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The Regional Municipality of Durham Report

To: Regional Council
From: Commissioner of Works and Commissioner of Finance
Report: #2024-COW-19
Date: May 29, 2024

Subject:

Beaver River Bridge Replacement on Behalf of the Ministry of Transportation, Regional Road 15, Township of Brock

Recommendation:

That Regional Council:

- A) Advise the Ministry of Transportation that the Regional Municipality of Durham strongly disagrees with their decision to transfer ownership of the closed Beaver River Bridge, located on Regional Road 15 over Beaver River immediately west of Highway 12, in the Township of Brock, to the Regional Municipality of Durham, prior to the design and construction of the replacement bridge by the Ministry;
- B) Authorize Regional staff to design, tender and construct a temporary and permanent bridge replacement on behalf of the Ministry of Transportation, with all project costs including design, tendering, construction, temporary bridge rental, staff time, consultant costs and associated expenditures reimbursed by the Ministry;
- C) Authorize Regional staff to negotiate and award a sole source agreement with Algonquin Bridge, a member of the Atlantic Industries Limited group of companies, for the supply and rental of a temporary bridge until a new permanent bridge can be opened to traffic, expected to be for a period of approximately 2.5 years, at an estimated cost of \$950,000*;
- D) Declare the bridge closure an emergency and authorize the award of the existing bridge demolition, temporary bridge assembly/installation and approach roadwork

project through the RFP 347 2024 Contracting Services Registry on a Time and Materials basis to Elirpa Construction and Materials Limited with sub-contracting services from Nick Carchidi Excavating Limited;

- E) Authorize the Commissioner of Works to execute all documents with the Ministry of Transportation, including management of liabilities, associated with the transfer of the bridge and road right-of-way for the works described above;
 - F) Authorize the Commissioner of Finance to execute the necessary documents related to the sole source agreement with Algonquin Bridge; and
 - G) Provide a copy of this report to Laurie Scott, MPP-Haliburton-Kawartha Lakes-Brock, and Prabmeet Sarkaria, Minister of Transportation, the Ministry of Transportation, and the Township of Brock.
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Report:

1. Purpose

- 1.1 The Beaver River Bridge is a three-span post-tensioned concrete continuous solid slab bridge located in the Township of Brock. The structure carries Regional Road 15 over the Beaver River, approximately 100 metres west of Highway 12 near Beaverton (Attachment #1). On November 16, 2023, the Ministry of Transportation (MTO) closed the bridge. On April 4, 2024, [Report #2024-W-14](#) was presented to Works Committee and was referred back to staff for additional information with respect to obtaining a guarantee from the MTO that they will fund all related costs before the Regional Municipality of Durham (Region) undertakes any work. The purpose of this report is to provide information on what has transpired since that time and seek approval for Region staff to proceed with the construction of a temporary and permanent bridge on behalf of the MTO.
- 1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

2. Background

- 2.1 [Report #2024-W-14](#) provides background information on the Beaver River Bridge, including the ownership, inspections, maintenance, replacement design status, closure and impacts, discussions with the MTO, and an explanation of the temporary bridge concept.
- 2.2 In a letter provided on March 26, 2024, the MTO advised that the Region is in the best position to replace the bridge in a timely manner by continuing design work

under the current engineering consultant assignment. In addition, they planned to begin the process of transferring ownership of the bridge and additional Regional Road 15 right-of-way (Attachment #1) to the Region and seek approvals to provide funding to the Region for the completion of the design and construction of the new bridge.

- 2.3 Regional staff disagree with the position the MTO took in their letter dated March 26, 2024, and recommend that Regional Council advise MTO accordingly. However, to avoid further delay staff reluctantly accept the responsibility and seek authorization to proceed with the design and construction of a temporary and permanent bridge on behalf of the MTO.
- 2.4 On April 8, 2024, the Township of Brock sent a letter (Attachment #2) to the Region requesting the assistance of Region staff to replace the bridge. They noted the critical importance of the bridge for the community, including the impacts of the closure on response times for Brock Township Fire.

