

**To:** **COUNCIL**

**Meeting Date:** **11/09/2021**

**Subject:** **South Point Subdivision - Capital Project Additional Funding Request**

**Submitted By:** **Kevin De Leebeeck, Director of Engineering**

**Prepared By:** **Adam Ripper, Project Engineer - Development**

**Report No.:** **21-297(CD)**

**File No.:** **A/00221-40**

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## **Recommendations**

THAT Report 21-297 (CD) South Point Subdivision – Capital Project Additional Funding Request be received;

AND THAT the funding plan outlined in Report 21-297(CD) to address the shortfall of funding for the construction of Faith Street, Wesley Boulevard and the Moffat Creek Crossing be approved;

AND FURTHER THAT the transfers to/from the reserve funds as outlined in Report 21-297(CD) be approved.

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## **Executive Summary**

### **Purpose**

This report has been prepared to request additional funding for the capital project associated with the construction of Faith Street and Wesley Boulevard in the South Point Subdivision, including the associated municipal infrastructure and Moffat Creek Crossing.

### **Key Findings**

- The capital budget for A/00221-40 South East Galt – Infrastructure Upsizing Wesley Blvd. was developed and approved in 2015 based on best information available at the time of budget preparation and updated with the approval of the tender award.
- A design change for the concrete foundation of the Moffat Creek crossing is required due to the poor bearing capacity of the soils at the crossing. A micro-pile

foundation solution is being recommended for implementation, which will increase construction costs beyond the approved budget.

- Due to high groundwater conditions, a deep-well dewatering system is required for the installation of the trunk sanitary sewer on Wesley Boulevard, which will increase construction costs beyond the approved budget.

## Financial Implications

- The requirements listed above result in an additional \$1.5M of funding required for the capital project.
- Staff have proposed a funding plan to address the \$1.5M shortfall that consists of a draw from Development Charges Reserve Funds.
- The full details are included in the tables in the Financial Implications section below.

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## Background

The City has identified the development of the South-East Galt Community and the City of Cambridge Recreation Centre Lands as a corporate priority.

A cost-sharing agreement between the City of Cambridge and 2599745 Ontario Inc. was executed on January 8th, 2020.

The City of Cambridge is cost-sharing the municipal servicing and road construction costs within the South Point Subdivision for both the municipal oversizing for future development within South-East Galt Development Lands and for the site preparation of the City of Cambridge's Recreation Centre Lands.

The agreement was based on the cost-sharing principles and a preliminary cost estimate which was included in the Recommendation Report for the Draft Plan of Subdivision Report 19-162(CD).

The Phase 1 Municipal Servicing and Road Construction Recommendation to Award Tender Report 20-164(CRS) was approved by Council in June 2020. Construction under the contract subsequently commenced in December 2020.

There will also be a subsequent Phase 2 Bosdale Farms Subdivision Servicing Tender which will include City cost-sharing for the remaining watermain oversizing on Wesley Boulevard.

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## Analysis

### Strategic Alignment

PROSPERITY: To support and encourage the growth of a highly competitive local economy where there is opportunity for everyone to contribute and succeed.

Goal #7 - Transportation and Infrastructure

Objective 7.2 Work with the Region and other partners to better coordinate the planning, communication and delivery of infrastructure (including roads and other transportation assets) in Cambridge.

This report aligns with objective 7.2 by facilitating the delivery of infrastructure in Cambridge which supports future growth in the South-East Galt Community. It will also provide collector road access and municipal services to the City of Cambridge Recreation Site. The project is also in line with the strategic goals related to creating significant places and promoting economic development as well as contributing to the sport and recreational aspirations of the community.

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## Comments

The capital budget for A/00221-40 was developed and approved based on best information available in 2015 at the time of budget preparation and tender award.

However, during construction it became apparent that the design and construction method for the Moffat Creek crossing and trunk sanitary sewer were not suitable for the conditions encountered on-site.

The requirement for the revised construction approaches and the associated impacts on costs were detailed in an updated cost summary report prepared by JPE Engineering. Engineering Staff agree with the findings of the JPE Engineering report and have summarized the impacts to the capital budget for A/00221-40 below.

### Moffat Creek Crossing

The crossing foundation was tendered as a standard reinforced concrete spread footing. However, the bearing capacity of the soils encountered within the Grand River Conservation Regulated Area was much less than anticipated and it became apparent that design changes to the culvert's foundation were required.

