



Orange County Sanitation District

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Title: PRIMARY SEDIMENTATION BASINS NO. 6-31 RELIABILITY IMPROVEMENTS AT PLANT NO. 1, PROJECT NO. P1-133

Sponsors: Kathy Millea

Indexes:

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Attachments: 1. Agenda Report, 2. P1-133 PDSA Agreement, 3. PPP 11-6-19 Ops Committee - P1-133, 4. File Summary

Date	Ver.	Action By	Action	Result
11/20/2019	1	BOARD OF DIRECTORS		
11/6/2019	1	OPERATIONS COMMITTEE	Recommended for Approval	

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

SUBJECT:

PRIMARY SEDIMENTATION BASINS NO. 6-31 RELIABILITY IMPROVEMENTS AT PLANT NO. 1, PROJECT NO. P1-133

GENERAL MANAGER'S RECOMMENDATION

RECOMMENDATION:

- A. Approve a Professional Design Services Agreement with Carollo Engineers, Inc. to provide engineering services for Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1, Project No. P1-133, for an amount not to exceed \$1,219,667; and
- B. Approve a contingency of \$121,967 (10%).

BACKGROUND

Primary clarification is used to cost-effectively reduce suspended solids to the secondary treatment processes. Primary clarification occurs in structures referred to as either primary clarifiers or primary sedimentation basins.

Plant No. 1 includes two sets of primary clarifiers; a set of twenty-six rectangular clarifiers and a much older set of three circular clarifiers. The circular clarifiers are nearing the end of their useful life and are scheduled to be replaced under Primary Clarifiers Replacements and Improvements at Plant

No. 1, Project No. P1-126. That project will require at least three years to construct.

During replacement of the circular clarifiers, only the rectangular clarifiers will be available. Due to the reduced treatment capacity during this time, the reliability of the rectangular clarifiers is paramount to maintain the required Level of Service.

RELEVANT STANDARDS

- 24/7/365 treatment plant reliability
- Meet volume and water quality needs for the GWRS
- Comply with Government Code Section 4526: Select the “best qualified firm” and “negotiate fair and equitable fees”

PROBLEM

The reliability of the rectangular clarifiers is limited by aging infrastructure including Influent launders that are structurally unsound, limitations in sludge pumping capability, and accumulation of water in a below-grade foul air duct. If these issues are not addressed prior to demolition of the circular clarifiers, there is a significant potential for short-term reductions in plant capacity and impacts to the water available for recycling.

PROPOSED SOLUTION

Implement Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1, Project No. P1-133. This project will replace existing concrete launders, install new primary sludge pumps, and install a corrosion resistant condensate pump in an existing foul air duct.

TIMING CONCERNS

The construction of the rectangular clarifier improvements should be completed before early 2025, when the circular clarifiers are scheduled to be taken out of service for replacement.

RAMIFICATIONS OF NOT TAKING ACTION

During replacement of the circular clarifiers, operability and reliability failures may result in capacity reduction.

PRIOR COMMITTEE/BOARD ACTIONS

N/A

ADDITIONAL INFORMATION

Consultant Selection:

The Orange County Sanitation District (Sanitation District) requested and advertised for proposals for Primary Sedimentation Basins No. 6-31 Reliability Improvements at Plant No. 1, Project No. P1-133,

on April 30, 2019. The following evaluation criterion were described in the Request for Proposals and used to determine the most qualified Consultant.

CRITERION	WEIGHT
Project Understanding and Approach	40%
Related Project Experience	20%
Project Team and Staff Qualifications	40%

Five proposals were received on June 10, 2019 and evaluated in accordance with the evaluation process set forth in Sanitation District's Purchasing Ordinance No. OCSD-52 by a pre-selected Evaluation Team consisting of the following Sanitation District staff: Senior Engineer (Project Manager), Engineer (Project Engineer), Engineering Supervisor, Operations Supervisor, and Engineer.

The Evaluation Team also included one non-voting representative from the Contracts Administration Division.

Following scoring by the Evaluation Team, two Consultants were shortlisted for interviews on July 2, 2019. Following the interviews, each member of the Evaluation Team ranked the Consultants based on both the proposals and interviews using the evaluation criteria and weighting described above. Based on the ranking shown below, Carollo Engineers, Inc. (Carollo) was selected as the most qualified Consultant.

	Carollo Engineers, Inc.	HDR Inc.
Evaluator 1	1	2
Evaluator 2	1	2
Evaluator 3	1	2
Evaluator 4	1	2
Evaluator 5	1	2
Combined Ranking	1	2

Carollo was selected based on the strength of their team's experience, their well thought out approach, and thorough understanding of the project risks and challenges.

Review of Fee Proposal and Negotiations:

Proposals were accompanied by sealed fee proposals. In accordance with the Purchasing Ordinance, the fee proposal of only the highest-ranked firm was opened after approval by the Director of Engineering of the Evaluation Committee's recommendation.

Multiple meetings were held with Carollo to review, in detail, each project element, the assumptions regarding the project elements, the requirements of each task in the scope, and the basis for estimating the associated level of effort. Carollo had proposed additional project elements that would have significantly increased both the design effort and construction cost. After carefully considering the elements proposed by Carollo, staff determined that they were either not needed at this point, did not add enough value for their costs, or should be considered for inclusion in a future project. Based

on this review, assumptions were agreed upon, the Scope of Work was clarified, and the estimated level of effort substantially reduced.

	Original Fee Proposal	Negotiated Fee
Total Hours	11,898	6,256
Total Fee	\$2,781,286	\$1,219,667

The Consultant's fringe and overhead costs, which factor into the billing rate, have been substantiated. The contract profit is 8.10%, which is based on an established formula based on the Sanitation District's standard design agreements.

Based on the above, staff has determined that the final negotiated fee is fair and reasonable for the level of effort required for this project and recommends award of the Professional Design Services Agreement to Carollo.

CEQA

The project is exempt from CEQA under the Class 1 categorical exemptions set forth in California Code of Regulations sections 15301 because the project involves repairs and replacement of existing facilities involving no expansion of use or capacity. A Notice of Exemption will be filed with the OC Clerk-Recorder after the Sanitation District's Board of Directors approval of the Professional Services Design Agreement.

FINANCIAL CONSIDERATIONS

This request complies with authority levels of the Sanitation District's Purchasing Ordinance. This item has been budgeted, (Budget Update FY 2019-2020, Appendix A, and Page A-9) and the project budget is sufficient for the recommended action.

ATTACHMENT

The following attachment(s) may be viewed on-line at the OCSD website (www.ocsd.com) with the complete agenda package:

- Professional Design Services Agreement
- PowerPoint Presentation Operations Committee 11/6/2019

VP:dm:sa:qc