



Report to: General Committee

Meeting Date: February 7, 2023

SUBJECT: 261-T-22 Rehabilitation of Suspended Watermain
PREPARED BY: Prathapan Kumar, Senior Manager - Infrastructure,
Environmental Services, Ext. 2989
Tony Casale, Senior Buyer, Ext. 3190

RECOMMENDATION:

- 1) That the report entitled “261-T-22 Rehabilitation of Suspended Watermain” be received; and,
- 2) That the contract for the rehabilitation of suspended watermain be awarded to the lowest priced Bidder, Avertex Utility Solutions Inc., in the amount of \$912,082.00, inclusive of HST; and,
- 3) That a 10% contingency in the amount of \$91,208.20 inclusive of HST, be established to cover any additional construction costs and that authorization to approve expending 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 \$1,003,290.20 (912,082.00 + \$91,208.20) be funded from capital project #22206 “Suspended Watermain Insulation Replacement/ Rehabilitation” with available budget of \$638,569.56; and,
- 5) That the budget shortfall of \$364,720.64 be funded from the 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 rehabilitation of five (5) suspended watermains.

BACKGROUND:

There are thirteen (13) suspended watermain locations within the City. In 2020, eight (8) locations were inspected by an external consultant and the following five (5) locations were identified for rehabilitation due to their condition:

1. Yonge Street - south of Glen Cameron Road (bridge overpass with CN Rail)
2. Rodick Road - south of Clegg Road (bridge over Rouge River)
3. Woodbine Ave - north of Esna Park Drive (bridge overpass with CN Rail)
4. Bayview Ave - south of Doncrest Drive (bridge over East Don River)
5. John Street - west of Bayview Fairways Drive (bridge overpass with CN Rail)

Construction Tender Information (261-T-22)

Bids closed on	November 30, 2022
Number picking up the Bid document	6
Number responding to the Bid	4

Price Summary

Bidder	Bid Price (Inclusive of HST)
Avertex Utility Solutions Inc.	\$912,082.00

*Bid prices ranged from \$912,082 to \$3,847,545 inclusive of HST.

OPTIONS/ DISCUSSION:

The existing suspended watermain identified for rehabilitation carries medium to high risk of failure as well as impacts to the service area, if rehabilitation is not carried out. The following deficiencies need to be rehabilitated to prevent of freezing in winter and collapsing due to failure:

- Damaged insulation and cladding around all spring hanger
- Corroded spring hangers, bolts, straps, rods and clamps
- Rusted cleats, spring support attachment points
- Testing, preventive maintenance and replacement of the Heat tracing system
- Inspection (including ultrasonic testing) of exposed suspended pipes
- Inspection of pipe joints and apply zinc-rich paint to prevent premature corrosion

Project Schedule:

The project will start by April 2023 and be completed by October 2023, subject to getting the approvals from CN Rail for flagging services.

FINANCIAL CONSIDERATIONS:

The following table summarizes the financial considerations:

Budget Available for Construction component of this Project (A)	\$ 638,569.56	760-101-5399-22206 Suspended Watermain Insulation Replacement/Rehabilitation Awarded to Avertex Utility Solutions Inc.
Less: Construction Cost (B)	\$ 912,082.00	
Less: Construction Contingency (10%) (C)	\$ 91,208.20	
Total Cost (D) = (B) + (C)	\$1,003,290.20	
Budget Shortfall (E) = (A) – (D)	(\$ 364,720.64)	*

*The shortfall of \$364,720.64 shall be funded from Waterworks Reserve.

The shortfall can be attributed to the following:

- The budget amount was based on a third party estimate received in early 2021 and given the construction period (2023) will be 2 years after this estimate, the construction costs have increased by approximately 20 - 25% during the same period due to supply chain and labour issues;

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- The scaffolding to carry out the rehabilitation is more extensive than anticipated in the original cost estimate and has added approximately 10 – 15% cost to this project; and
 - The insulation was originally not budgeted for replacement, but is required to be replaced along with the cladding, as components are integrated. This has added an estimated 5 – 15% cost to the project.

Staff recommend awarding the contract to the lowest bidder and not deferring this project. The existing suspended watermain identified for rehabilitation carries medium to high risk of failure as well as impacts to the service area, if rehabilitation is not carried out. Additionally, deferring this project to a future year will potentially see an increase in costs due to the continued rising costs in the construction industry.

HUMAN RESOURCES CONSIDERATIONS

Not Applicable.

OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT

The rehabilitated suspended watermain is estimated to last for 20 years. The 2023 Life Cycle Reserve Study will be updated to reflect the current market prices. There is no incremental operating budget impact.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed flood remediation 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:

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

RECOMMENDED BY:

Eddy Wu
Director of Environmental Services

Mary Creighton
Acting Commissioner, Community Services

ATTACHMENTS:

Attachment A – Location Map