REPORT FOR ACTION

Emergency Non-Competitive Contract to Repair a Sanitary Sewer and Storm Sewer in the North Park Creek Crossing

Date: January 4, 2023
To: General Government Committee
From: General Manager, Toronto Water and Acting Chief Procurement Officer
Wards: 8

SUMMARY

The purpose of this report is to advise Toronto City Council, pursuant to Chapter 195 of the Toronto Municipal Code (Purchasing By-law, Section 195-7.4), of a non-competitive contract with Aqua Tech Solutions Inc. (Aqua Tech) to procure emergency general contracting and construction services to repair two (2) damaged critical sewer sections (a section of 375mm sanitary sewer and a 1800x1500mm storm sewer outfall) in the North Park creek crossing for a total value of $3,239,545 net of all applicable taxes and charges ($3,296,561 net of HST recoveries).

The issuance of this non-competitive contract was a matter of extreme urgency. It was necessary to complete the work immediately, without a formal competitive tender process, due to the active spill of raw sanitary sewage into North Park Creek and the risks associated with the imminent failure of the sewers. The failure of the sewers could have had impacts on public health and safety, the environment, private property, and could have resulted in legislative non-compliance. Toronto Water was able to quickly facilitate a process whereby four (4) vendors were invited to bid an estimated scope of work, and the lowest bidder, Aqua Tech was selected.

In consultation with the Purchasing and Materials Management Division, this emergency procurement could not be reported to the General Government Committee and Council in the required timeframe. This was as a result of the requirements for Toronto Water to investigate and undertake the critical emergency construction work and to properly reconcile and approve all payments to the contractor/subcontractors – a process that was finalized in April 2022. Reporting back to City Council is required in accordance with Municipal Code Chapter 195, Purchasing, where the potential value of the non-competitive contract exceeds $500,000 as per Article 7, Section 195-7.4(B) of the Purchasing By-law.

RECOMMENDATIONS

The General Manager, Toronto Water and the Acting Chief Procurement Officer recommends that:

1. City Council receive this report for information.

FINANCIAL IMPACT

The total emergency non-competitive contract (Purchase Order number 6052411) was issued for $3,239,545 net of all applicable taxes and charges under the emergency provision of the Purchasing By-law. The cost to the City is $3,296,561 net of HST recoveries.

This emergency contract is funded from the 2021 Approved Operating and Capital Budgets and 2022 Approved Operating and Capital Budgets for Toronto Water by using unused contingencies and savings from other contracts that were available as shown in the Table 1 below:

Table 1: Financial Impact Summary

Contract Period	**CWW465-06-188 - Total Amount (net of HST recoveries)**	**TW2020 - Total Amount (net of HST recoveries)**
2021 Expenditures	$ 1,960,370.17	$ 604,062.54
2022 Expenditures	$ 731,213.31	$ 915.15
Total Amended Contract Value	$ 2,691,583.48	$ 604,977.69

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

DECISION HISTORY

This item has not previously been considered by City Council.

COMMENTS

On May 14, 2021 Toronto Call Center (311) received a call from a resident that North Park Creek water looked murky and had a foul odour. Toronto Water investigated the complaint and discovered raw sewage spilling into North Park Creek.

The Ministry of the Environment, Conservation and Parks (MECP) was notified of the spill and Toronto Water began an emergency investigation that required the investigator to physically enter the damaged pipe to determine the source of the sewage.

The investigator found a failed 375mm sanitary sewer encased in concrete along the floor of a storm sewer approximately 10 m in depth below CN Rail tracks within a City of Toronto easement. The damaged sewer was deemed an emergency by the General Manager of Toronto Water, under Chapter 195-7.1(G) of the Municipal Code.

