

Award of Contract Number 19ECS-MI-01NT for the Process and Electrical Condition Assessment Project Upgrades at the North Toronto Treatment Plant and Amendment to Purchase Order Number 6051147 for Services during Construction

Date: December 18, 2020

To: Infrastructure and Environment Committee

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

Wards: 15 (Don Valley West)

SUMMARY

The purpose of this report is to:

1. Advise of the results of Request for Tender Document Number 2541506237, Contract Number 19ECS-MI-01NT, for Process and Electrical Condition Assessment Project Upgrades at North Toronto Treatment Plant and request authority to award the contract to Bennett Mechanical Installations (2001) Limited, in the amount of \$30,842,400 net of all applicable taxes and charges (\$31,385,226 net of HST recoveries); and,
2. Request authority to amend Purchase Order Number 6051147 with CIMA Canada Incorporated for providing Contract Administration Services for the full duration of the construction contract, in the amount of \$984,557 net of all applicable taxes and charges (\$1,001,885 net of HST recoveries), revising the current Purchase Order value from \$1,394,391 net of all applicable taxes and charges (\$1,418,933 net of HST recoveries) to \$2,378,949 net of all applicable taxes and charges (\$2,420,818 net of HST recoveries).

RECOMMENDATIONS

The Chief Engineer and Executive Director of 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 195-8.4A of the Toronto Municipal Code Chapter 195 (Purchasing By-Law), grant authority to award Contract Number 19ECS-MI-01NT, Request for Tenders Document Number 2541506237, for Process and Electrical Condition Assessment Project Upgrades at North Toronto Treatment Plant, in the amount of \$30,842,400 net of all applicable taxes and charges (\$31,385,226 net of HST recoveries) to Bennett Mechanical Installations (2001) Limited, having submitted the lowest compliant bid and meeting the specifications in conformance with the Tender requirements.

2. The Infrastructure and Environment Committee, in accordance with Section 71-11.1. C of the City of Toronto Municipal Code Chapter 71 (Financial Control By-Law), grant authority to amend the Purchase Order Number 6051147 with CIMA Canada Incorporated for providing Professional Services during Construction in the amount of \$984,557 net of all applicable taxes and charges (\$1,001,885 net of HST recoveries), revising the current Purchase Order value from \$1,394,391 net of all applicable taxes and charges (\$1,418,933 net of HST recoveries) to \$2,378,949 net of all applicable taxes and charges (\$2,420,818 net of HST recoveries).

FINANCIAL IMPACT

Award for Contract Number 19ECS-MI-01NT

The total value of the contract award for Contract Number 19ECS-MI-01NT, for Process and Electrical Condition Assessment Project Upgrades at North Toronto Treatment Plant, is \$34,851,912 including HST and all applicable charges. The total cost to the City is \$31,385,226 including contingency and provisional sums and net of HST recoveries.

Funding for this contract is included in Toronto Water's approved 2021 Capital Budget and 2022-2030 Capital Plan under WBS Elements CWW046-01 and CWW046-04.

Funding details are summarized in Table 1 below (all values are net of HST recoveries):

Table 1: Projected Cash Flow for Construction Contract Number 19ECS-MI-01NT

WBS Element	2021	2022	2023	2024	Total
CWW046-04 NPP-Process Improvements	\$4,100,000	\$6,689,735	\$6,689,734	\$915,757	\$18,395,226
CWW046-01 NPP-Electric Upgrades	\$3,500,000	\$3,500,000	\$2,250,000	\$3,740,000	\$12,990,000
Total	\$7,600,000	\$10,189,735	\$8,939,734	\$4,655,757	\$31,385,226

Amendment for Purchase Order Number 6051147 for Contract Administration Services

The request to amend the Purchase Order Number 6051147 with CIMA Canada Incorporated will increase the total contract value by \$984,557 net of all taxes and charges (\$1,001,885 net of HST recoveries), revising the current Purchase Order value from \$1,394,391 net of all applicable taxes and charges (\$1,418,933 net of HST recoveries) to \$2,378,949 net of all applicable taxes and charges (\$2,420,818 net of HST recoveries).

Funding for this contract is included in Toronto Water's approved 2021 Capital Budget and 2022-2030 Capital Plan under WBS Element CWW046-04.

