

Meeting Date: 4/5/2016

Report Type: Consent

Report ID: 2016-00337

Title: Supplemental Agreements: Shasta Park Reservoir, Groundwater Well, and Booster Pump Station Project

Location: District 8

Recommendation: Pass a Motion authorizing the City Manager or the City Manager's designee to execute 1) Supplemental Agreement No. 3 to City Agreement Number 2012-0654, with Wood Rodgers, for additional design services for an amount not-to-exceed \$65,385, bringing the agreement's total not-to-exceed amount to \$820,767; and 2) Supplemental Agreement No. 4 to City Agreement Number 2012-0790, with West Yost Associates, for additional design services for an amount not-to-exceed \$221,307, bringing the agreement's total not-to-exceed amount to \$727,695.

Contact: Dan Sherry, Engineering & Water Resources Manager, (916) 808-1419; Michelle Carrey, Supervising Engineer, (916) 808-1438; Brett Ewart, Senior Engineer, (916) 808-1725, Department of Utilities

Presenter: None

Department: Department Of Utilities

Division: Cip Engineering

Dept ID: 14001321

Attachments:

- 1-Description/Analysis
- 2-Background
- 3-Location Map
- 4-Agreement No. 3, Wood Rodgers
- 5-Agreement No. 4, West Yost Associates

City Attorney Review

Approved as to Form
Joe Robinson
3/29/2016 12:08:03 PM

Approvals/Acknowledgements

Department Director or Designee: Bill Busath - 3/17/2016 12:45:35 PM

Description/Analysis

Issue Detail: Staff recommends that Council approve supplemental agreements with Wood Rodgers and West Yost Associates for additional engineering design services on the Shasta Park Reservoir and Pump Station project (Z14005400).

Supplemental agreement No. 3 to Agreement No. 2012-0654 with Wood Rodgers is needed to account for additional work requested of the consultant to develop a ground water treatment and chemical feed control strategy for the final design that meets new electrical and Supervisory Control and Data Acquisition (SCADA) standards.

Supplemental agreement No. 4 to Agreement No. 2012-0790 with West Yost Associates is needed to standardize the electrical specifications, provide electrical engineering services during construction, and provide for final Department-requested changes in the civil and landscape design.

Policy Considerations: The project is consistent with both City and regional water planning efforts to provide a safe and reliable water supply.

Economic Impacts: None.

Environmental Considerations: An Initial Study, Mitigated Negative Declaration, and Mitigation Reporting Program were prepared for this project in accordance with the California Environmental Quality Act (CEQA). The City Council adopted the Mitigated Negative Declaration and Mitigation Reporting Program on May 22, 2012 (Resolution No. 2012-138). Approval of the proposed supplemental agreement does not present any new or increased significant environmental effects not previously addressed. No additional environmental review is required.

Sustainability Considerations: The project has been reviewed for consistency with the goals, policies, and targets of the Sustainability Master Plan and the 2030 General Plan. The project will advance these goals, policies, and targets by ensuring that the City continues to provide a safe, clean, and reliable water supply to its customers.

Committee/Commission Action: None.

Rationale for Recommendation: Approving the supplemental agreements will provide for a facility design that aligns with the most current electrical and SCADA standards, as well as facility process control strategies being implemented at Department facilities. It will also provide for consultation with electrical and process control design engineers during

construction to ensure proper implementation during the initial submittal process, equipment testing, and facility startup.

Financial Considerations: The supplemental agreement with Wood Rodgers is for the amount not-to-exceed \$65,385. Approval of this agreement will bring the total Wood Rodgers agreement amount to \$820,767.

The supplemental agreement with West Yost Associates (WYA) is for the amount not-to-exceed \$221,307. Approval of this agreement will bring the total WYA agreement amount to \$727,695.

There is sufficient funding available in the Shasta Park Reservoir and Pump Station project (Z14005400) for the proposed supplemental agreements.

Local Business Enterprise (LBE): The City's existing agreements with Wood Rodgers and West Yost Associates were approved prior to the establishment of LBE participation requirements for professional service agreements.

Background

The 2005 Water Master Plan concluded that a finished water reservoir should be constructed in the southeast portion of Sacramento to help maintain service pressure through peak demand periods, and to provide additional emergency and fire suppression water supply.

