

Amendment to Purchase Order Number 6048895 with Bridgecon Construction Limited, for the Rehabilitation of Islington Avenue over the Humber River Bridge

Date: March 9, 2021

To: Infrastructure and Environment Committee

From: Chief Engineer and Executive Director, Engineering and Construction Services and Chief Procurement Officer, Purchasing and Materials Management

Wards: 1 (Etobicoke North)

SUMMARY

The purpose of this report is to request authority to amend Purchase Order Number 6048895 issued to Bridgecon Construction Limited, as a result of Request for Tender Number 69-2018, for provision of construction services for the rehabilitation of the Islington Avenue over Humber River Bridge. The total Purchase Order Amendment being requested is for an additional amount of \$165,321 net of all taxes and charges (\$168,231 net of HST recoveries), revising the current Purchase Order value from \$4,089,681 (\$4,161,659 net of HST recoveries) to \$4,255,002 net of taxes and charges (\$4,329,890 net of HST recoveries).

This amendment is required as a result of a negotiated agreement with the Contractor to resolve an outstanding claim related to the installation of temporary crosswalks required as per the City's new Vision Zero Road Safety Plan regarding the protection of pedestrians in and around construction work zones and for modification of expansion joints required to resolve conflicts with existing Bell Canada infrastructure.

RECOMMENDATIONS

The Chief Engineer and Executive Director of Engineering and Construction Services and the Chief Procurement Officer, Purchasing and Materials Management recommend that:

1. The Infrastructure and Environment Committee, in accordance with Section 71-11.1.C of the City of Toronto Municipal Code Chapter 71 (Financial Control By-Law), grant authority to amend Purchase Order Number 6048895 with Bridgecon Construction Limited, for the provision of construction services for the rehabilitation of Islington

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Avenue over the Humber River Bridge, in the amount of \$165,321 net of all taxes and charges (\$168,231 net of HST recoveries) revising the current Purchase Order value from \$4,089,681 (\$4,161,659 net of HST recoveries) to \$4,255,002 net of taxes and charges (\$4,329,890 net of HST recoveries).

FINANCIAL IMPACT

Funding for the Contract Amendment is available in the 2021-2030 Approved Capital Budget and Plan for Transportation Services (City Bridge Rehabilitation Program and City Bridge Rehabilitation Critical Program) as summarized in Table 1 below (net of HST recoveries).

Table 1: Financial Impact Summary for Purchase Order No. 6048895

Year	CTP519-01-02
2021	\$168,231
Total	\$168,231

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting on August 30, 2017, by authority of the Bid Award Panel, the City retained Morrison Hershfield Limited, for the provision of professional engineering and program management services associated with Request for Proposal Number 9117-17-5040 for the design, contract administration and post construction services for the Bridge Program Management Assignment. Two Purchase Orders were subsequently issued to Morrison Hershfield Limited, under this assignment: Purchase Order Number 6045704 for engineering services in the amount of \$16,815,000 (net of all taxes) and Purchase Order Number 6045703 for program management services in the amount of \$2,231,807 (net of all taxes). A copy of the Bid Award Panel Decision Document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BA38.2>

On April 17, 2019, by authority of the Bid Award Panel, Contract Number 19ECS-TI-08BE (Tender Call Number 69-2019) for Islington Avenue over the Humber River Bridge Rehabilitation, was awarded to Bridgecon Construction Limited, in the amount of \$3,617,571 (net of all taxes and charges). A copy of the Bid Award Panel Decision Document can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.BA21.15>

Amendment to Purchase Order Number 6048895 with Bridgecon Construction Limited, for the Rehabilitation of Islington Avenue over the Humber River Bridge

On December 11, 2019, by authority of the Chief Engineer and Executive Director of Engineering Construction Services, the City amended Purchase Order Number 6048895 with Bridgecon Construction Limited, for the Islington Avenue over the Humber River Bridge Rehabilitation in the amount of \$472,110 (net of all taxes and charges), revising the original Purchase Order value from \$3,617,571 (net of all taxes and charges) to \$4,089,681 (net of all taxes and charges).

COMMENTS

The Islington Avenue over the Humber River Bridge, built in 1959, is located south of Albion Road, north of Elmhurst Drive, and carries four lanes of traffic (two northbound and two southbound) as well as sidewalks on each side. The bridge consists of two steel girder spans with a reinforced concrete deck and has a total length of 71 meters.

In August 2017, the City retained Morrison Hershfield Limited, for professional engineering services through a Request for Proposal for the Bridge Program Management Assignment. The Bridge Program Management Assignment includes retention of a Consultant to deliver twenty-five bridge rehabilitation projects, including Islington Avenue over the Humber River Bridge, from 2019 to 2021. Services provided include data collection, preliminary design, detailed design, contract administration, post construction services and program management services.