3. Cost Estimate and MTO Funding Approval

- 3.1 Since the last Works Committee report, at the request of the MTO, Region staff estimated the cost for the temporary and permanent replacement bridge projects. This cost included design, tendering, construction, temporary bridge rental, staff time, consultant costs and associated expenditures. This includes historical costs since the commencement of the Request for Proposal and Consulting Agreement for the design of the permanent replacement bridge. It also made an allowance for a bridge rental of up to 3 years. The estimate was \$2.76M for the temporary bridge and \$13.84M for the permanent bridge, totalling \$16.6M. It was identified to the MTO that actual costs were expected to be reimbursed.
- 3.2 The MTO prepared a report that went before the provincial Treasury Board on May 7, 2024. The report used the estimate provided by the Region, and input from various sources including the Township of Brock Fire Department, Brock Board of Trade, and local business owners, to support the justification for the temporary bridge. On May 17, 2024, the Region received a letter (Attachment #3) from the MTO advising of the approval of up to the \$16.6M requested.
- 3.3 Given that the estimate was prepared prior to the design being completed, and with construction pricing subject to change prior to tender of the permanent bridge, there is some resulting risk. However, prior to the tender of the permanent bridge, the costs will be reassessed and discussed with MTO if there is a potential for exceeding the approved funding.

4. Temporary Bridge Procurement

- 4.1 A temporary bridge concept has been reviewed for the site, which would consist of a pre-engineered modular bridge system. These portable, prefabricated, truss bridges are commonly used for permanent or temporary applications such as staging during bridge replacements or emergency rental bridges.
- 4.2 Regional staff have contacted local prefabricated modular bridge suppliers to confirm the feasibility of a temporary bridge installation at the Beaver River Bridge site. There are two local suppliers of modular temporary bridges. However only one supplier (Algonquin Bridge, part of the Atlantic Industries Limited group of companies) designs, fabricates, and supplies both temporary bridge and foundation components. Furthermore, Regional staff were initially unable to reach the Emergency Contacts at the second supplier, after multiple attempts. Due to the urgency of procuring the temporary bridge, the design services for the prefabricated bridge and abutments is in the process of being procured through Algonquin Bridge (Algonquin) for \$57,525*, considering this company to be a sole provider of the combined services.
- 4.3 Atlantic Industries Limited is one of the prominent Canadian manufacturers of corrugated structural plate bridges, tunnels, corrugated steel pipes, MSE walls, prefabricated bridges and noise barriers. They have delivered these products across Canada for the past 50 years, including within the Region. Working closely with the supplier is also anticipated to provide the option to design the modular bridge to be coordinated with the staged construction of the new permanent Beaver River Bridge, to maintain traffic during construction. The bridge components are readily available from Algonquin in London.
- 4.4 Regional Council is requested to authorize staff to negotiate and award a sole source agreement with Algonquin for the supply and rental of a temporary bridge until a new permanent bridge can be opened to traffic, expected to be for a period of approximately 2.5 years, at an estimated cost of \$950,000*.

5. Temporary Bridge Construction

- 5.1 The goal would be to design the temporary bridge and stage the new bridge to keep a crossing open to traffic during construction. However, there is a possibility that this may not be technically and economically feasible.

- 5.2 To construct the temporary bridge, the existing bridge will be entirely removed, and temporary foundations will be built. In addition, roadworks to tie into the temporary bridge will be needed.
- 5.3 Using the RFP 347 2024 Contracting Services Registry on a Time and Materials basis for this work would minimize the requirement for detailed contract drawings and documents, leverage the input from the contractors, and eliminate the need for a tender period, thereby allowing the work to be completed sooner and more efficiently. Therefore, Region staff recommend that Regional Council declare the bridge closure an emergency and authorize the award of the existing bridge demolition, temporary bridge assembly/installation and approach roadwork project through the RFP 347 2024 Registry on a Time and Materials basis to Elirpa Construction and Materials Limited (ECL) with sub-contracting services from Nick Carchidi Excavating Limited (NCE). ECL and NCE's combined past experience on bridge construction, combined resources, competitively bid equipment and labour rates on the recently awarded RFP 347 2024 Contracting Services Registry, provides the best option for success with respect to the proposed aggressive schedule, while maintaining high quality standards at fair market value.

6. Timing and Next Steps

- 6.1 It is anticipated that the construction of the temporary bridge will commence this summer and be completed by early Fall. The permanent bridge is planned for tender in the Fall of 2025, with construction commencing in the Spring of 2026 and being completed by Summer 2027.
- 6.2 Algonquin could begin the design of the temporary bridge immediately. Regional staff would complete the roadworks design and all other temporary bridge tasks, including coordination and approvals with the MTO, Lake Simcoe Region Conservation Authority, and Transport Canada.
- 6.3 An agreement with Algonquin for the supply and rental would be negotiated and the selected Q347 contractor would be retained to begin planning resources and providing input into the bridge removal and construction methodology and approvals.
- 6.4 Under the current consulting assignment with WSP, design work for the permanent bridge replacement would advance simultaneous with the temporary bridge design.

