



Committee of the Whole Report

Meeting date:	July 28, 2020
Title:	IPW – West Grey Bridge 70 and Structure 189 Status Report
Prepared by:	Vance Czerwinski, Director of Infrastructure and Public Works
Reviewed by:	Laura Johnston, CAO

Recommendation

THAT Committee receives report IPW – West Grey Bridge 70 and Structure 189 Status Report for information.

Executive summary

Bridge 70 on Concession 2 WGR experienced a bridge deck failure. Structure 189 on Sideroad 25 has deteriorated and is no longer safe for the motorists. These bridges have been temporarily closed until further notice.

Background and discussion

Bridge 70 Concession 2 WGR

On July 7, 2020 the Infrastructure and Public Works Department was inspecting Bridge 70 and noticed the bridge decking was soft in certain areas. Upon further review, there were many areas on the bridge deck that had the same condition. The director of infrastructure and public works closed the bridge until the bridge could be inspected by an engineer. The bridge has been barricaded with concrete blocks, traffic cones and snow fencing to prevent vehicle and pedestrian access to the bridge. Notification to the public and EMS, fire and police was engaged through the 511 service. As per the Ontario Traffic Manual Book 7, traffic on Concession 2WGR has been detoured west on Road 71, south on Baseline, to Hwy 89 (see attached Traffic Control Plan).

Bridge 189 Sideroad 25

On July 7, 2020 WSP Engineering was conducting the biannual OSIM inspections of West Grey's bridges and recommended to the director of infrastructure that Bridge 189 be immediately closed as the concrete had deteriorated making it no longer safe for motorists. The director of infrastructure and public works closed the bridge until the bridge can be further assessed by an engineer. The bridge has been barricaded with concrete blocks traffic cones and snow fencing to prevent vehicle and pedestrian access to the bridge. Notification to the public and EMS, fire and police was engaged through the 511 service. As per the Ontario



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Traffic Manual Book 7, traffic on Sideroad 25 has been detoured west on Concession 12, north on Sideroad 20, and east on Concession 14 (see attached Traffic Control Plan).

Triton Engineering was engaged immediately to inspect both bridges, determine the extent of the damage and provide a cost estimate and timeline to repair the bridges. Based on the attached bridge inspections Triton Engineering/Doug Dixon & Associates has determined the following:

Bridge 70 Options:

1. Timber Deck Rehabilitation - Estimate \$323,000.00
2. Bridge Replacement – Estimate \$1,415,000.00

Structure 189 Options

1. Structure Replacement Estimate \$413,000.00

Rating of Structures on Structure Priority List 2020

Attached to this report is a comprehensive “Structure Priority List 2020”. This list was derived from the priority ratings in the “2018 Bridge Rationalization Study” (OSIM Inspections, Road Classification, and Traffic Counts). Please note that Bridge 70 (N-070) is 9th on the list for priority, and Structure 189 (N-189) is 21st on the list for priority with respect to repair and replacement.

The priority is based on the urgency of recommended work, with further priority given to structures of higher overall importance for traffic flow through the municipality, and further to those with high replacement valued where rehabilitation may still be economical. The priority may be further considered and structures may swap/change position from year to year based on the change in condition or circumstance.

The rehabilitation costs are **construction costing only**. For budgeting, a 10% allowance will be included for contingency/unanticipated activities and a 10% - 20% for engineering, depending on the scope. These costs will be presented as part of the 2021 capital budget proposal.

Legal and legislated requirements

- Ontario Structure Inspection Manual (OSIM)
- O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways
- 2020 Occupational Health and Safety Act
- Ontario Traffic Manual Book 7

Financial and resource implications

2021 capital budget

Doug Dixon & Associates Bridge Condition Estimates



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Staffing implications

Not applicable

Consultation

Doug Dixon and Associates
Director of Finance
Chief Administrative Officer
Triton Engineering
WSP Engineers

Alignment to strategic vision plan

Pillar: Build a better future

Goal: Vibrant Community

Strategy: Maintain and invest in our infrastructure: be responsible stewards of tax dollars

Attachments

Doug Dixon and Associates Structure 189 Budget and Engineers Recommendation
Doug Dixon and Associates Bridge 70 Budget and Engineers Recommendation
Traffic Control Plan Detour for Bridge 70
Traffic Control Plan Detour for Structure 189
Municipality of West Grey Priority Structure Repair and Replacement List 2020

Next steps

Staff will bring the capital upgrade of bridges 70 and 189 to the 2021 capital budget deliberations, and refer to the Bridge Rationalization Study and Priority Structure Repair and Replacement List.

Respectfully submitted:

Vance Czerwinski

Director of Infrastructure and Public Works