

## **Emergency Non-competitive Contract with OJCR Construction Ltd., to Repair a section of the East Don Sanitary Trunk Sewer**

**Date:** March 12, 2021

**To:** General Government & Licensing Committee

**From:** General Manager, Toronto Water, and Chief Procurement Officer, Purchasing and Materials Management Division

**Wards:** Don Valley North (Ward 17)

### **SUMMARY**

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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 OJCR Construction Ltd. (OJCR) to procure emergency general contracting and construction services to repair two damaged culverts and four failed sections of the 1200 millimetre (nearly four feet in diameter) East Don Sanitary Trunk Sewer (STS) in the East Don Parkland near Finch Avenue East and Alamosa Drive for a total value of \$2,832,827.03 (\$2,882,684.79 net of HST recoveries).

The issuance of this non-competitive contract was a matter of extreme urgency. The damage to the trunk sewer indicated a high probability of complete failure of the sewer potentially resulting in 17 million litres (per day) of sewage spilling into the Don River East Branch. This would be a significant health and safety hazard to the public and contravene public legislative requirements for maintaining the integrity of this critical sewer. The damaged sections of the STS have now been repaired as well as the culverts that were identified to have been the cause the failure.

In consultation with the Purchasing and Materials Management Division, this emergency procurement could not be reported to the General Government and Licensing 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 December 2020. 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

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The General Manager, Toronto Water and the Chief Procurement Officer, Purchasing and Materials Management Division recommend that:

1. City Council receive this report for information.

## FINANCIAL IMPACT

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The total emergency non-competitive contract (PO # 6050102) was issued for \$2,832,827.03 (\$2,882,684.79 net of HST recoveries) under the emergency provision of the Purchasing By-law.

This emergency contract was funded from the 2019 Approved Operating Budget and 2020 Approved Operating Budget for Toronto Water by using unused contingencies and savings from other contracts that were available as shown in the table below:

**Table 1: 2019 & 2020 Operating Budget Financial Impact Summary**

| Contract Period              | Total Amount (net of HST recoveries) |
|------------------------------|--------------------------------------|
| 2019 Expenditures (TW2055)   | \$2,157,312.00                       |
| 2020 Expenditures (TW2055)   | \$725,372.79                         |
| Total Amended Contract Value | \$2,882,684.79                       |

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

## DECISION HISTORY

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There is no decision history.

