



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Kerrie Romanow
Jon Cicirelli

SUBJECT: SEE BELOW

DATE: March 21, 2018

Approved

D. DSYL

Date

4/4/18

SUBJECT: MASTER CONSULTANT AGREEMENT WITH BLACK & VEATCH FOR OWNER'S ADVISOR SERVICES FOR THE 8142 – YARD PIPING IMPROVEMENTS PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

Approve a Master Consultant Agreement with Black & Veatch to provide owner's advisor services for the 8142 – Yard Piping Improvements Project at the San José-Santa Clara Regional Wastewater Facility from the date of execution through June 30, 2026, in a total amount not to exceed \$9,750,000 subject to the appropriation of funds.

OUTCOME

Approval of this master consultant agreement with Black & Veatch (B&V) will provide the City with owner's advisor (OA) services for the 8142 - Yard Piping Improvements Project (Project) at the San José - Santa Clara Regional Wastewater Facility (RWF). Approval of this agreement will not result in any physical changes to the environment, as the City Council will need to take additional actions before construction activities on the Project commence.

BACKGROUND

Description of existing conditions

The RWF has more than 300,000 linear feet (LF) of piping, along with associated valves and related appurtenances. Of this piping, 67,000 LF is wastewater process pipes (process pipes) that carry raw sewage, liquids, and sludge between the various unit treatment process areas. Process pipes at the RWF vary in age, material, condition, reliability, redundancy, and diameter (from 8 inches to 144 inches). Seventy percent of the process pipes at the RWF are more than 25 years old, with more than ten percent over 50 years of age.

In June 2015, the City completed a desktop study of the RWF's process pipes, which developed a risk-based framework that prioritized the condition assessment of the pipe segments based on

the likelihood and consequence of failure. Sixteen pipe segments, totaling 21,000 LF, were identified as high priority based on these criteria. In addition, the study identified 13,000 LF as medium priority and 33,000 LF as low priority. The study also provided guidelines for data collection criteria, inspection technology, and strategies for conducting condition assessments. Detailed condition assessments will need to be performed to confirm the actual condition of the process pipes, and repair and replacement priorities will be updated accordingly.

Yard Piping Improvements Description

The Project will focus on rehabilitating and/or replacing the high priority process piping within the RWF such as the 96-inch diameter settled sewage line and the 87-inch by 136-inch oval settled sewage line. Rehabilitation of medium and lower priority pipe segments will be done as part of a separate, future project. The Project scope will include subsurface investigations, condition assessments, temporary pipe bypasses, new pipes where redundancy is required, and associated road repairs. Staff anticipates the Project will need to be completed in multiple construction packages due to the volume of work, complicated piping network, seasonal restrictions, coordination with other CIP projects, and operational/shutdown conditions.

Project Delivery Method

Performing the needed subsurface investigations and condition assessments will require the ability to construct access points and make repairs, which may be necessary since the RWF has an extensive pipe network with overlapping underground pipes in congested areas. The Project will require extensive collaboration with RWF O&M staff to coordinate shutdowns to allow work to be completed while maintaining overall levels of service and meet permit requirements. This effort is made more difficult due to the lack of access points and redundancy for key process pipes. For these reasons, staff selected progressive design-build to deliver this Project. However, due to the criticality of some work, portions of the Project may need to be delivered using design-bid-build. A memorandum informing Council of the decision for selecting the progressive design-build method was issued on March 8, 2017.

Owner's Advisor Services

The City requires the services of a professional engineering consultant to serve as an owner's advisor to assist staff with the procurement and management of a design-build entity. The owner's advisor will provide the following services:

- Initial condition assessments and develop alternatives analysis
- Develop the project definition report
- Assist with the procurement and selection of a design-build entity
- Assist with environmental review and permit documents
- Develop process shutdowns and bypass pumping plans
- Develop construction packages and work sequencing plans
- Design and constructability reviews
- Review cost models and assist with Guaranteed Maximum Price (GMP) negotiations
- Develop technical appendices/performance requirements for the design-build contract
- Provide construction management and post-construction services

March 21, 2018

Subject: Master Consultant Agreement with Black & Veatch for Yard Piping Improvements Project

Page 3

The planning-level construction estimate for the Project, excluding contingency, is \$77.7 million over the Project's anticipated eight-year duration. The construction cost estimate will be updated as more information is obtained through detailed condition assessments. It is anticipated that the Project will be substantially complete in summer 2026.

