Date: Wednesday, March 12, 2025

From: Kevin Verkindt, Manager, Engineering and Infrastructure

Subject: Municipal Class Environmental Assessment Structure D-007 Progress Report

Report#: DEV2025-17

This document and its attachments are public and available in an accessible format upon request.

Recommendation

THAT Council receive Staff Report DEV2025-018, Municipal Class Environmental Assessment (MCEA) Structure D-007 Progress Report and consider the following recommendation;

THAT Council adopt Alternative 4 of permanently closing and removing Structure D-007.

AND THAT Council direct Staff to proceed with an amended engineering scope of work with Pearson Engineering to proceed with the permanent closure and removal of Structure D-007;

AND THAT $271,300 be funded from the Bridges Reserve to support the construction for the permanent closure and removal as needed.

Background

Due to the poor condition Structure D-0007 was closed in 2019 based on recommendations provided in historical OSIM reports. The concrete structure is exhibiting signs of significant deterioration, especially below the deck top surface. The concrete substructures are in extremely poor condition due to heavy deterioration, section loss and wide cracking. Vertical cracks have been noted at wingwall-to-abutment connections which are exhibiting signs of lateral rotation. Wide horizontal cracking was noted between the abutment wall to footing connection, and the footings are exhibiting significant undermining issues.

During the Special Council meeting on December 4, 2023, Council members highlighted the importance of Structure D-007 and Council took proactive steps to ensure it

receives the necessary funding and attention. Council approved Structure D-007 in the 2024 Budget Request for further consideration.

Staff proceeded with a Request for Proposal (RFP) for a thorough assessment of background studies and potential future alternative options of the bridge and retained the engineering services of Pearson Engineering (the Consultant).

The scope of work in the RFP included evaluating alternative solutions, preparing a concept design and cost estimates for the recommended solution and analyzing the level of complexity of the project.

Analysis

Pearson Engineering has identified four preliminary alternatives (Attachment 1).

Do Nothing

The bridge is currently closed and barricaded to prevent access. The bridge will further deteriorate and will eventually result in the Township removing.

Replace the Bridge with Single-Lane Bridge or Replace with Twin Corrugated Steel Pipe (CSP) Arch Culvert

This option has a much higher cost than closure, but it would eliminate load postings, improve road safety and avoid the need for a long-term detour.

The bridge was closed in 2019, To date, the Township has received no petitions or correspondence from the public to reopen. Sideroad 3 is estimated to be classified as a low volume local road and is well below the 400 Average Annual Daily Traffic (AADT) threshold for low volume identified by the MTO Structural Manual.

Permanently Close and Remove the Existing Bridge

As the bridge has been closed for several years and the roadway is only accessed by one adjacent property owner this option would have minimum impact. Eventually, the bridge would need to be removed and areas for turn-around would be put in-place.

The MCEA Study considered the options outlined in the table below the table also provides a summary of the alternatives and cost:

Alternative	Structure D-007 Alternative	Estimated Cost	Summary

1	Do Nothing	$0	Do nothing will eventually result in the need for the removal of the bridge.
2	Replace with Precast Concrete Box Culvert	$1,032,800.00	High cost but allows for a long service life and increased load capacity.
3	Replace with Twin CSP Arch Culvert	$897,400.00	High cost and will allow for an average service life ~25-50 years. Twin CSP pipes will be required to meet the hydrology and hydraulics of Keady Creek.
4	Permanent Closure and Removal	$271,300.00	Less expensive option. As the structure is closed this option could be implemented in a relatively short timeframe with an approved budget for removal.

MCEA Level of Complexity

Level of complexity or sensitivity can relate to the nature of the problem or opportunity being addressed, the level of investigation required to assess alternatives and environmental effects, and public, Indigenous Community, and agency issues and concerns. The level of complexity may affect the selection of the project schedule, and the scope of each phase in the MCEA process as well as the need to revisit steps in the process. The level of complexity will therefore affect the manner in which a project proceeds through the process.

The complexity of a project is based on many components, including environmental effects, public and agency input and technical considerations, and how these interrelate on a specific project.

Historically, the MCEA would allow proponents to elevate any project to a higher schedule if they wanted to follow a more comprehensive planning process for a project with less or no requirements (e.g., Schedule A). However, as Schedule A and A+ projects are now exempt from the *Environmental Assessment Act* (EAA), they can no longer be elevated to a Schedule B or C process.

While the MCEA document defines the minimum requirements, the proponent is responsible for "customizing" it to reflect the specific complexities and needs of a project.[1]

To date, Pearson Engineering has completed the following background studies:

- Cultural Heritage Evaluation Report prepared by TMHC Inc.
- Archeological Assessment Stage 1 Report prepared by TMHC Inc.
- Natural Environment Study (NES) prepared by Cambium Inc.
- Hydrology and Hydraulics Evaluation Report prepared by Pearson Engineering

Pearson Engineering has thoroughly reviewed the necessary background reports as part of the MCEA process and has concluded that Structure D-007 holds no significant cultural heritage, archeological and natural environmental value within the study limits.

These findings have allowed Pearson Engineering to determine that the project qualifies to proceed under a MCEA Schedule A+, meaning it is exempt from additional studies, public consultation and does not require a Project File to be submitted to the Ministry as per the *Environmental Assessment Act*.

This conclusion supports the notion that the project can move forward without further concerns, streamlining the approval process.

[1] Municipal Engineers Association (2023), Municipal Class Environmental Assessment

Financial Impact

The 2025 budget included an estimated financial carry-forward for Sideroad 3 bridge (D-007) of $2,300,000 to be funded from the Bridges Reserve:

- 2025 - $200,000 for background studies and pre-work
- 2026 - $300,000 for design work
- 2027 - $1,800,000 for construction & warranty work

As of December 31, 2024, $51,394.45 had been incurred for Pearson's work (total contract value awarded was $148,140). Staff do anticipate 2025 work to be completed against this awarded contract value.

Staff are requesting Council to move forward, from the 2026 portion of the financial ask, $271,300. Assuming the removal of the bridge was to proceed, this would eliminate a financial burden on the Bridges Reserve of $1,828,700.

Strategic Priorities

Enhancing Service Delivery

Enhancing Environment and Infrastructure

Conclusion

Staff recommend completing the MCEA project based on Pearson's recommendation on proceeding with a Schedule A+ (exemption) and selecting Alternative 4, closing and removing the existing bridge.

Staff recommend that the remaining budget dedicated to the MCEA be reallocated to an amended engineering scope with Pearson Engineering and proceed with the detailed design, pre-tender and final tender administration and construction and warranty administration for the permanent closure and removal of Structure D-007. Also, a capital construction budget must be created for the construction portion of the removal of Structure D-007.

Alternatively, Council can reject the preliminary choice of Alternative 4 of and take the opportunity to re-order the assessment criteria and direct staff to change the preferred alternative.

Respectfully Submitted:

Kevin Verkindt, Manager, Engineering and Infrastructure

Report Approval Details

Document Title:	MCEA Structure D-007 Progress Report.docx
Attachments:	- Attachment 1 - Structure D-0007 Preliminary Alternative Drawings.pdf - Attachment 2 - Structure D-0007 Preliminary Alternative Construction Cost Estimates .pdf
Final Approval Date:	Mar 4, 2025

This report and all of its attachments were approved and signed as outlined below:

Michael Benner, Director of Development and Infrastructure

Niall Lobley, Chief Administrative Officer