#### PROFESSIONAL SERVICES AGREEMENT

THIS PROFESSIONAL SERVICES AGREEMENT is made and entered into, to be effective the 22 day of September, 2020, by and between the CITY OF GARDEN GROVE, a municipal corporation, hereinafter referred to as "City," and West Yost Associates, a California Corporation, hereinafter referred to as "Consultant." City and Consultant are sometimes hereinafter individually referred to as "Party" and hereinafter collectively referred to as the "Parties."

#### **RECITALS**

WHEREAS, City has determined that there is a need for Professional Engineering Services to provide program management for the SCADA Implementation Projects (the "Project");

WHEREAS, City desires to retain Consultant to provide such services; and

WHEREAS, Consultant is qualified by virtue of experience, training, education, and expertise to perform the professional services required by this Agreement and has agreed to provide such services.

NOW, THEREFORE, in consideration of the promises and mutual benefits which will result to the Parties in carrying out the terms of this Agreement, it is mutually agreed as follows:

#### <u>AGREEMENT</u>

# I. SCOPE OF WORK

City agrees to retain Consultant, and Consultant agrees to perform the services set forth in the Scope of Services described in Exhibit "A", attached hereto and by reference made a part of this Agreement (hereinafter the "Services"). Consultant agrees that its provision of Services under this Agreement shall be within accepted standards within the profession, and its specialized services shall be in accordance with customary and usual practices in Consultant's profession. By executing this Agreement, Consultant represents that it has carefully considered how the work should be performed and fully understands the facilities, difficulties, and restrictions attending performance of the work under this Agreement.

# II. <u>TERM</u>

This Agreement shall be effective as of the date first set forth above. This Agreement shall commence upon the effective date of this Agreement, and shall remain and continue in effect until tasks described herein are completed unless otherwise terminated prior to this date pursuant to the provisions of this Agreement.

# III. FEES

#### A. Accounting Records

Consultant shall keep complete, accurate, and detailed accounts of all time, costs, expenses, and expenditures pertaining in any way to this Agreement. Upon request of City, Consultant shall provide City with all records pertaining to this Agreement.

# B. <u>Total Payment</u>

The Parties agree that Consultant shall bill for the Services provided by Consultant to City on an hourly basis and in accordance with the charges and fee schedule attached as Exhibit "B," except as otherwise set forth herein, provided compensation under this Agreement shall not exceed \$3,182,944.

# C. <u>Monthly Payment</u>

- City agrees to pay Consultant monthly, in accordance with the 1. payment rates and terms and the schedule of payment, as set forth in Exhibit "B," attached hereto based upon actual time spent providing the services outlined in this Agreement. Consultant shall submit to City monthly or periodic statements requesting payment. Such requests shall be based upon the amount and value of the Services performed by Consultant under this Agreement and shall be prepared by Consultant and accompanied by such reporting data including a detailed breakdown of all costs incurred and tasks performed during the period covered by the statement, as may be required by City. City shall use reasonable efforts to make payment to Consultant within forty-five (45) days after the date of the invoice or as soon thereafter as reasonably practicable. If City determines that the approved written Scope of Work under this Agreement or any specified task hereunder is incomplete, the City Manager, or his or her designee, shall notify Consultant and may withhold the payment amount for the unfinished work accordingly.
- 2. Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement, which are in addition to those set forth herein, unless such additional services are authorized in advance and in writing by the City Manager.

# IV. TERMINATION

City may terminate this Agreement for its convenience at any time, with or without cause, in whole or in part, upon giving Consultant thirty (30) days written notice. Upon said notice, City shall pay Consultant its allowable costs incurred to date of termination and those allowable costs determined by City to be reasonably necessary to effect such termination. Upon receipt of said notice, Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If City terminates a portion of this Agreement, such termination shall not make void or invalidate the remainder of this Agreement. Thereafter, Consultant shall have no further claims against City under this Agreement. Upon termination of the Agreement pursuant to this Section, Consultant will submit an invoice to City pursuant to Section 3. Consultant may terminate this Agreement, with or without cause, upon thirty (30) days written notice to City.

# V. <u>DEFAULT OF CONSULTANT</u>

- A. Consultant's failure to comply with the provisions of this Agreement shall constitute a default. In the event Consultant is in default, except as provided for in Section XXI, City shall have no obligation or duty to continue compensating Consultant for any work performed after the date of default and can terminate the Agreement immediately upon written notice to Consultant.
- B. If the City Manager, or his/her designee, determines that Consultant is in default in the performance of any of the terms or conditions of this Agreement, it shall notify Consultant in writing of such default. Consultant shall have ten (10) days to cure the default by rendering a satisfactory performance. In the event Consultant fails to cure its default within such period of time, City shall have the right, notwithstanding any other provision of this Agreement, to terminate this Agreement without further notice and without prejudice of any remedy to which City may be entitled at law, in equity or under this Agreement. Consultant shall be liable for any and all reasonable costs incurred by City as a result of such default including, but not limited to, reprocurement costs of the same or similar services defaulted by Consultant under this Agreement.

#### VI. LEGAL RELATIONSHIP BETWEEN THE PARTIES

A. The legal relationship between the Parties hereto is that of an independent contractor, and nothing herein shall be deemed to make Consultant a City employee. During the performance of this Agreement, Consultant and its officers, employees, and agents shall act in an independent capacity and shall not act as City officers, employees, or agents. The personnel performing the Services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither City nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of its officers, employees, or agents, except as set

forth in this Agreement. Consultant, its officers, employees, or agents shall not maintain an office or any other type of fixed business location at City's offices.

- B. Consultant shall not incur or have the power to incur any debt, obligation, or liability against City, or bind City in any manner.
- C. No City benefits shall be available to Consultant, its officers, employees, or agents in connection with any performance under this Agreement. Except for fees paid to Consultant as provided for in this Agreement, City shall not pay salaries, wages, or other compensation to Consultant for the performance of Services under this Agreement. City shall not be liable for compensation or indemnification to Consultant, its officers, employees, or agents for injury or sickness arising out of performing Services hereunder. If for any reason, any court or governmental agency determines that City has financial obligations, other than pursuant to Section III herein, of any nature related to salary, taxes, or benefits of Consultant's officers, employees, servants, representatives, subcontractors, or agents, Consultant shall indemnify City for all such financial obligations.

#### VII. MODIFICATIONS AND AMENDMENTS TO AGREEMENT

No modification or amendment of this Agreement or any of the provisions hereof shall be effective for any purpose unless set forth in writing signed by duly authorized representatives of both Parties.

## VIII. ASSIGNMENTS AND SUBCONTRACTING

The experience, knowledge, capability, and reputation of Consultant, its principals and employees were a substantial inducement for City to enter into this Agreement. Consultant may not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, voluntarily or by operation of law, without the prior written approval of City. Except as otherwise expressly provided in the Scope of Services (Exhibit "A"), Consultant shall not contract with any other person or entity to perform the Services required without written approval of City. If Consultant is permitted to subcontract any part of this Agreement by City, Consultant shall be responsible to City for the acts and omissions of its subcontractor as it is for persons directly employed. Nothing contained in this Agreement shall create any contractual relationships between any subcontractor and City. City will deal directly with and will make all payments to Consultant as provided for in Section III.

#### IX. SUCCESSORS IN INTEREST

This Agreement shall be binding upon and inure to the benefit of the Parties' successors and assignees.

# X. THIRD PARTY BENEFICIARY

Except as may be specifically provided for herein, nothing contained in this Agreement is intended to confer, nor shall this Agreement be construed as conferring, any rights, including, without limitation, any rights as third-party beneficiary or otherwise, upon any entity or person not a party hereto.

# XI. INSURANCE

#### A. Insurance Required

Consultant shall procure and maintain the insurance described herein for the duration of this Agreement, or as otherwise specified herein, against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by Consultant, its agents, representatives, or employees. Insurance required herein shall be provided by a reputable insurance company in good standing with the State of California and having a minimum A.M. Best's Guide Rating of A-, Class VII or better. City will require Consultant to substitute any insurer whose rating drops below the levels specified herein. Such substitution shall occur within twenty (20) days of written notice to Consultant by City.

Consultant shall provide to City certificates of insurance in a form acceptable to City indicating the deductible or self-retention amounts and the expiration date of the policy, and shall provide renewal certificates not less than ten (10) days prior to the expiration of each policy term. The certificates of insurance shall specifically identify this Agreement and shall contain express conditions that City is to be given at least thirty (30) days advance written notice of any material modification in or termination of insurance. Such insurance shall be primary to and not contributing with any other insurance maintained by City of Garden Grove and/or its respective councilmembers, officers, officials, employees, agents, and volunteers. The insurance shall name the City of Garden Grove and its respective councilmembers, officers, officials, employees, agents and volunteers as additional insureds by endorsement to the insurance policies. Except as expressly authorized herein, all insurance shall be on an occurrence basis.

#### 1. Errors and Omissions Insurance

Consultant shall maintain in full force and effect throughout the term of this Agreement, standard industry form professional negligence errors and omissions insurance coverage in an amount of not less than One Million Dollars (\$1,000,000.00) per claim or per occurrence and Two Million Dollars (\$2,000,000.00) aggregate, in accordance with the provisions of this Section. If the policy of insurance is written on a "claims made" basis, the policy shall be continued in full force and effect at all times during the term of this Agreement, and for a period of three (3) years from the date of the completion of the Services provided hereunder. In the event of termination of the policy during this period, Consultant shall obtain continuing insurance coverage for the

prior acts or omissions of Consultant during the course of performing Services under the terms of this Agreement. The coverage shall be evidenced by either a new policy evidencing no gap in coverage, or by obtaining separate extended "tail" coverage with the present or new carrier.

In the event the policy of insurance is written on an "occurrence" basis, the policy shall be continued in full force and effect during the term of this Agreement, or until completion of the Services provided for in this Agreement, whichever is later. In the event of termination of the policy during this period, new coverage shall be obtained for the required period to ensure coverage for the prior acts of Consultant during the course of performing the Services under the terms of this Agreement.

# 2. <u>Workers' Compensation</u>

Consultant shall obtain and maintain, during the term of this Agreement, Workers' Compensation Employer's Liability Insurance in the statutory amount as required by state law. Such worker's compensation insurance shall be endorsed to provide for a waiver of subrogation against City of Garden Grove, its respective councilmembers, officers, officials, agents, employees, and volunteers.

# B. <u>Minimum Limits of Insurance</u>

Consultant shall maintain limits no less than:

# 1. <u>General Liability</u>:

\$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. (claims made and modified occurrence policies are not acceptable); Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY.

