

CAPITAL PROJECT CHARTER

Year: 2026 - 2035

Charter Number: ENGS – 042

Charter Name: Bridge Program

Lead Department: Engineering Services

Type: RMR

Explanation (RMR or Growth): This project targets the completion of assessments, engineering, design and maintenance or reconstruction of bridge structures.

Asset Category: Roads & Other Engineered Structures

Scope Statement: This funding addresses resources and actions associated with inspections, engineering, design, and preservation, restoration, or rehabilitation of bridges.

PROJECT CHARTER JUSTIFICATION

Current State

The City currently maintains 34 bridge structures, broken down into the following categories with quantities:

- 10 road bridges
- 5 pedestrian bridges
- 11 wooden foot bridges
- 8 bridge classified culverts

A Bridge Network Evaluation was conducted in 2021 and updated in 2024 and assessed the network value at approximately \$65,000,000.

Major bridge structures are evaluated annually, and minor bridge structures are evaluated every 2 years. The City follows the Provincial standard Bridge Inspection Maintenance (BIM) program. Remedial work is planned and delivered based upon reported condition levels of the bridge structure and examples of response and severity include:

Table 1 - Bridge Structure Responses with Severity

Non-Emergent Responses	Emergent Responses
Structural cleaning	Guardrail maintenance
Drainage improvements	Concrete repair
Signage	Deck patching / sealing
Erosion control / mitigation	Trip hazard removals
Deck sealing	Structural repair

Remedial work (response and materials applied) are based upon priority criteriums informed by:

- Condition levels
- Bridge functional / operational information
- Alignment to alternative Capital programming

Issue(s)

1. Bridges are critical infrastructure, and prolonging maintenance has a significant impact on users and overall capital budgets.
2. Funding restrictions against aging infrastructure and a growing community (new assets for the City to manage) will require ongoing and increasing resources to manage, maintain and respond to network needs and sustainable asset management.
3. Disruption and costs associated with reconstruction are substantially higher than costs associated with preventative maintenance, preservation and restoration.
4. Public opinion on network priorities, or results of evaluations, do not always align with network improvement strategies.

Opportunities

1. Treating a bridge throughout its life cycle will preserve the initial investment and lower life cycle costs compared to just rebuilding at end of life.
2. This project's delivery performs effective and economic responses to the bridge conditions that will maximize protection of public safety, life expectancy of the bridge (long-term performance) and minimize costs over the long-term.
3. This is an evidence-based program that prioritizes actions from data collected (infrastructure conditions) and incorporates influences such as life cycle expectancy and considers a collaborative effort to align itself with other capital programs and network expansion needs.
4. Coordination of substantial work on a bridge structure with other roadway capital projects can benefit with lower costs with economy of scale and reduction of network disruptions.

Risks

1. When bridges are approaching the end of their service life, a higher frequency of monitoring and inspection occurs to mitigate risk and liability.
2. Program scheduling and locations are subject to change based upon:
 - a. Updated Data (condition ratings)
 - b. Unforeseen Maintenance Priorities/Investigations
3. Construction costs may vary from estimated values
4. Poor weather conditions can delay construction.
5. Increased scope of work due to unexpected site conditions.
6. Traffic disruption, service disruption or negative noise influence during construction activities. Loss of these bridges creates extensive detour lengths for commuters.

STRATEGIC PLAN & CORPORATE BUSINESS PLAN ALIGNMENT

Council Strategic Priority: N/A

Initiatives: N / A

Operational Excellence Priority Area: N / A

Initiatives: N / A

Stakeholder Identification:

1. Public Works – Ensuring that all work reflects and compliments maintenance work that City crews are performing
2. Residents/Businesses – Quality of life and confidence of a safe and reliable transportation network.

3. Council – Delivery of services aligned with Council Strategies.
4. Recreation Services – alignment of construction activity to minimize conflicts of construction with special events.
5. Utilities (3rd party and City owned) - alignment of construction activity to minimize conflicts

Timeline: Note – the anticipated bridge RMR program delivery over the forthcoming 10-12 year capital plan anticipates a substantial bridge project (reconstruction) every four (4) years. This timeline may be amended subject to results of updated condition assessments and opportunity of preventative maintenance and also consideration of other capital projects.

- **Year 1**
 - Annual bridge inspections and assessments for network structures.
 - Performance of minor remedial work on network structures.
 - Design for moderate level maintenance actions on next priority structures
- **Year 2 - Representative of the 2026 Program**
 - Annual bridge inspections and assessments for network structures.
 - Performance of minor and moderate level remedial work on network structures.
 - Preliminary design (60%) for next priority full bridge reconstruction
- **Year 3**
 - Annual bridge inspections and assessments for network structures.
 - Performance of minor and moderate level remedial work on network structures.
 - Detailed design (Tender Ready design) for next priority full bridge reconstruction
- **Year 4**
 - Annual bridge inspections and assessments for network structures.
 - Performance of minor remedial work on network structures.
 - Major Bridge Reconstruction (Villeneuve Road bridge)

Financial Information:	Investment Year:			
		2026	\$	1,625,000
		2027	\$	375,000
		2028	\$	2,577,000
		2029	\$	256,500
		2030	\$	627,500
		2031	\$	350,000
		2032	\$	2,530,000
		2033	\$	256,500
		2034	\$	627,500
		2035	\$	350,000
		Total	\$	9,575,000
				see Capital Project Worksheet for details.

Operational Impacts: No

Associated Operating Business Case:

CAPITAL PROJECT WORKSHEET

Project Component	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Land Determined Costs										
Concept Planning										
Detailed Planning and Design	220,000	25,000	290,000	120,000	225,000	25,000	280,000	120,000	225,000	25,000
Site Servicing										
Structure/Building Construction	1,042,500	290,000	1,930,000	100,000	335,000	265,000	1,850,000	100,000	335,000	265,000
Landscaping										
Construction Management	30,000	25,000	135,000	25,000	25,000	25,000	185,000	25,000	25,000	25,000
Commissioning and QA/QC	7,500	5,000	29,000	1,500	7,500	5,000	30,000	1,500	7,500	5,000
Contingency	325,000	30,000	193,000	10,000	35,000	30,000	185,000	10,000	35,000	30,000
Public Participation Activities										
Equipment										
TOTAL	1,625,000	375,000	2,577,000	256,500	627,500	350,000	2,530,000	256,500	627,500	350,000

- Construction Management is inclusive of project management / support staff services and data analysis
- Construction costs are based on bridge assessment estimates.
- QA / QC is based on 1.5% of construction budget
- Contingency is based on 25% of construction budget
- Current condition ratings anticipated reconstruction activities on structures required in:
 - 2028 – Villeneuve Road bridge
 - 3032 – Candidates: Meadowview Drive bridge / Braeside Pedestrian bridge
- From 2031 to 2033, current project asset conditions anticipate substantial required work to structures. The current 2032 value is a placeholder of conceptual improvement requirements for a priority structure.
- Program planning and further assessments will lead to more detailed design that will inform on final costs.