

Staff Report

Report To:	Operations Committee
Report From:	Chris Webb, Manager of Engineering Services
Meeting Date:	June 26, 2025
Report Code:	OP-25-016
Subject:	Roads Condition Update

Recommendations:

THAT in consideration of Staff Report OP-25-016 respecting Roads Condition Update, the Operations Committee recommends that City Council receive the report for information purposes.

Highlights:

- The City contracted road condition assessments in 2021 and 2024 using automated technology and artificial intelligence for data gathering to determine road condition ratings.
- Analysis and comparison of results from 2021 and 2024 may not provide accurate trending of the City's road conditions.
- In order to achieve better data confidence, the City should retain one service provider to complete the road condition assessment over at least a three-cycle (6-year) period, based on consistent specified data collection and calculation methodologies.
- The City will be proceeding with Citylogix (formerly StreetScan) for the next 6-year/3-cycle roads condition reporting period

Strategic Plan Alignment:

<u>Strategic Plan</u> Priority: This report supports the delivery of Core Service. Maintaining roads in good condition improves safety for road users and reduces energy consumption and greenhouse gas emissions from braking and acceleration caused by asphalt defects.

Climate and Environmental Implications:

This supports the City's Climate Mitigation Plan objective to reduce community greenhouse gas emissions.

Previous Report/Authority:

N/A

Background:

At the March 20, 2025 meeting of the Operations Committee, in response to a question from the Committee, Staff confirmed that they would bring back an update on the Road Condition Assessments (from 2024) to compare to the previous report (2021) at the next meeting.

Analysis:

Automated technology and artificial intelligence were first used in the City's road condition assessment methodology in 2021, and was subsequently used again in 2024. The results revealed that the average Pavement Condition Index (PCI) actually went down between 2021 and 2024. The PCI for all City roads in 2021 was 66.6, whereas in 2024 the average PCI was 58.8. One might conclude that the City's overall condition of roads had deteriorated from 2021 to 2024. However, this is not necessarily the case.

When confronted with this counterintuitive information, Engineering Services Staff completed an analysis of the road condition data from 2021 and 2024.

It was determined that the discrepancy in the results was likely due to differences in the type of system, data collection methods, and formulae/calculations used to determine road condition (PCI) data in 2021 versus 2024.

In 2021, the IrisGO system was used to gather data, mounted on a consultant's light (pickup) truck. The MTO methodology (SP-022 and SP-024), combined with the Transportation Association of Canada's formula for "pavement asset design and management," was used to calculate the PCIs. This condition assessment was the final installment in a multi-year road condition assessment contract with GM Blue Plan Engineering (now GEI Consultants) as the service provider.

Under a new contract established by procurement through the Local Authority Services (LAS) Canoe Collaborative Procurement program, Street Scan was used in 2024. Street Scan's on-board system, installed in a subcompact car, was used to gather data, and the ASTM D6433 methodology was used (the first time for Owen Sound) to calculate the PCIs.

Although research indicates that most municipalities in Ontario employ the MTO methodology, there is no universally recognized approach, nor is one system favoured or more commonly recognized than another in the jurisdictions that were referenced. The techniques and methodology chosen by any jurisdiction may simply be a local preference or may be based on the choice of the successful bidder in a competitive procurement process.

To achieve consistency in data and to be able to more accurately compare results going forward, one service provider using a consistent methodology should be retained over three or four consecutive assessment cycles (every two years for a period of 6 to 8 years) to complete the City's biennial road condition assessment.

The total cost of the data gathering inspections and reports on a three-cycle period (2026, 2028, and 2030) is estimated in the range of \$66,000-\$75,000. Therefore, the City must either issue a Request for Proposal for the 2026 inspections or decide to continue to participate in the LAS Procurement program. Either approach yields acceptable results; the key is to use a consistent methodology to accurately track trends in the condition ratings.

Staff are proposing to proceed with StreetScan (recently rebranded as Citylogix) through the LAS procurement program to start a fresh 6-year/three-round cycle for roads condition assessment and reporting.

Financial Implications:

As this report is for information purposes, no financial impact arises directly as a result of this report. Any future procurement would be subject to prevailing purchasing policies and budget availability.

Communication Strategy:

Communication will be through the publishing of Committee and Council meeting agenda and minutes on the City's website.

Consultation:

The Manager of Corporate Services was consulted in the preparation of this report.

Attachments:

None.

Recommended by:

Chris Webb, Manager of Engineering Services Lara Widdifield, Director of Public Works and Engineering

Submission approved by:

Tim Simmonds, City Manager

For more information on this report, please contact Chris Webb, Manager of Engineering Services at <u>cwebb@owensound.ca</u> or 519-376-4440, extension 3300.