The Shasta Park 4MG Reservoir and Pump Station (Project) includes the construction, operation and maintenance of an above-ground 4 million gallon (MG) water storage tank, 4 million gallons per day (MGD) groundwater well, 4 MGD groundwater treatment system, and a 15 MGD pump station. The reservoir and buildings will be constructed of reinforced concrete and decorative block. Other site improvements will include a perimeter fence, landscaping, lighting, and security system.

Initially staff anticipated that the design of this new facility would be predominately performed by Department of Utilities staff. However due to limited availability of City staff to perform these services, the desire to meet the design and construction schedule, and the inclusion of additional scope, staff has recommended several supplemental agreements enhancing the services of West Yost Associates and Wood Rodgers for additional facility design services and refinement of site development alternatives not originally contained in the original contract.

Prior Council Items

On May 22, 2012, City Council approved the purchase of the Project site, a 5.31 acre vacant parcel (APN 117-0182-023), which is located at the terminal end of Imagination Parkway, immediately north of the Shasta Community Park (see Attachment 3). The property purchase price was \$580,000.

In January 2012, a Request for Qualifications was issued for design services for the project. Two firms were selected by a five-person panel, which included a reviewer independent of the City. The panel selected the firms most qualified to provide engineering design services: 1) Wood Rodgers was selected for design of the groundwater well, and 2) West Yost Associates was selected to evaluate the adequacy of the City's overall facility design.

The Wood Rodgers agreement (2012-0654) was approved July 12, 2012, for an amount not-to-exceed \$301,000. The scope of that design work included the below ground components of the well, determining water quality, and design of the gravel pack and casing. On June 25, 2013 the City Council approved supplemental agreement No. 1 to the Wood Rodgers agreement, to provide for the remaining design of the groundwater well components, which included designing the equipment

to pump and treat the drinking water produced by the groundwater well. Supplemental agreement No. 1 raised the total agreement amount to \$630,400.

Also on July 12, 2012, the City Council authorized the City Manager to enter into an agreement with the Regional Water Authority (RWA) to provide for administration of the City's \$2,280,762 grant funding from Proposition 84. A portion of this grant, in the amount of \$988,199, is allocated to help fund the groundwater well design and construction. The grant funds are provided to the City on a reimbursement basis.

On September 5, 2012, the City Manager approved an agreement (2012-0790) with West Yost Associates to provide for a quality control assessment of the City's design, for the amount not-to-exceed \$37,300. On March 5, 2013, the City Council approved supplemental agreement No. 1 to the West Yost Associates agreement, to provide for design of the overall facility (excepting the groundwater design function being performed by Wood Rodgers), rather than the quality control assessment of the City's design. This raised the West Yost Associates agreement to an amount not-to-exceed \$321,400. Due to internal staffing shortages, City Council approved supplemental agreement No. 2 to the West Yost Associates agreement, to provide for design of the electrical components on November 13, 2013. This raised the West Yost Associates agreement to an amount not-to-exceed \$430,388.

A second item on November 13, 2013 included award of the construction contract for the new groundwater well by City Council to Hydro Resources West, Inc., for an amount not-to-exceed \$573,411. This project included the drilling of a 1200 ft deep groundwater well, and installation of the well casing and gravel pack. It did not include the pumping, electrical, and treatment facilities, which will be constructed during the next phase of construction. The current phase of construction is nearing completion.

On March 3, 2015, Council approved Supplemental agreement No. 2 to the Wood Rodgers contract for \$124,982, which provided for both additional construction management services for the enhanced groundwater well supply, and the design of additional facilities to capitalize on this additional water supply. On the same day, City Council approved Supplemental agreement No. 3 to the West Yost Associates contract for \$76,000, which provided for overall site design modifications triggered by the additional ground water supply, and artistic renderings for public outreach.

