



Report to: General Committee

Meeting Date: March 2, 2020

SUBJECT: Award of Construction Tender 217-T-19 West Thornhill – Phase 3A Storm Sewer and Watermain Replacement
PREPARED BY: Prathapan Kumar, Senior Manager, Env. Services, Ext. 2989
Flora Chan, Senior Buyer, Ext. 3189

RECOMMENDATION:

1. That the report entitled “Award of Construction Tender 217-T-19 West Thornhill – Phase 3A Storm Sewer and Watermain Replacement” be received; and,
2. That the contract for Tender 217-T-19 West Thornhill – Phase 3A Storm Sewer and Watermain Replacement be awarded to the lowest priced Bidder, Memme Excavation Company Limited in the amount of \$14,249,313.97, inclusive of HST; and,
3. That a 10% contingency in the amount of \$1,424,931.40 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 \$15,674,245.37 (\$14,249,313.97 + \$1,424,931.40) be funded from the following capital projects:
 - (a) 058-6150-20252-005 “West Thornhill Flood Control Implementation - Phase 3A Construction”; and,
 - (b) 053-5350-20258-005 “Cast Iron Watermain Replacement – West Thornhill Phase 3A” as outlined under the financial considerations section in this report; and,
5. That the remaining funds in project #20252 “West Thornhill Flood Control Implementation - Phase 3A Construction” in the amount \$298,433.98 will not be required from the Stormwater Fee Reserve and the budget remaining in project #20258 “Cast Iron Watermain Replacement – West Thornhill Phase 3A” in the amount of \$3,623.66 will be returned to the original funding source; and,
6. That a 5-year moratorium be placed on any major servicing and utility installation along restored areas including Morgan Avenue (Yonge St. to Henderson Ave.), Henderson Avenue (Glen Cameron Rd. to 60m north of Clark Ave.) and Clark Avenue (from Henderson Ave. to Johnson St.) and Vanwood Road; and further,
7. 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 West Thornhill – Phase 3A Storm Sewer and Watermain Replacement.

BACKGROUND:

The stormwater flood control implementation strategy was approved by Council on Nov 8, 2011 for the West Thornhill area in accordance with the City's November 2010 Class EA Study. The City-wide Flood Control Program is a 30-year program with an estimated cost of \$367M - \$382M (2018 dollars). The first phase (1A, 1B & 1C) of the remediation included storm sewer capacity upgrades in the Bayview Glen neighbourhood, second phase (2A, 2B, 2C & 2D) includes the Grandview area and Phase 3 includes Clark Ave./ Henderson area. Implementation schedule is outlined in the table below:

Area	Proposed Implementation Schedule	Status
Phase 1A: Bayview Glen Area	2014 - 2015	Substantially completed as of Nov 2015; Maintenance completion Nov 2017
Phase 1B: Bayview Glen Area	2015 - 2016	Substantially completed as of Aug 2016; Maintenance completion Aug 2018
Phase 1C: Canadiana Road	2016	Substantially completed as of Dec 2016; Maintenance completion Dec 2018;
Phase 2A: Grandview Area	2016 - 2017	Substantially completed as of Dec 2016; Maintenance completion Dec 2018
Phase 2B: Grandview Area (Park & Proctor Ave)	2017 - 2018	Substantially completed as of Dec 2017; Maintenance completion Dec 2019
Phase 2C: Grandview Area	2018 - 2019	Substantially completed as of Nov 2019; Maintenance completion Nov 2021
Phase 2D: Grandview Area	2019 - 2020	Substantially completed as of Nov 2019; Maintenance completion Nov 2021
Phase 3A: Clark Ave./ Henderson Area (This Award)	2020	Construction Commencement April 2020
Phase 3B & 3C: Clark Ave./ Henderson Area	2021 - 2022	
Phase 4: Royal Orchard Area	2021 & 2023 - 2026	

To support the program, on June 24, 2014, Council approved the structure of the stormwater fee rates in order to meet the annual revenue target for the first 5-year cycle of the Program. The new stormwater fee supports the 30-year initiative, to improve storm drainage capacity and limit flooding risks in urban areas.

On April 16, 2019 Council approved a \$50 annual fee per residential property for 2020 and further increase of \$1 per year up to 2024 and an increase of 2% per \$100,000 of current value

assessment (CVA) and 2% annual increase thereafter for non-residential properties. Stormwater fees will be re-assessed in 2025.