Funding details are summarized in Table 2 below (all values are net of HST recoveries):

Table 2: Projected Cash Flow of Purchase Order amendment for delivering Professional Services during Construction for Construction Contract 19ECS-MI-01NT

WBS Element	2021	2022	2023	2024	Total
CWW046-04 NPP-Process Improvements	\$117,642	\$250,000	\$250,000	\$384,243	\$1,001,885

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

DECISION HISTORY

At its meeting held on January 13, 2016, the Bid Committee adopted the recommendations in the staff report from the Director of Purchasing and Materials Management dated December 21, 2015, and authorized the retention of Cole Engineering Group Limited, to provide Professional Engineering Services for Electrical Condition Assessment Project at North Toronto Treatment Plant. Electrical Condition Assessment Project Upgrades scope, included the Engineering services during design and construction for the replacement of Main Electrical Substation/Transformers, Motor Control Centres, and Various Electrical Equipment at North Toronto Treatment Plant. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.BD65.6>

At its meeting held on September 27, 2017, the Bid Award Panel adopted the recommendations in the staff report from the Director of Purchasing and Materials Management dated September 06, 2017, and authorized the retention of CIMA Canada Incorporated to provide Engineering services during design and construction for the Process Upgrades project at the North Toronto Treatment Plant. The Process Upgrades scope included the replacement of aging process infrastructure and testing out innovative aeration technologies for energy consumption and enhanced treatment. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BA42.2>

Award of Contract Number 19ECS-MI-01NT for the Process and Electrical Upgrades at the North Toronto Treatment Plant

COMMENTS

Background

The North Toronto Treatment Plant, originally constructed in 1929, is the smallest of the City's four wastewater treatment plants. It was the City's first secondary treatment plant and with the exception of routine maintenance activities, there have been limited capital investments with only occasional equipment replacement/modernization over the years. The Plant remains generally as originally constructed. The facility was constructed to treat a rated capacity of 45.5 mega litres per day but due to its age and technical limitations, has been operated at less than half this capacity for many years. The primary goal of the combined project (Electrical Condition Assessment Project Upgrades and Process Upgrades) is to restore the treatment capacity of the North Toronto Treatment Plant to its rated capacity and to replace aging process and electrical equipment.

The design phase of the Electrical Condition Assessment Project Upgrades was initiated in January 2016, with an anticipated construction tender issuance of July 2017. The engineering consultant retained for the design and construction of this project was Cole Engineering Group Limited. This project was managed by Toronto Water's Capital Works Delivery Unit.

The design phase of the Process Upgrades was initiated in October 2017, with an anticipated construction tender issuance for December 2018. The engineering consultant retained for the design and construction of this project was CIMA Canada Incorporated. This project was managed by the Engineering and Construction Services' Major Infrastructure Section.

During the detailed design phase, Toronto Water reported that the Electrical Condition Assessment Project's design timeline had been extended, resulting in similar construction start dates for both the Electrical Condition Assessment Project Upgrades and Process Upgrades projects. To mitigate potential construction and operations scheduling risks Engineering and Construction Services and Toronto Water thoroughly reviewed several risk mitigation options, and decided to proceed with the most cost effective option. This involved consolidating the two projects and completing the design for each project under one engineering consultant, CIMA Canada Incorporated.

The City amended CIMA Canada Incorporated's Purchase Order Number 6045894 for providing Professional Services during design in the amount of \$462,765, net of all taxes and charges, revising the Purchase Order value from \$1,142,281, net of all taxes and charges, to \$1,605,046, net of all taxes and charges. The additional design scope included the review of design documents from the Electrical Condition Assessment Project Upgrades, identify areas for improvements and update of the design. The work also included preparing the requisite documents for the Building Permit, Site Plan approval, Toronto Hydro approval and Toronto Regional Conservation Authority permit. CIMA was also tasked to assume the combined design responsibility and consolidate the individual design documents into one tender package. CIMA would also undertake the Contract Administration services for the combined project.

Due to the complex nature of the merged contract (Electrical Condition Assessment Project Upgrades and Process Upgrades), the City proceeded to pre-qualify the general contractors for Contract 19ECS-MI-01NT, by requesting that they demonstrate experience in successfully delivering projects of similar scope and complexity.

