



Santa Clara Valley Water District

File No.: 20-1167

Agenda Date: 1/12/2021

Item No.: 3.11.

BOARD AGENDA MEMORANDUM

SUBJECT:

Notice of Completion of Contract and Acceptance of Work for the Cross Valley and Calero Pipeline Inspection and Rehabilitation Project, Kiewit Infrastructure West Co., Contractor, Project No. 95084002, Contract No. C0650 (San Jose, Morgan Hill, Unincorporated Santa Clara County) (Districts 1 and 7).

RECOMMENDATION:

- A. Accept the work on the Cross Valley and Calero Pipeline Inspection and Rehabilitation Project, Project No. 95084002, Contract No. C0650 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, Kiewit Infrastructure West Co., has completed the Cross Valley and Calero Pipeline Inspection and Rehabilitation Project (Project). The construction contract was awarded in the amount of \$9,535,350 and the final contract amount is \$8,991,606.58. Subject to any withholds required by law or the contract, acceptance of the work by the Board will allow for the release of \$899,160.66 in retention to the contractor.

Project Background

The Cross Valley Pipeline (CVP) and Calero Pipeline (CAP) are included in the District's Pipeline Maintenance Program (PMP) and are an identified capital effort under the 10-Year Pipeline Inspection and Rehabilitation Program. The purpose of this program 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 purpose of this Project was to inspect, rehabilitate and improve the CVP and CAP raw water transmission pipelines infrastructure and associated appurtenances to extend their useful life and improve reliability. As part of the Project, a new Cochrane Line Vault was constructed to replace the existing concrete vault structure and the associated piping that were operating above the original design capacity. The new piping will allow for a new 60-inch line valve to be installed to replace the existing 48" valve that failed in May of 2017. Additionally, one hundred and nine (109) existing appurtenance sites were upgraded to improve the raw water transmission pipeline. Work at these

sites included: replacing existing air release/vacuum valves, isolation/guard valves, ladders, valve stem extension, coating, corrosion control stations, vent hole screen, and welding of steel plates to patch existing thread-o-lets.

Scope of work also included completely draining and removing all raw water from CVP and CAP in order for Valley Water staff and its third-party consultant to perform internal visual and electromagnetic inspection of the existing raw water transmission pipeline. As a result of the inspection, one (1) 78-inch diameter pipe segment on CVP required internal carbon fiber repairs to reinforce the existing pre-stressed concrete cylinder pipe (PCCP). Lastly, the Project scope of work included logistical support to install an Acoustic Fiber Optic monitoring system for CVP and CAP that will be used to monitor the integrity of the existing raw water transmission pipeline.

Previous Board Actions

On May 14, 2019, the Board adopted plans and specifications and authorized advertisement for bids for the Project.

On July 9, 2019, the Board awarded the subject contract to Kiewit Infrastructure West Co. in the amount of \$9,535,350 and approved a contingency fund of \$1,430,300. The Board authorized the Chief Executive Officer (CEO) to approve individual change orders up to the total amount of the contingency, with the Engineering Unit Manager and Deputy Operating Officer to approve individual changes up to \$100,000 and \$250,000, respectively.

Contract Change Orders

A total of four (4) contract change orders totaling in a net credit of \$543,743.42 were executed for this contract to address various issues, including unforeseen site conditions, post-design clarifications, 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. \$736,759.58 for additional work required to address unforeseen site conditions. This includes field modifications to mitigate for hardware fit-up issues caused by bolt hole misalignment discovered on existing flange coupling adapters (FCA), grinding and rewelding existing FCA tie backs conflicting with the removal of existing bolts, addressing leaks discovered on existing piping after pipeline was back in operation, modifying the shoring system to construct Cochrane Line Valve Vault at Cochrane due to constraints imposed from the County after bid opening, and acceleration of shutdown work in order to mitigate unforeseen delays encountered in the field in order to bring the pipeline back online as originally planned.
- B. \$310,838.82 for additional work required to address post-design clarifications. This includes upsizing material class for dismantling joints, ball valves, and weld-o-lets, structural design changes at Cochrane Line Valve Vault, potholing and locating telemetry cable, placing control density fill at Cochrane to create additional thrust block prior to bringing pipeline online, and

extending the restoration limits to construct a concrete lined channel.

- C. \$75,141.63 for additional work requested by Valley Water. This includes additional contractor support for transportation and installation of data acquisition unit and internet connection for the Acoustic Fiber Optic system, modifications to platforms and guardrails to provide access to appurtenances, upsizing exhaust fan and piping at Cochrane, and removing an existing unused transformer and fence enclosure.
- D. <\$1,666,483.45> credit for deleted items of work and adjustments to bid items based on final quantity measurements. This includes credit for deletion of 18-inch sleeve valve and electric actuator at Calero turnout, deletion of vault hatches replacement, adjustment to bid items and supplemental bid items based on final quantity measurements including five (5) pipe segments of carbon fiber reinforcement for PCCP that was determined not to be required.

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

TABLE 1. SUMMARY OF CONSTRUCTION CONTRACT AMOUNTS

	Contract Amount	Contingency Amount
Original Contract	\$9,535,350.00	\$1,430,300.00
Change Order No. 1 (DOO approved)	\$155,740.00	<\$155,740.00>
Change Order No. 2 (staff approved)	<\$14,504.00>	\$14,504.00
Change Order No. 3 (staff approved)	<\$634,171.92>	\$634,171.92
Change Order No. 4 (DOO approved)	<\$50,807.50>	\$50,807.50
Final Contract Amount and Remaining Contingency	\$8,991,606.58	\$1,974,043.42

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 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 (\$899,160.66) 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.

Project Expenditures

As indicated in the Summary of Construction Contract and Contingency Amounts (Table 1), the original contract amount of \$9,535,350 has been decreased by \$543,743.42 to \$8,991,606.58, a decrease of approximately 5.7 percent (5.7%).

FINANCIAL IMPACT:

The 10-Year Pipeline Inspection and Rehabilitation Project is included in the Five-Year 2021-25 Capital Improvement Program (CIP) and in the Board-adopted FY 2020-21 Budget. Total financial costs were detailed in previous sections of the agenda memorandum. The Project has been completed and no additional funding is recommended.

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 Photos
- Attachment 5: Project Delivery Process Chart

UNCLASSIFIED MANAGER:

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