



PUBLIC WORKS AND ENGINEERING

Staff Report

REPORT NO: PWE 2022-27

TO: Council

SUBMITTED BY: Jeff Molenhuis, P. Eng., Director of Public Works & Engineering

PREPARED BY: Mark Jeffery, C.E.T. Senior Engineering Technologist

REVIEWED BY: Sharon Chambers, CAO
 Patrick Kelly CPA, CMA Director of Corporate Services/ Treasurer

DATE: June 27, 2022

SUBJECT: Bridge Street Bridge 34B/T-9 Replacement – Award of Contract

RECOMMENDATION:

THAT Council award RFT 2022-06, Bridge Street Bridge 34B/T-9 Replacement to Sierra Bridge Inc. of Woodstock, Ontario as per their tender submission on June 7, 2022, in the amount of \$4,782,267.90, plus HST, and further,

THAT Council provide authorization to K. Smart & Associates to proceed with the Contract Administration & Project Management for the bridge replacement project with an additional fee of \$100,400 for construction activities, plus HST, and further,

THAT Council authorize the expenditure of up to \$93,000, plus HST, for Geotechnical Investigations and Environmental Works as required during the bridge replacement project, and further,

THAT Council authorize the Mayor and Clerk to enter into an agreement with the owner of 1210918 ONTARIO INC. for access to lands for construction management and temporary structure storage; and further

THAT Council direct staff to proceed with demolition of the structure after December 31, 2022 in the event suitable funding and donations cannot be found to relocate a portion of the bridge structure.

SUMMARY:

This report outlines the tender processes, project expenditures to date, funding sources and recommends award of contract to the successful bidder for the replacement of the Bridge Street Structure 34B/T-9.

BACKGROUND:

The Bridge Street Bridge – Structure No. 34/B-T9 is an older structure in the Township's Bridge Inventory. In recent years, it has been subject to extended closures from vehicle strikes and flood damage. A long-term solution for this structure was identified in past Ontario Structure Inspections (OSIM), where the Township's position has been to defer major capital costs until such time as higher levels of government would provide funding support.

As part of the Investing in Canada Infrastructure Program (ICIP), funding from the Provincial and Federal governments was confirmed in Q2 2020 for the EA, design, contract administration and construction to support the project, estimated at approximately \$3,537,500. Funding allows for an extended project window, with the project to be completed by October 2026.

At the January 17th, 2022, Council Meeting, PWE Report 2022-02 Bridge Street Structure No. 34/B-T9 Schedule "B" Class Environmental Assessment and Preliminary Design – Project File Report was submitted to Council summarizing the Environmental Assessment (EA) process to review and evaluate alternatives for Bridge 34B/T-9, with Council endorsing the report and preferred alternative. At that time, Council authorized K. Smart to proceed with detailed design and tendering based on provisional scope of services and costs provided within the original RFP for Environmental Assessment and preliminary design services. It was noted at that time that further refinement of engineering scope and cost of construction services would be required based on the final design and construction procedures required.

The Class EA Notice of Study Completion was placed on the public record for the 45-day waiting period after the above resolution was passed. No objections to the project were registered during the 45-day period. As such, the project proceeded with detailed design and was tendered in May of this year.

On March 28, 2022, PFRS 2022-13 Mike Schout Wetland Project Update contained the following resolutions:

THAT Staff be directed to explore the opportunity to relocate the side rails of the Bridge Street Bridge to the Mike Schout Wetlands; and further

THAT Staff be directed to work with Mr. Schout and Schout Corporation to seek sponsorship and/or donations to cover the cost of relocating and installing the Bridge Street Bridge side rails within the Wetlands; and

THAT staff be directed to report back to Council should sufficient funds be raised to include components of the Bridge Street Bridge in the Wetlands project design.

Considering the potential to relocate the bridge and outstanding questions with respect to funding, staff proceeded with a two-phased approach to the construction phase of the project. With further details being required before staff could formally consider moving the structure and knowing that specialized contractors would be required for these works, staff proceeded with separating parts of the work, and let the contract for removal and nearby storage of the existing bridge, and reconstruction of the new bridge as the first phase of the project. Staff worked with the adjacent landowner on an agreement that is attached to this report for Council authorization so that sufficient space was available for removal activities of the bridge, as well as a temporary location for storage while further plans for relocation bridge are explored.

Subject to Council approval, Phase 2 of the works will be the detailed scope and costs to relocate the bridge. Staff have been working with experienced contractors in the bridge structure relocation and rehabilitation business, and preliminary quotations were received that put the works in the \$500,000 to \$600,000 range as previously noted to Council. As such, staff are seeking direction from Council to consider a six-month period to raise funds to relocate the existing bridge structure. If a suitable site location has not been found or the necessary funds raised within this timing window, the bridge structure will be demolished, and staff will proceed with the creation of a plaque to be mounted at a suitable location, commemorating the existing bridge. The option to create a plaque was identified within the CHER/HIA document as a recommendation with respect to heritage of the original bridge.