Prequalification of Contractors

Request to Prequalify 3907-19-7191, for the Pre-qualification of General Contractors for the North Toronto Treatment Plant Process and Electrical Condition Assessment Project Upgrades, was issued by the Purchasing and Materials Management Division and was advertised on the City's website on August 7, 2019.

The following seven (7) firms met the minimum technical threshold outlined in the Request to Prequalify and pre-qualified to bid on the subsequent Tender Call.

1. Alberici Constructors Limited
2. Bennett Mechanical Installations (2001) Limited
3. Black & McDonald Limited
4. Kenaidan Contracting Limited
5. Torbear Contracting Incorporated
6. WCC Construction Canada, ULC
7. Maple Reinders Constructors Limited

Award for Contract Number 19ECS-MI-01NT, Document Number 2541506237

Contract Number 19ECS-MI-01NT, for Process and Electrical Condition Assessment Project Upgrades at North Toronto Treatment Plant was issued by Purchasing and Materials Management Division and was advertised on the City's website on July 30, 2020 and the tender call was closed on September 18, 2020.

The submissions received from the five (5) bidders that responded to Tender Call 176-2020, Contract Number 19ECS-MI-01NT, were reviewed and evaluated by staff from Purchasing and Materials Management Division, Engineering and Construction Services and the Engineering Consultant and were found to be in conformance with the Tender requirements. The results are shown in the table below:

Bidders	Bid Price excluding HST *
Alberici Constructors Limited	\$35,421,491
Black & McDonald Limited	\$35,199,658
Kenaidan Contracting Limited	\$27,526,100
Torbear Contracting Incorporated	\$26,036,532
Bennett Mechanical Installations (2001) Limited	\$25,702,000

*Pursuant to the Request for Tender document the contract award price includes contingency. Bid prices shown do not include contingency.

The bid price of the recommended bidder in the amount of \$25,702,000 net of all applicable taxes and charges is approximately sixteen (16) percent lower than the pre-tender engineering estimate of \$30,538,615 net of all applicable taxes and charges.

A contingency allowance of \$5,140,400 (net of HST) on the base scope of work is included in the proposed contract award for additional work and/or services which may be required to address any unforeseen conditions which may arise during construction. This level of contingency is deemed necessary to address the risks associated with the retrofit work for an older, operating plant such as North Toronto Treatment Plant. The retrofits will be undertaken while the plant remains fully operational, and must at all times meet regulatory compliance requirements. The total contract price is \$34,851,912 including HST and all applicable charges.

The Fair Wage Office reported that the recommended Bidder indicated they have reviewed and understand the Fair Wage Policy and Labour Trades requirements and the recommended Bidder has agreed to comply fully.

The Tender submission from Bennett Mechanical Installations (2001) Limited, for Contract Number 19ECS-MI-01NT, includes their agreement to complete the works within 156 Weeks from the date of the written order to commence work is issued by the City.

Amendment for Purchase Order Number 6051147 for Contract Administration Services

The Contract Administration services Purchase Order with CIMA Canada Corporation in the amount of \$1,394,391, provided for contract administration services for a construction duration of 130 weeks. An amendment is required for this Purchase Order to provide an additional 26 weeks of contract administration services to align with the contract schedule of 156 weeks, valued at \$834,557. It is also recommended that a contingency in the amount of \$150,000 be included for any unforeseen issues that arise during construction.

The total value of the Purchase Order Amendment for Purchase Order Number 6051147 with CIMA Canada Incorporated for providing Contract Administration Services for the full duration of the construction contract, is in the amount of \$984,557 net of all applicable taxes and charges (\$1,001,885 net of HST recoveries), revising the current Purchase Order value from \$1,394,391 net of all applicable taxes and charges (\$1,418,933 net of HST recoveries) to \$2,378,949 net of all applicable taxes and charges (\$2,420,818 net of HST recoveries).

CONTACT

Simon Hopton, P. Eng., Director, Major Infrastructure, Engineering and Construction Services, Telephone: 416-395-6270, Email: Simon.Hopton@toronto.ca

Allison Phillips, Manager, Professional Services, Purchasing and Materials Management Division, Telephone: 647-882-9803, Email: Allison.Phillips@toronto.ca

SIGNATURE

Michael D'Andrea, M.E.Sc., P.Eng.
Chief Engineer and Executive Director, Engineering and Construction Services

Michael Pacholok, JD
Chief Procurement Officer, Purchasing and Materials Management