
File #: 2021-1641

Agenda Date: 5/26/2021

Agenda Item No: 16.

FROM: James D. Herberg, General Manager
Originator: Kathy Millea, Director of Engineering

SUBJECT:

A-SIDE PRIMARY CLARIFIERS REPLACEMENT AT PLANT NO. 2, CONTRACT NO. P2-98A

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

- A. Receive and file Bid Tabulation and Recommendation for A-Side Primary Clarifiers Replacement at Plant No. 2, Project No. P2-98A;
- B. Award a Construction Contract to PCL Construction, Inc. for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for an amount not to exceed \$111,405,880; and
- C. Approve a contingency of \$6,684,353 (6%).

BACKGROUND

The primary treatment process removes solids from screened wastewater upstream of biological treatment and is an essential part of the wastewater treatment process. This treatment is done in large concrete structures called primary clarifiers. The wastewater in the primary clarifiers emits detectable concentrations of hydrogen sulfide and other odorants, so the Orange County Sanitation District (OC San) covers all primary clarifiers and ventilates them to a foul air treatment system. The hydrogen sulfide in the foul air also creates conditions corrosive to both concrete and steel.

The primary treatment facilities at Plant No. 2 consist of fourteen 140-foot diameter circular clarifiers built between 1960 and 1985 with associated piping, distribution structures, sludge pumping, odor control, and power distribution. The clarifiers are divided into three groups referred to as the A-Side, consisting of four clarifiers, and the B-Side and C-Side, consisting of five clarifiers each. Each clarifier is covered with an aluminum geodesic dome connected to a foul air odor control system. The North Scrubber Complex treats foul air from the B-Side and C-Side clarifiers, and the South Scrubber Complex treats the foul air from the A-Side clarifiers.

RELEVANT STANDARDS

- Comply with California Public Contract Code Section 20103.8, award construction contract to lowest responsible bidder

- 24/7/365 treatment plant reliability
- Zero odor incidents/events under normal operating conditions for Plant Nos. 1 and 2

PROBLEM

In January 2016, OC San staff completed a detailed study of the conditions and rehabilitation requirements for the primary treatment facilities at Plant No. 2. The study concluded that the A-Side clarifiers could not be effectively rehabilitated due to structural deficiencies and severe corrosion. The South Scrubber Complex, which treats foul air from those clarifiers, is also at the end of its useful life.

PROPOSED SOLUTION

Award a Construction Contract for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A. This project will construct four new primary clarifiers, a new odor control and chemical facility, a new electrical distribution center, and ancillary utilities and facilities. After the new facilities are completed, the project will also demolish the four old primary clarifiers, a power building, and an air treatment facility.

TIMING CONCERNS

Until the primary clarifiers are replaced, existing structural and mechanical system deficiencies could require frequent and costly maintenance.

RAMIFICATIONS OF NOT TAKING ACTION

The primary treatment system at Plant No. 2 is aging and becoming less reliable. Due to the time required to replace the treatment facilities, it is important that the work be initiated at this time.

ADDITIONAL INFORMATION

The 2016 study also concluded that the B-Side and C-Side clarifiers would need an extensive rehabilitation, but that project could be postponed by 10 to 15 years by performing an interim rehabilitation project to address specific conditions such as coatings, concrete repair, and some pipeline relining. B/C-Side Primary Clarifiers Interim Repair at Plant No. 2, Contract No. P2-98B, is expected to complete construction in July 2021. This will allow the extensive rehabilitation project to be deferred until 2031.

Bid Procurement

OC San staff has long been concerned about the limited number of bidders on such a large and long-duration project. Staff has posted the project for two years on its upcoming construction opportunities list and has promoted it with general contractors at construction outreach events. To avoid competition for bidders among its own projects, staff postponed advertisements of this project until shortly before bids were opened on the Headworks Rehabilitation at Plant No. 1, Project No. P1-105.

In addition to site videos, photographs, and drone-footage of virtually all facilities provided to interested bidders, staff arranged a series of COVID-19 compliant site walks to further help bidders understand the facilities, access constraints, and other factors that might affect the final bids.

OC San advertised for bids on January 13, 2021 with bids scheduled to be received on March 16, 2021. One potential bidder requested a one-week delay in bid opening. In response, staff conducted a survey of the eligible potential bidders which suggested six contractors planned to submit bids, and that only the one prime bidder was requesting an extension. Based on that survey, staff chose not to change the bid date.

On March 16, 2021, three sealed bids were received. A summary of the bids follows:

| | |
|--------------------------------|----------------------|
| Engineer's Estimate | \$ 129,000,000 |
| <u>Bidder</u> | <u>Amount of Bid</u> |
| PCL Construction, Inc. | \$ 111,405,880 |
| Kiewit Infrastructure West Co. | \$ 112,849,000 |
| J.F. Shea Construction, Inc. | \$ 119,360,000 |

The bids were evaluated in accordance with OC San policies and procedures. A notice was sent to all bidders on March 31, 2021 informing them of the intent of OC San to recommend award of the construction contract to PCL Construction, Inc.

Staff recommends awarding a Construction Contract to the lowest responsive and responsible bidder, PCL Construction, Inc., for A-Side Primary Clarifiers Replacement at Plant No. 2, Contract No. P2-98A, for a total amount not to exceed \$111,405,880.

CEQA

This project is exempt from CEQA under the Class 2 categorical exemptions set forth in California Code of Regulations sections 15302. This is because the project involves replacement or reconstruction of existing structures and facilities where the new structure replaced will have substantially the same purpose and capacity as the structure replaced. A Notice of Exemption was filed with the Orange County Clerk-Recorder on April 26, 2018.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of OC San's Purchasing Ordinance. This item has been budgeted (Adopted Budget, Fiscal Years 2020-2021 and 2021-22, Section 8, Page 82, Primary Treatment Rehabilitation at Plant No.2, Project No. P2-98) and the budget is sufficient for the recommended action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OC San website (www.ocsan.gov) with the complete agenda package:

- Construction Contract
- Presentation

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