



Santa Clara Valley Water District

File No.: 24-0502

Agenda Date: 6/25/2024

Item No.: 4.6.

BOARD AGENDA MEMORANDUM

Government Code § 84308 Applies: Yes No
(If "YES" Complete Attachment A - Gov. Code § 84308)

SUBJECT:

Accept the Work as Complete and Direct the Clerk to File the Notice of Completion of Contract and Acceptance of Work for the Santa Clara Conduit Rehabilitation and Pacheco Sectionalizing Valve Replacement Project, as Part of the 10-Year Pipeline Inspection and Rehabilitation Project, Con-Quest Contractors, Inc., Contractor, Project No. 95084002, Contract No. C0673 (San Benito County, Gilroy, and Unincorporated Santa Clara County, District 1).

RECOMMENDATION:

- A. Accept the work on the Santa Clara Conduit Rehabilitation and Pacheco Sectionalizing Valve Replacement Project, as part of the 10-Year Pipeline Inspection and Rehabilitation Project, Project No. 95084002, Contract No. C0673 as complete; and
- B. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk-Recorder

SUMMARY:

The construction contractor, Con-Quest Contractors, Inc. (Contractor), has completed the Santa Clara Conduit Rehabilitation and Pacheco Sectionalizing Valve Replacement Project (Project), as part of the 10-Year Pipeline Inspection and Rehabilitation Project.

Project Background

The Santa Clara Conduit and Pacheco Conduit are included in Santa Clara Valley Water District's (Valley Water) Pipeline Maintenance Program (PMP) and are an identified capital effort under the 10-Year Pipeline Inspection and Rehabilitation Project. The PMP defines the activities associated with maintenance and repair of water supply conveyance systems throughout Valley Water's jurisdiction. The PMP serves as a comprehensive plan that defines how routine and preventative maintenance activities can be carried out. The primary objectives of the PMP are to maintain Valley Water's water conveyance systems to their specifications and design, coordinate routine maintenance activities to achieve this goal, reduce environmental impacts associated with maintenance, and assist in obtaining multi-year permits for these activities.

The purpose of the 10-Year Pipeline Inspection and Rehabilitation Project is to maintain the integrity

of the approximately 140 miles of large diameter raw and treated water transmission pipelines, extend their useful life, and address infrastructure reliability concerns. The Project is the fifth project to be undertaken following the Almaden Valley Pipeline, Pacheco Conduit, Cross Valley and Calero Pipelines, and Central and Parallel East Pipelines.

Santa Clara Conduit

The Santa Clara Conduit (SCC) consists of approximately 22 linear miles of 96-inch prestressed concrete cylinder pipe (PCCP). It conveys raw water from the Bifurcation structure near Casa De Fruta Parkway and Pacheco Pass Highway to the Coyote Pumping Plant in Morgan Hill. The SCC was constructed in 1988 and is owned by the U.S. Bureau of Reclamation (USBR). SCC is part of the USBR San Felipe System and is operated and maintained by Valley Water. It begins at the Bifurcation structure, runs along the Santa Clara Tunnel, continues along the northern portion of San Benito County and the cities of Gilroy, San Martin, and Morgan Hill in Santa Clara County, and ends at the Coyote Pumping Plant.

In 2020, staff conducted a condition assessment of the SCC to evaluate and assess the overall condition of the pipeline and its appurtenances. The findings recommended the installation of an Acoustic Fiber Optic system to monitor the structural integrity of the PCCP pipeline and the replacement of several appurtenances.

Pacheco Conduit

The Pacheco Conduit (PAC) consists of approximately 7 miles of 120-inch PCCP. It conveys raw water from the Pacheco Sectionalizing Valve (PSV), runs along Pacheco Pass Highway and ends by connecting to the Santa Clara Conduit at the Bifurcation structure near Casa De Fruta Parkway and Pacheco Pass Highway. The facilities were constructed by USBR in the 1980's as part of the Central Valley Project and are owned by USBR. It is operated and maintained by Valley Water. The PAC is also part of USBR's San Felipe System, supplying raw water to both Valley Water and San Benito County Water District.

In November 2019, Pure Technologies identified damaged Acoustic Fiber Optic (AFO) fiber inside the pipeline that needed to be repaired during the next scheduled shutdown.

The following items of work were completed during the Project: dewatering and inspection of the Santa Clara Conduit; performance of internal pipeline repair work as identified during inspection; repair and rehabilitation of appurtenances; replacement of line valves; and installation of an Acoustic Fiber Optic (AFO) monitoring system.