Current Council Items

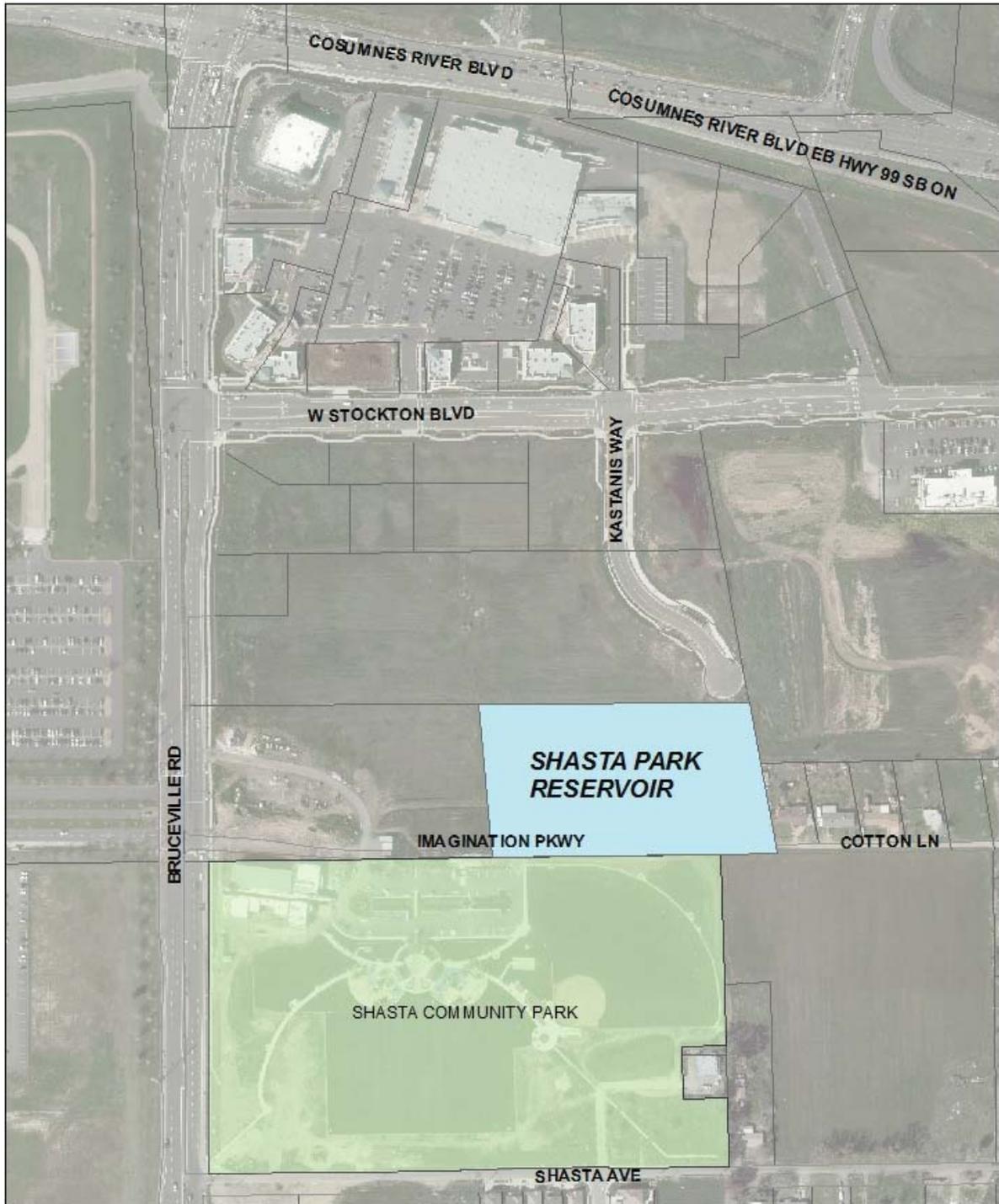
Item 1: Supplemental agreement No. 3 to the Wood Rodger contract will provide the additional work required to 1) develop process control strategies, plans, and specifications for operation and treatment of the groundwater well equipment, and 2)

design a control building fire suppression system that was triggered by the addition of a chemical feed system large enough to accommodate the higher-than-anticipated new water supply of 4MGD rather than 2 MGD.

Item 2: Supplemental agreement No. 4 to the West Yost Associates contract will provide for 1) modification of electrical specifications and drawings, 2) additional civil and landscape design to revise the site grading and drainage plans to accommodate the increased usage of vegetative swales necessary to treat storm water to meet new standards, 3) additional design to introduce fiber optic communications to the site, and 4) electrical engineering design services needed during construction. The electrical design service during construction will provide for review of shop drawing and submittals, observation of factory and startup testing, and preparation of record drawings.