#### 2. Automobile Liability:

\$1,000,000 per accident for bodily injury combined single limit. (claims made and modified occurrence policies are <u>not</u> acceptable); Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY.

# 3. <u>Employer Liability</u>:

\$1,000,000 per accident for bodily injury or disease. (claims made and modified occurrence policies are not acceptable); Insurance companies must be acceptable to CITY and have an AM Best's Guide Rating of A-, Class VII or better, as approved by the CITY.

# C. <u>Deductibles and Self-Insured Retentions</u>

Any deductibles or self-insured retentions must be declared to and approved by the Risk Manager. At the option of the Risk Manager, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City of Garden Grove, and its councilmembers, officials, officers, employees, agents and volunteers, or Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses, or Consultant shall otherwise provide an alternative satisfactory to the Risk Manager.

### D. Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

- 1. The City of Garden Grove and its respective councilmembers, officers, officials, employees, agents and volunteers are to be covered as insureds with respect to: liability arising out of activities and work performed by or on behalf of Consultant; products and completed operations of Consultant; premises owned occupied or used by Consultant; and automobiles owned, leased, hired, or borrowed by Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the Garden Grove Sanitary District, the City of Garden Grove, the Garden Grove Agency for Community Development and their respective councilmembers, board members, officials, employees, agents, and volunteers.
- 2. For any claims related to this Agreement, Consultant's coverage shall be primary insurance as respects the City and its councilmembers, officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by Garden Grove Sanitary District, the City of Garden Grove, and their respective councilmembers, board members, officers, officials, employees, agents, and volunteers shall be in excess of Consultant's insurance and shall not contribute with it.
- 3. Any failure to comply with reporting or other provisions of the policies, including breaches of warranties shall not affect coverage provided to the City of Garden Grove and its respective councilmembers, board members, officers, officials, employees, agents, and volunteers.
- 4. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the insurer's liability.

- 5. Each insurance policy required by this Section shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been provided to City.
- 6. Consultant agrees to ensure that subcontractors, and any other parties involved with the project who are brought onto or involved in the project by Consultant, provide the same minimum insurance coverage required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this Section. Consultant agrees that upon request, all agreements with subcontractors and others engaged in the project will be submitted to City for review.

#### E. Verification of Coverage

Consultant shall furnish City with original endorsements effecting coverage required by this Agreement. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by City before work commences.

If CONSULTANT maintains higher insurance limits than the minimums shown above, CONSULTANT shall provide coverage for the higher insurance limits otherwise maintained by the CONSULTANT

# XII. <u>INDEMNITY</u>

#### A. <u>Indemnification</u>

To the fullest extent permitted by law including California Civil Code 2782.8, Consultant shall indemnify, protect and hold harmless the City of Garden Grove and its respective councilmembers, officers, officials, employees, agents, and volunteers, (individually "Indemnified Party"; collectively "Indemnified Parties") against any and all liability, claims, judgments, costs, and demands (collectively, "Claims"), including Claims arising from injuries or death of persons (Consultant's employees included) and damage to property, which to the extent Claims arise out of, pertain to, or are related to the negligence, recklessness or willful misconduct of Consultant, its agents, employees, or subcontractors, or arise from Consultant's negligent, reckless performance of or failure to perform any term, provision, covenant or condition of this Agreement ("Indemnified Claims"), but Consultant's liability for Indemnified Claims shall be reduced to the extent such Claims arise from the negligence, recklessness or willful misconduct of the City of Garden Grove and its councilmembers, officers, directors, officials, employees, or agents.

Consultant's liability for indemnification hereunder is in addition to any liability Consultant may have to City for a breach by Consultant of any of the provisions

of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Consultant's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party, shall not be employed in the interpretation of this Agreement.

Consultant's indemnification obligation hereunder shall survive the expiration or earlier termination of this Agreement until all actions against the Indemnified Parties for such matters indemnified hereunder are fully and finally barred by the applicable statute of limitations or, if an action is timely filed, until such action is final. This provision is intended for the benefit of third party Indemnified Parties not otherwise a party to this Agreement.

# XIII. COMPLIANCE WITH LAW

- A. Consultant certifies by the execution of this Agreement the following: that it pays employees not less than the minimum wage as defined by law and that it does not discriminate in its employment with regard to race, color, religion, sex, age, marital status, ancestry, or national origin; that Consultant is in compliance with all federal and state laws, local directives, and executive orders regarding non-discrimination in employment; and that Consultant agrees to demonstrate positively and aggressively the principle of equal opportunity in employment.
- B. Consultant shall keep itself informed of State and Federal laws and regulations, which in any manner affect those employed by it or in any way affect the performance of its Services pursuant to this Agreement. Consultant shall at all times observe and comply with all such applicable laws and regulations. The City of Garden Grove and its respective councilmembers, officers, employees, and agents shall not be liable at law or in equity for Consultant's failure to comply with such laws and regulations.

### XIV. <u>LICENSES AND QUALIFICATIONS</u>

Consultant represents and warrants to City that it has obtained all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect at all times during the term of this Agreement, any license, permit, or approval, which is legally required for Consultant to perform Services under this Agreement.

# XV. CONFIDENTIALITY AND OWNERSHIP OF DOCUMENTS

- All information gained by Consultant in the performance of this Agreement shall be considered confidential and shall not be released by Consultant without City's prior written authorization. Consultant, its officers, employees, agents or subcontractors shall not without written authorization from the City Manager or unless requested by City's Attorney, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the Services performed under this Agreement or relating to any project or property location within City. Response to a subpoena or court order shall not be considered "voluntary" for the purposes of this Section, provided Consultant gives City proper notice of such subpoena or court order. Consultant shall properly notify City of any summons, complaints, subpoenas, notice of deposition, request for documents, interrogatories, requests for admissions or other discovery requests received by Consultant, its officers, employees, agents or subcontractors, related to Services performed pursuant to this Agreement. City retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding, the cost of which shall be borne by City. Consultant agrees to cooperate fully with City and to provide City with an opportunity to review and respond to discovery requests provided by Consultant, arising out of Services performed pursuant to this Agreement. However, City's right to review any such request or response does not imply or mean City has the right to control, direct, write or rewrite said response.
- B. The documents and study materials for this project shall become the property of City upon the termination or completion of the work. Consultant agrees to furnish to City copies of all memoranda, correspondence, computation, and study materials in its files pertaining to the work described in this Agreement, which is requested in writing by City.

# XVI. INTERPRETED UNDER LAWS OF THE STATE OF CALIFORNIA

This Agreement and any dispute arising hereunder shall be governed and interpreted in accordance with the laws of the State of California. This Agreement shall be construed as a whole according to its fair language and common meaning to achieve the objectives and purposes of the parties hereto, and the rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be employed in interpreting this Agreement, all parties having been represented by counsel in the negotiation and preparation hereof. Venue for any litigation concerning this Agreement shall be in the Superior Court for the County of Orange, California.

#### XVII. ATTORNEYS' FEES

If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing Party shall be entitled to reasonable attorneys' fees,

costs, and necessary disbursements in addition to any other relief to which they may be entitled.

#### XVIII. WAIVER

No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the Party against whom enforcement of a waiver is sought. Any waiver by the Parties of any default or breach of any covenant, condition, or term contained in this Agreement, shall not be construed to be a waiver of any subsequent or other default or breach, nor shall failure by the Parties to require exact, full, and complete compliance with any of the covenants, conditions, or terms contained in this Agreement be construed as changing the terms of this Agreement in any manner or preventing the Parties from enforcing the full provisions hereof.

#### XIX. NOTICES

All notices or other communications required or permitted hereunder shall be in writing and shall be personally delivered, sent by registered or certified mail, postage prepaid, return receipt requested, or delivered or sent by electronic transmission, and shall be deemed received upon the earlier of: (i) the date of delivery to the address of the person to receive such notice if delivered personally or by messenger or overnight courier; (ii) three (3) business days after the date of posting by the United States Post Office if by mail; or (iii) when sent if given by electronic transmission. Any notice, request, demand, direction, or other communication sent by electronic transmission must be confirmed within forty-eight (48) hours by letter mailed or delivered. Notices or other communications shall be addressed as follows:

To City: City of Garden Grove

13802 Newhope Street
Garden Grove, CA 92843
Attention: Senior Civil Engineer

To Consultant: West Yost Associates

2020 Research Park Drive, Suite 100

Davis, CA 95618

Attention: Charles Duncan

Either Party may, by written notice to the other, designate a different address, which shall be substituted for that specified above.

# XX. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the parties and supersedes all prior negotiations, arrangements, representations, and understandings, if

any, made by or among the parties with respect to the subject matter hereof. No amendments or other modifications of this Agreement shall be binding unless executed in writing by both parties hereto, or their respective successors, assigns, or grantees.

# XXI. FORCE MAJEURE

If either party shall be delayed or prevented from the performance of any service under this Agreement by reason of acts of God, strikes, lockouts, labor troubles, restrictive governmental laws or regulations or other cause, without fault and beyond the reasonable control of the party obligated (financial inability excepted), performance of such act shall be excused for the period of delay, and the period for performance of any such act shall be extended for a period equivalent to the period of such delay.

# XXII. TIME IS OF THE ESSENCE

The Parties agree that time is of the essence of this Agreement with respect to the deadlines set forth herein.

### XXIII. <u>SEVERABILITY</u>

Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be invalid under the applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the reminder of that provision, or the remaining provisions of this Agreement.

#### XXIV. PROHIBITED INTERESTS

Consultant covenants that, for the term of this Agreement, no Board Member, official, officer or employee of City during his/her tenure in office/employment, or for one (1) year thereafter, shall have any interest, direct or indirect, in this Agreement or the proceeds thereof. Consultant warrants that it has not given or paid and will not give or pay any third party money or other consideration for obtaining this Agreement.

#### XXV. SCOPE CHANGES

In the event of a change in the scope of the proposed project, as requested by City, the Parties hereto shall execute an addendum to this Agreement, setting forth, with particularity, all terms of the new Agreement, including but not limited to any additional Consultant's fees.

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# XXVI. NON-LIABILITY OF CITY OFFICERS AND EMPLOYEES

No officer or employee of the City or City of Garden Grove shall be personally liable to the Consultant, or any successor in interest, in the event of any default or breach by the City or for any amount which may become due to the Consultant or its successor, or for breach of any obligation of the terms of this Agreement.

