

METRO JPA/TAC**Staff Report**

Date: 9/16/2020

Project Title: Pump Station 2 Power Reliability & Surge Protection**Requested Action:**

Approval to extend both Design Consultant (Lee & Ro) and Construction Management Consultant (Black & Veatch) contracts and the increase of the previously approved budget by \$3,500,000.

Recommendations: Approve the requested actions

Metro TAC:	Present to Metro JPA/TAC for approval scope/budget
IROC:	N/A
Prior Actions: (Committee/Commission, Date, Result)	Original Consultant Design contract with Lee and Ro was approved by Metro TAC in October 2011. First Amendment to Consultant Design contract with Lee and Ro was approved by Metro TAC in November 2014. Construction contract with Steve P. Rados and the increase of the previously approved budget by \$29,200,000 was approved by Metro TAC in March 2017.

Fiscal Impact:

Is this projected budgeted?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Cost breakdown between Metro & Muni:	100% Metro
Fiscal impact to the Metro JPA:	33.5% of \$3,500,000 = \$1,172,500

Capital Improvement Program:

New Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
Existing Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Upgrade/addition <input checked="" type="checkbox"/> Change <input type="checkbox"/>

Previous TAC/JPA Action:

Original Consultant Design contract with Lee and Ro was approved by Metro TAC in October 2011. First Amendment to agreement with Lee and Ro was approved by Metro TAC in November 2014. Construction contract with Steve P. Rados and the increase of the previously approved budget by \$29,200,000 was approved by Metro TAC in March 2017.

Additional/Future Action:

Will present project to Metro JPA on September 16, 2020, City council Infrastructure Committee in October 14, 2020, and then to City Council in November 10, 2020, for approval to extend the contracts with Black & Veatch and Lee & Ro.

City Council Action:

On May 30, 2012, the City entered into an agreement (Resolution No. R-307458) with Lee and Ro Inc. in the amount of \$1,750,000 to evaluate alternatives of backup power recommendations for the City's review and provide design services for the City's preferred alternative.

On April 21, 2015, the City amended the Agreement (Ordinance No. OO-20477) to extend Lee and Ro Inc. contract duration through April 20, 2020 and increased the contract amount by \$350,000.00 to provide design services for additional scope items.

On July 19, 2017, the City Council approved phase funded contracts (Resolution No. R-311218) for Steve P. Rados, Inc. for construction of PS2 project in an amount not to exceed

\$56,228,000.00, and for Black & Veatch Corporation for construction management services in an amount not to exceed \$3,749,869.00.

On April 18, 2018, the City amended the Agreement (Ordinance No. OO-20910) to extend Lee and Ro contract duration through August 20, 2022 and increased the contract amount by \$2,250,000.00 to provide construction support services.

Background:

PS 2 is located on North Harbor Drive near the San Diego International Airport, and collects all sewage generated by the City of San Diego populations along with other participating agencies within the County of San Diego. The existing sewer pump station has six (6) pumps driven by electrical power and two (2) pumps driven by natural gas engines with a total capacity of 432 million gallons per day. This essential facility must continue to operate 24 hours per day and 7 days per week without disruption during construction, and also provide for mitigation of risks of hazards, e.g., spills, and surge protection. This requires minimal work during the rainy season.

The purpose of this PS2 Power Reliability & Surge Protection Project is to meet current U.S. Environmental Protection Agency (EPA) guidelines requiring the station to be equipped with independent backup power sources through installation of on-site backup power generators. The backup power generators will also provide surge protection to prevent a water hammer effect that could damage the force main pipes during a power outage event. The project scope consists of construction of four (4) new large emergency power backup generators, a new power generator building and new covered backup fuel storage area, replacement of the two (2) pumps driven by natural gas engines, mechanical, electrical, instrumentation and control systems, and all site restoration necessary for a complete and functional facility. The project also includes improvements to the existing building which include conversion of space to additional offices and required American with Disabilities Act (ADA) upgrades. The construction phase began in August 2017 and is estimated to be operational by December 2023.

Sub-item 1:

On July 19, 2017, the City awarded an Agreement (R-311218) to Black & Veatch Corporation, Inc. to provide construction management services for the PS2 for an amount not to exceed \$3,749,869.00 for a duration of 5 years. The services provided by Black & Veatch Corporation include oversight and overall management of the construction contract, including quality assurance and specialty inspections, operational and functional testing of large complex equipment (power backup generators), and start up and final commissioning of the facility.

