



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JUNE 24, 2019

ITEM NO: 19

SUBJECT: RFP NO. 1927 – DESIGN BUILD AGREEMENT FOR WATER SCADA SECURE & OPTIMIZED COMMUNICATIONS SYSTEM PROJECT WITH SYSTEMS INTEGRATED, LP, IN THE AMOUNT OF \$1,313,286, INCLUDING A 10% OR \$131,329 CHANGE ORDER AUTHORITY AND WORK ORDER NO. 1909378 IN THE AMOUNT OF \$1,550,222

ISSUES:

Approve a Design-Build Agreement in response to RFP No. 1927 for the Water SCADA Secure & Optimized Communications System Project with Systems Integrated, LP, of Orange, California, authorize a 10% or \$131,329 change order authority, and approve Work Order No.1909378 for a capital expenditure in the amount of \$1,550,222.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Approve a Design-Build Agreement with Systems Integrated, LP, of Orange, California, in response to RFP No. 1927 for the Water SCADA Secure & Optimized Communications System Design-Build Project, in the amount of \$1,313,286;
2. Authorize change order authority for the Systems Integrated Design Build Agreement in the amount of 10% or \$131,329 for RFP No. 1927;
3. Approve Work Order No. 1909378 for a capital expenditure in the amount of \$1,550,222, which includes all consulting services, design, construction, and inspections change order authority costs for the Water SCADA Secure & Optimized Communications System Project; and
4. Authorize the City Manager, or designee, to execute the Design-Build Agreement with Systems Integrated, LP, including making minor non-substantive changes necessary to effectuate the agreement.

BACKGROUND:

The Water Supervisory Control and Data Acquisition (SCADA) system continuously controls and monitors the City's potable and non-potable water systems. The Water SCADA system allows for remote operation and provides critical operational data to ensure compliance with the Federal and State Safe Drinking Water Acts. An important function of the Water SCADA system is to alert water system operators of any system problems so they may respond quickly. The current water system consists of 150 remote sites, which includes 56 wells,

40 booster pump facilities, 16 reservoirs, six water treatment plants, pressure relief valves, and inter-agency connections.

The Water SCADA communications system was largely constructed in 2004 and consists of 145 radios operating at 9600-baud rate, which is equivalent to the speed of an outdated telephone dial-up modem. Although the communications system is operable, it has a high data transmission failure rate and is vulnerable to cyber threats. Cyber vulnerability was a critical finding noted in the SCADA system vulnerability assessment conducted by Securicon. The main issue being the inability for the current communications network to support encrypted data transmission due to the bandwidth limitations. Equally of concern is the discontinuance of critical components and the expiration of support of outdated equipment. Without addressing these issues, the communications network will become increasingly vulnerable, unreliable, and slow as new assets and instrumentation are added and/or replaced within the water system.

Staff proceeded with this project using a design-build process after a failed attempt to utilize the traditional design, bid, build process. A successful RFQ No. 1870 was posted on November 1, 2018 and identified four (4) qualified teams. RFP No. 1927 for Water SCADA Secure & Optimized Communications System Project was posted on March 4, 2019 to the four (4) qualified teams and three (3) teams submitted proposals for scoring and interviews.

DISCUSSION:

After completing the scoring and interviews based on criteria outlined in the RFP, staff selected Systems Integrated who demonstrated extensive experience designing and installing large-scale SCADA and communications systems. This project will eliminate single points of failure and will greatly increase our reliability and resilience by installing high-speed radios, additional communication towers, and creating a meshed network. It will enable the collection of additional critical system data, reduce data loss, and allow for the implementation of recommended cyber and physical security measures. A decrease in after-hours emergency callouts associated with the legacy communication system is expected.

The project breakdown is as follows:

Task Description	Performed By	Total	Percent of Total
Consulting Services – Owner's Representative	Hazen & Sawyer	\$85,607	6%
Design-Build Construction Services	Systems Integrated	\$1,313,286	85%
10% Construction Contingency	-	\$131,329	8%
Water Operations Support & Inspections	RPU Operations	\$20,000	1%
Work Order Total		\$1,550,222	100%

The standard change order authority is 10% of the construction amount, not-to-exceed \$150,000. The Purchasing Manager concurs that the recommended actions are in compliance with Purchasing Resolution No. 23256.

FISCAL IMPACT:

The total estimated project cost is \$1,550,222. Currently there are funds of \$749,344 available in the Public Utilities System Automation Account No. 6230200-470826 which will be carried over into fiscal year 2019-20. The approved CIP budget for fiscal year 2019-20 includes additional funds in the amount \$870,368 which, combined with this current fiscal year's carryover, will provide sufficient funds for the project. The design-build team will not begin work prior to fiscal year 2019-20.

Prepared by: Todd L. Jorgenson, Utilities Assistant General Manager/Water

Approved by: Todd M. Corbin, Utilities General Manager
Approved by: Al Zelinka, FAICP, City Manager
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Brian Seinturier, Utilities Fiscal Manager

Attachments:

1. Award Recommendation
2. Design-Build Construction Services Agreement with Systems Integrated
3. Presentation