

**INFRASTRUCTURE
SERVICES**
Staff Report

REPORT NO: IS-2024-13

TO: Council

SUBMITTED BY: Jeff Molenhuis, P. Eng., Director of Infrastructure Services

PREPARED BY: Curtis Schaerer, C.Tech, Engineering Technologist

REVIEWED BY: Sharon Chambers, Chief Administrative Officer

DATE: 2024-04-22

SUBJECT: Geotechnical Consulting Services – Proposed Sanitary Trunk CN Railway Crossing

RECOMMENDATION:

THAT Council receive Report IS-2024-13 for information.

SUMMARY:

This report outlines the proposal processes and advises Council of award of study to the successful consultant with scope of work to complete geotechnical investigations and provide recommendations for the proposed trenchless sanitary trunk sewer installations under the CN railway.

BACKGROUND:

The Wilmot Employment Lands and Wilmot Woods residential development require a trunk sanitary sewer crossing of the CN rail line, and as a result of installation methods and approval requirements of CN, a geotechnical investigation is required. This investigation will determine construction methods as well as requirements for settlement monitoring pursuant to a permit from CN Rail. Staff requested quotations for the work from 5 qualified geotechnical consultants to complete this work.

REPORT:

This project involves the extension of a trunk sanitary sewer from the Wilmot Employment Lands development, northerly crossing under the existing Canadian National Railway, to the proposed Wilmot Woods residential development. This project was identified in the Development Charges study update from 2021, and the land requirements was outlined in the Draft Approval of the Wilmot Employment Lands. The extension of the deep sewer installation across the railway will provide a sanitary sewer outlet to the developable lands north of the CN railway and west of Nafziger Road, known as the Wilmot Woods development. The servicing of these lands will support residential growth needs of the Township. These lands will accommodate low and medium residential housing units, storm water management facilities, drainage channels, municipal road, and active transportation networks.

In detail, this project involves the proposed installations of a proposed 450mm diameter trunk sanitary sewer extending from the proposed Wilmot Woods development (NH Properties Development) southward under the CN railway and will connect to the sanitary trunk through the Wilmot Employment Lands development. The area of work is located approximately 850m west of the Nafziger Road CN railway crossing. The planned method of installation will be completed by trenchless, which requires specialized geotechnical recommendations in the detailed design of the crossing. The sanitary sewer crossing under the railway will consist of a 450mm diameter sanitary sewer within a 900mm diameter steel casing at an approximate depth of 5-6m below existing grades beyond the railway. The reason for this geotechnical investigation and hydrogeological assessment is to assess the existing subsurface soil and ground water information and to provide preliminary geotechnical engineering recommendations for the proposed trenchless sanitary trunk sewer installation under the CN railway.

On February 29th, 2024, the request for proposal/cost estimate was sent out to five competent consultants.

| Proponent | Location |
|------------------------|--------------------|
| CVD Engineering | Kitchener, Ontario |
| Englobe | Kitchener, Ontario |
| Grit Engineering Inc | Stratford, Ontario |
| WSP | Kitchener, Ontario |
| Peto MacCallum Limited | Kitchener, Ontario |

As a result, the lowest cost estimate based on the proposal received, Grit Engineering Inc. is recommended to be authorized for award, at a estimate cost of \$32,470.00, plus HST.

Grit Engineering Inc. demonstrated a complete understanding of the scope within the proposal that was requested and addressed the anticipated geotechnical and hydrological tasks within their proposal.

As per the Procurement By-Law, where the requirement for goods or services is estimated to cost \$20,000.00 or more, but less than \$50,000.00, multiple competitive bids are required to be submitted electronically. In accordance with the By-Law, a report is required to be presented to Council for information. Township staff obtained 5 quotes which came in higher than originally contemplated but still within the overall budget for the project.

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.

FINANCIAL CONSIDERATIONS:

In the circumstances at hand, the Procurement Bylaw permits selection made by the Purchasing Agent, and final approval of the selection by the Treasurer. Written consent to proceed with the lowest quotation was requested and received from the Treasurer in this circumstance.

The budget for this scope of work is included within the program or capital budget amounts approved in the 2024 Work Program Sanitary Sewer Pipe Railway Crossing. The general funding need is outlined below:

| Funding Source | Amount |
|--------------------------------|-------------------|
| Development Charges - Sanitary | \$ 200,000 |
| Total Budget | \$ 200,000 |

Given the proposal amount of \$32,470.00 net of HST, quotation, Geotechnical Services for CN crossing and approvals, is anticipated to remain within the annual budget allocation for this project.

ATTACHMENTS:

None