Relevant Prior Board Actions

On November 13, 2007, the Board certified the Pipeline Maintenance Program Environmental Impact Report (PMP EIR) and adopted the Mitigation Monitoring Plan.

On April 13, 2010, the Board held a public hearing and adopted Resolution 10-29 approving the PMP

Engineer's Report and approving the PMP.

On July 26, 2011, the Board accepted the work as complete for the Santa Clara Conduit Reach 3 Rehabilitation Project from SV1 Vault to Coyote Pumping Station, MGE Underground, Inc., Contract No. C0570, Project No. 92144002.

An emergency occurred on Saturday, August 1, 2015, at approximately 5:30 a.m. A 10-foot section of the Santa Clara Conduit, located a quarter of a mile downstream of the Santa Clara Conduit/Hollister Conduit bifurcation near Casa de Fruta, suffered a catastrophic failure. After further investigation by staff, a water utility departmental emergency operations center was activated on August 1, 2015. On August 3, 2015, an emergency was formally declared by the District's Chief Executive Officer. On August 11, 2015, the Board approved the recommendation that found that the pipeline failure on the Santa Clara Conduit continues to constitute an emergency pursuant to California Public Contract Code Section 22050 and Valley Water Resolution 05-67.

On September 8, 2015, the Board approved the recommendation to continue the emergency action declared by the CEO on August 3, 2015, pursuant to California Public Contract Code Section 22050 and Valley Water Resolution 05-67, in support of the pipeline restoration on the Santa Clara Conduit, continuing previous determinations made by the Board of Directors.

On September 22, 2015, Staff provided updates to the Board on the Emergency Declaration and Pipeline Restoration on Santa Clara Conduit.

On April 15, 2016, Staff provided lessons learned to the Board from the August 1, 2015 Pipe Rupture on Santa Clara Conduit, owned and operated by the U.S. Bureau of Reclamation (Bureau). The Bureau's Technical Service Center (TSC) concluded that various factors contributed to the pipe rupture including lengthy exposure of the pipe to corrosive soils, hydraulic pressure changes as a result of a power outage, and microcracking which allowed the ingress of deleterious ions to the prestressing wire and initiated the corrosion process.

On January 8, 2019, the Board approved a sole source purchase of equipment and services from Pure Technologies U.S., Inc. to provide electromagnetic inspection, acoustic fiber optic (AFO) monitoring system, and AFO system services for the 10-Year Pipeline Inspection and Rehabilitation Program.

On April 26, 2022, the Board adopted the plans and specifications and authorized advertisement for bids for the Construction of the Santa Clara Conduit Rehabilitation and Pacheco Conduit Sectionalizing Valve Replacement Project per the Notice to Bidders; found that the Project is substantially complex and requires a construction contract retention of 10 percent; and authorized the Designated Engineer to issue addenda, as necessary, during the bidding process.

On June 28, 2022, the Board ratified Addenda No. 1 to the Contract Documents for the Santa Clara Conduit Rehabilitation and Pacheco Conduit Sectionalizing Valve Replacement Project; awarded the Contract to Con-Quest Contractors, Inc., located in San Francisco, CA, in the sum of \$9,677,100; and approved a contingency sum of \$967,710 and authorized the Chief Executive Officer or designee

to approve individual change orders up to the designated amount.

Contract Change Orders

Six (6) contract change orders totaling a net credit of \$2,441,825.51 were executed for this contract to address various issues, including unforeseen site conditions, Valley Water requested changes, and credits back to the contract for deleted items of work and adjustments to bid items based on final quantity measurements.

These changes included:

- A. \$471,162.31 for additional work required to address unforeseen site conditions which included: dewatering operations, supported Valley Water Survey and Inspection team, leak repairs, cable installation support, change in piping flange class, re-design of an access platform, hatch opening modifications, bypass piping modifications, minor vault repairs, beam modifications and replacement of existing cover, road repair and grading, and demolition and installation of piping.
- B. \$254,009.75 for additional work required to address Valley Water requested changes which included: required welding work and bypass piping removal, procurement and installation of electrical fixtures, generator modifications, and minor vault wall repair.
- C. <\$3,166,997.57> for credits associated in part with the Base Bid Items which included the re-use of existing electrical conduit, deleted flowmeter replacement work, encroachment permit not required, and stem extensions not installed for a total credit of \$125,397.57. The credits associated also included Carbon Fiber Reinforcement Polymers (CFRP) Supplemental Bid Item. The quantity of CFRP needed was dependent on the findings of the visual and electromagnetic inspections conducted. During the findings, many of the quantities were deleted entirely or in part for a total credit of \$3,041,600.

The final total contract amount is \$7,235,274.49.

