AGENDA MEMORANDUM
Action Item for the City Council Meeting of April 21, 2020

DATE: April 7, 2020

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Professional Services Contract Amendment
O. N. Stevens Water Treatment Plant Sedimentation Basin Improvements

CAPTION:

Motion awarding Amendment No. 1 to a contract with Hazen and Sawyer for engineering services to support dredging the pre-sedimentation basin and repairs and upgrades to the solids collection system for the O.N. Stevens Water Treatment Plant (ONSWTP) sedimentation basins in the amount of $862,388, for a total contract value not to exceed $912,188, located in City Council District 1, effective upon issuance of notice to proceed, with funding approved and available from Water 2020 Capital Improvement Program Budget.

SUMMARY:

This professional services contract provides for detailed design, preparation of construction bid documents and construction-phase engineering services for dredging the ONSWTP pre-sedimentation basin and replacement/repair of the ONSWTP sedimentation basin solids collection system.

BACKGROUND AND FINDINGS:

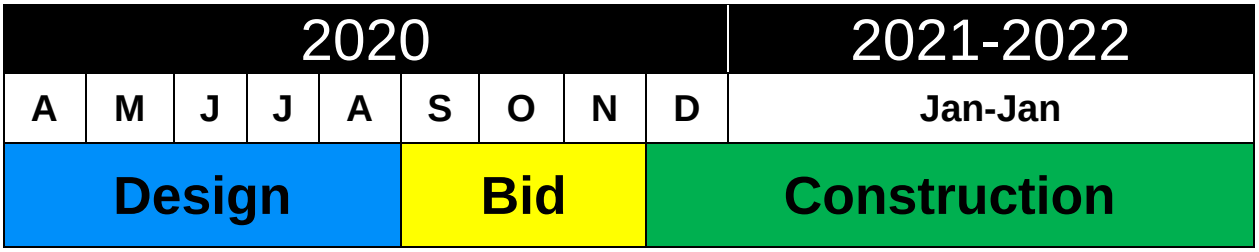
The City of Corpus Christi (City) owns and operates the 161.5 MGD ONSWTP. The 120 million-gallon, pre-sedimentation basin is approximately 55% full of accumulated sediment. The basin was last dredged over 20-years ago. Additionally, there are problems with the ONSWTP solids handling equipment in the plant's four sedimentation basins. Two sedimentation basins use a

Trac-Vac solids collection system that experiences frequent failures and requires significant maintenance to remain operational. The Trac-Vac solids collection system is obsolete and has reached the end of its economic life. Two of the sedimentation basins use a circular scraper system whose drive mechanisms need to be replaced.

Preliminary assessment was conducted under a staff-approvable small engineering contract. This amendment provides for the detailed design, bid package development and construction phase services to support both project parts. Part A of the project includes dredging the pre-sedimentation basin, and Part B includes replacing the solids collection system in two sedimentation basins and replacement of the drive mechanisms on the circular scrapers in the other two sedimentation basins.

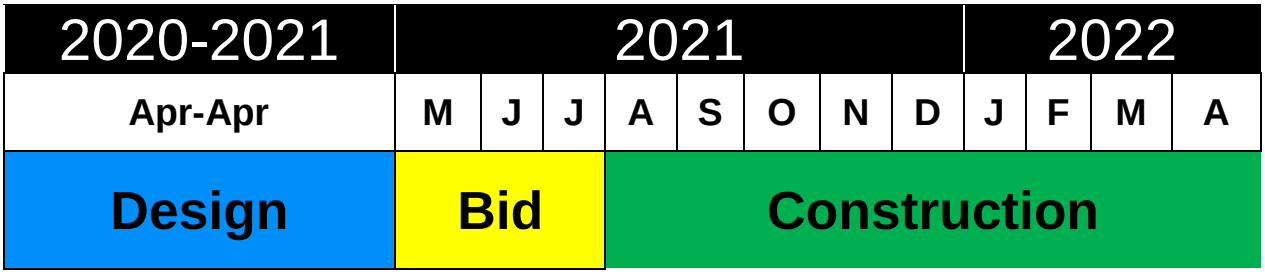
The engineering scope of work is to complete detailed design work, develop bid packages, and provide engineering support during construction of both project parts.

PROJECT TIMELINE, PART A:



Part A, Projected Schedule reflects City Council award in April 2020 with design completion in August 2020. Construction (Dredging) is anticipated to begin in December 2020 with a duration of fourteen months and completion in January 2022.

PROJECT TIMELINE, PART B:



Part B, Projected Schedule reflects City Council award in April 2020 with design completion in April 2021 (this longer design time needed for the Solids collector replacement design). Construction is anticipated to begin in August 2021 with a duration of nine months and completion in April 2022.

COMPETITIVE SOLICITATION PROCESS:

Hazen and Sawyer were selected for the FY 2018 Capital Improvement Projects, Part B Utilities Projects: Trac-Vac and Pre-Sedimentation Basin Dredging (ONSWTP) in October 2018 under RFQ 2018-01. This project was one of fifteen selections that were announced under the Utility Projects Category of the RFQ. Hazen and Sawyer were selected as the most qualified of six applicants for this project.

The selection committee was comprised with representatives from the Utilities Department and Engineering Services. The final evaluation ranked Hazen and Sawyer the highest and recommended the firm as most qualified based on five factors: 1) experience of the firm, 2) experience of the key personnel with specific experience in water treatment solids handling and disposal challenges, 3) project approach and management plan, 4) capacity to meet the project requirements and timelines, and 5) past performance.

ALTERNATIVES:

Without this project, the accumulation of solids in the pre-sedimentation basin will adversely affect water treatment and quality. The obsolete solids collection system in the sedimentation basins will result in additional maintenance and repair costs and adversely affect water quality.

FISCAL IMPACT:

This contract will award design, bid and construction phase services for the ONSWTP to dredge the pre-sedimentation basin, replace the solids collector system, and replace clarifier drive mechanisms to Hazen and Sawyer $862,388, for a total contract value not to exceed $912,188, located in City Council District 1, effective upon issuance of notice to proceed, with funding approved and available from Water 2020 CIP.

Funding Detail:

Fund: Water 2020 CIP Fund (Fund #4099)
Mission Elem: Treat Water (ME#061)
Activity: 18130A-01-4099-EXP
Account: Outside Consultants (Acct #550950)
Project No.: ONSWTP Sedimentation Basin Improvements (Project #18130A)
Amount: $862,388.00

The total approved project budget in the FY 2020 CIP for the ONSWTP Sedimentation Improvements is $5,490,000.00.

RECOMMENDATION:

City staff recommends award of the professional services contract in the amount of $862,388 to Hazen and Sawyer. The design phase is planned to begin in April 2020 with completion estimated 5 months after notice to proceed for Part A and 12 months after notice to proceed for Part B. The construction phase for Part A is planned to start in December 2020 and end in January 2022. The construction phase for Part B is planned to begin in August 2021 and end in April 2022.

LIST OF SUPPORTING DOCUMENTS:

Location and Vicinity Maps
Contract