

March 6, 2025

KEC Ref. 2477

Via email

Attention: Natasha Roberts, CAO/Clerk

Municipality of Huron Shores

7 Bridge Street

Iron Bridge, ON, P0R 1H0

Re: Dean Lake Road Bridge: Project Status Update

Dear Ms. Roberts:

We have received preliminary results of the detailed inspection and structural analysis of the Dean Lake Road Bridge.

The conclusion states that the bridge may be re-opened with a reduced load posting of 6 Tonnes. The 6 Tonne posting will not require bridge repairs or reinforcement at this time.

The recommendation to re-open with a reduced load posting is accompanied by a recommendation to conduct a follow-up inspection within 6 months to review bridge performance. This follow-up inspection can be carried out in conjunction with an underwater inspection of bridge foundations, which will be required in order to develop plans for rehabilitation options.

We recommend that the Municipality enact a load limit by-law reflecting the 6 Tonne posting with a 6-month time limit, and that the by-law be strictly enforced.

A copy of the sealed interim evaluation letter is attached, while a detailed report on the inspection and analysis is forthcoming and is expected in the next few weeks. In the meantime, should you have any questions, please do not hesitate to contact our office.

Yours Very Truly,

Kresin Engineering Corporation



Michael Kresin, P. Eng.

Consulting Engineer

Encl.

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March 5th, 2025Via email: mike@kresinengineering.ca

Michael Kresin, *P.Eng*
Kresin Engineering Corporation
536 Fourth Line E.
Sault Ste. Marie, ON P6A 6J8

Attn: Mr. Michael Kresin**Re: Dean Lake Bridge Structural Evaluation Interim Letter
Q&E File No. 002-25**

Dear Mr. Kresin,

Q&E Engineering Inc. (Q&E) was retained to complete an inspection and structural evaluation of Dean Lake Bridge, located in the Municipality of Huron Shores, Ontario, aimed at determining an acceptable load posting for the structure, or if it should remain closed to vehicular traffic until rehabilitation is completed. This letter serves as an interim report, focusing on the load capacity of the structure only. The complete evaluation report detailing the bridge's structural condition and recommendations for corrective action is forthcoming.

Our findings from the in-person inspection and structural evaluation of the bridge, in accordance with Section 14 of the Canadian Highway Bridge Design Code (CHBDC)/CAN-CSA S6-19 (R2024) conclude that the bridge can be re-opened, with a single posting of 6 metric tonnes. This reduced load posting is a result of continued deterioration of the structure.

Given the present condition of the structure and the rate at which it is deteriorating, we recommend completing a follow-up inspection of the entire structure in approximately 6 months. The follow up inspection should also include taking core samples from the deck for visual review to help ascertain the condition between the glass fibre-reinforced polymer (GFRP) sheets and the wood deck and an underwater inspection to assess the condition of the steel sheet piling at the piers/abutments. The follow-up review will help further develop a plan for corrective action. Pending the results of this review and the preferred option for corrective action, temporary reinforcement to the structure may be necessary to ensure the bridge can remain in service during implementation of detailed engineering and necessary rehabilitation.

If you have any questions, please contact the undersigned.

Respectfully submitted,



Quan Tan, *P.Eng.*
Consulting Engineer



Leonardo Sanchez, *P.Eng*
Structural Engineer