6.5 Regional staff will work with the MTO to develop the Transfer Payment Agreement, Legal Agreement, and Encroachment Permit needed to carry out the work as identified by the MTO.

7. Relationship to Strategic Plan

7.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Goal 2: Community Vitality

- 2.2 Enhance community safety and well-being.

b. Goal 3: Economic Prosperity

- 3.3 Enhance communication and transportation networks to better connect people and move goods more effectively.

c. Goal 5: Service Excellence

- 5.1 Optimize resources and partnerships to deliver exceptional quality services and value.

8. Conclusion

8.1 It is recommended that the Ministry of Transportation be advised that the Regional Municipality of Durham strongly disagrees with their decision to transfer the closed Beaver River Bridge, located on Regional Road 15 over Beaver River immediately west of Highway 12, prior to the design and construction of the replacement bridge. However, to avoid further delays it is recommended that the Regional Municipality of Durham proceed with the design and construction of a temporary and permanent bridge replacement on behalf of the Ministry of Transportation, utilizing sole sourcing, and declaring an emergency for the temporary bridge supply and construction.

8.2 This report has been reviewed by Legal Services – Office of the CAO.

8.3 For additional information, contact: Paul Gee, Manager, Transportation Infrastructure, at 905-668-7711, extension 3441, or Megan Duhig, Project Manager, Transportation Infrastructure, at 905-668-7711, extension 3276.

9. Attachments

Attachment #1: Location Map – Showing the Beaver River Bridge Location and the Right-of-Way to be Transferred from the MTO to Durham Region

Attachment #2: Letter to John Henry, Regional Chair and CEO, Durham Region, from Walter Schummer, Mayor of the Township of Brock, regarding the Beaver River Bridge Closure and Replacement, dated April 8, 2024

Attachment #3: Letter to Ramesh Jagannathan, Commissioner of Works, Durham Region, from Becca Lane, Director, Central Operations, MTO, providing Notice of the Beaver River Bridge Replacement Funding Approval, dated May 17, 2024

Respectfully submitted,

Original signed by:

