



## Legislation Details (With Text)

**File #:** 2022-272      **Version:** 1      **Name:**  
**Type:** Resolution      **Status:** Passed  
**File created:** 6/28/2022      **In control:** Board of Directors  
**On agenda:** 7/27/2022      **Final action:** 7/27/2022  
**Title:** Proposed Amendment No. 1  
Contract No. 1903601  
Yard Piping Engineering Services  
Vendor: CDM Smith Michigan, Inc.  
**Sponsors:** Navid Mehran  
**Indexes:** Wastewater Operations  
**Code sections:**  
**Attachments:**

| Date      | Ver. | Action By                          | Action                   | Result |
|-----------|------|------------------------------------|--------------------------|--------|
| 7/27/2022 | 1    | Board of Directors                 | Approved                 | Pass   |
| 7/13/2022 | 1    | Operations and Resources Committee | Recommended for Approval | Pass   |

### Proposed Amendment No. 1

**Contract No. 1903601**

**Yard Piping Engineering Services**

**Vendor: CDM Smith Michigan, Inc.**

Agenda of: July 27, 2022

Item No.: **2022-272**

|         |                          |                |
|---------|--------------------------|----------------|
| Amount: | Original Contract Amount | \$1,647,814.74 |
|         | Proposed Amendment No. 1 | 434,722.00     |
|         | Total Revised Contract   | \$2,082,536.74 |

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

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

**DATE:** July 1, 2022

**RE: Proposed Amendment No. 1**  
**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. 1 “Yard Piping Engineering Services” with CDM Smith Michigan, Inc., at an increased cost of \$434,722.00 for a total cost not to exceed \$2,082,536.74 with no increase in duration for a total duration of 852 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 October 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.

So far GLWA has reviewed 21 of the 96 recommendations and approved 8 repairs to proceed outlined in the table below:

| System | Description  |
|--------|--|
| SFE-3  | Replace one 48-inch valve extension at location SF-L-40.   |
| ST-2   | Replace 220 feet of 4-inch steam and 220 feet of 2-inch condensate (buried 5 feet deep) coated carbon steel pipe between Pump Station No. 1 & Rectangular Primary Tanks Pipe Gallery.  |
| ST-4   | Replace approximately 700 feet of 6-inch steam and 1250 feet of 2-inch condensate carbon steel pipe including supports, insulation, and steam traps in the Incineration Complexes I & II and in tunnels between Incineration Complex I, Pump Station No. 1 & Admin Building. |

|      |   |
|------|---|
| NG-1 | Install 32 valve, meter tags.   |
| NG-2 | Replace approximately 4500 feet 1-inch to 4-inch of pipe (buried ~4 feet deep) North of Circular Primary Tanks No. 13 to 16 & West of Pickled Liquor Building.                  |
| NG-3 | Install 50 feet of 3-inch (buried ~6 feet deep) & 50 feet of new 3-inch exposed coated carbon steel pipe South of Incineration Complexes I & II.                                |
| CA-2 | Install 200 feet of new 3-inch stainless steel pipe (Buried 4 feet deep) & 250 feet of new 3-inch SS exposed pipe between the primary tank pipe gallery and Pump Station No. 2. |
| CA-3 | Replace 360 feet of 3-inch stainless steel pipe (buried 5 feet deep) between Pump Station No. 1 & Rectangular Primary Tanks Pipe Gallery.                                       |

The probable opinion construction costs were estimated by the Construction Manager for the 8 items to be around \$3.8 million. The Engineer submitted a not to exceed (NTE) lump sum design quote in the amount of \$434,722.00.

### **JUSTIFICATION**

This Proposed Amendment No. 1 seeks to secure additional funds in the NTE amount of \$434,722.00. It should be noted that the original contract required the two design phases to be completed on a 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 preliminary design phase with a tentative finish date of October 14, 2022, includes, but not limited to the following:

- Prepare a preliminary design based on the Basis of Design Report (BODR).
- Conduct a workshop with GLWA to verify current utility usage for each building/process to identify critical processes that require a redundant feed for screened final effluent and secondary water.
- Replace and right size natural gas piping, rehabilitate and replace compressed air, potable water, SFE, and secondary water steam piping, as necessary.
- Prepare 30% complete design based on the selected GLWA recommendations.

The scope also includes developing system acceptance tests (SAT), identification of all tie-in locations between existing and new work, CPM schedule, Workshops, and conducting monthly progress meetings with GLWA.

The scope of the final design phase which has a tentative start date of October 17, 2022, and a finish date of March 16, 2023, includes but is not limited to the following:

- Provide 75%, 90% and 100% complete construction bidding documents.
- The final design shall include updated sequencing requirements specified in the contract documents. Provide construction schedule input to the Construction Manager (CM).

- Develop appropriate technical specifications for the project. GLWA master specifications will not be used.
- Assist CM in determining construction packaging.
- Assist GLWA in developing the amounts to be specified for liquidated and special damages.
- Conduct monthly progress meetings with GLWA and CM throughout the final design phase.

### **PROJECT MANAGEMENT STATUS**

|   |                                 |
|---|---------------------------------|
| Original Contract time for Study/Design | 852 days (10/28/2020-2/27/2023) |
| Proposed Amendment No. 1                | 0 days                          |
| Total Contract Time                     | 852 days (10/28/2020-2/27/2023) |

### **PROJECT ESTIMATE**

|                          |                |
|--------------------------|----------------|
| Original Contract Price  | \$1,647,814.74 |
| Proposed Amendment No. 1 | 434,722.00     |
| New Contract Price       | \$2,082,536.74 |

### **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        |
| Proposed Amendment No.1:         | 434,722.00            |
| New Contract Total:              | \$2,082,536.74        |
| Amended Financial Plan Estimate: | <u>\$1,338,000.00</u> |

Estimating Variance: (\$744,536.74)

The award of this amendment creates a negative estimating variance of (\$744,536.74). This variance will be deducted from the Construction portion of the project.

### **COMMITTEE REVIEW**

This item was presented to the Operations and Resources Committee at its meeting on July 13, 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.

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