Final project design is anticipated to be completed in spring 2016, and then the phase 2 construction will be competitively bid. Staff will return to Council at a later date with the results of that process.

**LOCATION MAP
CITY OF SACRAMENTO
SHASTA PARK RESERVOIR-PROPOSED
Z14005400**



SUPPLEMENTAL AGREEMENT

Project Title and Job Number: Shasta Park Reservoir/Z14005400
Purchase Order #: 0000018807

Date: 3/3/16
Supplemental Agreement No.: 3

The City of Sacramento ("City") and Wood Rodgers ("Contractor"), as parties to that certain Professional Services Agreement designated as Agreement Number 2012-0654, including any and all prior supplemental agreements modifying the agreement (the agreement and supplemental agreements are hereafter collectively referred to as the "Agreement"), hereby supplement and modify the Agreement as follows:

- 1. The scope of Services specified in Exhibit A of the Agreement is amended as follows:

For additional scope of services included in Supplemental Agreement No. 1, see attachment.

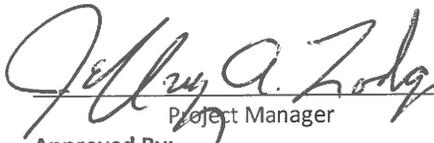
- 2. In consideration of the additional and/or revised services described in section 1, above, the maximum not-to-exceed amount that is specified in Exhibit B of the Agreement for payment of Contractor's fees and expenses, is **increased/decreased** by \$65,385, and the Agreement's maximum not-to-exceed amount is amended as follows:

Agreement's original not-to-exceed amount:	<u>\$301,000</u>
Net change by previous supplemental agreements:	<u>\$454,382</u>
Not-to-exceed amount prior to this supplemental agreement:	<u>\$755,382</u>
Increase/decrease by this supplemental agreement:	<u>\$65,385</u>
New not-to exceed amount including all supplemental agreements:	<u>\$820,767</u>

- 3. Contractor agrees that the amount of increase or decrease in the not-to-exceed amount specified in section 2, above, shall constitute full compensation for the additional and/or revised services specified in section 1, above, and shall fully compensate Contractor for any and all direct and indirect costs that may be incurred by Contractor in connection with such additional and/or revised services, including costs associated with any changes and/or delays in work schedules or in the performance of other services or work by Contractor.
- 4. Contractor warrants and represents that the person or persons executing this supplemental agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this supplemental agreement and bind Contractor to the terms hereof.
- 5. Except as specifically revised herein, all terms and conditions of the Agreement shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by this supplemental agreement.

Approval Recommended By:

Approved As To Form By:



 Project Manager
 Approved By:

City Attorney



 Contractor
 Approved By:

Attested To By:

City of Sacramento

City Clerk



March 2, 2016

Job No. 8064.015

Mr. Brett Ewart, P.E.
City of Sacramento
1395 35th Avenue
Sacramento, CA 95822

FINAL

Dear Mr. Ewart:

**Subject: City of Sacramento Shasta Park Production Well and Pump Station
Change Order No. 3 Request**

As requested, we have put together an estimate for additional work required to complete the Shasta Park Project design. Our efforts can be broken into several areas including development, coordination, review, modification and completion of the control strategies for automation and control of the Shasta Park Project. In addition, these control strategies were converted into design for the automation of all treatment trains and chemical supply with the electrical engineer of record for the project. The Piping and Instrumentation Diagrams (P&IDs) were updated and information for control diagrams were provided via conference and office visits between ATEEM, Affinity Engineering and Wood Rodgers staff. Below is a summary of those elements described above as well as all others that comprise this Change Order No. 3:

1. Development of Tag Numbering Convention, attending meetings, development and implementation of a Tag List.
2. Development of Draft Control Strategies for distribution and review.
3. Change in pump to waste operation to automated instead of manual and preparation of control modifications.
4. Meeting attendance – met with the City of Sacramento Department of Utilities staff for a discussion of the control strategies for the treatment automation. There were a total of two meetings held with the City of Sacramento DOU and three conference calls between Wood Rodgers, ATEEM and Affinity Engineering.
5. Meetings at ATEEM's office to review control strategies, revise P&IDs.
6. Modification of Draft Control Strategies in preparation for Final Control Strategies.
7. Preparation of two additional plan and specification review submittals.
8. Continued management over an extended schedule.
9. Addition of the shop drawing review tasks for the dual one ton cylinder disinfection system, Chlortainers, monorail, and fire suppression system to construction phase services.