Construction Tender for Phase 3A

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 279-P-13 was issued in accordance with the Purchasing By-law 2004-341.

Pre-Qualification Information (279-P-13)

Prequalification closed on	October 29, 2013
Number of Contractors picking up the Pre-qualification document	16
Number of Contractors responding to the Pre-qualification	12
Number of Contractors Pre-qualified	6

Construction Tender Information (217-T-19)

Bids closed on	January 30, 2020
Number picking up the Bid document	4
Number responding to the Bid	2

Note: Two (2) bidders who picked up the document did not submit a bid due to their current work load.

Price Summary

Bidder	Bid Price (Incl. of HST)
Memme Excavation Company Limited	\$ 14,249,313.97

OPTIONS/ DISCUSSION:

Watermain Replacement

The existing cast iron watermain on Morgan Ave., Dudley Ave., Lilian Ave., and Vanwood Road are close to the end of their life cycle. Combined replacement of services will minimize disruption to the local community by avoiding replacement of watermain and repair of the roadway at a later date.

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 watermain at a cost of \$5,694,938.34 inclusive of 10% contingency and HST impact.

Public Input

A Public Information Committee (PIC) meeting will be scheduled in March 2020, prior to construction, to provide an update to the area residents and businesses, as well as to address any potential issues or concerns that the public may have on the proposed construction.

Traffic Management Plan

The objective of the traffic management plan is to limit the traffic within the construction zone (only local traffic will be allowed) and divert through traffic onto adjacent roadways.

Communications Plan

Staff will provide regular updates to the affected stakeholders as well as early notification for any disruptions to driveway access or municipal services. The City's website will provide up-to-date information, as required, on the status of the project.

Construction Moratorium

In August 2019, Environmental Services staff advised all utility companies (e.g. Alectra Utilities Enbridge, Rogers and Bell Canada) that all upgrades to their infrastructure be completed prior to permanent restoration of roads in 2020.

Environmental Services staff is requesting that Council approve a 5-year moratorium on major construction work within the following roadway, which is to be enforced immediately after construction is complete. Minor and emergency repairs would be permitted. The moratorium would not affect any utility projects within the boulevard area.

- Morgan Avenue (Yonge St. to Henderson Ave.),
- Henderson Avenue (from Glen Cameron Rd. to 60 m north of Clark Ave.),
- Clark Avenue (Henderson Ave. to Johnson St.)
- Vanwood Road

Project Schedule for Phase 3A:

- March 2020 - Issue of Purchase Order
- Late April 2020 - Commencement of work
- December 18, 2020 - Completion of 70% work to base asphalt
- January to Spring 2021 - Winter Shutdown
- Spring 2021 to Summer 2021 - Complete remaining 30% work, top asphalt, restoration etc.

FINANCIAL CONSIDERATIONS

The following table summarizes the financial considerations for Phase 3A:

	Storm	Water	
Budget Available for Construction component of this Project (A)	\$10,277,741.00	\$5,698,562.00	058-6150-20252-005 053-6150-20258-005
Less: Construction Cost (B)	\$9,072,097.29	\$5,177,216.67	} Awarded to Memme Excavation Company Limited (217-T-19)
Less: Construction Contingency (10%) (C)	\$907,209.73	\$517,721.67	
Total Cost (D) = (B) + (C)	\$9,979,307.02	\$5,694,938.34	
Budget Remaining (E) = (A) – (D)	\$298,433.98	\$3,623.66	*

*The remaining funds in project #20252 “West Thornhill Flood Control Implementation - Phase 3A Construction” in the amount \$298,433.98 will not be required from the Stormwater Fee Reserve. The remaining funds in project #20258 “Cast Iron Watermain Replacement – West Thornhill Phase 3A” in the amount of \$3,623.66 will be returned to the original funding source.

OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT

The constructed stormwater pipes and associated infrastructure is estimated to last 100 years and PVC watermain service life is estimated to be 90 years. As such, there is no incremental impact to the Life Cycle Reserve Study over the next 25 years. There is no incremental operating budget impact.

HUMAN RESOURCES CONSIDERATIONS

Not Applicable.

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:

Phoebe Fu
Director, Environmental Services

Brenda Librecz
Commissioner, Community & Fire Services

ATTACHMENTS:

- Attachment A – Location Map
- Attachment B – West Thornhill Flood Control Implementation Phases