# XXVII. AGREEMENT EXECUTION AUTHORIZATION

Each of the undersigned represents and warrants that he or she is duly authorized to execute and deliver this Agreement and that such execution is binding upon the entity for which he or she is executing this Agreement.

#### XXVIII. RECITALS

The Recitals above are hereby incorporated into this section as though fully set forth herein and each party acknowledges and agrees that such Party is bound, for purposes of this Agreement, by the same.

IN WITNESS WHEREOF, this Agreement has been executed in the name of City, by its officers thereunto duly authorized, and Consultant as of the day and year first above written.

	CITY OF GARDEN GROVE
	By:Scott C. Stiles City Manager
ATTEST:	
By: Teresa Pomeroy City Clerk	

West Yost Associates

By: Chas Wenen

Name: Charles T. Duncan

Tittle: President

By: 10 000

Name: John D. Goodwin

Title: Assistant Treasurer

If CONTRACTOR is a corporation, a Corporate Resolution and/or Corporate Seal is required. If a Partnership, Statement of Partnership must be submitted to CITY.

APPROVED AS TO FORM:

Woodruff, Spradlin & Smart

City of Garden Grove

**City Attorney** 

# RESOLUTIONS ADOPTED BY UNANIMOUS WRITTEN CONSENT OF THE BOARD OF DIRECTORS OF WEST YOST & ASSOCIATES, INC.

The undersigned, being all of the directors of WEST YOST & ASSOCIATES, INC., a California corporation, do by this writing, consent to take the following action and adopt the following resolution attached hereto, effective May 28, 2020.

We direct that this Consent be filed with the Minutes of the proceedings of the Board of Directors of the Corporation.

This Consent is executed pursuant to applicable law and the Bylaws of this

Corporation which authorize the taking of action by the Board of Directors by unanimous

written consent without a meeting. This Consent may be executed in counterparts.

ELLEN CROSS

ELLEN CROSS

GLIZABETH T. DRAYER

IM D. MITTEL

JOHN D. GOODWIN

JEFFREY D. PELZ

Richard Johnson

RICHARD JOHNSON

LINDSAY SMITH

BWard

ROBERT B. WARD

# RESOLUTIONS ADOPTED BY THE BOARD OF DIRECTORS OF WEST YOST & ASSOCIATES, INC.

**RESOLVED**, that Charles Duncan, Elizabeth T. Drayer, Greg K. Chung, John D. Goodwin, Jeffrey D. Pelz, Lindsay Smith, and Robert B. Ward are authorized to execute all contracts, instruments, and agreements on behalf of the Corporation, and that any such duly executed contract, instrument or agreement shall be a valid and binding obligation of the Corporation;

**RESOLVED FURTHER**, that any of the foregoing individuals is authorized to act as a second signatory to any such contracts, instruments, and agreements on behalf of the Corporation;

**RESOLVED FURTHER**, that each such officer of the Corporation is authorized to execute any other documents or instrument necessary to implement the resolutions adopted by the Board of Directors of this Corporation.

# **EXHIBIT A**

# **SCOPE OF SERVICES**



August 25, 2020 SENT VIA: EMAIL

Rebecca Li, PE Senior Civil Engineer City of Garden Grove 13802 Newhope Street Garden Grove, CA 92843

# SUBJECT: Request for Proposal – City of Garden Grove – SCADA Program Manager Services

Dear Ms. Li:

The purpose of this letter proposal is to provide the City of Garden Grove with a proposed Scope of Services, Budget and Schedule for the SCADA Program Manager Services.

# **SCOPE OF SERVICES**

The following describes each of the key tasks necessary to perform this proposed Scope of Services.

# **Task 1. Foundational Projects**

# Task 1.1 - Project/Program Management

The objective of project management activities is to track work progress and expenditures using proactive communications, quality assurance and quality control to keep the project on schedule and budget.

# **Project Management Work Activities**

Kickoff Meeting – West Yost will prepare for and coordinate a kickoff meeting to
initiate the SCADA Master Plan Implementation Project. This meeting will be
conducted at a City designated location, with attendance from key City Leadership.

- Progress Meetings Bi-weekly (or as needed) conference calls and/or in-person meetings will be held to review project status, including work completed during the latest report period, work anticipated to be completed during the next reporting period, identified problems/issues that could affect project budget/expenditures and/or schedule, outstanding issues to be resolved, and action items. Meeting minutes will be provided for each progress call.
- Invoices and Progress Reports Monthly Invoices and Progress Reports will be provided.
- Quality Control Internal quality assurance and quality control will be performed for each of the project deliverables prior to final submission to City.
- Data Sharing West Yost will coordinate with City technical staff to provide a secure site for sensitive document exchange. West Yost preference is for City to host the site and retain control of all documents.
- Project Closeout West Yost will conduct final project closeout activities, including final document delivery and final progress report.

Through the program management task, West Yost will oversee the overall execution of the project. Activities associated with this task include handling day-to-day coordination between stakeholders, ensuring the various projects recommended through the SCADA Master Plan are implemented consistently, ensuring standards are being adhered to and updated accordingly, and ensuring the overall portfolio of projects is completed on budget and according to the project schedule.

# **Project Management Work Activities**

- Coordination Between Stakeholders West Yost will coordinate with City Engineering and Operations. Coordination with Operations is critical in taking any sites offline and bringing any sites online.
- Program Budget West Yost will manage the budget for the overall program, including reviewing change orders, project overages, and assuring the overall project is executed within the allocated budget.
- Maintaining and Updating Standards West Yost will maintain, enforce, and update all PLC programming standards, tagging standards, HMI graphics standards, and drawing standards.
- Managing Coordination Between Contractors Since each task (Foundational, High Priority, Medium Priority, Low Priority) can be issued either as a single project or as multiple projects, West Yost will manage all coordination between multiple contractors executing work potentially simultaneously. West Yost will ensure consistent implementation of work and standards.



- Documentation/Turnover of Systems to Operations As construction at each site is completed, West Yost will manage all documentation of new systems and turning over new systems to City Operations staff.
- Coordination of Training West Yost will coordinate all required training for IT staff, OT staff, and Operations staff.

#### Assumptions

• City Project Manager will attend bi-weekly progress meetings.

#### Project/Program Management Deliverables

- Kickoff meeting agendas and minutes
- Bi-Weekly meeting minutes
- Monthly project status reports and invoices
- Documentation of City standards

# Task 1.2 - Engineering/Design

The Foundational Projects lay the groundwork for the High, Medium, and Low Priority Projects. The Foundational Projects consist of the following: Foundational Improvements, Global Pressure Monitoring Improvements, Global Flow Monitoring Improvements, Policies and Procedures Development, and Security Improvements.

# Task 1.2.1 – Foundational Improvements

The Foundational Improvements Project will be executed in three phases:

- 1. Hardware, Software and Network Design
  - a. Scope of work for this phase will consist of:
    - i. Completing a network design including all sites leveraging the existing fiber optic network cabling installed previously. Design will include Layer 2 and Layer 3 elements to provide network segmentation, traffic flow control and SCADA DMZ based on NIST 800-82 guidelines. The network design criteria will focus on availability, standardization and security. The design will also include future requirements for the network such as access control and video monitoring. Network design will include capability for communications with gas driven engine controllers (Murphy, Waukesha) to migrate from serial to Ethernet communications.
    - ii. Design of computer hardware to replace obsolete computer systems. Includes servers, workstations and Operator Interface Terminal (OIT)



- hardware, location of server infrastructure and implementation of virtualization platform.
- iii. Design HMI architecture for software migration from Wonderware (Aveva) to Inductive Automation (Ignition) including alarm dialing functionality.

#### 2. SCADA Standardization

- a. Scope of work for this phase will consist of:
  - i. Development of SCADA Standards for consistency to be implemented with the overall SCADA system improvements. Standards will apply to the following areas:
    - 1. HMI Graphics Conventions
    - 2. HMI Database Conventions
    - 3. Derived Function Block (DFBs) Standards
    - 4. Tag Conventions
    - 5. Reporting
    - 6. Alarm Management
    - 7. Version Control
  - ii. The Hardware, Software and Network Design outcomes from the previous phase of this project will be incorporated into the City SCADA Standard.

#### 3. Global Operations Improvements

- This phase will consist of design and implementation of the core SCADA system functionality which will provide overall control and system coordination between all facilities.
- ii. This phase will establish the core communication and control methods for subsequent project sites as they are brought online.
- iii. Key elements of this project include:
  - 1. Design coordination with PFAS/PFOA project.
  - 2. Development of as-is and to-be overall operational strategies.
  - 3. Design and implementation of redundant Global Controllers (located at City Yard and at City Hall).
  - 4. Design and implementation of global SCADA programming and screens.

#### Assumptions

• City to purchase all core servers, networking equipment, and PLCs. City to turn over purchased equipment to contractor for installation.



#### Foundational Improvements Deliverables

- As-is and to-be operational strategies
- Design drawings for the network and hardware/software infrastructure.
- Specifications
- SCADA Standards
- Global HMI screens
- · Global PLC programs

# Task 1.2.2 – Global Pressure Monitoring Improvements

The City has five locations throughout the distribution system where pressure is recorded using a pressure chart recorder. At each site, this project will install a new pressure transmitter, design and build a new control panel (including communications with the new Global SCADA system), provide programming, configuration, installation and start-up services.

#### Global Pressure Monitoring Improvements Deliverables

- · Design drawings
- Specifications
- · PLC programming, as required

# Task 1.2.4 – Policies and Procedure Development

This project will begin with a comprehensive review the City's existing IT security policies and procedures to determine which required policies are in existence and which policies need to be updated and/or created. Existing policies should cover the following areas:

- 1. General
- 2. Governance and Risk Management
- 3. Business Continuity and Disaster Recovery
- 4. Server and Workstation Hardening
- Access Control
- 6. Application Security
- 7. Encryption
- 8. Data Security
- 9. Telecommunication, Network Security, and Architecture
- 10. Physical Security
- 11. Service Level Agreements
- 12. Operations Security (OPSEC)



#### 13. Personnel Security

A policies and procedures workshop will be conducted to review roles and responsibilities for IT and OT system personnel within each respective policy area identified above. Following the workshop, work will commence on updating/creating required policies.

Once policies are developed, a policies review workshop will be conducted with City staff to review the policies and gather comments and feedback. Comments and feedback will be incorporated prior to development of procedures.

Once development of procedures is complete, a procedures review workshop will be conducted with City staff to review the procedures and gather comments and feedback. Comments and feedback will be incorporated prior to final submittal of policies and procedures to the City.

#### Policies and Procedure Development Deliverables

• Comprehensive portfolio of policies and procedures.

