				16	160	$26,680		$500	$27,180
Task 12 - Other As-Needed Work	**80**	**60**	**24**					164	$33,576			**$33,576**
Other As-Needed Work	80	60	24					164	$33,576			$33,576
Total Hours	**280**	**496**	**520**	**164**	**96**	**32**	**48**	**1636**				
Rate ($/Hr)	**$219**	**$208**	**$149**	**$149**	**$175**	**$207**	**$74**					
Total Cost	**$61,320**	**$103,168**	**$77,480**	**$24,436**	**$16,800**	**$6,624**	**$3,552**		**$293,380**	**$76,689**	**$3,000**	**$373,069**

Status of Past and Present Contracts Form

On the form provided below, Offeror shall list the status of past and present contracts where the firm has either provided services as a prime contractor or a subcontractor during the past five (5) years in which the contract has ended or will end in a termination, settlement or in legal action. A separate form must be completed for each contract. Offeror shall provide an accurate contact name and telephone number for each contract and indicate the term of the contract and the original contract value.

If the contract was terminated, list the reason for termination. Offeror must also identify and state the status of any litigation, claims or settlement agreements related to any of the identified contracts. Each form must be signed by an officer of the Offeror confirming that the information provided is true and accurate.

Project city/agency/other: None / Non-applicable as to AKM's Design Services or Planning Services.
As to Construction Management Services: VA&Sons/Vidmar; City of Huntington Beach
Contact name: Joseph Dale, PW Construction Manager **Phone:** 714-536-5915
Project award date: 2013 **Original Contract Value:** $1,000,000
Term of Contract: 3 years
1) Status of contract: Terminated by the City of Huntington Beach
2) Identify claims/litigation or settlements associated with the contract:
AKM Consulting Engineers was the plaintiff in a lawsuit involving the contractor, Vido Artukovich and Sons/
Vidmar, Mark N. Artukovich, and the City of Huntington Beach resulting from termination of AKM's On-Call
Construction Management Services contract. Reason given to AKM: Alleged inability to work with Construction Contractor.
Jury found favor of AKM Consulting Engineers on al counts as follows:

1. Breach of contract by the City of Huntington Beach
2., 3. Inducing breach of contract by VAS and Mark Artukovich
4., 5. Intentional interference with contractual relations by VAS and Mark Artukovich

By signing this Form entitled "Status of Past and Present Contracts," I am affirming that all of the information provided is true and accurate.

Signature _____ Date 9/26/2019

Name: Zeki Kayiran

Title: President

City of Brea
Proposal - Sewer System Master Plan Update
September 26, 2019

ID	Task Name	Duration
1	**Task 1 - Project Management and Meetings**	**1 day**
2	Project Management and Meetings	1 day
3	**Task 2 - Data Collection and Review**	**20 days**
4	Data Collection and Review	20 days
5	**Task 3 - Sewer Hydraulic Model Development**	**90 days**
6	Task 3.1 - Model Geometry	20 days
7	Task 3.2 - Flow Monitoring and Unit Flow Factors	40 days
8	Task 3.3 - Peaking Relationships	20 days
9	Task 3.4 - Model Calibration	20 days
10	**Task 4 - Capacity Analysis**	**15 days**
11	Task 4.1 - Collection System Hydraulic Analysis	15 days
12	Task 4.2 - Lift Station Hydraulic Analysis	15 days
13	**Task 5 - Condition Assessment**	**20 days**
14	Task 5.3 - Lift Station Condition Assessment	20 days
15	**Task 6 - Review Known Hot Spot Locations**	**20 days**
16	Review Known Hot Spot Locations	20 days
17	**Task 7 - Review Jurisdictional Codes**	**20 days**
18	Review Jurisdictional Codes	20 days
19	**Task 8 - Capital Improvement Program**	**25 days**
20	Capital Improvement Program	25 days
21	**Task 9 - Sewer Master Plan Document**	**50 days**
22	9.1 - Draft Master Plan Report	25 days
23	9.2 - Final Master Plan Report	20 days
24	**Task 10 - Public Meeting Presentations**	**0 days**
25	Public Meeting Presentations	0 days
26	**Task 11 - Sewer System Management Plan Audit**	**60 days**
27	Sewer System Management Plan Audit	60 days

AKM Prop. 19-1099

Task | Summary | External Milestone | Inactive Summary | Manual Summary Rollup | Finish-only
Split | Project Summary | Inactive Task | Manual Task | Manual Summary | Progress
Milestone | External Tasks | Inactive Milestone | Duration-only | Start-only | Deadline

DATE: 9/13/2019 Total No. of Pages: 15

TO: NAME: Michael Ho, City Engineer

FIRM: City of BREA

TEL#: (714) 990-7657 EMAIL: **michaelh@cityofbrea.net**

FROM:

SUBJECT: **ADDENDUM #2,** FOR Sewer System Master Plan Update

PLEASE NOTE AND EMAIL BACK THIS ADDENDUM #2

Summary of Changes:

1. **ADDED to SECTION V Scope of Service** – The Sewer Master Plan Update to be completed by June 30th, 2020.