ANALYSIS

The City issued a RFQ on September 29, 2017, seeking OA services for the Project. A non-mandatory pre-proposal conference was held on October 10, 2017 and attended by five engineering firms. The City received four Statements of Qualifications (SOQs) by the October 26, 2017 submittal deadline. The firms that submitted SOQs were Brown and Caldwell (BC), Black & Veatch (B&V), CDM Smith (CDM), and GHD Inc.

A technical evaluation panel, which consisted of representatives from the Environmental Services Department and the Department of Public Works, evaluated and ranked all four SOQs in accordance with the procurement process set forth in the RFQ. The SOQs were evaluated using a consistent scoring matrix based on the firm's expertise, experience, approach, cost, and Local Business Enterprise (LBE) and Small Business Enterprise (SBE) status. Each firm received a total score comprised of their SOQ score, cost, LBE/SBE status, and interview score as shown below.

Description	Weight
SOQ	
Submittal Responsiveness	Pass/Fail
Minimum Qualifications	Pass/Fail
Expertise	10
Experience	20
Project Approach	20
Cost	10
Local Business Enterprise	5
Small Business Enterprise	5
Interview	30
TOTAL	100

All four firms met the minimum qualifications and their SOQs were deemed responsive. The three top ranked firms were invited to interview based on their SOQ scores. The interviews were conducted on December 6, 2017. The final ranking and rounded scores for each firm were as follows.

Rank	Firm	Expertise	Experience	Approach	Cost	LBE	SBE	Interview	Total
1	B&V	9.3	16.8	17.0	9.3	5.0	0.0	26.7	84.1
2	CDM	8.2	14.7	16.7	9.8	5.0	0.0	23.3	77.7
3	BC	8.5	13.2	16.7	9.3	5.0	0.0	17.7	70.4

In accordance with City policy, ten percent of the total evaluation points were reserved for local and small business enterprise status. All firms qualified for the LBE status. None of the firms qualified for the SBE status.

Award Recommendation

Staff recommends awarding a master consultant agreement to the top ranked firm, B&V, in an amount not to exceed \$9,750,000. B&V is a nationally recognized engineering consulting firm, with wastewater, owner's advisor, and design-build experience. Key members of the proposed team have experience serving in the OA role on the RWF's Cogeneration Facility Project as well as other DB projects for other wastewater agencies, including Sunnyvale Cleanwater Program and Orange County Sanitation District Facility Condition Assessment project. The proposed team has experience prioritizing critical facilities, performing detailed condition assessments of process piping, coordinating and developing process shutdowns and bypass pumping plans in active operating facilities, and developing comprehensive construction sequencing plans.

The agreement not-to-exceed amount of \$9,750,000 represents approximately 12.6 percent of the current construction estimate of \$77,700,000 for the Project, which staff considers appropriate for the work involved. The agreement NTE, as a percentage of construction, is slightly higher than previously negotiated owner's advisor agreements for the Headworks and Digested Sludge Dewatering projects, which were 11.0 percent and 11.8 percent, respectively. The higher percentage accounts for using multiple construction packages to deliver this Project.

Depending on the type of services rendered, B&V will be compensated based on actual hourly wages times a multiplier of 3.17 or 2.84. The 2.84 multiplier will be applied for construction management services and the 3.17 multiplier will be applied for all other services performed by the consultant. The multiplier covers overhead (e.g. fringe benefits, payroll taxes, group insurance, building/rental expenses, etc.), associated project costs (e.g. routine printing and copying, computer equipment use, network and telecommunications expenses, etc.), and profit. The lower multiplier was negotiated to account for lower overhead cost to the OA for construction management staff who will be co-located at the RWF for the duration of the Project.

EVALUATION AND FOLLOW-UP

All service orders issued under this master consultant agreement will be reported to the Treatment Plant Advisory Committee (TPAC) in the monthly summary of procurement and contract activity and the quarterly CIP agreement and service order summary. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee and City Council on a semiannual basis. Monthly progress reports on the RWF CIP will also be submitted to TPAC and posted on the City's website.

The current action is for the award of a master consultant agreement for OA services only. After the procurement process for the selection of the design-build entity, staff will return to City Council in fall 2019 for approval of a design-build contract.

