

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering Division

To: Mayor and Members of Council

From: Brendan Falkner, P.Eng.
Manager, Engineering

Date: May 27, 2024

Subject: Contract Amendment – Contract T23-191 – Dufferin Avenue Road Rehabilitation

Recommendations

It is recommended that:

1. The contract amendment in the amount of \$1,864,500.00 (including HST) for the Dufferin Avenue Road Rehabilitation be approved for Birnam Excavating Ltd.
2. A contract amendment in the amount of \$56,500.00 (including HST) for Contract Administration and Inspection Services be approved for Dillon Consulting Limited.
3. The project be funded by a transfer of \$1,729,920.00 from the Lifeamp ROW Infrastructure Reserve to the Dufferin Avenue Road Rehabilitation project account (22ENG2023)
4. The Mayor and Clerk be authorized to sign the necessary agreements.

Background

The Municipality received funding through the Ministry of Transportation's (MTO) Connecting Links Program to proceed with the pavement reconstruction of Dufferin Avenue from McNaughton Avenue to just west of Walnut Street in the Community of Wallaceburg. This program assists municipalities with repairing designated municipal roadways and bridges that connect two ends of a provincial highway through a community or to a border crossing, and through this program, up to \$3 million are eligible for a road project. Dufferin Avenue was identified as the best candidate for improvements as part of the 2022-2023 program based on its condition.

On July 11, 2022, Council awarded contract R22-256 for the Dufferin Avenue Rehabilitation Consulting Engineering Services to Dillon Consulting in the amount of \$717,599.72 (including HST).

On May 8, 2023, Council awarded T23-191 for the Dufferin Avenue Road Rehabilitation construction to Birnam Excavating Ltd. in the amount of \$8,747,892.86 (including HST), and construction commenced in July 2023.

Comments

This project consists of the rehabilitation of Dufferin Avenue from McNaughton Avenue to the west limits of Wallaceburg (75 m west of Walnut Drive), including:

- Rehabilitation of underground infrastructure include the replacement of the existing watermain from Arnold Street to the west limits and a new storm sewer installed between Dauw Avenue and Arnold Street.
- Replacement of right-of-way infrastructure including sidewalks, curb, catch basins, maintenance holes and traffic signals.
- Rehabilitation of the pavement surface utilizing cold-in-place recycling.
- Boulevard grading and restoration.

Funding through the MTO Connecting Links Program is capped at \$3 million per project for road work and is specifically applicable to the road surface works, including pavement, curb, road drainage, sidewalks, and traffic signals. Funding for the balance of infrastructure work, including watermain and storm sewer installation, is through the Municipality and PUC's lifecycle reserve funds.

The project commenced in July 2023, and continued through the winter, with full completion of the project expected to be in June this year. The remaining scope of work underway entails final surface restoration including driveways and boulevard areas.

During the construction period, the project experienced several challenges including encountering undocumented underground infrastructure which required adjustments to the design to accommodate new underground infrastructure and increases in the quantities of materials/items beyond the amounts estimated during the tendering process which has resulted in additional costs being incurred to complete the work.

Most of the roadway work was completed by the end of December 2023, as required for eligibility for funding of that component of the project under the MTO Connecting Links Program, and the Municipality has completed its reporting requirements to secure that funding.

The project encountered the following challenges during construction, which required extra work and quantities not provided for in the contract as awarded, and which was determined to be necessary to proceed with to complete the Contract to its required scope:

- Additional work to adjust and construct the watermain and storm sewers based on conflicts with undocumented existing/abandoned underground infrastructure along Dufferin Avenue.
- Additional work was required at the intersection of Arnold Street to remove the existing abandoned CSX railway crossing, including the removal of the railway tracks, associated poles/signs, and roadway restoration.

- Additional work was required at the intersection of Arnold Street for the installation of a large diameter storm sewer due to the presence of undocumented underground infrastructure requiring realignment of the new storm sewer and larger excavations to complete this work, and additional full depth road restoration. This work also included improvements to the intersection at Dufferin Avenue and Arnold Street to make the intersection function safer for both vehicular and pedestrian traffic.
- The project encountered higher than anticipated quantities related to the road work, excavations, and restoration that exceeded the original tender quantities.

As a result of these impacts during construction, this project is projected to exceed the contract value by a total cost of \$1,864,500.00 including HST. In accordance with [Purchasing By-Law #205-2023](#) section 155, Council approval is required for a contract amendment where the amended purchase price is greater than the lesser of 10% of the original purchase price or \$250,000.

Additional fees in the amount of \$56,500.00 including HST were also required by the project consultant to complete contract administration and inspection services and complete adjustments to the design drawings and provide additional information to the Contractor to ensure completion of the construction work and respond to the conditions encountered during construction, as identified in Table 1 below.

It should be noted that as restoration work is ongoing, the project team has worked to forecast these final quantities and have included this in the projected contract amendments, including additional contingency. The amounts paid to the Contractor will be based on actual final quantities. Staff will continue to review tender items, quantities, project contingencies and potential risks such as undocumented underground/abandoned infrastructure for future contracts to mitigate the potential for overages during construction.

Council Term Priorities

This report supports the following Council Term Priorities:

			
<p>Deliver Excellent Service</p>	<p>Promote Safety & Well-Being</p>	<p>Grow Our Community</p>	<p>Ensure Environmental Sustainability</p>
		<p>2b</p>	

Consultation

The Legal and Purchasing Divisions were consulted during the preparation of this report.

Communication

Communication is proposed to be through the inclusion of this report on the Council agenda and related communications.

Diversity, Equity, Inclusion and Justice (DEIJ)

This report does not have implications related to diversity, equity, inclusion, or justice.

Financial Implications

Table 1: Recommended Costs and Funding Summary

Description	Total
A) Recommended Costs	
Recommended Construction Contract Amendment	\$1,650,000.00
Recommended Consulting Contract Amendment	\$50,000.00
Plus 13% HST	\$221,000.00
Total Cost (with HST)	\$1,921,000.00
Less 11.24% HST	(\$191,080.00)
Total Recommended Cost	\$1,729,920.00
B) Recommended Additional Funding	
Lifeamp ROW Infrastructure Reserve	\$1,729,920.00
Total Recommended Additional Funding	\$1,729,920.00
C) Total Project Costs (including HST)	
Total Consulting Engineering Services including Contract Amendment	\$774,099.72
Total Construction Tender including Contract Amendment	\$10,612,392.86
Total Project Costs	\$11,386,492.58

Approval is requested herein for the transfer of funds from the Lifeamp ROW Infrastructure Reserve to the Dufferin Avenue Road Rehabilitation project account (22ENG2023).

Prepared by:

Brendan Falkner, P.Eng., Manager, Engineering

Reviewed by:

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Edward Soldo, P.Eng., General Manager, Infrastructure and Engineering Services

Consulted and confirmed the content of the consultation section of the report by:

Jennifer Scherle, Manager, Purchasing and Accounts Payable

Dave Taylor, Director, Legal Services