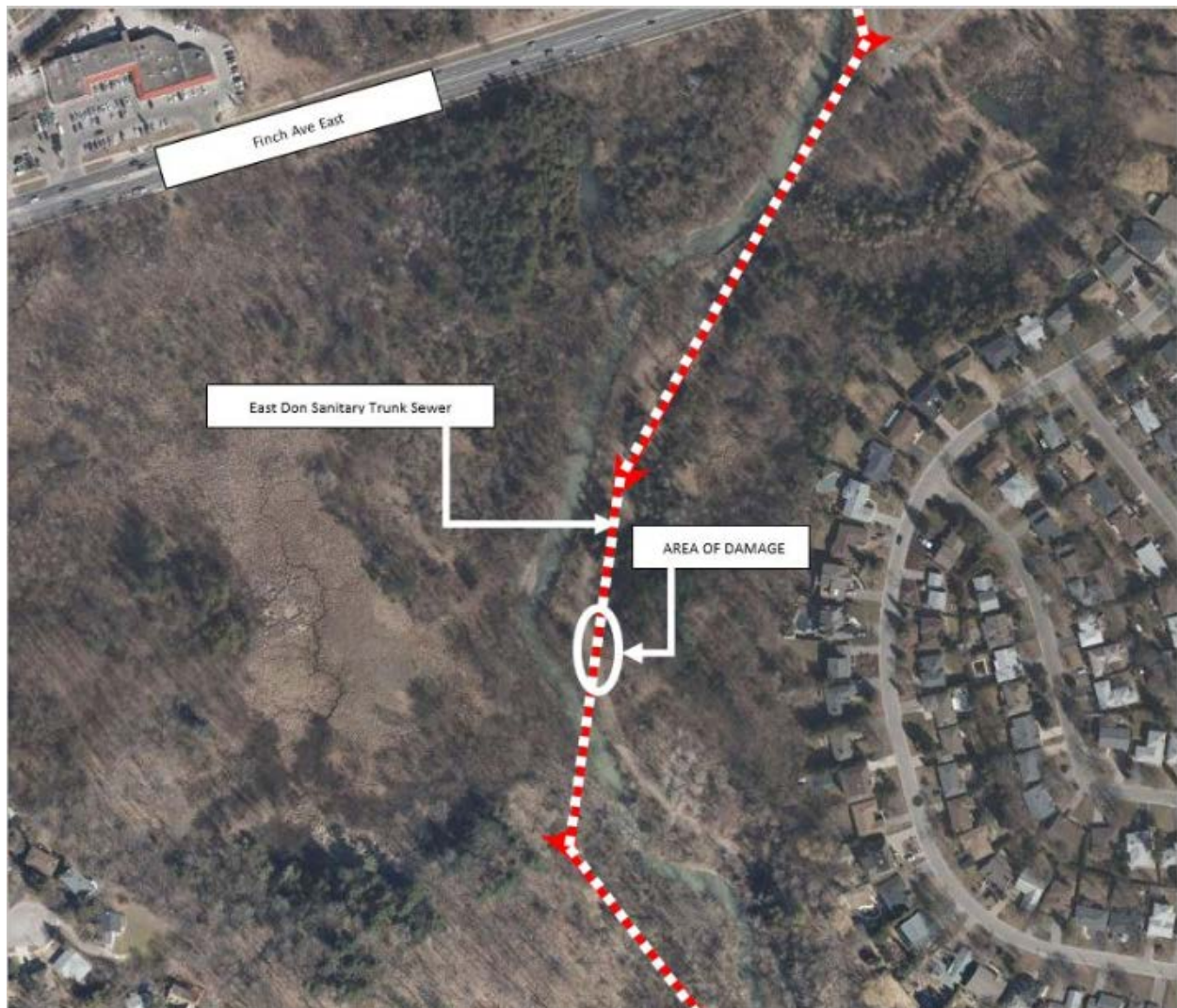
## COMMENTS

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In October 2019, City of Toronto Parks, Forestry & Recreation Services alerted Toronto Water (TW) to deterioration along the East Don Trail, approximately 500 metres south of Finch Avenue East (see Figure 1), with major settlements (sinkholes) up to one metre in depth located directly over top of the 1200 millimetre East Don Sanitary Trunk Sewer (STS). The damaged trunk sewer was deemed an emergency by the General Manager of Toronto Water, under Chapter 195-7.1(G) of the Municipal Code,

TW immediately arranged for closed-circuit television (CCTV) investigation of the STS and initially determined that a 15 metre (nearly 50 feet) section had structurally failed directly below the sinkhole. Trunk sewer standard service level of inspection for preventative maintenance is once every 10 years. A CCTV inspection was completed on this section of the STS in 2016 and at that time no major defects were observed.

**Figure 1: Location of damaged East Don Sanitary Trunk Sewer (STS)**



### **Emergency pre-bid site meeting**

An estimated scope of work, based on the available information from the CCTV inspection, was created and an emergency site meeting was held on Wednesday October 9, 2019, with two vendors to obtain quotes to replace the failed 15 metre section of the STS. Both vendors submitted emergency quotations on October 10, 2019, and TW chose the lower quotation from vendor OJCR Construction Ltd., and issued Purchase Order # 6050102 to commence work.

### **Upgrading the existing pedestrian path**

Due to the location of the repair in the East Don Parkland, the contractor was unable to use the existing pedestrian path to move the heavy equipment to the worksite. On

October 11, 2019, the existing path was reinforced with crushed stone and granular material to serve as a temporary access road. TW worked closely with Parks, Forestry and Recreation staff to identify a number of trees that had to be removed as they were impeding construction repair efforts.

### **Installation of the sewer bypass system (\$1,019,753)**

In order to begin the repairs, a sewer bypass system needed to be constructed to divert the sewage from the damaged trunk sewer. With the access road completed, sub-contractor Aquatech (specializing in dewatering and bypass pumping) mobilized at the site and engineered and constructed a large scale sewer bypass system (see Figure 2) to divert the flow of sewage away from work area and the failed 15 metre STS.

On the weekend of October 11, 2019, prior to installing the large scale bypass system, there was a prediction of heavy rain, which would have caused the flow in the STS to increase and risk a spill of sewage into the Don River. TW ordered the contractor to supply a non-engineered quick assembly bypass system to mitigate the expected increased flow levels.

The large scale sewer bypass system was commissioned on October 29, 2019, and the contractor began the sewer repair. The bypass diverted 17 million litres per day of sewage and was in operation for the duration of the repairs.

**Figure 2: Large scale sewer bypass system**



### **Repair work to the 15 metre STS (\$798,637)**

Once the bypass was in place, the site was excavated and the 15 metre of sewer was repaired and replaced (see Figure 3).



**Figure 3: Excavation and repair of the 15 metre STS**



**Additional work to original scope (\$1,014,437)**

Once the initial 15 metres of the sewer was repaired, and upon further internal investigation, three additional sections of the STS were found to be structurally compromised. The investigation also found an additional collapsed culvert (see Figure 4) running perpendicular to the STS concluding that the two damaged culverts were the direct cause of the sewer failure. On November 21, 2019, Toronto Water issued instructions to the contractor to repair the additional culvert and rehabilitate the three additional compromised sections of the STS.

TW had initially directed the contractor to make the additional sewer repairs internally without excavation. However, due to ground water infiltration in the area of the damaged sewer locations the attempts to repair them internally were unsuccessful. TW ordered the contractor to excavate around the STS at all the compromised locations. The excavation process was complex due to the high water table requiring an extended excavation schedule. Once the contractor completed exposing the entire circumference of the pipe at each of the locations they began the rehabilitation process. At each of the locations the contractor applied a sealing concrete compound in stages with the first stage beginning below the STS and working their way to the top. Once the rehabilitation was completed the contractor backfilled each of the excavations and decommissioned the bypass system.

Following the repair of the STS, the contractor began the repair of the two culverts (see Figure 5) that had caused the initial failure. The contractor excavated and replaced 20 metres (65 feet) of the 600 millimetres (nearly two feet in diameter) steel corrugated

culvert pipe and backfilled the excavation. Following the replacement of the culverts the contractor began the restoration of the worksite and the temporary access road including the removal of the crushed stone, granular material. On February 11, 2020, the contractor completed the repairs of the three additional locations identified in the post-construction CCTV investigation and the two culverts.

**Figure 4: Excavated culvert**



**Figure 5: Repaired culvert**



## Restoration

On March 9, 2020, the contractor commenced reinstatement of the park surface (Figure 6) back to the original grade over the extensive work area and on April 6, 2020 the contractor completed the required site restoration.

**Figure 6: Park restoration**



The Fair Wage Office has reported that OJCR Construction Ltd. has reviewed and understands the Fair Wage Policy and Labour Trades requirements. They have also agreed to fully comply.

## CONTACT

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## SIGNATURE

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