POLICY ALTERNATIVES

Alternative #1: Direct City staff to provide the required services with in-house resources.

Pros: Increased work options for City staff.

Cons: City staff has limited experience with delivering progressive design build projects and does not have the full technical expertise needed to effectively perform the OA scope of services. This limitation would likely result in challenges with executing aspects of the Project and may cause delays in Project implementation.

Reason for not recommending: The challenges of implementing a project of this size, complexity, and duration and the use of the progressive design-build delivery method require a level of specialized expertise and experience that the City staff does not currently possess. The City would need to hire new staff with knowledge and expertise in a variety of disciplines, which would likely delay the project for many years.

Alternative #2: Direct City Staff to perform the work using program management consultant.

Pros: Program management consultant has experience and expertise in providing OA services for similar projects.

Cons: The current program management agreement does not include scope or budget for these services. In addition, the contract expires prior to this Project's completion.

Reason for not recommending: The program management consultant agreement would need an amendment to add scope and budget for OA services, as well as extend the agreement term, which could delay the Project.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the April 24, 2018 City Council meeting agenda. This item is scheduled to be heard at the TPAC meeting on April 12, 2018.

COORDINATION

This memorandum has been coordinated with the City Manager's Budget Office, the City Attorney's Office, Finance Department, and the Department of Planning, Building, and Code Enforcement.

COMMISSION RECOMMENDATION/INPUT

This item is scheduled to be heard at the April 12, 2018 TPAC meeting. A supplemental memo with the committee's recommendation will be included in the amended April 24, 2018 City Council meeting agenda.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the City Council-approved budget strategy to focus on rehabilitating aging RWF infrastructure, improve efficiency, and reduce operating costs. This Project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST SUMMARY/IMPLICATIONS

- | | | |
|----|---|---------------------|
| 1. | AMOUNT OF RECOMMENDATION: | \$9,750,000 |
| 2. | COST ELEMENTS OF MASTER AGREEMENT: | |
| | Project Management | \$1,040,000 |
| | Initial Condition Assessments | \$860,000 |
| | Project Definition Report | \$810,000 |
| | Environmental Review/Permitting | \$120,000 |
| | Design-Builder Procurement | \$250,000 |
| | Preliminary Services and GMP Negotiation Support | \$3,340,000 |
| | Construction Management and Post-Construction Services | \$3,330,000 |
| | TOTAL AGREEMENT AMOUNT | \$ 9,750,000 |
| 3. | SOURCE OF FUNDING: 512 - San José-Santa Clara Treatment Plant Capital Fund. | |
| 4. | FISCAL IMPACT: This Contract is funded through the San José-Santa Clara Treatment Plant Capital Fund and will have no impact on the San José-Santa Clara Treatment Plant Operating Fund (Fund 513). | |
| 5. | PROJECT COST ALLOCATION: In accordance with the recommendations set forth in Capital Project Cost Allocations Technical Memorandum (Carollo Engineers, March 2016), this Project is allocated between the four billable parameters relative to the rolling weighted average distribution of all RWF assets. | |

March 21, 2018

Subject: Master Consultant Agreement with Black & Veatch for Yard Piping Improvements Project

Page 7

BUDGET REFERENCE

The table below identifies the fund and appropriation proposed to fund the master consultant agreement recommended as part of this memorandum.

Fund #	Appn. #	Appn. Name	Total Appn.	2017-2018 Amount for Contract	2017-2018 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7396	Yard Piping and Road Improvements	\$3,712,000	\$2,100,000	299	11/28/2017 30035

Services performed by B&V under this agreement will be authorized by service orders. An appropriation is not required for execution of the master consultant agreement, but is required for each service order authorized under this agreement. An amount of \$2,100,000 is budgeted for service order issuance in 2017-2018. Future funding is subject to the annual appropriation of funds and, if needed, will be included in the development of future year budgets during the annual budget process.

CEQA

Statutorily Exempt, File No. PP18-016, Section 15262, Feasibility and Planning Studies with respect to the scope of work that is limited to this action. Any future activities resulting in a change to the physical environment would require approval of CEQA review.

\\s\
JON CICIRELLI
Acting Director, Public Works

\\s\
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Ashwini Kantak, Assistant Director, Environmental Services Department, at 408-975-2553.