



Legislation Details (With Text)

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Title: Contract No. 1902224
Design-Build Contract for CSO Facilities Structural Improvements
CIP # 260614 (CSO Facilities)

Sponsors: Navid Mehram

Indexes: Wastewater Operations

Code sections:

Attachments: 1. 1902224 - Procurement Board Report RFP, 2. 1902224 - Cost Summary, 3. CIP Plan 260614, 4. 1902224 - Cost Tabulation

Date	Ver.	Action By	Action	Result
8/26/2020	1	Board of Directors	Approved	Pass
8/12/2020	1	Operations and Resources Committee	Recommended for Approval	Pass

Contract No. 1902224
Design-Build Contract for CSO Facilities Structural Improvements
CIP # 260614 (CSO Facilities)

Agenda of: August 26, 2020
Item No.: **2020-272**
Amount: \$12,055,334.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer
Great Lakes Water Authority

DATE: July 13, 2020

RE: **Contract No. 1902224**
Design-Build Contract for CSO Facilities Structural Improvements
Vendor: Pullman SST, Inc

MOTION

Upon recommendation of Navid Mehram, Chief Operating Officer - Wastewater Operating Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to enter into **Contract No. 1902224, “Design-Build Contract for CSO Facilities Structural Improvements” with Pullman SST, Inc., at a cost not to exceed Twelve Million Fifty Five Thousand Three Hundred Thirty Four Dollars (\$12,055,334.00) for a duration of four years**, and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

GLWA operates and maintains nine Combined Sewer Overflow (CSO) Facilities throughout the GLWA service area. These facilities were constructed from 1994 to 2011 averaging 18 years of age. The location and age of each CSO facility are noted in the table below:

CSO Facility Name	Facility Address	Year Constructed
Hubbell-Southfield	16450 Rotunda Dr, Dearborn, MI 48120	1994
Seven Mile	19272 Shiawassee Rd., Detroit, MI 48219	1994
Puritan-Fenkell	23672 Fenkell, Detroit, MI 48214	1994
St. Aubin	2200 Atwater Detroit, MI 48207	1999
Leib	2188 Mt. Elliot, Detroit, MI 48207	2004
Baby Creek	9545 Dix Rd, Dearborn, MI 48120	2005
Conner Creek	11900 Freud, Detroit, MI 48214	2006
Belle Isle	2 Pleasure Dr., Detroit, MI 48207	2009
Oakwood	12082 Pleasant St., Detroit, MI 48217	2011

An initial structural inspection of the CSO Facilities was conducted by a structural engineering firm that identified various improvements needed for each facility to ensure the resiliency and proper operation of our facilities for the next 20-years. The inspection identified amongst other things, settling brick/block walls in need of support, spalling concrete, concrete joints missing protective layers, efflorescence of brick/block walls, and cracked concrete which allows water infiltration and exfiltration. The findings can create structural instability if left unrepaired over time. To improve delivery time so that repairs can be made efficiently, and can be addressed immediately, the design team elected to use the design-build delivery method for this project. A design-build delivery method includes a detail assessment to identify all needed repairs, a prioritization list that will be agreed by GLWA and the Contractor, and design development with input from the builder prior to commencement of construction.

As indicated in the table above, this project includes improvements to a DWSD owned facility, Belle Isle CSO Facility and Pump Station. GLWA worked closely with DWSD staff during the preliminary engineering phase of this project to obtain approval of DWSD to have Belle Isle CSO and Pump

Station included in the construction phases. Preliminary engineering documents and cost estimates were reviewed by DWSD staff prior to DWSD requesting the Belle Isle CSO and Pump Station Facility to be included in the design/build phase of this project. Collectively, GLWA and DWSD participated in evaluating proposals for this project and selecting the most qualified design-build team for this project as well as participating in contract negotiations. After the contractor was selected and costs were negotiated, GLWA engaged DWSD again with actual project costs to again confirm that DWSD still wanted Belle Isle Facilities included in the project as well as discussed options that could be considered for inclusion of Belle Isle (reduced scope, inspection only, close coordination throughout). On August 4th, DWSD indicated that Belle Isle facility would remain included in this project. Overhead project costs of the work at Belle Isle facility were evaluated and represent 3.7% of the total project overhead costs. Repairs will be made at Belle Isle Facility, as all other facilities, at the unit prices bid for the Contract. GLWA will continue to engage DWSD throughout the course of this project to continue our excellent communication. DWSD shall pay the actual costs plus overhead for the Belle Isle Facilities improvements pursuant to a cost sharing agreement with GLWA.

JUSTIFICATION

In consideration that many of these assets are brick, block, concrete, and steel, they do not require maintenance at regular frequency because their rate of deterioration is substantially slower than mechanical equipment for example. Therefore, proper asset management of a building, tank, or other large structure includes performing inspections to assess the integrity of these facilities to ensure the useful life of these assets is not just realized, but extended, and service is not interrupted unexpectedly. As concrete or similar structures age they may develop cracks or other defects due to the environmental and other conditions they are subjected to constantly while in service (and even out of service - weather). While they are generally designed to handle these conditions, over time they require periodic improvements to ensure reliability and resiliency of the structures.

To re-prepare these facilities for future uninterrupted service, the Design-Build Team (D/B Team) will perform a complete structural assessment at all nine GLWA CSO facilities. The assessment report shall identify all structural repairs that are required to ensure a continued useful service life of a minimum of 20 years, provide estimated quantities for each type of repair, while prioritize each repair. Following the assessment period, the D/B Team will work with GLWA to develop a three-year plan to identify the high priority repairs based on assessment report, within the funding available, and utilizing established unit prices under this Contract. Based upon GLWA's agreement, D/B team will provide design document for repairs to be implemented, including but not limited to drawings, technical specifications and calculations. D/B team will perform the repairs over a three-year period (Phase 1, Phase 2, and Phase 3), working from highest to lowest priority.

The Work includes improvements to be designed, administered, and constructed by the D/B Contractor, inclusive of civil/site, architectural, and structural, engineering disciplines and construction trades, as may be applicable to complete the work. The Work will be performed in following phases:

Phase	Duration from NTP Date
Completion of Assessment and Planning	6 months
Phase 1 Completion	18 months

Phase 2 Completion	30 months
Phase 3 Completion	42 months
Final Completion	48 months

FINANCIAL PLAN IMPACT

Summary: This project is eligible for funding from both Construction Improvement Plan (CIP) for the Sewer Fund (#5421) resources and Improvement & Extension Fund (I&E) Sewer Fund (#5404) resources.

Cost Center: Sewer Water Engineering

Estimated Cost by Year and Related Estimating Variance: See table below.

Fiscal Year

FY 2019 Budget	\$ 335,000.00
FY 2020 Budget	44,000.00
FY 2021 Budget	1,286,000.00
FY 2022 Budget	5,788,000.00
FY 2023 Budget	4,460,000.00
FY 2024 Budget	<u>622,000.00</u>
Financial Plan Estimate	12,535,000.00
Proposed Contract Award	<u>12,055,334.00</u>
Positive Estimate Variance	\$479,666.00

Please note that the amounts above are per the Final Draft of the 2021 - 2025 CIP.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on August 12, 2020. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

SHARED SERVICES IMPACT

This item does not impact the shared services agreement between GLWA and DWSD. However, there will be a cost sharing agreement between GLWA and DWSD, which will memorialize the scope and payment terms for the work at the Belle Isle Facilities.