Both raft slab and micro-pile design solutions were reviewed with the Contractor, Developer, Consultant Engineer and City Staff. The micro-pile solution was ultimately chosen as the most viable alternative for the site conditions. This was due to the fact that the micro-piles minimized the excavation, dewatering and creek diversions compared to the raft slab option.

However, while being the most feasible and economic option given the site conditions, the micro-pile solution will result in increased costs of \$726,000 from the previous estimates provided at tender award.

As per the approved cost sharing principles, the Moffat Creek crossing structure foundation costs are fully funded by Development Charges (Road and Storm). As such, the increased costs are fully borne by A/00221-40 and the Developer contribution. The A/00463-40 City Recreation Centre capital project budgets are unaffected by these foundation design changes.

### **Deep Well Dewatering**

The trunk sanitary sewer is being installed at a significant depth of approximately 13m below finished road grade, which puts it within the groundwater table. This depth for the sewer was anticipated in the South-East Galt Community Servicing Study and is required to service future development lands downstream of this current subdivision.

While the servicing contract anticipated the need for dewatering, during construction it became apparent that the rate of pumping in the planned dewatering system was not sufficient and that a deep-well system would be required. The deep-well system will result in additional costs of \$791,000 for the Development Charge portion of the project, which is associated with the oversizing and additional depth needed to service future development.

While the majority of the additional dewatering costs are assigned to A/00221-40, there is an additional \$160,000 in dewatering costs that are allocated to the local servicing costs.

The \$160,000 in local servicing costs will be allocated 50/50 between the Developer and City Recreation Centre capital projects in accordance with the approved cost sharing principles. There is sufficient budget available within the approved budget for A/00463-40 City Recreation Capital Project to cover the \$80,000 allocated to that project and no increase in budget for that project is being requested at this time.

If the funding request is not approved, it is anticipated that construction would need to be paused until alternative funding could be secured. A construction delay would impact the City Recreation Centre project as the Wesley Boulevard sanitary sewer needs to be in place to service the City Recreation Centre Lands.

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### **Existing Policy/By-Law**

The City's Local Service Policy identifies the costs that developers are responsible for within their developments. The Development Charge funding of these projects is in accordance with this policy.

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## Financial Impact

### A/00221-40: South East Galt Infrastructure Upsizing Wesley Blvd

The portion of the tender award associated with this project, approved by Council through the June 23 2020 Recommendation to Award Tender Report 20-164(CRS) was \$3.8M. Increased costs as a result of the micro-pile creek crossing and dewatering require an additional \$1.5M in funding.

Additional funding will be allocated to the capital project from Development Charges Reserve Funds as outlined below:

Funding Source	Tender Award June 2020	Revised budget November 2021	Increase
DC Sanitary	\$ 627,306	\$ 1,414,525	\$ 791,283
DC Storm	\$ 1,884,140	\$ 2,284,140	\$ 362,968
DC Water	\$ 188,152	\$ 188,152	\$ 0
DC Roads	\$ 1,106,559	\$ 1,506,559	\$ 362,968
Sub-total A/00221-40	\$ 3,806,157	\$ 5,323,376	\$ 1,517,219

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## Public Input

Posted publicly as part of the report process.

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## Internal/External Consultation

Engineering Staff has been involved in the design and construction of the municipal infrastructure within the Subdivision in partnership with Polocorp Inc. (the Developer's project manager), IBI Group (the Developer's consulting engineer), and Kieswetter Excavating Inc. (the Developer's general contractor).

Engineering Staff have reviewed the proposed plan with the Project Lead for the City's Recreation Centre and with Finance to address the funding shortfall.

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## Conclusion

Site conditions necessitated changes to the design and construction methods for the Wesley Boulevard creek crossing structure and trunk sanitary sewer will result in construction costs increasing over the approved budget.

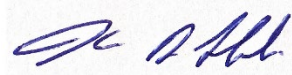
Staff have proposed an additional draw from the Development Charges Reserve Funds to address the budget shortfall.

The municipal infrastructure being constructed in the South Point Subdivision will support additional future development lands in South East Galt Community and provide roadway and service connections to the City of Cambridge Recreation Centre Lands.

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## Signature

### Division Approval



Reviewed by the CFO

Reviewed by Legal Services

**Name: Kevin De Leebeeck**

**Title: Director of Engineering**

### Departmental Approval



**Name: Hardy Bromberg**

**Title: Deputy City Manager, Community Development**

### City Manager Approval



**Name: David Calder**

**Title: City Manager**

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## Attachments

- n/a