# Task 1.2.5 – Security Improvements Project

The Security Improvements Project will be executed in two phases:

- 1. Security Surveillance Design
  - a. This phase will consist of finalizing selection of security and surveillance equipment and equipment locations. The design will utilize any existing City Security and SCADA Network Designs.
- 2. Installation and Configuration
  - a. This phase will consist of procurement, installation, and configuration of security equipment selected in Phase 1 of this project.

#### Security Improvements Project Deliverables

- Design drawings
- Specifications



# Task 1.3 – Bidding Services

During the bidding period, West Yost will assist the City by answering questions from bidders, preparing addendums, reviewing bids, making recommendations for awards of the construction contract, and preparation of conformed construction documents.

#### **Work Activities**

This task will involve assisting the City as required during the bid phase of the Project. Bidding Services tasks consist of the following:

- 1. Lead the pre-bid meeting, including development of meeting materials, coordination, and development and distribution of meeting minutes to the City. The City will distribute meeting minutes to meeting attendees.
- 2. Respond to bidder's inquiries during the bidding process. Responses will be closely coordinated with City staff.
- 3. If it becomes necessary, the design team will develop addenda that may be needed to document responses to bidders' inquiries.
- 4. Review bids and make a recommendation to award the contract.
- 5. Preparation of conformed design drawings and technical specifications that incorporate changes made by addenda during the bidding period.

#### Assumptions

- No pre-bid contractor outreach is included in this scope.
- There will be one pre-bid meeting, led by West Yost staff.
- West Yost will respond to 10 questions from bidders during the bid period.
- West Yost will prepare up to three addenda and deliver to the City.
- The City will distribute contract documents and addendums.

#### Bidding Services Deliverables

- Pre-bid Meeting materials and meeting minutes.
- · Addenda drawings and specifications.
- Conformed drawings and specifications.



# Task 1.4 – Construction Management/Inspection

West Yost will provide full construction management, program management, and inspection services. Typical tasks associated with this task include ensuring site safety at all times, correspondence and document control, progress meetings, coordination with Operations staff, responding to Requests for Information (RFIs), reviewing submittals, construction schedule management, managing construction costs, managing change orders, quality control and inspections, reviewing payments to contractors and vendors, management of as-built drawing sets, monthly status reports, and final project closeout tasks.

#### **Construction Administration Work Activities**

- 1. Pre-Construction Conference / NTP West Yost will attend the preconstruction conference conducted by the City. Open items will be carried over to the first Progress Meeting.
- 2. Site Safety West Yost will provide safety related equipment to its project staff such as hard hats, safety vests, safety glasses, gloves, ear protection, etc. West Yost will conduct bi-weekly safety meetings with its field staff and report any incidents to the City if they occur. West Yost will also monitor the safety program and practices of the Contractor to confirm that they are providing a safe work site for our staff members as well as those of the City. Safety will be the first item on our standing Progress Meeting agenda. If any unsafe acts or potential unsafe situations are found during our inspections or general observations of the work, we will immediately notify the Contractor to take action. Any incidents that occur will be followed up with the Contractor after receipt of their incident report. The report will be shared with the City and maintained in the document control system (DCS) in a safety incident log.
- 3. Correspondence / Document Control West Yost will be the point of contact for all matters related to the administration of the construction contract with the Contractor selected for the project. All correspondence in and out related to the project will be through the West Yost CM. This includes maintaining the project records in a webbased document control system (DCS) Procore. West Yost will provide training to the City, designer, and the Contractor for their use of the DCS.
- 4. Monthly Management Meetings West Yost will arrange and conduct monthly management meetings with the City to review the overall status of the project. Logs, progress schedule, potential change orders, safety reports, coordination items, and project issues will be reviewed with the intent to keep the City informed and to develop strategies for resolving construction or contractual issues.
- 5. Progress / Coordination Meetings West Yost will prepare agendas, conduct the biweekly progress meetings with the Contractor, design team, City staff, and other members of the project team to review overall progress, coordination, and



- communication related to safety, submittals, RFIs, changes, progress payments, coordination with Operations, progress schedules, and quality. If other special meetings are necessary, West Yost will conduct and collect summaries of the discussions. Open items will be tracked to completion. The meetings will be documented in the DCS.
- 6. Construction Coordination with Plant Operations West Yost will arrange, conduct, and document daily coordination meetings with the designated staff member of the City's operations department. The meeting will also be attended by a representative of the Contractor. The purpose is to convey what will be occurring that day by the Contractor and to confirm that these activities will minimize the impact to operations and maintenance activities. A simple report (email) will be issued by West Yost that summarizes the discussions and include a brief summary of the planned work by both parties (Contractor and the City). Included in this scope will be to utilize the Plant Access Request (PAR) procedure that will identify upcoming activities that will impact operations. The PARs will be a running agenda item on the weekly progress meetings to confirm that we are planning the work and are addressing the potential impacts before the work starts.
- 7. RFIs West Yost will receive all RFIs generated and issued by the Contractor. RFIs will be upload into the DCS for response by the design team. If the response appears to have changed the contract scope, quality, or time a potential change order (PCO) number will be assigned and used to track its resolution to closeout. Logs will be generated and be discussed during the weekly meetings.
- 8. Submittals West Yost will receive all shop drawings, product data, certifications, work plans, schedules, etc. that are typically required of construction contracts and will upload them into the DCS. The submittals that are related to the design shall be forwarded to the design team for their review and comment. We will input the review comments into the DCS and formally return the submittal to the Contractor. Logs will be maintained showing submittals in for review, submittals that have been returned with Amend and Resubmit status, and submittals not yet transmitted by the Contractor. Construction related submittals such as work plans, corporate safety plans, site-specific safety plans, etc. will be reviewed by West Yost with the submittal and comments transmitted to the design team for their records.
- 9. Schedule Management West Yost will review the Contractor's recommendations to modify the baseline schedule and monthly updates to confirm that depiction of the schedules meets the contract scheduling requirements and is adequately updated each month with correct progress, adjustments, changes, and summaries. If there are challenges/delays in obtaining an acceptable schedule from the Contractor, West Yost will recommend that an appropriately valued withhold to subsequent progress payments applied to motivate the Contractor in corrective action. If during tracking of performance the schedule appears to be slipping behind, a Recovery Schedule will



- be requested from the Contractor and as part of this issue will be determining the responsible party for the delay. Included in this scope will be the preparation and issuance of the Weekly Statement of Working Days report that identifies the conditions of each day's work, weather or other impacts beyond the control of the Contractor and any time extensions that were authorized in a change order or from weather impacts.
- 10. Cost Control West Yost will track progress payments, PCOs, executed Change Orders, change order requests from the Contractor, and claims/disputes/issues. A comparison of the amount paid as a percentage of the total contract amount and the amount of time expended will be used to assess if the project is progressing adequately from an earned value perspective. A tracking log will be developed and maintained to track all change order items and potential changes and issues that will be used to inform the City of its potential exposure to any and all issues. This will be presented in the Monthly Report and in Monthly Meetings with the City.
- 11. Change Orders West Yost will manage the change order process by initiating PCOs from RFI responses, submittal review comments, or change order requests from the Contractor. West Yost will determine if the item has merit for entitlement. Items in value of less than five thousand dollars will be evaluated for merit and approved by West Yost. Items in value equal to five thousand dollars and over will not only be reviewed by West Yost but also reviewed with the City to obtain their concurrence that the item is valid. Quotes will be obtained from the Contractor for each PCO. If the work is necessary, negotiations will occur to obtain a fair price for the work. If a price cannot be reached, or there is no time to negotiate a fair price, we will direct the work to proceed time & materials. A final price will be summarized and agreed. West Yost will prepare formal change orders per City internal procedures. Once fully agreed the costs will be included in the Contractor's schedule of values and West Yost will confirm the correct percent complete on which to authorize payment during each progress payment request submitted by the Contractor.
- 12. Dispute Resolution West Yost will lead the effort in resolving disputes with the Contractor. The resolution process will involve a detailed review and summary of the contract wording and presentation to ascertain a fair interpretation of the contract requirements to the City. After review with the City of the findings, a meeting will be held with the Contractor to present the findings and to hear their position. If an equitable agreement cannot be made, we will direct the Contractor to follow the guidelines in the front-end documents in filing a claim and then follow the requirements of the contract in resolving disputes.
- 13. Quality Control / Inspection West Yost will provide the day-to-day quality assurance inspection of the Contractor's performance of the work. This will include confirming compliance with the contract plans, specs, approved submittals, applicable RFI responses, and approved change orders. If work is observed or tested to not be in



compliance with the contract, a verbal notice followed by a Non-Compliance Notice (NCN) will be issued to the Contractor. If an NCN is issued a corresponding payment value will be withheld on the monthly progress payment until the issue is satisfactorily resolved. Daily inspection reports will be written and kept in the DCS. The reports will contain a brief summary of the work performed, important discussions needing to be documented, and photos of the work performed. The overall quality requirements of the contract will be emphasized to the Contractor with pre-activity quality control meetings where we will review the planned work, contract requirements, submittals, RFIs, and change orders to confirm everyone understands what will be built and how it will be built. Also, the Contractor will be asked to explain their means and methods (M&Ms) so the group can ascertain whether the required quality can be achieved with those M&Ms.

- 14. Permit / Environmental Compliance West Yost will maintain a permit inventory and tracking log that will monitor compliance with each permit applicable to the construction project. Any reporting required by the permit will be prepared and transmitted to the permitting agency via email.
- 15. Progress Payments West Yost will review the updated/statused Schedule of Values (SOV), compare the statused amounts identified by the Contractor and either accept the value assigned or negotiate a different amount. A summary document will be prepared and signed off by the West Yost CM and the Contractor certifying the amount due. The payment request will be transmitted to the City for approval, processing and payment. West Yost will track payment to the Contractor to demonstrate compliance with the payment processing times per the public contract code. Included in this task will be to confirm that the Contractor has submitted the certified payroll reports to the City.
- 16. As-Built Record Drawings Each month as part of the progress payment approval process, West Yost will review the Contractor's efforts in maintaining a record set of as-built drawings and specifications. Notations such as RFI responses, clarifications, and change orders will be checked. If there are important components that may be difficult to locate once buried or cast in concrete, rough measurements will be used to approximate the location and be reflected on the as-built drawings. The review will occur each month and progress payments may be withheld until the record drawings are maintained to an acceptable level. At project closeout, the Contractor will transmit their as-built record drawings to West Yost. West Yost will review these updated plans and compare them with our version of the as-built conditions.
- 17. Monthly Status Reports West Yost will prepare monthly status reports to communicate to the City, design team, and outside agencies (if necessary) the progress of the work. The reporting will predominantly be through job-site photos and captions. Additional information will include project issues and tracking of special or



- contentious items. The monthly report will include information on schedule adherence, cost management, project issues, and the status of the CM contract.
- 18. Testing, Startup, and Commissioning During the construction phase of the project, West Yost will conduct weekly startup meetings to review performance related to actual testing, submittals and approvals, training, and issues found during the testing and startup activities. Testing, startup, and commissioning activities will be witnessed by West Yost's resident engineer. West Yost will also provide onsite PLC programming, HMI configuration, and network setup/configuration support services. When appropriate, City Operations, OT, and IT staff will be integrated with the activities so that when the operation of the new systems are transferred to their control, the transition will be seamless.