REPORT:

On May 13, 2022, the tender document was made available online through the Township's e-bidding site. There was a total of thirty-four (34) plan takers, with a total of seven (7) bids received at time of close on June 7, 2022.

The lowest bid received was from Sierra Bridge Inc. of Woodstock, ON at a cost of \$4,782,267.90, plus HST. The low bidder has provided the appropriate bid bond documentation. References have been checked K. Smart & Associates and appear to be satisfactory. Results of the bids received are summarized below:

Bidder	Location	Bid Amount
Sierra Bridge Inc.	Woodstock, ON	\$ 4,782,267.90
Premier Concrete Inc.	Londesborough, ON	\$ 5,111,567.59
Looby Builders (Dublin) Limited	Stratford, ON	\$ 5,227,131.62
McLean Taylor Construction Limited	St. Marys, ON	\$ 5,260,427.45
Toronto Zenith Contracting Limited	Concord, ON	\$ 6,934,705.97
HugoMB Contracting Inc.	Milton, ON	\$ 7,196,035.90
Facca Incorporated	Ruscom Station, ON	\$ 7,240,734.70
AVERAGE BID		\$ 5,964,695.88

The above figures do not include HST. The bids include a \$150,000 contingency allowance to account for any unforeseen expenses encountered during construction.

The tendered costs are substantially higher than the project estimate as a result of significant cost increases for all of the building material components required for the new bridge structure, such as, structural steel and reinforcing bar, asphalt cement, dimensional lumber and plywood, concrete and fuel prices. The industry has also seen an overall increase in labour costs due to a shortage of labour within this sector.

Staff are recommending this scope of work to continue as the industry projects continued cost increases, with higher prices for construction works in general. This was verified through various other bridge contract results in other areas, which confirmed reconstruction prices continue to climb due generally to the items noted above. Additionally, this structure is located on a collector road function in the Township that provides a reliable road network to vehicles and equipment in the southwest quadrant of the Township. It is a key point for east-west movement, as noted within the ICIP funding arrangements with the Provincial and Federal government. As it is not expected in the near term that downward market adjustments will take place, and this structure is located on a key transportation link in the Township, staff are recommending moving forward with the reconstruction project.

With respect to engineering fees, the construction schedule previously bid for consulting services considered a 15-week schedule to set an even baseline for consultants to bid against. The detailed construction schedule will likely be in the range of 40 weeks; as such, there are additional engineering fees required to oversee construction; with bridge engineering in the range of \$100,400 for contract administration and project management, and \$93,000 for geotechnical field work and environmental work required during construction.

The construction schedule for this work is anticipated to be completed between July 2022 and November 2023 subject to the contractor's schedule. Due to in-water work restrictions, the bulk of the project work will not begin until after July 15th.

ALIGNMENT WITH THE TOWNSHIP OF WILMOT STRATEGIC PLAN:

This initiative supports the goals and strategies of enhancing:

- Quality of Life through Active Transportation and Transit investments; and
- Responsible Governance through Active Communications, Fiscal Responsibility and Infrastructure Investments.

ACTIONS TOWARDS UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS:

- Goal 9: Industry, Innovation, and Infrastructure
- Goal 11: Sustainable Cities and Communities

FINANCIAL CONSIDERATIONS:

The approved funding sources, project expenditures to date, and future expenditures are identified below.

Project Expenditures

Project Phase	Received to Date	Future Expenditures	Total
Environmental Assessment, Design, Tendering, Contract Administration, Project Management	\$ 117,520.16	\$ 177,992.49	\$ 295,512.65
Miscellaneous Project Costs, (Archaeological, Environmental, Geotechnical, CHER/HIA Studies)	\$ 70,939.92	\$ 93,000.00	\$ 163,939.92
Bridge 34B/T-9 Replacement	\$ 0	\$ 4,782,267.90	\$ 4,782,267.90
Anticipated Project Costs			\$ 5,241,720.47

The following funding sources were identified in the 2020 Capital Budget process for the environmental assessment, preliminary and detailed design, contract administration and construction of Bridge 34B/T-9.

Funding Source	Total
Investing in Canadian Infrastructure Program	\$ 2,947,799
Development Charges – Public Works	\$ 589,701
Total Funding	\$ 3,537,500

The award of tender for the replacement of the bridge structure coupled with additional consulting fees and miscellaneous expenses anticipated during construction will exceed previously approved budgets as identified above, resulting in a funding shortfall of \$1,704,422.47, plus HST.

The Township is currently undertaking a Debt Management and Reserve Fund strategy with a third-party consultant. The additional funding required to complete the Bridge Street Bridge replacement will be incorporated with the proposed fall debenture issuance through the Region of Waterloo. Corporate Services staff will be reporting back to Council regarding debt management strategies, seeking approvals for a fall debenture issuance.

ATTACHMENTS:

- Attachment 1 – K. Smart Letter of Recommendation of Award
- Attachment 2 – Agreement 1210918 ONTARIO INC.