The construction of the project began on August 8, 2017 with a contract duration of 48 months (1,460 calendar days) scheduled to complete in August 2021. The project is approaching the 60% completion and is now expected to be in operation by November 2022 with the completion of all post construction requirements by July 2023.

During construction, the Contractor has had various challenges that have delayed the schedule, such as, accurately performing modeling, layout and installation of the generator building underground equipment, and also receiving and installing the structural steel for the generator building roof. These delays also impacted the schedule for the pump replacement work which is restricted to replacing one pump during the dry season of each year, as all eight wastewater pumps for this pump station are required to be in operation during the rainy season (October through May). The first pump replacement was originally scheduled for dry season of 2020 (June - September), and the second pump 2021. It is expected that the Contractor will now perform the work for the first pump replacement in the dry season of 2021, and the second pump replacement in 2022. City staff has issued notices to the Contractor notifying them of the delays in schedule, and that the City reserves the right to assess liquidated damages.

As a result of the challenges described, and the potential of further unforeseen challenges on a project of this complexity, it is necessary to extend the contract an additional 24 months (2

years) from July 19, 2022 to July 19, 2024 and add additional funding to Black and Veatch Corporation's contract via Amendment No.1. This Amendment No. 1 is for an amount not to exceed \$2,500,000.00 to cover an additional 24 months. It will cover the essential support and uninterrupted Construction Management Services throughout the remainder of the construction phase, including startup and commissioning, coordination with Operations and Maintenance staff, resolution of any claims, and final closeout and acceptance.

Sub-item 2:

On May 30, 2012, the City awarded an Agreement (RR-307458) to Lee and Ro, Inc., in the amount of \$1,750,000 for professional design and construction support services. The scope of work was to evaluate the most feasible alternatives for a new reliable backup power system according to EPA guidelines for independent backup power meeting all current safety and operation standards and to develop construction plans and specifications for the most feasible backup power alternative.

On April 21, 2015, the City authorized the First Contract Amendment with Lee and Ro, Inc. to extend the contract duration through April 2020 and to increase the contract amount by \$350,000 for additional design scope changes. The scope of work consisted of improvements to the existing switchgear building not included in the original scope which included conversion of space to additional offices, and ADA upgrades. The scope also included increasing the size of backup power generators, relocating fiber optics conduits in conflict with the new power generator building, upgrading the existing heat exchangers, and adding new electrical equipment, (480 Volt Automatic Transfer switch). Revised design plans and construction specifications were completed in August 2016 and provided for the construction of the project.

On April 18, 2018, the City authorized the Second Contract Amendment with Lee and Ro, Inc. to extend the contract duration through August 2022 and to increase the contract amount by \$2,250,000 for construction support services that were not part of the original agreement and first contract amendment.

Due to delays in construction, a Third Contract Amendment with Lee and Ro, Inc. is necessary to extend the contract by 30 months from August 20, 2022 to February 20, 2025 and increase the contract amount by \$975,000.

The scope of professional services included in the Third Contract Amendment will provide for the additional construction support required for the full duration of the construction contract, which includes additional site meetings, coordination with City staff, contractor, and utility companies. It also includes additional review of submittals, RFI's (Requests for Information), unforeseen conditions, equipment testing, and facility operational and startup support and project close out.

	Previously Approved Budget	Revised Budget
Engineering and Contract Administration	\$2,500,000.00	\$5,000,000.00
Consultant Contract (Lee & Ro)	\$4,350,000.00	\$5,325,000.00
CM Contract (Black & Veatch)	\$3,750,000.00	\$6,250,000.00
Construction Contract (Steve P. Rados)	\$56,228,000.00	\$56,340,611.00
Contingency	\$5,272,800.00	\$2,685,189.00

Total project cost	\$72,100,800.00	\$75,600,800.00
Discussion: Due to the critical need of this facility to continue to operate 24 hours per day/7 days per week, and to ensure the power reliability and surge protection, it is recommended to move forward with this project.		
Bid Results: 3 bids received Bid open date on 12/6/16. (Design-Bid-Build delivery method) 1 – Rados - \$56,228,000 2 – Kiewit - \$57,329,650 3 – Archer west - \$64,306,000 (disqualified)		