#### **Construction Administration Deliverables**

- Safety Incident Log
- Progress/Coordination Meeting agendas and meeting minutes
- Daily Coordination with Operations Report
- RFI Responses
- Submittal Responses
- SOV Summary Document
- As-Built Record Drawings
- Monthly Status Report

#### **Closeout Phase Work Activities**

- 1. Punchlist and Final Walk Through West Yost will arrange a final inspection once the Contractor has submitted a request for final inspection. The inspection will create a final punchlist of work items remaining to be completed. The punchlist will be transmitted to the Contractor. The remainder of the contract will be to confirm that the items on the punchlist have been addressed and any other remaining deliverables are received. West Yost will confirm that aspects of the project administration have been completed. It will address any outstanding stop notices and request that all suppliers and subcontractors come forward if payments for their services have not been made or other payment issues may exist so that the release of retention can be made by the City.
- Final Report West Yost will prepare a final report of the project that addresses the
  performance of cost, time and quality management. The report will contain a photo
  section and include a list of issues along with discussion on how the matter was
  addressed. Recommendations will be made on how to improve future contracts of
  similar nature.



# Assumptions

- Preconstruction Meeting will be a 2-hour meeting conducted via Microsoft Teams
- City CM staff will attend the Preconstruction Meeting.

# **Closeout Phase Deliverables**

- Final Punchlist
- Final Report



# **Task 2 – High Priority Projects**

# Task 2.1 - Project/Program Management

Project/Program Management scope and work activities are outlined in Task 1. Please reference Task 1.1 for description of Project/Program Management scope and work activities.

#### Assumptions

• City Project Manager will attend bi-weekly progress meetings.

#### Project/Program Management Deliverables

- Kickoff meeting agendas and minutes
- Bi-Weekly meeting minutes
- Monthly project status reports and invoices
- · Documentation of City standards

# Task 2.2 - Engineering/Design

The High Priority sites consist of Lampson, Magnolia, West Garden Grove, West Haven, and Trask. The drawings and specifications will be developed so that the high priority sites can be issues either as a single project or as multiple separate projects. See **Appendix A**: High Priority Sites Drawing List for a listing of the Electrical, I&C, and Networking drawings to be provided.

# Develop To-Be Control Strategies and HMI Configuration

Work will commence with development of the to-be control strategies for each high priority site. The as-is control strategies, developed by West Yost, will form the basis for the to-be control strategies. West Yost will propose operational improvements in the to-be control strategies.

Concurrently with development of the to-be control strategies, West Yost will begin working on the new Human Machine Interface (HMI) screens. The HMI Graphics Conventions, HMI Database Conventions, Tag Conventions, Reporting Standards, and Alarm Management Standards developed during Foundational Project FP-1 will be utilized for development of the new HMI screens. Once the to-be control strategies and the HMI screens are complete, both deliverables will be reviewed with Operations staff. This will provide Operations staff with an opportunity to visualize how the new screens will look and how the new system will function.

# PLC Programming and On-the-Job Training

Following feedback received from Operations, West Yost will finalize the to-be control strategies and begin programming the new Programmable Logic Controllers (PLCs) for implementation



Ms. Rebecca Li August 25, 2020 Page 15

during construction. The Derived Function Block (DFB) and Tag Convention standards developed during Foundational Project FP-1 will be utilized for development of the new PLC code.

Draft PLC code will be reviewed with the City in two (2) review workshops. West Yost will utilize these workshops as an opportunity to provide On-the-Job Training to City Operations Technology (OT) staff. On-the-job training will focus on basic PLC programming functions so that OT staff can make minor programming and maintenance changes to PLC programs in-house, without having to engage a System's Integrator.

Feedback received from OT and Operations staff will be incorporated into final programming to be used in implementation during construction. PLC programming will be tested against the control strategies and updated as appropriate during the Site Acceptance Test (SAT) phase of construction.

#### **Site Visits**

In parallel with the PLC programming, West Yost will conduct site visits and begin data collection for each of the high priority sites. Site visits will be aimed at determining the size of each panel, verifying existing wire terminations, evaluation of the new back panel and front of each panel. West Yost, working along with City Operations staff, will gather input regarding existing LED displays, selector switches, alarm lights, and graphic panels (all located on the front of the existing PLC panels) to determine which interfaces will be modified and which additional functionality will be added to enhance operations. Site visits will be focused primarily on collecting data for Electrical, Instrumentation & Controls (I&C), and Networking.

# 90% Design

Following site visits, design work will commence for the 90% design submittal. Design efforts will focus on the following elements:

- 1. General
  - a. Request front-end specifications from the City, and review.
- 2. Instrumentation & Controls
  - a. Comprehensive retrofit of the existing PLC panels
    - Develop new front panel elevations including new/revised graphical displays, Operator Interface Terminal, selector switches, alarm lights, LED displays
  - b. Field instrumentation
    - i. Design and specify new flowmeters, pressure transmitters, and chlorine residual instrumentation.
    - ii. Include all applicable installation details for field instrumentation.



c. Development of specifications

#### 3. Electrical

- a. Electrical Site Drawings
  - i. Provide power to new field instrumentation, as required.
  - ii. Design all conduit and cable routing to new instrumentation.
- b. Motor Control Schematics
  - i. Develop detailed motor control schematics for all well pumps, booster pumps, chlorine/sodium hypochlorite pumps, etc.
- c. Cable and Conduit Schedule
- d. Installation Details
  - i. Include applicable installation details for all electrical work.
- e. Development of specifications
- 4. Networking and Computers
  - a. Design network architecture for each site
  - b. Network and Computer Bill of Materials (BOM) for each site
  - c. Port-level network drawings
  - d. Development of specifications

# 90% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 90% design. The QA/QC comments will be responded to and incorporated (as needed) prior to the 90% design package being formally transmitted to the City for review.

#### 90% Submittal and Review

Following incorporation of QA/QC comments, the 90% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to discuss City comments.

# 100% Design

Following the 90% design review workshop with the City, West Yost will commence design efforts for the 100% design package. Since all design elements will have been implemented during the 90% design, the 100% design phase will focus strictly on final incorporation of City comments and updates to the front-end specifications.

# 100% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 100% design. QA/QC efforts will be focused on ensuring that previously issued internal QA/QC comments as



Ms. Rebecca Li August 25, 2020 Page 17

well as client review comments have been incorporated as necessary. The QA/QC comments will be incorporated prior to the 100% design package being formally transmitted to the City for review.

#### 100% Submittal and Review

Following incorporation of QA/QC comments, the 100% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to formally review the final submittal with the City.

#### Assumptions

• City to purchase all networking equipment, computer workstations, and OITs. City to turn over purchased equipment to contractor for installation.

#### Engineering/Design Deliverables

- To-Be Control Strategies
- HMI Screens
- PLC programming
- Design drawings
- Specifications

# Task 2.3 – Bidding Services

Bidding Services scope and work activities are outlined in Task 1. Please reference Task 1.3 for description of Bidding Services scope and work activities.

#### Assumptions:

- No pre-bid contractor outreach is included in this scope.
- There will be one pre-bid meeting, led by West Yost staff.
- West Yost will respond to 10 questions from bidders during the bid period.
- West Yost will prepare up to three addenda and deliver to the City.
- The City will distribute contract documents and addendums.

#### Bidding Services Deliverables:

- Pre-bid Meeting materials and meeting minutes.
- Addenda drawings and specifications.
- Conformed drawings and specifications.



# Task 2.4 - Construction Management/Inspection

Construction Management/Inspection scope and work activities are outlined in Task 1. Please reference Task 1.4 for description of Construction Management/Inspection scope and work activities.

#### Construction Administration Deliverables:

- Safety Incident Log
- Progress/Coordination Meeting agendas and meeting minutes
- Daily Coordination with Operations Report
- RFI Responses
- Submittal Responses
- SOV Summary Document
- · As-Built Record Drawings
- Monthly Status Report

#### Assumptions:

- Preconstruction Meeting will be a 2-hour meeting conducted via Microsoft Teams
- · City CM staff will attend the Preconstruction Meeting.

# Closeout Phase Deliverables:

- Final Punchlist
- Final Report



# Task 3 – Medium Priority Projects

# Task 3.1 - Project/Program Management

Project/Program Management scope and work activities are outlined in Task 1. Please reference Task 1.1 for description of Project/Program Management scope and work activities.

#### Assumptions:

• City Project Manager will attend bi-weekly progress meetings.

#### Project/Program Management Deliverables:

- Kickoff meeting agendas and minutes
- Bi-Weekly meeting minutes
- Monthly project status reports and invoices
- Documentation of City standards

# Task 3.2 - Engineering/Design

The Medium Priority sites consist of Lampson PRS, Garden Grove PRS, OC-50 Import Connection, OC-22 Import Connection, OC-5 Import Connection, Well 26 SCADA Improvements, Well 26 VFD Installation, Well 29 SCADA Improvements, and Well 30 SCADA Improvements. The drawings and specifications will be developed so that the medium priority sites can be issues either as a single project or as multiple separate projects. See **Appendix B**: Medium Priority Sites Drawing List for a listing of the Electrical, I&C, and Networking drawings to be provided.

# Develop To-Be Control Strategies and HMI Configuration

Work will commence with development of the to-be control strategies for each medium priority site. The as-is control strategies, developed by West Yost, will form the basis for the to-be control strategies. West Yost will propose operational improvements in the to-be control strategies.

Concurrently with development of the to-be control strategies, West Yost will begin working on the new Human Machine Interface (HMI) screens. The HMI Graphics Conventions, HMI Database Conventions, Tag Conventions, Reporting Standards, and Alarm Management Standards developed during Foundational Project FP-1 will be utilized for development of the new HMI screens. Once the to-be control strategies and the HMI screens are complete, both deliverables will be reviewed with Operations staff. This will provide Operations staff with an opportunity to visualize how the new screens will look and how the new system will function.