Wood Rodgers is requesting a contract change order in the amount of \$65,385 to cover the additional work outlined above. We would be pleased to provide additional information

Mr. Brett Ewart, PE
March 2, 2016
Page 2

supporting the additional work performed to date as well as items outside of our original scope of work.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey A. Lodge". The signature is written in a cursive, flowing style.

Jeffrey A. Lodge, PE
Associate Engineer

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The City of Sacramento ("City") and West Yost Associates ("Contractor"), as parties to that certain Professional Services Agreement designated as Agreement Number 2012-0790, including any and all prior supplemental agreements modifying the agreement (the agreement and supplemental agreements are hereafter collectively referred to as the "Agreement"), hereby supplement and modify the Agreement as follows:

1. The scope of Services specified in Exhibit A of the Agreement is amended as follows:

Contractor shall perform the additional services set forth in the Scope of Services attached hereto and incorporated herein by this reference.

2. In consideration of the additional and/or revised services described in section 1, above, the maximum not-to-exceed amount that is specified in Exhibit B of the Agreement for payment of Contractor's fees and expenses, is **increased** by \$221,307, and the Agreement's maximum not-to-exceed amount is amended as follows:

Agreement's original not-to-exceed amount:	<u>\$37,300</u>
Net change by previous supplemental agreements:	<u>\$469,088</u>
Not-to-exceed amount prior to this supplemental agreement:	<u>\$506,388</u>
Increase/decrease by this supplemental agreement:	<u>\$221,307</u>
New not-to exceed amount including all supplemental agreements:	<u>\$727,695</u>

3. Contractor agrees that the amount of increase or decrease in the not-to-exceed amount specified in section 2, above, shall constitute full compensation for the additional and/or revised services specified in section 1, above, and shall fully compensate Contractor for any and all direct and indirect costs that may be incurred by Contractor in connection with such additional and/or revised services, including costs associated with any changes and/or delays in work schedules or in the performance of other services or work by Contractor.
4. Contractor warrants and represents that the person or persons executing this supplemental agreement on behalf of Contractor has or have been duly authorized by Contractor to sign this supplemental agreement and bind Contractor to the terms hereof.
5. Except as specifically revised herein, all terms and conditions of the Agreement shall remain in full force and effect, and Contractor shall perform all of the services, duties, obligations, and conditions required under the Agreement, as supplemented and modified by this supplemental agreement.

Approval Recommended By:

Approved As To Form By:

Project Manager
Approved By:

City Attorney



Contractor

Attested To By:

Approved By:

City of Sacramento

City Clerk

SCOPE OF SERVICES

SHASTA PARK WATER FACILITIES

AMENDMENT NO. 4

West Yost Associates (West Yost) will provide the following additional services to the City of Sacramento (City) for the Shasta Park Water Facilities Project (Project) final design. These services include the following:

- Standardization of Electrical Specifications
- Additional Civil and Landscape Design Services
- Electrical Engineering Service During Construction

A detailed description of these services is presented below.

SCOPE OF WORK TASKS

Standardization of Electrical Specifications

ATEEM Electrical Engineering (ATEEM) will provide additional Specification and Drawings Standardization electrical design services not included in the original scope work. The additional effort includes revising all electrical and instrumentation specifications and updating electrical and instrumentation drawings. ATEEM's staff will collaborate with the City's electrical and operations staff to develop the standardized specifications that meet the City's needs. ATEEM staff will attend up to three (3) meetings with City staff; West Yost staff will attend one (1) of those meetings.

See Attachment B for a detailed proposal by ATEEM Electrical Engineering dated January 15, 2016.