Ramesh Jagannathan, MBA., M.Eng., P.Eng., PTOE
Commissioner of Works

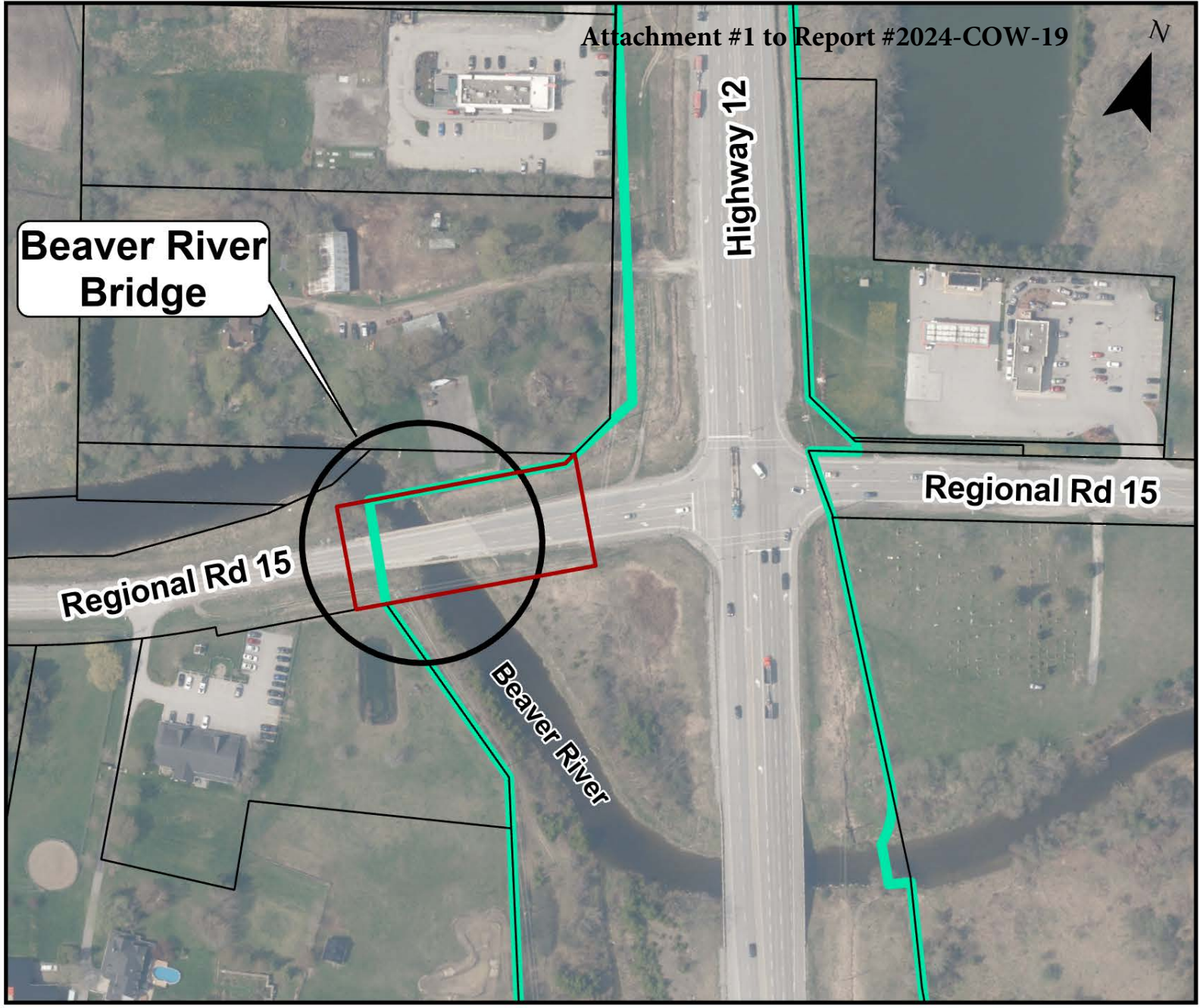
Original signed by:

Nancy Taylor, CPA, CA
Commissioner of Finance/Treasurer

Recommended for Presentation to Council

Original signed by Nancy Taylor
for

Elaine C. Baxter-Trahair
Chief Administrative Officer

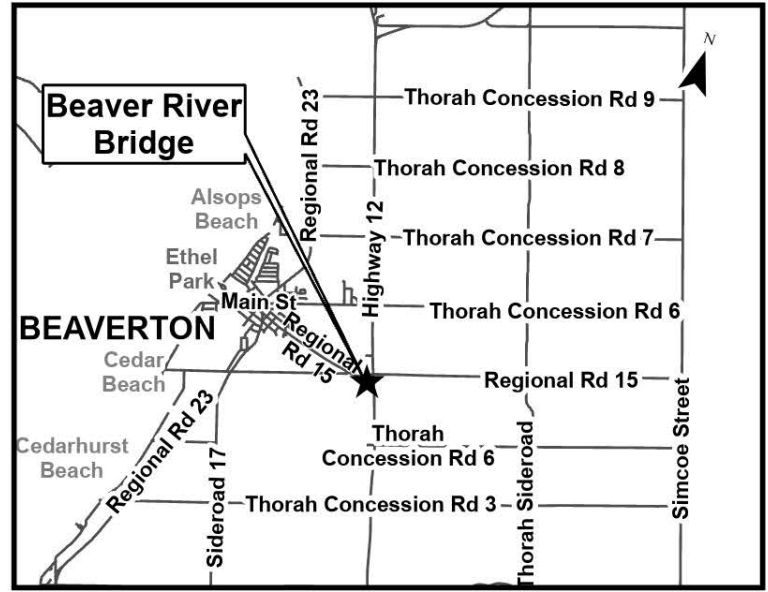


Location Map Beaver River Bridge Township of Brock

- Right-of-Way to be Transferred from the Ministry of Transportation to the Region of Durham
- Ministry of Transportation Controlled Access Highway
- Ownership Parcel



GIS Data: Produced by Durham Region, 2024.
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Date: 2024-05-16



Office of The Mayor

The Corporation of
The Township of Brock
1 Cameron St. E., P.O. Box 10
Cannington, ON L0E 1E0
(705) 432-2355

April 8, 2024

John Henry, Regional Chair and CEO
Regional Municipality of Durham

Dear Chair Henry:

RE: Beaver River Bridge Closure & Replacement, Regional Road 15, Township of Brock

I am reaching out on behalf of the Township of Brock with a request for the assistance of the Region of Durham's Public Works Department in the crucial task of rebuilding the Regional Road 15 Bridge. This project is vital for our community and requires a collaborative approach to ensure its success.