# PLC Programming and On-the-Job Training

Following feedback received from Operations, West Yost will finalize the to-be control strategies and begin programming the new Programmable Logic Controllers (PLCs) for implementation during construction. The Derived Function Block (DFB) and Tag Convention standards developed during Foundational Project FP-1 will be utilized for development of the new PLC code.

Draft PLC code will be reviewed with the City in two (2) review workshops. West Yost will utilize these workshops as an opportunity to provide On-the-Job Training to City Operations Technology (OT) staff. On-the-job training will focus on basic PLC programming functions so that OT staff can make minor programming and maintenance changes to PLC programs in-house, without having to engage a System's Integrator.

Feedback received from OT and Operations staff will be incorporated into final programming to be used in implementation during construction. PLC programming will be tested against the control strategies and updated as appropriate during the Site Acceptance Test (SAT) phase of construction.

#### **Site Visits**

In parallel with the PLC programming, West Yost will conduct site visits and begin data collection for each of the medium priority sites. Site visits will be aimed at determining the size of each panel, verifying existing wire terminations, evaluation of the new back panel and front of each panel. West Yost, working along with City Operations staff, will gather input regarding existing LED displays, selector switches, alarm lights, and graphic panels (all located on the front of the existing PLC panels) to determine which interfaces will be modified and which additional functionality will be added to enhance operations. Site visits will be focused primarily on collecting data for Electrical, Instrumentation & Controls (I&C), and Networking.

# 90% Design

Following site visits, design work will commence for the 90% design submittal. Design efforts will focus on the following elements:

- 1. General
  - a. Request front-end specifications from the City, and review.
- 2. Instrumentation & Controls
  - a. Comprehensive retrofit of the existing PLC panels
    - Develop new front panel elevations including new/revised graphical displays, Operator Interface Terminal, selector switches, alarm lights, LED displays
  - b. Field instrumentation



- i. Design and specify new flowmeters, pressure transmitters, and chlorine residual instrumentation.
- ii. Include all applicable installation details for field instrumentation.
- c. Development of specifications

#### 3. Electrical

- a. Electrical Site Drawings
  - i. Provide power to new field instrumentation, as required.
  - ii. Design all conduit and cable routing to new instrumentation.
- b. One-Line Diagrams
- c. Motor Control Schematics
  - i. Develop detailed motor control schematics for all well pumps, booster pumps, chlorine/sodium hypochlorite pumps, etc.
- d. Layout Drawings
  - i. Demo drawings
  - ii. Room layout drawings
  - iii. Power and Lighting Drawings
  - iv. Title 24
  - v. MCC elevations
  - vi. VFD elevations
- e. Cable and Conduit Schedule
- f. Installation Details
  - i. Include applicable installation details for all electrical work.
- g. Electrical Load Calculations
- h. Development of specifications
- 4. Heating, Ventilation, and Air-Conditioning (HVAC)
  - a. HVAC Drawings
  - b. HVAC Load Calculations
  - c. Development of specifications
- 5. Networking and Computers
  - a. Design network architecture for each site
  - b. Network and Computer Bill of Materials (BOM) for each site
  - c. Port-level network drawings
  - d. Development of specifications

# 90% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 90% design. The QA/QC comments will be responded to and incorporated (as needed) prior to the 90% design package being formally transmitted to the City for review.



Ms. Rebecca Li August 25, 2020 Page 22

#### 90% Submittal and Review

Following incorporation of QA/QC comments, the 90% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to discuss City comments.

## 100% Design

Following the 90% design review workshop with the City, West Yost will commence design efforts for the 100% design package. Since all design elements will have been implemented during the 90% design, the 100% design phase will focus strictly on final incorporation of City comments and updates to the front-end specifications.

# 100% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 100% design. QA/QC efforts will be focused on ensuring that previously issued internal QA/QC comments as well as client review comments have been incorporated as necessary. The QA/QC comments will be incorporated prior to the 100% design package being formally transmitted to the City for review.



#### 100% Submittal and Review

Following incorporation of QA/QC comments, the 100% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to formally review the final submittal with the City.

#### Assumptions:

- City to purchase all networking equipment, computer workstations, and OITs. City to turn over purchased equipment to contractor for installation.
- Import Connection OC-22 is included as a medium priority site. However, the City may elect to address this site with the low priority projects.
- Control strategies, HMI screens, and PLC programming for low priority wells is similar to the medium priority wells with minimal changes.

#### Engineering/Design Deliverables:

- To-Be Control Strategies
- HMI Screens
- PLC programming
- · Design drawings
- Specifications

# Task 3.3 – Bidding Services

Bidding Services scope and work activities are outlined in Task 1. Please reference Task 1.3 for description of Bidding Services scope and work activities.

#### Assumptions:

- No pre-bid contractor outreach is included in this scope.
- There will be one pre-bid meeting, led by West Yost staff.
- West Yost will respond to 10 questions from bidders during the bid period.
- West Yost will prepare up to three addenda and deliver to the City.
- The City will distribute contract documents and addendums.

#### Bidding Services Deliverables:

- Pre-bid Meeting materials and meeting minutes.
- Addenda drawings and specifications.
- · Conformed drawings and specifications.



# Task 3.4 – Construction Management/Inspection

Construction Management/Inspection scope and work activities are outlined in Task 1. Please reference Task 1.4 for description of Construction Management/Inspection scope and work activities.

## Construction Administration Deliverables:

- Safety Incident Log
- Progress/Coordination Meeting agendas and meeting minutes
- Daily Coordination with Operations Report
- RFI Responses
- Submittal Responses
- SOV Summary Document
- As-Built Record Drawings
- Monthly Status Report

#### Assumptions:

- Preconstruction Meeting will be a 2-hour meeting conducted via Microsoft Teams
- City CM staff will attend the Preconstruction Meeting.

#### Closeout Phase Deliverables:

- Final Punchlist
- Final Report



# Task 4 – Low Priority Projects (Optional Projects)

# Task 4.1 - Project/Program Management

Project/Program Management scope and work activities are outlined in Task 1. Please reference Task 1.1 for description of Project/Program Management scope and work activities.

#### Assumptions:

• City Project Manager will attend bi-weekly progress meetings.

## Project/Program Management Deliverables:

- Kickoff meeting agendas and minutes
- Bi-Weekly meeting minutes
- Monthly project status reports and invoices
- Documentation of City standards

# Task 4.2 - Engineering/Design

The Low Priority sites consist of Well 19, Well 16, and Well 25. The drawings and specifications will be developed so that the low priority sites can be issues either as a single project or as multiple separate projects. See **Appendix C**: Low Priority Sites Drawing List for a listing of the Electrical, I&C, and Networking drawings to be provided.

# Develop To-Be Control Strategies and HMI Configuration

Work will commence with development of the to-be control strategies for each low priority site. The as-is control strategies, developed by West Yost, will form the basis for the to-be control strategies. West Yost will propose operational improvements in the to-be control strategies.

Concurrently with development of the to-be control strategies, West Yost will begin working on the new Human Machine Interface (HMI) screens. The HMI Graphics Conventions, HMI Database Conventions, Tag Conventions, Reporting Standards, and Alarm Management Standards developed during Foundational Project FP-1 will be utilized for development of the new HMI screens. Once the to-be control strategies and the HMI screens are complete, both deliverables will be reviewed with Operations staff. This will provide Operations staff with an opportunity to visualize how the new screens will look and how the new system will function.



# PLC Programming and On-the-Job Training

Following feedback received from Operations, West Yost will finalize the to-be control strategies and begin programming the new Programmable Logic Controllers (PLCs) for implementation during construction. The Derived Function Block (DFB) and Tag Convention standards developed during Foundational Project FP-1 will be utilized for development of the new PLC code.

Draft PLC code will be reviewed with the City in two (2) review workshops. West Yost will utilize these workshops as an opportunity to provide On-the-Job Training to City Operations Technology (OT) staff. On-the-job training will focus on basic PLC programming functions so that OT staff can make minor programming and maintenance changes to PLC programs in-house, without having to engage a System's Integrator.

Feedback received from OT and Operations staff will be incorporated into final programming to be used in implementation during construction. PLC programming will be tested against the control strategies and updated as appropriate during the Site Acceptance Test (SAT) phase of construction.

#### **Site Visits**

In parallel with the PLC programming, West Yost will conduct site visits and begin data collection for each of the low priority sites. Site visits will be aimed at determining the size of each panel, verifying existing wire terminations, evaluation of the new back panel and front of each panel. West Yost, working along with City Operations staff, will gather input regarding existing LED displays, selector switches, alarm lights, and graphic panels (all located on the front of the existing PLC panels) to determine which interfaces will be modified and which additional functionality will be added to enhance operations. Site visits will be focused primarily on collecting data for Electrical, Instrumentation & Controls (I&C), and Networking.

# 90% Design

Following site visits, design work will commence for the 90% design submittal. Design efforts will focus on the following elements:

- 1. General
  - a. Request front-end specifications from the City, and review.
- 2. Instrumentation & Controls
  - a. Comprehensive retrofit of the existing PLC panels
    - Develop new front panel elevations including new/revised graphical displays, Operator Interface Terminal, selector switches, alarm lights, LED displays
  - b. Field instrumentation



- i. Design and specify new flowmeters, pressure transmitters, and chlorine residual instrumentation.
- ii. Include all applicable installation details for field instrumentation.
- c. Development of specifications

#### 3. Electrical

- a. Electrical Site Drawings
  - i. Provide power to new field instrumentation, as required.
  - ii. Design all conduit and cable routing to new instrumentation.
- b. Motor Control Schematics
  - i. Develop detailed motor control schematics for all well pumps, booster pumps, chlorine/sodium hypochlorite pumps, etc.
- c. Cable and Conduit Schedule
- d. Installation Details
  - i. Include applicable installation details for all electrical work.
- e. Development of specifications
- 4. Networking and Computers
  - a. Design network architecture for each site
  - b. Network and Computer Bill of Materials (BOM) for each site
  - c. Port-level network drawings
  - d. Development of specifications

# 90% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 90% design. The QA/QC comments will be responded to and incorporated (as needed) prior to the 90% design package being formally transmitted to the City for review.

#### 90% Submittal and Review

Following incorporation of QA/QC comments, the 90% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to discuss City comments.