2. **ADDED to SECTION V Scope of Service** – Sewer monitoring station to be six (6) locations with the duration of 7-days.

3. **ADDED to SECTION V Scope of Service** – It is estimated 25 miles of CCTV video and report is available for review. The remainder of the sewer mains shall be CCTV inspected as part of this update.

4. **ADDED to SECTION V Scope of Service** – Provide geodata of the sewer main added and/or modified as part of this update. There is approximately 100 sheets of Engineering Record Plans to review and incorporate.

5. **CLARIFICATION** – See attached for sample sewer CCTV reports. Sample CCTV videos are available to download on the City FTP site.

6. **CLARIFICATION** – Current City GIS Sewer geodatabase is available to download on the City FTP site. The latest update to the current GIS is in or around 2009.

7. **CLARIFICATION** - A sewer system model from 2009 System Evaluation and Capacity Assurance Plan is available.

8. **CLARIFICATION** – See attached for list of the major CIP projects.

9. **CLARIFCATION** – See attached for list of the development projects.

10. **CLARIFICATION** – See attached for the power point slides.

11. **CLARIFICATION** – See attached for sign-in sheet.

☑ **I have noted and received Sewer System Master Plan Update Addendum #2.**

AKM Consulting	Diann Pay	DIANN PAY	9/19/19
COMPANY	Signature	Print name	Date

DATE: 9/18/2019 Total No. of Pages: 4

TO: NAME: Michael Ho, City Engineer

FIRM: City of BREA

TEL#: (714) 990-7657 EMAIL: **michaelh@cityofbrea.net**

FROM:

SUBJECT: **ADDENDUM #3,** FOR Sewer System Master Plan Update

PLEASE NOTE AND EMAIL BACK THIS ADDENDUM #3

Summary of Changes:

1. **CLARIFICATION** – See attached for the current list of sewer system locations "hot spots" that require extensive maintenance for reference.

2. **CLARIFICATION** – It is estimated 25 miles of CCTV video and report is available for review. The remainder of the sewer mains (approximately 85 miles) shall be CCTV inspected as part of this update at the responsibility of the offeror. The proposal shall include the cleaning of the sewer mains, CCTV videos, review videos and assess the conditions of the sewer mains.

3. **CLARIFICATION** – A sewer system model from 2009 System Evaluation and Capacity Assurance Plan is available to download on the City FTP site.

☑ **I have noted and received Sewer System Master Plan Update Addendum #3.**

AKM Consulting	Diann Pay	DIANN PAY	9/19/19
COMPANY	Signature	Print name	Date

City of Brea

FINANCE COMMITTEE COMMUNICATION

TO: Finance Committee Members

FROM: Bill Gallardo

DATE: 01/28/2020

SUBJECT: Purchasing Activity under Special City Council Authorization for Quarter Ending December 31, 2019

RECOMMENDATION

Receive and file.

BACKGROUND/DISCUSSION

The Brea City Council has requested updates on purchasing activity under special City Council authorization for purchases of vehicles and equipment, software renewals, and the City Manager's authority under the Purchasing Ordinance. The following items are grouped as aforementioned showing the authorizing document and date, a brief narrative of the particular purchases for which the Purchasing Agent issued Purchase Orders in excess of $25,000.

Vehicle and Equipment Purchases (authorized August 20, 2019).
For equipment included in the Annual Vehicles and Equipment Purchase Plan for Fiscal Year 2019-20, the Purchasing Agent issued the following Purchase Orders:

- On 11-08-19, PO #220117 was issued for $30,663.68 to Budget Rent a Car of Norwalk for one used 2018 Volkswagen Atlas SE Sport Utility Vehicle for use by the Police Department PD detectives. The final price was about $4,250.50 plus tax lower than other comparably-equipped dealer prices and $663.68 above the budgeted amount. The current Kelly Blue Book value for unit #1325 is $8,757.50 and it will be auctioned after the new unit has been placed into service.
- On 11-08-19, PO #220118 was issued for $29,036.66 to Budget Rent a Car of Norwalk for one used 2019 Chevrolet Colorado Crew Cab LT Pickup Truck for use by the Police Department PD detectives. The final price was about $1,106.00 plus tax lower than other comparably-equipped dealer prices and $963.34 less than the budgeted amount. Since this unit is an addition to the fleet there is existing unit to be auctioned.
- On 12-20-19, PO #220131 was issued for $28,617.51 to Budget Rent a Car of Norwalk for one used Chrysler Pacifica Touring mini-van for use by the Police Department PD detectives. The final price was about $7,010.00 plus tax lower than other comparably-equipped dealer prices and $1,382.49 less than the budgeted amount. The current Kelly Blue Book value for unit #1415 is $5,224.50 and it will be auctioned after the new unit has been placed into service.

