



Legislation Details (With Text)

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On agenda: 5/27/2020 **Final action:** 5/27/2020
Title: Proposed Change Order No. 1
Contract No. 1802448
Engineering Services for 14 Mile Transmission Main Loop
CIP# 122013
Sponsors: Cheryl Porter, Grant Gartrell
Indexes: Water Operations
Code sections:
Attachments:

Date	Ver.	Action By	Action	Result
5/27/2020	1	Board of Directors	Approved	Pass
5/13/2020	1	Operations and Resources Committee	Recommended for Approval	Pass

Proposed Change Order No. 1

Contract No. 1802448

Engineering Services for 14 Mile Transmission Main Loop

CIP# 122013

Agenda of: May 27, 2020

Item No.: **2020-154**

Amount:	Original Contract	\$6,819,890.00
	Proposed Change Order No. 1	1,150,000.00
	Total Contract	\$7,969,890.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

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

DATE: May 1, 2020

RE: Proposed Change Order No. 1
Contract No. 1802448
Engineering Services for 14 Mile Transmission Main Loop
Vendor: Brown and Caldwell, LLC

MOTION

Upon recommendation of Cheryl Porter, Chief Operating Officer - Water and Field Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) to **enter into Contract No. 1802448 Proposed Change Order No. 1 “Engineering Services for 14 Mile Transmission Main Loop” with Brown and Caldwell, LLC, at an increased cost of \$1,150,000.00 for a total cost of \$7,969,890.00, and no increase in duration for a total duration of 4 years 10 months;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The 14 Mile Road transmission main supplies water to the communities of Novi, Farmington Hills, West Bloomfield, Commerce, Walled Lake, and Wixom. If a disruption to service occurs on the 14 Mile transmission, GLWA is not able to provide the required minimum pressures required to GLWA customers listed above. GLWA proposed a new transmission main loop to connect the 8 Mile and 14 Mile transmission systems in order to provide redundancy to the 14 Mile Transmission System. The design contract for this project was awarded to Brown and Caldwell in February of 2019. The design contract included provisions to deliver the project as two separate design-bid-build contracts in order to meet the Drinking Water Revolving Fund (DWRf) loan schedule, as follows:

- Phase 1 - Approximately 1.0 mile of 24-inch transmission along 14 Mile from M-5 to Decker Road - Design for this phase was completed in January of 2020. Construction bids for this project were received in March of 2020 with pending board approval in May of 2020.
- Phase 2 - Approximately 7.5 miles of 54-inch transmission main loop between 8 Mile and 14 Mile - Design for this phase is scheduled to be completed in January of 2021.

Additional funding is requested as part of this change order to cover the following additional work items that were identified during the Phase 1 bid phase and Phase 2 design phase:

- Funding is requested for additional Phase 1 resident project representation (Task 8). The original contract included 35 weeks of resident project representation services. The construction contractor for Phase 1 construction indicated a schedule of a full year. Based on the revised schedule, additional funding in the amount of \$240,000 is requested for Task 8: Resident Project Representation.
- Funding is requested for additional Phase 2 final design (Task 5) to include additional environmental survey required for EGLE joint permitting, additional design work to accommodate pile supports for pipeline through areas of poor soils, and additional design required for bike path restoration along the proposed route. Based on this additional work, additional funding in the amount of \$108,000 is requested for Task 5: Final Design.
- Funding is requested for additional design services for opportunity project coordination with the City of Novi. The City of Novi had Meadowbrook, 11 Mile and 13 Mile roads along the proposed pipeline alignment in their roads capital improvement plan (CIP). The City of Novi and GLWA coordinated capital improvement projects to avoid

multiple roadway disruptions.

- GLWA is working with the City of Novi to develop a final cost sharing agreement for design and construction costs whereby GWLA pays for the portion of road reconstruction disrupted by pipeline construction, and the City of Novi pays for the remaining road reconstruction. Based on this additional work, additional funding in the amount of \$145,000 is requested for a new Task 11: Engineering Services for Novi Coordination. It is expected that this amount will be reimbursable from the City of Novi as part of the pending cost sharing agreement.

Funding is requested for additional field survey and exploration of existing utilities (Task 10). The original design contract included a \$250,000 field survey and exploratory excavation allowance and to date, \$195,628 of the field survey and exploratory allowance has been spent on additional survey for longer-than-anticipated Phase 2 alignment, and additional soil borings required by the Michigan Department of Transportation (MDOT) along the Phase 2 alignment. The additional Task 10 budget is being requested to cover:

- Additional geotechnical exploration of MDOT drain crossings and tunnel crossings under road right-of-way;
- Additional potholing required to field locate potential major utility conflicts along the proposed Phase 2 alignment.
- Additional Wayne County permit review fees.

Based on this additional work, additional funding in the amount of \$657,000 is requested for Task 10: Field Survey and Exploration of Existing Utilities Allowance. In total, GLWA Water Engineering is seeking approval of Amendment No. 1 to the Contract No. 1802448 14 Mile Transmission Main Loop Project in the amount of \$1,150,000 .

JUSTIFICATION

The 14 Mile Transmission Main Loop Project constitutes a major capital investment towards providing redundancy to the 14 Mile Transmission System to avoid future catastrophic loss of service to the communities served by this transmission system. The funding requested as part of this amendment request is critical for successful implementation of the overall Project as it:

- Facilitates key coordination with critical stakeholders such as the City of Novi.
- Facilitates important field exploration to locate utility conflicts for the Phase 2 alignment, which if left unchecked, could result in large construction phase change orders.
- Assures successful permitting for the proposed pipeline project.
- Enables full oversight of the Phase 2 construction to assure that the transmission main is constructed to GLWA specifications.

PROJECT MANAGEMENT STATUS

Original Contract Time 4 years 10 months

Proposed Change Order No. 1 0 years

New Contract Time 4 years 10 months

PROJECT ESTIMATE

Original Contract Price	\$ 6,819.890.00
Proposed Change Order No. 1	1,150,000.00
New Contract Total	\$ 7,960,890.00

FINANCIAL PLAN IMPACT

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

Funding Source: Water Construction Bond

Cost Center: Field Engineering

Expense Type: Construction (5519-882111.000-617950-122013)

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

Original Contract Price	\$6,819,890.00
Change Order No. 1	1,150,000.00
New Contract Total	7,969,890.00
Amended Financial Plan Estimate	<u>6,819,890.00</u>
Negative Estimating Variance	(\$1,150,000.00)

The award of this change order to the vendor creates a negative estimating variance of \$1,150,000.00. This variance will be funded from capital reserves.

COMMITTEE REVIEW

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