



Legislation Details (With Text)

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On agenda: 9/28/2022 **Final action:** 9/28/2022

Title: Proposed Amendment No. 2
Contract No. 1903601
Yard Piping Engineering Services
Vendor: CDM Smith Michigan, Inc.

Sponsors: Navid Mehram

Indexes: Wastewater Operations

Code sections:

Attachments:

| Date | Ver. | Action By | Action | Result |
|-----------|------|------------------------------------|--------------------------|--------|
| 9/28/2022 | 1 | Board of Directors | Approved | Pass |
| 9/14/2022 | 1 | Operations and Resources Committee | Recommended for Approval | Pass |

Proposed Amendment No. 2
Contract No. 1903601
Yard Piping Engineering Services
Vendor: CDM Smith Michigan, Inc.

Agenda of: September 28, 2022

Item No.: **2022-397**

| | | |
|---------|--------------------------|----------------|
| Amount: | Original Contract Amount | \$1,647,814.74 |
| | Amendment No. 1 | 434,722.00 |
| | Proposed Amendment No. 2 | 765,627.00 |
| | Total Revised Contract | \$2,848,163.74 |

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Suzanne R. Coffey, P.E.
Chief Executive Officer
Great Lakes Water Authority

DATE: September 2, 2022

RE: **Proposed Amendment No. 2**
Contract No.: 1903601

**Yard Piping Engineering Services
Vendor: CDM Smith Michigan, 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. 1903601, Proposed Amendment No. 2, “Yard Piping Engineering Services” with CDM Smith Michigan, Inc., at an increased cost of \$765,627.00 for a total cost not to exceed \$2,848,163.74 with no increase in duration for a total duration of 792 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

GLWA awarded Contract No.1903601 “Yard Piping Engineering Services” to CDM Smith Michigan, Inc. (Engineer), with a start work date of December 28, 2020. The Contract is mainly divided into four phases (study, preliminary design, final design, and construction).

Contract No. 1903598 (Construction Manager at Risk for the Assessment and Rehabilitation of WWRF Yard Piping and Underground Utilities) is a companion contract that GLWA awarded to the Construction Manager (The Christman Company) for investigation and construction services.

Under the study phase of the contract, a condition assessment plan (CAP) was prepared by the Engineer and executed by the Construction manager to evaluate the condition of the underground infrastructure and develop a prioritized list of needed improvements. The CAP effort identified 96 improvement opportunities. The Construction Manager provided a probable opinion construction cost (POCC) for the entire list ranging from \$33 million to \$42 million. The wide range of the POCC is because the list is highly conceptual, and the nature of the underground work is susceptible to unforeseen differing site conditions and eventual cost increases. GLWA is currently reviewing all the recommended repairs based on priority to ensure resiliency of the facility.

With the investigation phase (study phase) completed, the Engineer submitted the final basis of design report (BODR) describing 96 recommendations for improvements.

For Amendment No. 1 GLWA reviewed 21 out of the 96 recommendations and selected eight recommendations to proceed with design and construction.

GLWA has now completed the review of the remaining 75 improvement recommendations and selected 14 items for further design services and eventual construction. Those 14 items are listed below:

| System | Description |
|---------------|---|
| SS-3 | Conduct manhole to manhole CIPP of 220 feet of 12-inch reinforced concrete pipe between MH-28i & MH-48i on the north side of Pump Station No. 2 |