#### 100% Design

Following the 90% design review workshop with the City, West Yost will commence design efforts for the 100% design package. Since all design elements will have been implemented during the 90% design, the 100% design phase will focus strictly on final incorporation of City comments and updates to the front-end specifications.



# 100% QA/QC (and Incorporation of comments)

Upon completion of design work, West Yost will conduct a thorough QA/QC of the 100% design. QA/QC efforts will be focused on ensuring that previously issued internal QA/QC comments as well as client review comments have been incorporated as necessary. The QA/QC comments will be incorporated prior to the 100% design package being formally transmitted to the City for review.

#### 100% Submittal and Review

Following incorporation of QA/QC comments, the 100% design package will be formally transmitted to the client for review.

Following the City's review, a review workshop will be scheduled to formally review the final submittal with the City.

#### Assumptions:

• City to purchase all networking equipment, computer workstations, and OITs. City to turn over purchased equipment to contractor for installation.

#### Engineering/Design Deliverables:

- To-Be Control Strategies
- HMI Screens
- PLC programming
- Design drawings
- Specifications



# Task 4.3 – Bidding Services

Bidding Services scope and work activities are outlined in Task 1. Please reference Task 1.3 for description of Bidding Services scope and work activities.

## Assumptions:

- No pre-bid contractor outreach is included in this scope.
- There will be one pre-bid meeting, led by West Yost staff.
- West Yost will respond to 10 questions from bidders during the bid period.
- West Yost will prepare up to three addenda and deliver to the City.
- The City will distribute contract documents and addendums.

#### Bidding Services Deliverables:

- Pre-bid Meeting materials and meeting minutes.
- · Addenda drawings and specifications.
- · Conformed drawings and specifications.



# Task 4.4 - Construction Management/Inspection

Construction Management/Inspection scope and work activities are outlined in Task 1. Please reference Task 1.4 for description of Construction Management/Inspection scope and work activities.

## Construction Administration Deliverables:

- Safety Incident Log
- Progress/Coordination Meeting agendas and meeting minutes
- · Daily Coordination with Operations Report
- RFI Responses
- Submittal Responses
- SOV Summary Document
- As-Built Record Drawings
- Monthly Status Report

#### Assumptions:

- Preconstruction Meeting will be a 2-hour meeting conducted via Microsoft Teams
- · City CM staff will attend the Preconstruction Meeting.

#### Closeout Phase Deliverables:

- Final Punchlist
- Final Report

Sincerely,

**WEST YOST ASSOCIATES** 

Daniel Groves, PE Control Systems Engineer RCSE# 45679

cc:

Attachment(s):



# Appendix A HIGH PRIORITY SITES DRAWING LIST

APPENDIX A - HIGH PRIORITY SITES DRAWING LIST								
DRAWING TITLE	COMMON DWG	LAMPSON	MAGNOLIA	WEST GARDEN GROVE	WEST HAVEN	TRASK		
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 1	E-001	-	-	-	-	-		
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 2	E-002	-	-	-	-	-		
ELECTRICAL SITE LAYOUT	-	E-101	E-201	E-301	E-401	E-501		
CONTROL DIAGRAM - WELL PUMP (TYPICAL)	E-003	-	-	-	-	-		
CONTROL DIAGRAM - ELECTRIC BOOSTER PUMP (TYPICAL)	E-004	-	-	-	-	-		
CONTROL DIAGRAM - GAS BOOSTER PUMP (TYPICAL)	E-005	-	-	-	-	-		
CONTROL DIAGRAM - CHLORINE/SODIUM HYPOCHLORITE PUMP (TYPICAL)	E-006	-	-	-	-	-		
INSTALLATION DETAILS - 1	E-007	-	-	-	-	-		
INSTALLATION DETAILS - 2	E-008	-	-	-	-	-		
I&C LEGENDS, SYMBOLS, AND ABBREVIATIONS	I-001	-	-	-	-	-		
EXTERIOR PANEL LAYOUT & BOM (PANEL 1)	-	I-101	I-201	I-301	I-401	I-501		
EXTERIOR PANEL LAYOUT & BOM (PANEL 2)	-	-	I-202	-	-	-		
INTERIOR PANEL LAYOUTS (PANEL 1)	-	I-102	I-203	I-302	I-402	I-502		
INTERIOR PANEL LAYOUTS (PANEL 2)	-	-	I-204	-	-	-		
PANEL DETAILS - 1	-	I-103	I-205	I-303	I-403	I-503		
PANEL DETAILS - 2	-	I-104	I-206	I-304	I-404	I-504		
INSTALLATION DETAILS - 1	I-002	-	-	-	-	-		
INSTALLATION DETAILS - 2	I-003	-	-	-	-	-		
INSTALLATION DETAILS - 3	I-004	-	-	-	-	-		
INSTALLATION DETAILS - 4	I-005	-	-	-	-	-		
NETWORK LEGENDS, SYMBOLS, AND ABBREVIATIONS	N-001	-	-	-	-	-		
NETWORK ARCHITECTURE	-	N-101	N-201	N-301	N-401	N-501		
NETWORK DETAILS (INCLUDING BILL OF MATERIALS)	N-002	-	-	-	-	-		



# Appendix B MEDIUM PRIORITY SITES DRAWING LIST

APPENDIX B - MEDIUM PRIORITY SITES DRAWING LIST									
DRAWING TITLE	COMMON DWG	LAMPSON PRS	GARDEN GROVE PRS	OC-50	OC-22	OC-5	WELL 26*	WELL 29	WELL 30
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 1	E-001	-	-	-	-	-	-	-	-
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 2	E-002	-	-	-	-	-	-	-	-
ELECTRICAL SITE LAYOUT	-	E-101	E-201	E-301	E-401	E-501	E-601	E-701	E-801
DEMO DRAWING - 1	-	-	-	-	-	-	E-602	-	-
DEMO DRAWING - 2	-	-	-	-	-	-	E-603	-	-
ROOM LAYOUT DRAWING - 1	-	-	-	-	-	-	E-604	-	-
ROOM LAYOUT DRAWING - 2	-	-	-	-	-	-	E-605	-	-
MCC ELEVATIONS	-	-	-	-	-	-	E-606	-	-
VFD ELEVATIONS	-	-	-	-	-	-	E-607	-	-
CONTROL DIAGRAM - WELL PUMP (TYPICAL)	E-003	N/A	N/A	N/A	N/A	N/A	-	-	-
CONTROL DIAGRAM - CHLORINE/SODIUM HYPOCHLORITE PUMP (TYPICAL)	E-004	N/A	N/A	N/A	N/A	N/A	-	-	-
CONTROL DIAGRAM - VALVE (TYPICAL)	E-005	-	-	-	-	-	N/A	N/A	N/A
INSTALLATION DETAILS - 1	E-006	-	-	-	-	-	-	-	-
INSTALLATION DETAILS - 2	E-007	-	-	-	-	-	-	-	-
I&C LEGENDS, SYMBOLS, AND ABBREVIATIONS	I-001	-	-	-	-	-	-	-	-
EXTERIOR PANEL LAYOUT & BOM	-	I-101	I-201	I-301	I-401	I-501	I-601	I-701	I-801
INTERIOR PANEL LAYOUTS	-	I-102	I-202	I-302	I-402	I-502	I-602	I-702	I-802
PANEL DETAILS - 1	-	I-103	I-203	I-303	I-403	I-503	I-603	I-703	I-803
PANEL DETAILS - 2	-	I-104	I-204	I-304	I-404	I-504	I-604	I-704	I-804
INSTALLATION DETAILS - 1	I-002	-	-	-	-	-	-	-	-
INSTALLATION DETAILS - 2	I-003	-	-	-	-	-	-	-	-
INSTALLATION DETAILS - 3	I-004	-	-	-	-	-	-	-	-
INSTALLATION DETAILS - 4	I-005	-	-	-	-	-	-	-	-
NETWORK LEGENDS, SYMBOLS, AND ABBREVIATIONS	N-001	-	-	-	-	-	-	-	-
NETWORK ARCHITECTURE	-	N-101	N-201	N-301	N-401	N-501	N-601	N-701	N-801
NETWORK DETAILS (INCLUDING BILL OF MATERIALS)	N-002	-	-	-	-	-	-	-	-

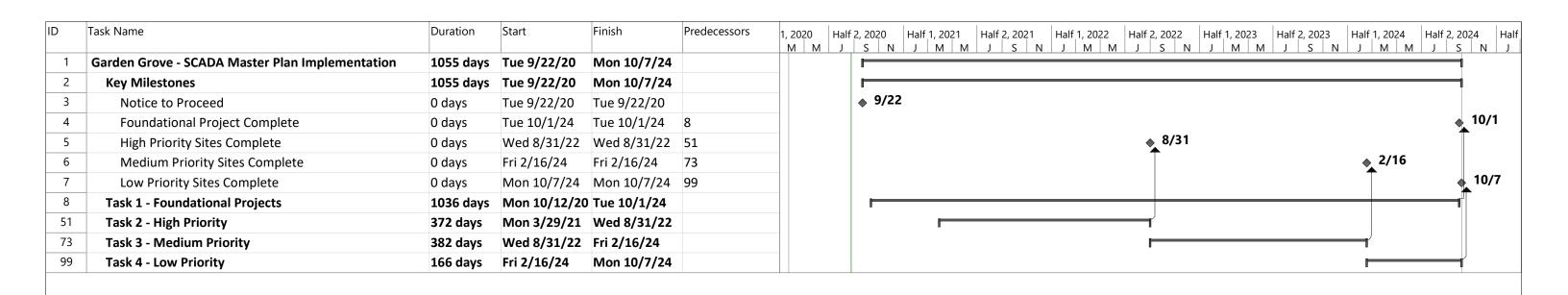
<sup>\*</sup> Well 26 project includes Well 26 VFD Installation and Well 26 SCADA Improvements.