Figure 1: Location of Damaged Sewers

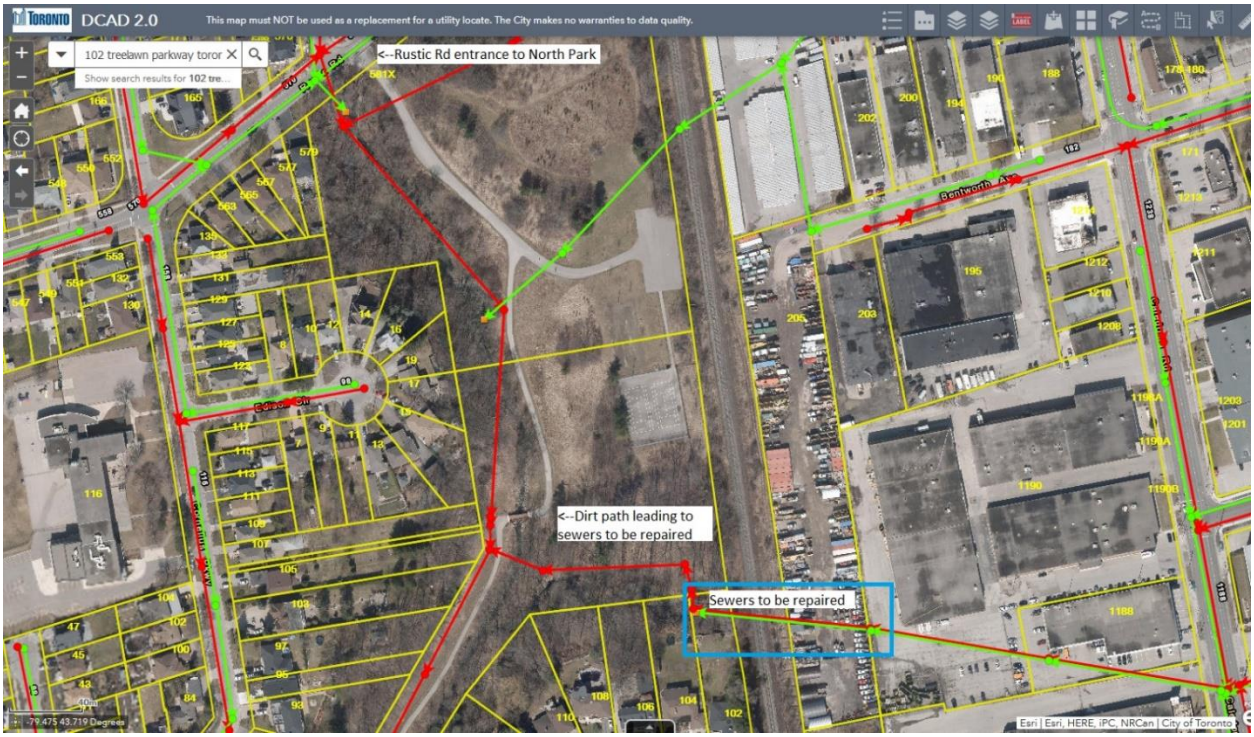


Figure 2: Photos of the failed sanitary sewer encased in concrete

An estimated scope of work, based on the available information from the initial inspection, was created and an emergency site meeting was held on Friday June 11, 2021, with four (4) vendors to obtain quotes to replace 375mm sanitary sewer and rehabilitate the storm sewer. The vendors submitted emergency competitive pricing on June 16, 2021, and Toronto Water issued an order to commence work to the lowest bidder Aqua Tech Solutions Inc.

As is often the case with emergency work, which requires immediate response and does not benefit from typical construction planning activities, this project was subject to a number of unforeseen issues which required additional time to resolve.

The following outlines the key tasks of the construction.

1. Installation of the two sewer bypass systems ($1,096,044)

To begin the repairs, two sewer bypass systems needed to be constructed to divert the sewage away from the damaged sanitary and storm sewers. Aqua Tech's sub-contractor, Atlas (specializing in dewatering and bypass pumping) was mobilized to the site to set up sewer bypass systems to divert the flow of sewage away from the work area.

