



Report to Council

Department: Infrastructure Services

Division: Capital Works and Infrastructure

Date: February 7, 2022

Prepared by: Kevin Girard, P.Eng., MBA
Director of Infrastructure Services

Report Number: Capital Works and Infrastructure-2022-01

Subject: 2022 Bridge and Culvert Inspections

Number of Pages: 7 (including attachments)

Recommendation(s)

That Capital Works and Infrastructure – 2022-01 entitled, “2022 Bridge and Culvert Inspections” prepared by Kevin Girard dated February 7, 2022 be received, and

That Council appoint the engineering firm of Keystone Bridge Management Corporation (Keystone) to provide engineering services to complete the 2022 inspections of structures within the Town of Essex in accordance with the completed request under section 22.03 of the Town of Essex Procurement By-Law 1043.

Purpose

This report has been developed to continue operations and maintenance of the Town of Essex culverts and bridges as required by the Public Transportation and Highway Improvement Act. In accordance with the Town Procurement By-Law Number 1043, Council approval is required to waive the requirements for proposals, tenders and quotations for

consulting and professional services under Section 22.02 of the procurement and disposal of goods and services policy.

Background and Discussion

The need for mobility requires that the Town's highway system be kept in good repair. Structures (culverts and bridges) are a vital part of this system. The efficiency of the system is impaired and the public inconvenienced if a structure fails or its load carrying capacity is reduced for any reason. To avoid such failings, an effective structure management system is required.

Approximately 12,000 of the 14,000 bridges in Ontario are located within municipalities and are their responsibility. The Town of Essex has 97 structures (58 bridges and 39 culverts). Responsibility for the safety and maintenance of these bridges are set out in the Public Transportation and Highway Improvement Act (Act). The Act requires that these structures be inspected every two (2) years under the direction of a professional engineer using the Ministry's Ontario Structure Inspection Manual (OSIM). The OSIM requires these inspections to be a "close-up" visual assessment of each element of a bridge to identify any material defects, performance deficiencies, or maintenance and rehabilitation needs.

In 2010 the Town let a Request for Proposal for structural inspections. The successful Consultant (Keystone) completed a detailed element by element visual assessment of each bridge (56) and culvert (38) and identified any material defects, performance deficiencies, and maintenance needs of each structure. This information was then utilized to update the Municipalities Structure Management System and allow access to the needs of each structure, for maintenance, rehabilitative treatments, preventative measures, or replacement. Keystone has successfully provided this inspection service in 2012, 2014, 2016, 2018 and 2020 as well.

Administration has maintained discussions with neighboring municipalities during their respective tendering process for similar services and confirmed Keystone continues to provide the Town of Essex a very competitive and thorough engineering review service.

In addition to the competitive cost, other advantages to maintaining Keystone as the consultant to perform the Town of Essex structural inspections include:

- Continuity in inspection reporting
- Savings in procurement costs
- Improved and additional supplementary reports, including calculation of Bridge Condition Indexes
- Culvert replacement cost reports
- Enhanced bridge inspection reports
- Replacement values for all culvert and bridges
- More accurate capital needs assessments.

Financial Impact

Keystone's fee for the 2022 inspections of bridges and culverts within the Town is \$37,101.70 including applicable HST. The Town's 2022 Operational Budget currently allocates \$40,000 for these inspections.

Consultations

Jackson Tang, Assistant Manager, Business Services

Link to Strategic Priorities

- ☒ Manage, invest and plan for sustainable municipal infrastructure which meets current and future needs of the municipality and its citizens.
- ☐ Create a safe, friendly and inclusive community which encourages healthy, active living for people of all ages and abilities.
- ☐ Provide a fiscal stewardship and value for tax dollars to ensure long-term financial health to the municipality.
- ☐ Manage responsible and viable growth while preserving and enhancing the unique rural and small town character of the community.
- ☐ Improve the experiences of individuals, as both citizens and customers, in their interactions with the Town of Essex.

Report Approval Details

Document Title:	2022 Bridge and Culvert Inspections - Capital Works and Infrastructure-2022-01.docx
Attachments:	- Procurement Section 22.pdf
Final Approval Date:	Jan 26, 2022

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

A handwritten signature in black ink, appearing to read 'Doug Sweet', with a stylized flourish extending from the end.

Doug Sweet, Chief Administrative Officer - Jan 26, 2022 - 10:26 AM