| | |
|--------|---|
| PW-17 | Upsizing 640 feet of 12-inch pipe to 16-inch cement lined plastic wrapped DI pipe class 150 from upstream of Meter Pit A to the 16-inch in the basement of Machine Shop. Including pipe is the meter vault and tunnel between Admin Building and Incineration Complex and underground pipes and penetration through the wall of Machine Shop basement |
| SW-28 | Conduct 1300 feet of 12-inch pipe cleaning in 4th Street on the west side of Final Clarifiers B-1, 4, 8, 12 & 15 between valves SW-V-46 & 76 |
| SW-28 | Conduct 1300 feet of 12-inch CIPP in 4th Street on the west side of Final Clarifiers B-1, 4, 8, 12 & 15 between valves SW-V-46 & 76 |
| SW-29 | Conduct 500 feet of 12-inch pipe cleaning in C Avenue between Final Clarifiers B-4, 5, 8 & 9 from 4th Street to SW-V-69 |
| SW-29 | Conduct 500 feet of 12-inch pipe CIPP in C Avenue between Final Clarifiers B-4, 5, 8 & 9 from 4th Street to SW-V-69 |
| SW-30 | Conduct 450 feet of 6-inch pipe cleaning between Incineration Complex II and Rectangular Primary Tanks Pipe Gallery |
| SW-30 | Conduct 450 feet of 6-inch CIPP between Incineration Complex II and Rectangular Primary Tanks Pipe Gallery |
| SW-31 | Replace 200 feet of 4-inch pipe with 4-inch cement line, plastic wrapped DI Class 150 from 4th Street to Sludge Processing Complex B and adding a 4-inch buried valve upstream |
| SFE-12 | Replace 900 feet of 18-inch bar wrapped concrete pipe with 18-inch cement lined, plastic wrapped DI Class 250 pipe (~7 feet deep) on the north side of Polymer Way between upstream of 36-inch Incineration and Dewatering Complex SFE loop and downstream 16-inch Rectangular Primary Tanks SFE loop |
| PW-16 | Replacement 240 feet of 3-inch copper type K, 130 feet of 2.5-inch copper type K and 100 feet of 1-inch copper type K pipes (~7 feet deep) branches for the pipe segments between the basement of Pump Station No. 1 to the east end of Rectangular Primary Tanks Pipe Gallery |
| SFE-13 | Cut and cap westbound 36-inch SFE and southbound 36-inch RAS pipes located in the vicinity of 4th Street and Avenue A and B |
| SFE-14 | Install 180 feet of 16-inch cement lined, plastic wrapped DI Class 250 pipe (~5 feet deep) the east part of the SFE loop around Primary Rectangular Tanks to the south side of Pump Station No. 1 (in a common trench with CA pipe) |
| NG-4 | Replace 10 gas meters with 8-inch to 2-inch pipe segments downstream of the main 8-inch gas main and slip line 2000 feet of 12-inch to 4-inch (6 ft deep) from the new main DTE meter at the fence line on W. Jefferson Ave. to the meters to different building on north sides of A Ave. up to Pump Station No. 2 Rack & Grit Building (after DTE installs the meter at the main 8-inch feed at W. Jefferson Ave.) |

*CIPP=cured in place pipe

The POCC was estimated by the Construction Manager (The Christman Company) for the fourteen

items to be around \$6.07 million. GLWA and Engineer agreed to a lump sum design fee of \$615,627.00.

Two more electrical changes are still being considered. The first is to provide a reliable power source to the Hypo building through a new power feed to the administration building from a 15KV line at EB-33. The second change will provide a secondary feed to two non-process buildings. Therefore, a design allowance of \$150,000.00 is being allocated to the two potential changes.

The total value of this amendment No. 2 is not to exceed \$765,627.00 (\$615,627.00+\$150,000.00).

JUSTIFICATION

This Proposed Amendment No. 2 seeks to secure additional funds in the amount of \$765,627.00. It should be noted that the original contract required the two design phases to be completed on time and material basis. However, GLWA requested the Engineer to submit a lump sum amount, since the scope and responsibility for the proposed scope is clear and can be scoped into a lump sum delivery.

The scope of the services will include preliminary design phase, developing system acceptance tests (SAT), identification of all tie-in locations between existing and new work, Critical Path Method (CPM) schedule, constructability review, final design and necessary workshops, and progress meetings with GLWA.

This proposed amendment is not revising the Contract time. However, with the study phase being delayed by two months, the next two phases, the preliminary and final design phases could be delayed by two months. However, with the design scope being reduced from the 96 recommended improvements to approximately 21, the original design completion schedule may not be impacted. The contract times in this amendment remain unchanged. Once an updated schedule for the design phase is submitted, GLWA will review and approve, and if necessary, contract times will be adjusted through a future amendment.

PROJECT MANAGEMENT STATUS

| | |
|--------------------------|---------------------------------|
| Original Contract Time | 792 days (12/28/2020-2/27/2023) |
| Amendment No.1 | 0 days |
| Proposed Amendment No. 2 | 0 days |
| Total Contract Time | 792 days (12/28/2020-2/27/2023) |

PROJECT ESTIMATE

| | |
|-------------------------|----------------|
| Original Contract Price | \$1,647,814.74 |
|-------------------------|----------------|

| | |
|--------------------------|----------------|
| Amendment No. 1 | 434,722.00 |
| Proposed Amendment No. 2 | 765,627.00 |
| New Contract Price | \$2,848,163.74 |

FINANCIAL PLAN IMPACT

Summary: Sufficient funds are provided in the financial plan for this project.

Funding Source: Sewer Construction Fund

Cost Center: Wastewater

Expense Type: Design (5421-892211.000-617950-216006)

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

| | |
|----------------------------------|-----------------------|
| Original Contract Price: | \$1,647,814.74 |
| Amendment No.1: | \$434,722.00 |
| Proposed Amendment No. 2 | \$765,627.00 |
| New Contract Total: | \$2,848,163.74 |
| Amended Financial Plan Estimate: | <u>\$1,338,000.00</u> |
| Estimating Variance: | (\$1,510,163.74) |

The award of this amendment creates a negative estimating variance of (\$1,510,163.74). This variance will be funded from Capital Reserves.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on September 14, 2022. 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.