Additional Civil and Landscape Design Services

West Yost will coordinate with the Landscape Architect to revise the site grading and drainage plans to accommodate the increased usage of vegetative swales necessary to treat storm water. We will adjust the storm drain configuration and grading to capture a greater percentage of rainfall within vegetative swales.

West Yost will include proposed fiber optic conduit from Bruceville Road to the site. Addition of fiber optic will require updated plan sheets and new details. We will meet with City Staff to coordinate control strategies and final review comments.

West Yost will coordinate and prepare an additional review submittal of design drawings and specifications to accommodate City staff final comments.

Electrical Engineering Services During Construction

ATEEM will provide engineering services during construction to include the following:

- Attend up to ten (10) project meetings.

- Review electrical, instrumentation and control shop drawings and submittals. Assumed about thirty (30) submittals.
- Respond to construction questions. Assumed up to five (5).
- Respond to “Request for Information” (RFI) regarding electrical and instrumentation items. Assumed up to ten (10).
- Witness and verify the following:
 - Factory tests (3 days)
 - Field tests (5 days)
 - Start-up testing and verification (10 days)
- Provide electrical inspection and generate punch-list. Assumed to be five days.
- Prepare record contract drawings.

West Yost will coordinate electrical submittal reviews, construction meetings, and response to RFI’s. See Attachment C for a detailed proposal by ATEEM dated January 15, 2016.

COMPENSATION

The table below provides the estimated level of effort for additional engineering services for the City of Sacramento Shasta Park Water Facility. The compensation limit for services performed under this amendment shall not exceed \$221,307, which will increase our budget from \$506,388 to \$727,695. A detailed budget estimate is provided in Attachment A.

Table 1. Estimated Additional Fees	
Project Task	Fee Estimate, dollars
Standardization of Electrical Specifications	86,732
Site Civil and Landscape Design Services	26,046
Electrical Engineering Services During Construction	108,529
Total Estimated Budget Increase	221,307
Current Project Budget	506,388
New Project Budget Total	727,695

January 26, 2016



West Yost Associates PROJECT: Shasta Park Water Facility		PE/PS/PG I \$199	AE/AS/AG II \$169	SCADD \$120	ADM III \$99	Hours	Labor Fee	Technology & Admin 6%	Sub. ATEEM	Sub. w/ markup 10%	Other Direct	Total Costs
Task 1 Standardization of Electrical Specifications												
1.1 E&I Drawings	0					0			\$ 30,020	\$ 33,022		\$ 33,022
1.2 Division 16 Specifications						0			\$ 45,240	\$ 49,764		\$ 49,764
1.3 Attend Three Project Meetings	4					4	\$ 796	\$ 48	\$ 2,820	\$ 3,102		\$ 3,946
Subtotal, Task 1 (hours)	4	0	0	0	0	4	\$ 796	\$ 48	\$ 78,080	\$ 85,888		\$ 86,732
Subtotal, Task 1 (\$)	\$ 796						\$ 796	\$ 48	\$ 78,080	\$ 85,888		\$ 86,732
Task 2 Additional Civil and Landscape Design Services												
2.1 Coordination	16	10				26	\$ 4,874	\$ 292				\$ 5,166
2.2 Vegetative Swales, Fiber Optic Conduit	24	24	10	8		66	\$ 10,824	\$ 649				\$ 11,473
2.3 Prepare 95% & 100% Submittals	20	16	10	10		56	\$ 8,874	\$ 532				\$ 9,406
Subtotal, Task 2 (hours)	60	50	20	18	148	\$ 11,940	\$ 8,450	\$ 1,782				\$ 26,046
Subtotal, Task 2 (\$)	\$ 11,940	\$ 8,450	\$ 2,400	\$ 1,782			\$ 24,572	\$ 1,474				\$ 26,046
Task 3 Electrical Engineering Services During Construction												
3.1 Construction Meetings	4					4	\$ 796	\$ 48	\$ 10,380	\$ 11,418		\$ 12,262
3.2 Submittal Review	16					16	\$ 3,184	\$ 191	\$ 25,680	\$ 28,248		\$ 31,623
3.3 Respond to Questions and RFIs	4					4	\$ 796	\$ 48	\$ 7,960	\$ 8,756		\$ 9,600
3.4 Witness Testing						0			\$ 32,440	\$ 35,684		\$ 35,684
3.5 Electrical Inspection	4			4		8	\$ 1,192	\$ 72	\$ 9,000	\$ 9,900		\$ 11,164
3.6 Prepare Record Drawings		4				4	\$ 676	\$ 41	\$ 6,800	\$ 7,480		\$ 8,197
Subtotal, Task 3 (hours)	28	4	0	4	36	\$ 5,572	\$ 676	\$ 399	\$ 92,260	\$ 101,486		\$ 108,529
Subtotal, Task 3 (\$)	\$ 5,572	\$ 676	\$ 0	\$ 396			\$ 6,644	\$ 399	\$ 92,260	\$ 101,486		\$ 108,529
TOTAL (hours)	92	54	20	22	188							
TOTAL (\$)	\$ 18,308	\$ 9,126	\$ 2,400	\$ 2,178			\$ 32,012	\$ 1,921	\$ 170,340	\$ 187,374		\$ 221,307



