



Report to: General Committee

Meeting Date: May 24, 2022

SUBJECT: 070-T-22 Cast Iron Watermain Replacement in Southdale Dr Area - Construction

PREPARED BY: Prathapan Kumar, Senior Manager, Environmental Services, Ext. 2989
Flora Chan, Senior Buyer, Ext. 3189

RECOMMENDATION:

1. That the report entitled “070-T-22 Cast Iron Watermain Replacement in Southdale Dr Area” be received; and,
2. That the contract for Tender 070-T-22 Cast Iron Watermain Replacement in Southdale Dr/ Gladiator Rd/ Walkerton Dr be awarded to the lowest priced Bidder, Rabcon Contractors Ltd. in the amount of \$5,278,291.20, inclusive of HST; and,
3. That a 10% contingency in the amount of \$527,829.12 inclusive of HST, be established to cover any additional construction costs and that authorization to approve expenditures of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy; and,
4. That the construction award in the amount of \$5,806,120.32 (\$5,278,291.20 + \$527,829.12) be funded from the capital project 053-6150-22202-005 “CI Watermain Replacement – Construction & CA” with budget available of \$5,027,885.00; and,
5. That the shortfall of \$778,235.32 in project #22202 “CI Watermain Replacement – Construction & CA” be funded from Waterworks Reserve; and,
6. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

EXECUTIVE SUMMARY:

Not Applicable

PURPOSE:

The purpose of this report is to obtain Council approval to award the contract for the 2022 Cast Iron Watermain Replacement in the Southdale Dr/ Gladiator Rd/ Walkerton Dr Area neighbourhood.

BACKGROUND:

Watermain Replacement:

The existing cast iron watermain in Southdale Dr/ Gladiator Rd/ Walkerton Dr area neighbourhood are close to the end of their life cycle. A total of 2394 metres of existing cast iron watermain have been identified for replacement.

Construction Tender

Due to the scope of the project, contractors were prequalified to ensure that they had the necessary qualifications, experience and resources to complete the work in accordance with the City's requirements and within the specified timelines. Prequalification 249-P-21 was issued in accordance with the Purchasing By-law 2017-8.

Pre-Qualification Information (249-P-21)

Prequalification closed on	January 14, 2022
Number of Contractors picking up the Pre-qualification document	30
Number of Contractors responding to the Pre-qualification	20
Number of Contractors Pre-qualified	15

Construction Tender Information (070-T-22)

Bids closed on	April 21, 2022
Number picking up the Bid document	11
Number responding to the Bid	7

*Out of 15 prequalified contractors, 11 picked up the bid and 7 submitted. Reasons for no-bids were mainly due to resource availability and current workload.

Price Summary

Bidder	Bid Price (Incl. of HST)
Rabcon Construction Ltd.	\$ 5,278,291.20

OPTIONS/ DISCUSSION:Watermain Replacement

The replacement of cast iron watermain is consistent with the City's strategy to upgrade aged and deficient watermain to improve supply capacity and reliability. Replacement of these old cast iron watermain will also offer improved reliability (less risk of breaks) as well as improve water quality and flows for domestic and fire demand. Based on experience, cast iron watermain are susceptible to internal and external corrosion as they age which leads to poor water quality and increased watermain breaks. The new watermain replacement material will be PVC pipe, which has a service life of 90 years and is superior as it is heat resistant, chemical resistant and non-corrosive.

The Tender award includes the replacement of the existing cast iron watermain at a cost of \$5,806,120.32 inclusive of 10% contingency and HST impact.

Project Schedule:

- June 2022 - Issue of Purchase Order/ Commencement of work
- Mid December 2022 - Completion of 75% work
- January to Spring 2023 - Winter Shutdown
- Spring 2023 to Summer 2023 - Complete remaining 25% work, top asphalt, restoration etc.

FINANCIAL CONSIDERATIONS

The following table summarizes the financial considerations for the project:

Budget Available for Construction component of this Project (A)	\$ 5,027,885.00	053-6150-22202-005 "CI Watermain Replacement – Construction & CA"
Less: Construction cost (B)	\$5,278,291.20	} Awarded to Rabcon Construction Ltd. (070-T-22)
Less: Contingency (10%) (C)	\$ 527,829.12	
Total Cost (D) = (B) + (C)	\$ 5,806,120.32	
Budget Shortfall (E) = (A) – (D)	(\$ 778,235.32)	*

*The shortfall of \$778,235.32 in project #22202 "CI Watermain Replacement – Construction & CA" shall be funded from Waterworks reserve.

In comparing the price against the budget estimate of \$2,100 per metre, the price under this tender is \$2,425 per metre or 15% higher than anticipated. The reason for the budget shortfall is due to the majority of the material being imported from USA and the increase in material and fuel costs.

HUMAN RESOURCES CONSIDERATIONS

Not Applicable.

OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT

The constructed PVC watermain service life is estimated to be 90 years. The 2022 Waterworks Reserve Study will be updated to reflect the current watermain market prices. There is no incremental operating budget impact.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed cast iron watermain replacement program is aligned with City's goal to provide better quality services to the public and is consistent with the Building Markham's Future Together strategic priority on the "Growth Management" and "Environment" as it considers sustainability on the built environment.

BUSINESS UNITS CONSULTED AND AFFECTED:

Finance department has been consulted and their comments have been incorporated.

RECOMMENDED BY:

Eddy Wu
Director, Environmental Services

Morgan Jones
Commissioner, Community Services

ATTACHMENTS:

Attachment - Location Map