

Amendment to Purchase Order Number 6043582 for Engineering Services Construction Contact Administration for the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant

Date: April 8, 2022

To: Infrastructure and Environment Committee

From: Chief Engineer and Executive Director, Engineering and Construction Services and Chief Procurement Officer, Purchasing and Materials Management

Wards: 14 (Toronto-Danforth)

SUMMARY

The purpose of this report is to request authority to amend Purchase Order Number 6043582 issued to CIMA Canada Incorporated, for engineering services for construction contract administration for the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant, awarded under Request for Proposal 9117-13-7296. The amendment is required for additional services resulting from an extension to the construction completion date and includes a contingency allowance should the work be further delayed due to any unforeseen construction issues, which may arise through to Project completion.

The total value of the Purchase Order Amendment being requested is \$1,768,868 net of all applicable taxes and charges (\$1,800,000 net of HST recoveries), revising the current Purchase Order value from \$3,771,341 net of all applicable taxes and charges (\$3,837,717 net of HST recoveries) to \$5,540,209 net of all applicable taxes and charges (\$5,637,717 net of HST recoveries).

RECOMMENDATIONS

The Chief Engineer and Executive Director, Engineering and Construction Services and the Chief Procurement Officer, Purchasing and Materials Management recommend that:

1. The Infrastructure and Environment Committee, in accordance with section 71-11.1C of the City of Toronto Municipal Code Chapter 71 (Financial Control Bylaw), grant authority to amend Purchase Order 6043582 with CIMA Canada Incorporated, for Contract Administration Services in support of construction of the Digesters 9-12

Amendment to PO No. 6043582 for Engineering Services Construction Contact Administration for the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant

Refurbishing Project at Ashbridges Bay Treatment Plant by increasing the value by \$1,768,868 net of all applicable taxes and charges (\$1,800,000 net of HST recoveries), from \$3,771,341 net of all applicable taxes and charges (\$3,837,717 net of HST recoveries) to \$5,540,209 net of all applicable taxes and charges (\$5,637,717 net of HST recoveries), and extend the delivery date from June 30, 2023 to December 31, 2023.

FINANCIAL IMPACT

The total value of the Purchase Order Amendment identified in this report is \$1,768,668 net of all taxes and charges (\$1,800,000 net of Harmonized Sales Tax Recoveries).

Funding is included in Toronto Water's Approved 2022 Capital Budget and 2023-2031 Approved Capital Plan. Funding details with forecasted expenditures (net of HST recoveries) are summarized in Table 1 below:

Table 1: Financial Impact Summary of Purchase Order Amendment for Contract Administration Services

WBS Element	2022	2023	Total
CWW043-03 (Digesters 9-12 Refurbishment)	\$1,500,000	\$300,000	\$1,800,000

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting held on August 6, 2014, the Bid Committee adopted the recommendations in the staff report from the Acting Director of Purchasing and Materials Management dated July 31, 2014 and approved Item BD193.7 Award of Request for Proposal 9117-13-7296 to CIMA Canada Incorporated, to provide professional engineering services for the detailed design and construction contract administration of Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant. A copy of the Bid Committee Document can be found at:
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.BD193.7>

The construction contract was approved by the Bid Award Panel at its meeting held on November 6, 2018. The Bid Award Panel adopted the recommendations in the staff report from the Chief Financial Officer, Purchasing and Materials Management dated October 31, 2018 and approved Item BA 105-1, authorizing award of Contract 18ECS-MI-01AB Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant to Kenaidan Contracting Limited. The project includes the complete supply of all materials, labour and equipment for refurbishing of the digesters 9-12 including associated control Amendment to PO No. 6043582 for Engineering Services Construction Contract Administration for the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant

building improvements at the Ashbridges Bay Treatment Plant. A copy of the Bid Committee Document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.BA105.1>

COMMENTS

Background

The Ashbridges Bay Treatment Plant receives and treats wastewater from approximately 1.6 million people before discharging treated water back into Lake Ontario. As part of the treatment process, primary sludge and secondary waste activated sludge are collected and thickened and then processed in 18 anaerobic digesters. The digestion process reduces the organic material in the sludge and allows it to be converted into reusable biosolids for use in agriculture.

The Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant, contract 18ECS-MI-01AB, was awarded to Kenaidan Contracting Limited (Kenaidan), on November 6, 2018. This Project involves the total refurbishment of the digesters including new roofs, new digester mixing system, all process piping, equipment and controls; and significant structural upgrades to the digestion tanks, control building and digester roofs. The Order to Commence was issued on January 7, 2019 and allowed for 130 weeks of construction, with a construction completion date of July 5, 2021.

During construction a number of issues arose, which resulted in changes to the overall Project work scope, and a corresponding extension to the contract completion date, which are summarized in the following:

- Early in 2019, during the demolition work of the control building interior and the exterior brick work of the digesters a differential settlement was discovered between the control building and digester structures. This was unforeseen and required ground floor modifications to the Control Building.
- In April 2019, as a result of temporary power previously installed by an adjacent contract through the Digester 9-12 Control Building, electrical cables were required to be rerouted to mitigate delays on this contract.
- In August 2019, because of delays to an adjacent contract, construction of new cleanout chambers could not be completed due to restricted access. An alternative solution was developed and the existing chambers were refurbished instead of being replaced.
- In July 2020, Toronto Water requested the installation of sixteen new valves to facilitate flexibility in operation and future maintenance of the digester process piping systems.

Change Orders were issued to Kenaidan and the direct costs were approved for the additional scope of work. In addition, the contractual completion date was extended by 41 weeks to April 14, 2022, following a review and assessment by CIMA Canada Incorporated (CIMA), the engineering consultant retained by the City to provide

professional engineering services for the detailed design and construction contract administration of the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant. The time extension was authorized due to delays to the critical path that were outside of Kenaidan's control.

Additional delays, separate from those noted above, have been experienced due to:

- The discovery of digester interior cover gas proofing coating failure, following installation, resulting in rework by Kenaidan.
- Kenaidan experienced delays in production and shipping due to severe weather impacts in the Southern United States as well as COVID related supply chain issues with spray foam insulation for the digester cover exteriors, resulting in delayed delivery and installation.
- Modifications were required to the structural supports associated with the electrical supply cables to the Digester Control Building.
- A structural crack, approximately one metre in length, was discovered in one of the new steel roof plate steel sections in Digester No. 9. This was repaired and a structural investigation is ongoing to ensure no additional remediation is required.

Kenaidan has submitted schedule updates for a further time extension related to these delays with a construction completion of March 2023, representing an additional 46 week delay.

Kenaidan has submitted a claim for general site overhead costs for the 41 week extension. They have also submitted schedule updates with the intention to request an extension of the completion date from April 2022 to March 2023. Both the claim and schedule updates related to a further completion date extension are under review by CIMA and City staff. As part of the assessment of the delay events, staff will be completing a review to determine whether the contractor or consultant bear any responsibility for the delay and whether the City may have recourse to any contractual remedies which if confirmed will offset some of the additional cost of the construction contract administration fees.

Construction Contract Administration Services Purchase Order Amendment

The contract administration services that were stipulated in the Request for Proposal 9117-13-7296, for the engineering services associated with the design and construction contract administration for the Digesters 9-12 Refurbishing Project at the Ashbridges Bay Treatment Plant, had assumed a 130 week construction schedule based on City's experience with previous wastewater treatment plant digester refurbishing contracts.

As outlined above, the combined delay issues encountered in the construction contract have resulted in an estimated additional 87 weeks of construction contract administration services through to the current estimated completion date of March 2023.

CIMA submitted a Request for Change quotation, for the amount of \$1,451,127 (net of all taxes and charges) for the provision of construction contract administration services through to March 2023.

A contingency allowance of \$317,742 (net of all taxes and charges) is also being recommended to provide for contract administration services should the Project be further delayed due to any future unforeseen construction issues which may arise. The total Purchase Order Amendment being requested is \$1,768,868 (net of all taxes and charges), which will increase the value of Purchase Order Number 6043582 from \$3,771,341 to \$5,540,209 net of all applicable taxes and charges.

CONTACT

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SIGNATURE

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