ATTACHMENT B

January 15, 2016

Mr. Jeff Wanlass, P.E.
West Yost Associates
2020 Research Park Drive, Suite 100
Davis, CA 95618
E-mail: jwanlass@westyost.com

Location: City of Sacramento
Subject: Electrical Design Quotation & Scope of Work – Specification and Drawings
Standardization – Additional 2
Project: Shasta Park Water Facilities

We are pleased to submit this proposal for additional Specification and Drawings Standardization electrical design services for the City of Sacramento Shasta Park Water Facilities. The additional effort includes revising all electrical and instrumentation specification and updating electrical and instrumentation drawings.

The following is a summary of *A T.E.E.M.* electrical and instrumentation design services for the project:

1. Conform 63 Electrical & Instrumentation specifications to Shasta Park specification format, including further changes to 7 of these specifications.
2. The modifications required revising 12 entire drawings.
3. Three (3) project meetings, includes two (2) project meetings at A TEEM office to discuss comments.

A T.E.E.M. not-to-exceed Design Services proposed fees are listed on the attached spreadsheet.

Notes: The following are not included as part of this scope of work:

1. “Construction Services” such as submittal review, startup/testing, construction inspection, etc.
2. PLC programming or SCADA graphics configuration are not included.

All prices include overhead, profit, insurance, and travel expenses for site visits to the jobsite. Currently *A T.E.E.M.* has \$2,000,000 general liability and \$2,000,000 professional liability insurance in force.

A T.E.E.M. is dedicated to meet your needs by providing specialized design, consultant and management services. Please give us a call if you have any questions or require further information.

Sincerely,

Sharon M. Kimizuka, P.E.
A T.E.E.M. Electrical Engineer



January 15, 2016

Mr. Jeff Wanlass, P.E.
West Yost Associates
2020 Research Park Drive, Suite 100
Davis, CA 95618
E-mail: jwanlass@westyost.com

Location: City of Sacramento
Subject: Electrical Engineering Construction Services Quotation & Scope of Work
Project: Shasta Park Water Facilities

The following lists the *A T.E.E.M.* Electrical Engineering Construction Services for the project.

1. Attend ten (10) project meetings.
2. Review electrical, instrumentation and control shop drawings and submittals. (~30).
3. Answer construction questions and provide clarifications. (~5)
4. Respond to "Request for Information" regarding electrical and instrumentation items. (~10)
5. Witness and Verify:
 - a. Factory Tests (3 Days)
 - b. Field Tests (5 Days)
 - c. Start-up (10 Days)
6. Provide electrical inspection and generate punch-list. (5 Days)
7. Prepare record contract drawings.

A T.E.E.M. Electrical Engineering Construction Services fee proposal is on the attached spreadsheet.

All prices include overhead, profit, insurance, and travel expenses for site visits to the jobsite. Currently A T.E.E.M. has \$2,000,000 general liability and \$2,000,000 professional liability insurance in force.

Notes:

- 1) PLC programming and SCADA graphics configuration are not included in this scope of work.

A T.E.E.M. is dedicated to meet your needs by providing specialized design, consultant and management services. Please give us a call if you have any questions or require further information.

Sincerely,

Sharon M. Kimizuka, P.E.
A T.E.E.M. Electrical Engineer