The Region has prudently conducted fiscal responsibility for this capital asset, which they were under the impression of having ownership. Whereas, MTO has only recently, as of August 22, 2023, come forth with the right of ownership to this bridge, yet having no allocated funding for the bridge replacement or maintenance since construction. Once completed The Region will "reacquire" this asset and save significant infrastructure funds by not having to rehabilitate this bridge on its own.

Before any work commences, it is imperative to have confirmation from the Ministry of Transportation (MTO) that 100% funding, encompassing design, project management, and construction costs for both the temporary and permanent bridges, will be provided. We understand the complexity and time frames involved, acknowledging that the installation of the temporary bridge may take some time on its own, while the construction of the permanent structure could extend into years. Regional Councillor Jubb and I have already started discussions with Treasury Board officials and welcome your additional support in those conversations.

We recognize that this extensive project, due to its scale and duration, may at times appear to be in a dormant state. However, we appreciate the long-term benefits it will bring to our community and the region. We commit to maintaining a positive and supportive stance towards regional staff and elected representatives throughout this period, irrespective of any political changes so long as there is positive and productive action on this critical project.

If this information is required in an accessible format,
please contact the Township at 705-432-2355.

The Township of Brock through the Fire Chief has raised concerns with the Honorable Minister Sarkaria as well as staff with The Treasury Board, that response times for Brock Township Fire to the area surrounding the bridge have increased significantly and given that the intersection of Highway 12 and Regional Road 15 sees an increase in the flow of traffic with summer cottage country travelers, the concern in responding to emergency calls at this intersection is even more significant. The alternate emergency access from the Beaverton Fire station to this busy intersection is along Main Street which is a narrow road with very little shoulder space for vehicles to pull over for emergency vehicles.

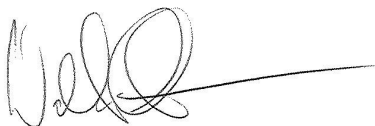
Additionally, I would like to highlight that the Brock Council has unanimously endorsed this letter and our request for The Region to add its voice to ours with respect to advocacy on this project. This unified stance underscores the importance of this project to our township and the collective commitment of our elected officials to its success.

This initiative is a significant undertaking, and we are grateful for the opportunity to collaborate on such a critical infrastructure project. Your support and the expertise of the Regional Public Works Department will be invaluable to its successful realization. As the Mayor of Brock Township, the safety of our residents as well as those individuals travelling through our municipality are of utter importance.

We look forward to your response and hope to engage in further discussions to outline the next steps towards this collaborative effort.

Yours truly,

The Township of Brock

A handwritten signature in black ink, appearing to read 'Walter Schummer', with a long horizontal line extending to the right.

Walter Schummer
Mayor

Cc: Dave Barton, Mayor, Township of Uxbridge & Chair, Durham Region Works Committee
Elaine C. Baxter-Trahair, CAO, Durham Region

Ministry of Transportation

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May 17, 2024

Ramesh Jagannathan, Commissioner of Works
Regional Municipality of Durham
605 Rossland Road East
Whitby, Ontario, L1N 6A3

Dear Ramesh,

Further to the March 26, 2024, letter from the Ministry's Chief Engineer, I am pleased to confirm with the Regional Municipality of Durham that the ministry can provide funding of up to \$16.6M for the Beaver River Bridge replacement project.

The project will include the implementation of a temporary bridge, if feasible, as well as the design and construction of a permanent structure. The ministry is working on an Order in Council to transfer jurisdiction of the section of Regional Road 15, which includes the bridge asset, formally to the Region.

We propose a meeting at your earliest convenience to initiate discussions in developing the Transfer Payment Agreement, the Legal Agreement, and the Encroachment Permit needed for carrying out this work. Please inform us of your availability to discuss these next steps.

The Ministry of Transportation looks forward to working with the Region to resolve this matter successfully and in a timely manner.

Sincerely,

A handwritten signature in blue ink that reads "Becca Lane". The signature is written in a cursive, flowing style.

Becca Lane, P.Eng.
Director, Central Operations