Morrison Hershfield began design work on the Islington Avenue Bridge over the Humber River Bridge in July, 2018. Rehabilitation of this structure included repair of the bridge deck, approach slabs, expansion joints, centre pier and abutments and cleaning and coating of the steel girders. The project was tendered in March 2019 and awarded to Bridgecon Construction Limited, on April 17, 2019. Construction commenced on June 3, 2019, with a planned completion date of November 2, 2019. Increases to the estimated concrete repair quantities resulted in the issuance of Purchase Order Amendment on December 11, 2019, in an amount of \$472,110 (excluding all taxes).

In order to complete the bridge deck repair, while maintaining traffic through the work zone, the project was undertaken in multiple stages. During Stage 1, two (2) southbound lanes and one (1) northbound lane were shifted to the west side of the bridge, while deck and sidewalk repairs occurred on the east side of the bridge. In Stage 2, the traffic lanes on the west side of the bridge were shifted to the east side, while deck and sidewalk repairs occurred on the west side of the bridge. Both stages necessitated the closure of one of the sidewalks.

During the tender process, due to enhanced pedestrian safety requirements associated with the introduction of the City's new Vision Zero Road Safety Plan, installation of temporary pedestrian crosswalks to the north and south of the bridge work zone were added to the requirements of the tender through an Addendum.

Following commencement of the work and installation of the temporary pedestrian crosswalks, a close review of the location of the crosswalks to ensure compliance with

the updated Vision Zero Road Safety Plan sight-line requirements was undertaken. As a result of this review, the location of the north crosswalk was altered to ensure enhanced pedestrian safety for the duration of construction. During the period of time when the temporary pedestrian crosswalk was being relocated, pedestrians were accommodated via a fenced walkway through the Stage 1 construction zone. This arrangement allowed for some of the Stage 1 work to continue, but a significant portion of the deck was not accessible to the contractor. In addition, during the sight-line review process, Toronto Hydro identified the need for enhanced illumination and alterations to the power supply at both pedestrian crosswalk locations. Repeated iterations of drawing submissions to Toronto Hydro, as well as a delay to the power supply hook-up, resulted in the temporary pedestrian crossings being made operational on September 27, 2019. This delayed the completion of Stage 1 work as the Contractor was not able to access the full width of the deck until the pedestrians could utilize the temporary pedestrian crossings.

Furthermore, during the design phase of the project, Bell Canada ducts were found to be embedded in the east sidewalk of the bridge. Based on the available drawings, these ducts were not anticipated to interfere with the expansion joint assemblies which accommodate bridge movements at each end of the structure. In August 2019, the City was informed by the Consultant that the Bell ducts were interfering with the expansion joint assemblies, requiring significant changes to the expansion joint design. The additional cost for the prefabrication of the expansion joints was drawn from the project contingency. On November 29, 2019, the project went into a modified winter shutdown to avoid temperature sensitive work on the bridge deck occurring over the cold weather months. During this time, work continued on the substructure to ensure that all in-water works were completed in accordance with the Toronto Region Conservation Authority Cold-water Fisheries window. Work resumed on the bridge deck on March 30, 2020, however poor weather in April and May 2020 contributed to a delay in the project completion date.

In January 2020, Bridgecon submitted a Request for Extension of Time associated with the above noted issues. Morrison Hershfield, as part of their contract administration duties, reviewed in detail the impact of these overlapping issues on the critical path schedule and recommended that an Extension of Time for a total of 296 calendar days (approximately ten and a half months) be granted, extending the completion date from November 2, 2019, to September 16, 2020.

Following the approval of the Extension of Time, Bridgecon submitted a claim for additional costs incurred due to the extended duration of the Contract. The costs are broken down into three (3) categories: contract items, direct costs and indirect costs.

After extensive negotiations with the contractor, the cost for the delay claim associated with the extension of time was finalized at \$318,357 (excluding all taxes), and is considered to be fair and reasonable.

Contract item costs relate to tender items that involve rental, maintenance and regular inspection. These costs of \$143,919 (excluding taxes) were based on a breakdown of hours for labour, maintenance, inspection and rental costs provided by Bridgecon.

Direct costs are related to additional costs for supervisory staff and overhead. These costs are directly tied to personnel utilization over the additional ten (10) months of ongoing work. Bridgecon was requested to provide a complete audit of their expenditures. The Audit was performed by Baker Tilly Vaughn Limited, Liability Partnership and a letter was submitted with Bridgecon invoicing and cost forms, on November 23, 2020. The total cost associated with this category is \$109,453 (excluding taxes).

Indirect costs include labour rate cost escalations, as well as additional labour costs incurred due to retention of the labour force during non-revenue earning periods. The total cost associated with this category is \$64,985 (excluding taxes).

It is proposed that funding for the claim resolution will be provided through a draw of \$153,036 (excluding taxes) from the contract contingency allowance and the balance of \$165,321 (\$168,231 net of HST recoveries) requires an amendment to Purchase Order Number 6048895 with Bridgecon Construction Limited. This will result in an increase in the current Purchase Order value from \$4,089,681 net of all taxes and charges (\$4,161,660 net of HST recoveries) to \$4,255,002 net of all taxes and charges (\$4,329,890 net of HST recoveries).

CONTACT

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SIGNATURE

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