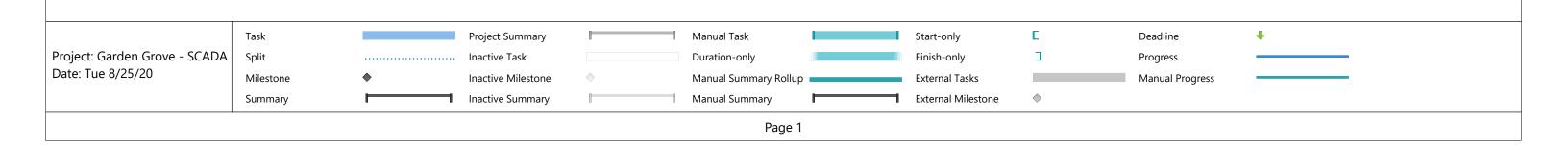


# Appendix C LOW PRIORITY SITES DRAWING LIST

APPENDIX C - LOW PRIORITY SITES DRAWING LIST							
DRAWING TITLE	COMMON DWG	WELL 19	WELL 16	WELL 25			
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 1	E-001	-	-	-			
ELECTRICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS - 2	E-002	ı	-	-			
ELECTRICAL SITE LAYOUT	-	E-101	E-201	E-301			
CONTROL DIAGRAM - WELL PUMP (TYPICAL)	E-003	-	-	-			
CONTROL DIAGRAM - CHLORINE/SODIUM HYPOCHLORITE PUMP (TYPICAL)	E-004	-	-	-			
INSTALLATION DETAILS - 1	E-005	-	-	-			
INSTALLATION DETAILS - 2	E-006	-	-	-			
I&C LEGENDS, SYMBOLS, AND ABBREVIATIONS	I-001	-	-	-			
EXTERIOR PANEL LAYOUT & BOM	-	I-101	I-201	I-301			
INTERIOR PANEL LAYOUTS	-	I-102	I-202	I-302			
PANEL DETAILS - 1	-	I-103	I-203	I-303			
PANEL DETAILS - 2	-	I-104	I-204	I-304			
INSTALLATION DETAILS - 1	I-002	-	-	-			
INSTALLATION DETAILS - 2	I-003	-	-	-			
INSTALLATION DETAILS - 3	I-004	-	-	-			
INSTALLATION DETAILS - 4	I-005	-	-	-			
NETWORK LEGENDS, SYMBOLS, AND ABBREVIATIONS	N-001	-	-	-			
NETWORK ARCHITECTURE	-	N-101	N-201	N-301			
NETWORK DETAILS (INCLUDING BILL OF MATERIALS)	N-002	-	-	-			







# **EXHIBIT B**

# **SCHEDULE OF PAYMENT**

528688.1

													L	abor		Costs	
West Yost Associates	PE/PS/PG II \$272	I AE/AS/AG II \$212	ETM II \$294	ETM I \$291	STS II \$256	STS I \$245	TS IV \$223	TS III \$200	TS II \$178	TS I \$156	CAD II \$155	P/VP \$298	Hours	Fee	Sub. w/ markup	Other Direct	Total Costs
PROJECT: SCADA Master Plan Implementation															10%		
Task 1 Foundational Projects			70		400		400	0.40			I	1	500	A 407.000			A 407.000
1.01 Project/Program Management		0.4	78	4.40	120	00	160	240 382	740	740	132		598	\$ 137,332			\$ 137,332
1.02 Engineering Design		24	96	140	4	66	178	+	748	713	132	10	2483	\$ 472,172			\$ 472,172
1.03 Bidding	32	32						80		176		16	336	\$ 63,712			\$ 63,712
1.04 Construction Management/Inspection			73	40	5		91	253	178	235	74	16	965	\$ 189,857		\$ 5,000	\$ 194,857
Subtotal, Task 1 (hours)	32	56	247	180	129	66	429	955	926	1124	206	32	4382				
Subtotal, Task 1 (\$)	\$ 8,704	\$ 11,872	\$ 72,618	\$ 52,380	\$ 33,02	4 \$ 16,17	0 \$ 95,667	\$ 191,000	\$ 164,828	\$ 175,344	\$ 31,930	\$ 9,536		\$ 863,073		\$ 5,000	\$ 868,073
Took 2 High Principle																	
Task 2 High Priority 2.01 Project/Program Management			86					256				1	342	\$ 76,484			\$ 76,484
2.02 Engineering Design			5	64	5	179	155	128	734	288	494	16	2068	\$ 70,464			\$ 382,312
2.03 Bidding			24	04		173	100	24	754	200	434	10	48	\$ 11,856			\$ 11,856
2.03 Ending  2.04 Construction Management/Inspection			27				600	24		1200			1800	\$ 321,000		\$ 10,000	<u> </u>
Subtotal, Task 2 (hours)	0	0	115	64	5	179	755	408	734	1488	494	16	4258	Ψ 021,000		Ψ 10,000	Ψ 001,000
		0							_		-	_	4230	£ 704.050		¢ 40.000	¢ 004.050
Subtotal, Task 2 (\$)			\$ 33,810	\$ 18,624	\$ 1,28	0 \$ 43,85	5 \$ 168,365	\$ 81,600	\$ 130,652	\$ 232,128	\$ 76,570	\$ 4,768		\$ 791,652		\$ 10,000	\$ 801,652
Task 3 Medium Priority																	
3.01 Project/Program Management			116					320					436	\$ 98,104			\$ 98,104
3.02 Engineering Design			45	64	5	155	131	144	702	440	244	12	1942	\$ 364,114			\$ 364,114
3.03 Bidding			2			16	16	16	32				82	\$ 16,972			\$ 16,972
3.04 Construction Management/Inspection							640			1280			1920	\$ 342,400		\$ 5,000	\$ 347,400
Subtotal, Task 3 (hours)	0	0	163	64	5	171	787	480	734	1720	244	12	4380				
Subtotal, Task 3 (\$)			\$ 47,922	\$ 18,624	\$ 1,28	0 \$ 41,89	5 \$ 175,501	\$ 96,000	\$ 130,652	\$ 268,320	\$ 37,820	\$ 3,576		\$ 821,590		\$ 5,000	\$ 826,590
Total de la composition	•	•					•	•			•						•
Task 4 Low Priority 4.01 Project/Program Management			23					78				1	101	\$ 22,362			\$ 22,362
4.02 Engineering Design			4	24	4	78	42	122	312	140	212	8	946	\$ 174,680			\$ 174,680
4.03 Bidding			24	24		70	72	24	312	140	212	<del>                                     </del>	48	\$ 11,856			\$ 11,856
4.04 Construction Management/Inspection			2-7					2-7		369			369	\$ 57,564		\$ 5,000	
Subtotal, Task 4 (hours)	0	0	51	24	4	78	42	224	312	509	212	8	1464	<b>\$</b> 01,001		<del>+ 0,000</del>	<b>\$</b> \$2,50
Subtotal, Task 4 (\$)		+ -		\$ 6,984						\$ 79,404	\$ 32,860	-	1404	\$ 266,462		\$ 5.000	\$ 271,462
Custotal, Tush 4 (4)			Ψ 14,554	Ψ 0,304	Ψ 1,02	τ   ψ 10,11	σ φ 3,500	Ψ 44,000	Ψ 00,000	Ψ 10,404	Ψ 32,000	Ψ 2,004		Ψ 200,402		Ψ 0,000	Ψ 271,402
SUBTOTAL FROM ALL TASKS ABOVE (\$)	\$ 8,704	\$ 11,872	\$ 169,344	\$ 96,612	\$ 36,60	8 \$ 121,03	0 \$ 448,899	\$ 413,400	\$ 481,668	\$ 755,196	\$ 179,180	\$ 20,264		\$ 2,742,777		\$ 25,000	\$ 2,767,777
* 15% Contingency	\$ 1,306	\$ 1,781	\$ 25,402	\$ 14,492	\$ 5,49	1 \$ 18,15	5 \$ 67,335	\$ 62,010	\$ 72,250	\$ 113,279	\$ 26,877	\$ 3,040		\$ 411,417		\$ 3,750	\$ 415,167
TOTAL (havea)	22	FC	F70	220	442	404	2.042	2.007	2.700	4.044	4.450	60	44.404				
TOTAL (hours)	32	56	576	332	143	494	2,013	2,067	2,706	4,841	1,156	68	14,484				
TOTAL (\$)	\$ 10,010	\$ 13,653	\$ 194.746	\$ 111,104	\$ 42,09	9 \$ 139,18	5 \$ 516,234	\$ 475,410	\$ 553,918	\$ 868.475	\$ 206,057	\$ 23,304		\$ 3,154,194		\$ 28.750	\$ 3,182,944



# 2020 Billing Rate Schedule





POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
ENGINEERING	
Principal/Vice President	\$298
Engineering/Scientist/Geologist Manager I / II	\$283 / \$295
Principal Engineer/Scientist/Geologist I / II	\$257 / \$272
Senior Engineer/Scientist/Geologist I / II	\$230 / \$241
Associate Engineer/Scientist/Geologist I / II	\$198 / \$212
Engineer/Scientist/Geologist I / II	\$160 / \$185
Engineering Aide	\$92
Administrative I / II / III / IV	\$81 / \$102 / \$123 / \$135
ENGINEERING TECHNOLOGY	
Engineering Tech Manager I / II	\$291 / \$294
Principal Tech Specialist I / II	\$268 / \$279
Senior Tech Specialist I / II	\$245 / \$256
Senior GIS Analyst	\$224
GIS Analyst	\$211
Technical Specialist I / II / III / IV	\$156 / \$178 / \$200 / \$223
Technical Analyst I / II	\$112 / \$134
Technical Analyst Intern	\$90
Cross-Connection Control Specialist I / II / III / IV	\$117 / \$127 / \$143 / \$159
CAD Manager	\$178
CAD Designer I / II	\$138 / \$155
CONSTRUCTION MANAGEMENT	
Senior Construction Manager	\$289
Construction Manager I / II / III / IV	\$174 / \$186 / \$198 / \$251
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	\$152 / \$169 / \$188 / \$196
Apprentice Inspector	\$138
CM Administrative I / II	\$74 / \$99
Field Services	\$196

- Hourly rates include Technology and Communication charges such as general and CAD computer, software, telephone, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside Services such as vendor reproductions, prints, shipping, and major West Yost reproduction efforts, as well as Engineering Supplies, etc. will be billed at actual cost plus 15%.
- Mileage will be billed at the current Federal Rate and Travel will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness, research, technical review, analysis, preparation and meetings billed at 150% of standard hourly rates. Expert witness testimony and depositions billed at 200% of standard hourly rates.
- A Finance Charge of 1.5% per month (an Annual Rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

# **2020 Billing Rate Schedule**



(Effective January 1, 2020 through December 31, 2020)\*

# **Equipment Charges**

EQUIPMENT	BILLING RATES
Gas Detector	\$80 / day
Hydrant Pressure Gauge	\$10 / day
Hydrant Pressure Recorder, Standard	\$40 / day
Hydrant Pressure Recorder, Impulse (Transient)	\$55 / day
Trimble GPS – Geo 7x	\$220 / day
Vehicle	\$10 / day
Water Flow Probe Meter	\$20 / day
Water Quality Multimeter	\$185 / day
Well Sounder	\$30 / day