Year-to-Date Totals
FY 19/20 Equipment

- The year-to-date equipment purchases are $148,218.76, which is a $6,599.09 savings over those same budgeted items.

FY 19/20 Surplus Sales

- The year-to-date surplus sales net proceeds are $41,290.00. One notable sale for this quarter was the 1997 E-One Custom Fire Pumper for $28,600.00.

Software Renewals (authorized August 20, 2019)
For software renewals included in the Fiscal Year 2019-20 Budget, the Purchasing Agent issued the following Purchase Order:

- On 11-01-19 the second of four quarterly payments for $26,354.00 was made to County of Orange for the 800MHz public safety radio backbone system.

City Manager's Authorization (BMC ss3.24.210)
For urgent items or work included in the Fiscal Year 2019-20 Budget, the Purchasing Agent issued Purchase Orders:

- On 11-14-19, PO #220125 was issued in the amount of $32,425.80 to CDCE Inc. for Panasonic Computers, which will allow the Brea Police to issue citations, and collect and process data electronically. Purchasing issued Request for Bids #2019092702 for this equipment. While 1529 firms were notified of this bid opportunity and 54 firms accessed the online bid documents, only two bids were received. One bid was from Howard Industries' for $39,609.49 and the other bid was from CDCE, Inc. for $32,425.80. CDCE's low bid was recommended for award, accordingly. To ensure these items could be delivered by the December 31, 2019 State of California Office of Traffic Safety grant deadline, the order needed to be expedited. This purchase was funded solely by the grant and was within the grant line item projected expenditure amount.
- On 11-19-19, PO #220901 was issued for $30,600 to Cylance Consulting - On November 19, 2019, the Information Technology (IT) Division contacted the City's endpoint security software vendor, Cylance, and requested emergency support from their Incident Response Team to help contain and isolate a ransomware incident and provide forensic analysis to determine the source of the outbreak. Since Brea utilizes the Cylance anti-virus software, they had the prerequisite knowledge to assist with the response and recovery. Cylance is also on the preferred vendor list with our cyber insurance provider AXA XL. This was considered emergency work, since time was of the essence in restoring the City's critical systems and preventing any further spread of the ransomware. Therefore, we did not obtain any additional quotations or bids for these services. A Scope of Work agreement was signed by the City Manager and a PO to Cylance Consulting was issued accordingly. The finalized price included a 15% insurance discount based on being a preferred vendor with the insurance provider.

SUMMARY/FISCAL IMPACT

The City Council adopted Fiscal Year 2019-20 Budget has sufficient funding available for these purchases.

RESPECTFULLY SUBMITTED

William Gallardo, City Manager
Prepared by: Neil Groom, Procurement and Contracts Administrator
Concurrence: Cindy Russell, Administrative Services Director

Attachments

01-14-2020 Minutes

FINANCE COMMITTEE MINUTES

Tuesday, January 14, 2020
8:30 AM
Executive Conference Room, Level Three
Brea Civic & Cultural Center, 1 Civic Center Circle, Brea, California

CALL TO ORDER / ROLL CALL

ATTENDEES: Mayor Marty Simonoff, Council Member Cecilia Hupp, Chris Emeterio, John Burks, Tony Olmos, Cindy Russell, Faith Madrazo, Michael Ho, Sean Matlock, Jen Colacion, Marie Dao, Linda Tang, Warren Coleman, Neil Groom and Ana Conrique

1. Matters from the Audience – *None.*

CONSENT

2. Approval of Minutes of November 12, 2019 Meeting – *Approved.*

DISCUSSION

3. Professional Services Agreements for Annual As-Needed Construction Materials and Soils Testing Services for Various Capital Improvement Projects – *Recommended for City Council Approval.*

4. Agreement with Linscott Law & Greenspan for City Traffic Engineering Services – *Recommended for City Council Approval.*

5. Construction Contract for Civic Center Security System Improvement Project No. 7954 – *Committee requested staff to clarify the need for the sole-source contract in the staff report. Recommended for City Council Approval.*

6. Approval of the Application for Participation in the Community Development Block Grant Program (CDBG) for Fiscal Years 2020-21, 2021-22 and 2022-23 – *Recommended for City Council Approval.*

7. Patrol Rifle Replacement – *Recommended for City Council Approval.*

8. Schedule Next Meeting: January 28, 2020

Meeting adjourned: 8:34 am

cc: Mayor Pro Tem Steven Vargas
Council Member Christine Marick
Council Member Glenn Parker