Figure 3: Storm & Sanitary bypasses

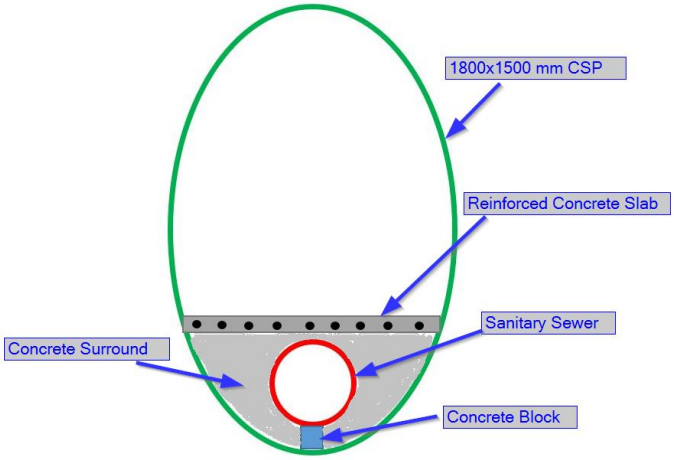
2. Replacement of sanitary sewer ($718,334)

Once the bypass systems were in place, the replacement of the sanitary sewer could commence. The failed sanitary sewer was encased in concrete along the floor of the

storm sewer; therefore work was required to remove the concrete slab within the storm sewer to access the failed sanitary sewer pipe. The sewer was replaced with a new PVC pipe and connected to the existing sanitary pipe in the tunnel (Figure 3).

This work was performed in very tight confined spaces through the outfall which constrained the team's ability to use heavy equipment and maneuver on the job site. This made some construction activities unusually complicated, for example removing the concrete took longer than usual because the crew could not use the typical equipment, but rather had to use jackhammers to break up the concrete.

Figure 3: Diagram of the sanitary sewer within a storm sewer.



3. Rehabilitation of the storm sewer ($1,425,167)

With the new PVC sanitary pipe in place and encased in concrete, the contractor prepared the storm sewer to be spray lined as part of the rehabilitation process. Spray lining is the process of applying a structural lining to the inner walls of a pipe. This technique is used in construction to rehabilitate pipes and requires the surface being spray lined to be completely dry for the liner to adhere.

It was noted that water kept infiltrating through the bottom of the storm sewer at the joint between the concrete slab and the wall. In order to stop the infiltration a specialized waterproofing contractor was retained to install the waterproofing system on the storm sewer floor. This system plugged the active water leaks and sealed the surface with a waterproof coating. It was also found that two (2) storm manholes and one (1) sanitary manhole were leaking. The manholes were spray lined to prevent any further leakage. The work to fix these unforeseen issues was not included in the original scope of work. The waterproofing process took an additional 6 weeks. During this time the storm sewer was left on the by-pass system until spray lining was completed.

The sanitary sewer repair was completed in October 2021 and the process to start the waterproofing and rehabilitation of the storm sewer was initiated in November 2021. All deficiencies were addressed, and the project was completed in March 2022. The project was closed April 2022.

The Fair Wage Office has reported that Aqua Tech Solutions Inc., has indicated that they have reviewed and understand the Fair Wage Policy and Labour Trades requirements and have agreed to comply fully.

CONTACT

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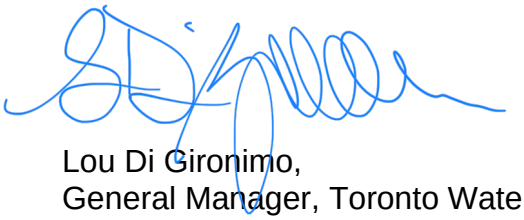

Lou Di Gironimo,
General Manager, Toronto Water

Tanvir Ahmad for Sandra Lisi,
Acting Chief Procurement Officer, Purchasing & Materials Management