Table 1 presents a summary of the construction contract and contingency amounts.

**TABLE 1
SUMMARY OF CONSTRUCTION CONTRACT
AND CONTINGENCY AMOUNTS**

	Contract Amount	Contingency Amount
Original Contract	\$9,677,100.00	\$967,710.00
Change Order No. 1 (Staff approved)	\$100,000.00	\$867,710.00
Change Order No. 2 (Staff approved)	\$43,375.84	\$824,334.16
Change Order No. 3 (Staff approved)	\$96,707.92	\$727,626.24
Change Order No. 4 (Staff approved)	\$98,577.97	\$629,048.27
Change Order No. 5 (Deputy approved)	\$197,350.19	\$431,698.08
Change Order No. 6 (Staff approved)	<\$2,977,837.43>	\$431,698.08

Final Change Order Amount	<\$2,441,825.51>	\$431,698.08
Final Contract Amount and Remaining Contingency Amount	\$7,235,274.49	\$431,698.08

Note: Change Order #6 resulted in a positive balance of \$536,011.92 after the credited amount was applied to the contract.

Acceptance of the Work and Recording Notice of Completion of Contract

The California Civil Code allows an owner or agent to execute a Notice of Completion of Contract after acceptance of the work by the Board. The Notice of Completion of Contract and Acceptance of Work is included in Attachment 1. The Designated Engineer has determined that the work has been completed, to the best of his knowledge, in accordance with the plans and specifications, and recommends acceptance. The Designated Engineer’s Representative’s recommendation of construction acceptance is included in Attachment 2. The Project Completion Letter is included as Attachment 3. Photos of the completed Project are included in Attachment 4. The Project Delivery Process Chart is included in Attachment 5.

Construction Contract Retention

California law requires Valley Water to release contract retention in accordance with certain time frames, which will commence once the Notice of Completion is recorded. Interest payment on retention due to the contractor may be avoided by meeting the requisite deadlines.

Valley Water is currently withholding retention funds totaling ten percent (10%) of the contract items (\$723,527.45) in accordance with the Public Contract Code. Per the construction Contract Documents, Valley Water is required to release retention funds associated with the contract 35 days after recording the Notice of Completion of Contract and Acceptance of Work, subject to any withholds required by law or the contract.

Recording a Notice of Completion is recommended. Retention withheld will be released as a result of the Board’s acceptance and the Notice of Completion is recorded.

Project Expenditures

As indicated in the Summary of Construction Contract and Contingency Amounts (Table 1), the original contract amount of \$9,677,100.00 has been decreased by \$2,441,825.51 to \$7,235,274.49, a decrease of approximately 25.23 percent.

ENVIRONMENTAL JUSTICE AND EQUITY IMPACT:

There are no environmental justice impacts associated with this item. This action is unlikely to or will not result in adverse impacts and is not associated with an equity opportunity.

FINANCIAL IMPACT:

Santa Clara Conduit Rehabilitation and Pacheco Sectionalizing Valve Replacement Project, as part of the 10-Year Pipeline Inspection and Rehabilitation Project, Project No. 95084002, is included in the Capital Improvement Program (CIP) FY 2025-29 Five-Year Plan and in the FY 2023-24 Adopted budget. The Project is funded by the Water Utility Enterprise Fund with 95.89% of the costs allocated to North County Zone W-2, 3.16% to South County Zone W-5, 0.89% to South County Zone W-7, and 0.06% to South County Zone W-8.

Transfer of Remaining Balances

The original contract amount of \$9,677,100.00, combined with the Board approved contingency encumbrance of \$967,710.00, totals \$10,644,810.00, for construction of the Project. The original contract amount (\$9,677,100.00), plus the total amount of change orders (<\$2,441,825.51>) results in the final contract amount of \$7,235,274.49 and a remaining contingency amount of \$431,698.08.

The remaining unspent contract amount (\$2,441,825.51), the remaining unspent contingency (\$431,698.08), and the positive balance (\$536,011.92) after the credited amount from Change Order #6 was applied to the contract, resulted in a positive balance of \$3,409,535.51. Upon construction contract close-out, \$3,409,535.51 will be released to project reserves to offset future planned expenditures for the 10-Year Pipeline Inspection and Rehabilitation Project (95084002).

CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

ATTACHMENTS:

- Attachment 1: Notice of Completion and Acceptance of Work
- Attachment 2: Construction Contract Acceptance
- Attachment 3: Project Completion Letter
- Attachment 4: Construction Summary
- Attachment 5: Project Delivery Process Chart

UNCLASSIFIED MANAGER:

Emmanuel Aryee, 408-630-3074