

## **Municipality of Chatham-Kent**

### **Engineering and Infrastructure Services**

#### **Engineering and Transportation Division**

**To:** Mayor and Members of Council

**From:** Brendan Falkner, P.Eng.  
Manager, Engineering (Roads and Bridges)

**Date:** December 14, 2021

**Subject:** 2022 Proposed Engineering Lifecycle Reserve Projects

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#### **Recommendations**

It is recommended that:

1. The 2022 Municipal Bridge Pre-Construction Expenses, estimated at \$2,680,000 and as outlined in Table 1, be approved and funded from the Bridge Lifecycle Reserve or Culvert Lifecycle Reserve.
2. The 2022 Municipal Road Projects, estimated at \$300,000 and as outlined in Table 2, be approved and funded from the Roads Lifecycle Reserve.
3. The 2022 Municipal Storm Projects, estimated at \$250,000 and as outlined in Table 3, be approved and funded from the Storm Lifecycle Reserve.
4. The 2022 Municipal Sidewalk Projects, estimated at \$200,000 and as outlined in Table 4, be approved and funded from the Sidewalk Lifecycle Reserve or Curb Lifecycle Reserve.
5. The 2022 Municipal Guiderail Projects, estimated at \$150,000 and as outlined in Table 5, be approved and funded from the Guiderail Lifecycle Reserve.
6. The 2022 Municipal Traffic Signal Projects, estimated at \$50,000 and as outlined in Table 6, be approved and funded from the Traffic Signal Lifecycle Reserve.

#### **Background**

The Municipal Reserve Policy requires Council approval of all projects greater than \$25,000 that are to be funded from reserves. The purpose of this report is to obtain pre-approval for a number of projects identified herein which will allow administration to prepare quotes, tenders and RFP's and to have the purchases approved by the General Manager of Infrastructure and Engineering Services. Only in instances where quotes, tenders or RFP results exceed estimates will additional Council approval be required.

This process is being proposed to reduce the number of reports brought before Council, expedite the purchasing process and commence with projects in a timely manner including internal and external design requirements. The Municipal Purchasing Policy and tendering process will continue to be used for the procurement of all projects identified within this report.

Projects identified in this report include projects that fall under a Schedule A classification in accordance with the Municipal Class Environmental Assessment (EA). Schedule A projects are generally simple and straight forward replacement or maintenance type works that do not require in depth heritage or archeology investigations or additional land requirements. Schedule B and C projects are more complex and will continue to be brought to Council for additional approval as required.

Estimated costs have been removed from all of the individual categories below to ensure a competitive bid process.

### **Comments**

#### **Bridges and Culverts**

The following table lists bridge or culvert related projects that are being proposed for 2022. This table includes projects that require advanced utility relocations, specific permits/approvals, survey works, geotechnical investigations, consulting or contracting services for repairs, rehabilitations or replacements.

**Table 1 - 2022 Pre-Construction Bridge & Culvert Expenses (Recommendation 1)**

<b>Project Description</b>	<b>Location</b>	<b>Estimated Cost</b>
Geotechnical investigations, surveys, hydraulic analysis, condition assessments, load postings and other various expenses	Various Communities	
Miscellaneous bridge works such as waterproofing, deck drainage, steel and concrete repairs, guiderail repairs	Various Communities	
Utility relocations	Various Communities	
Permits, approvals & media advertisements	Various Communities	
Consulting services for detailed design and/or contract administration	Various Communities	
Total (approx. 65 unique projects/reports)		\$2,680,000

Any bridge project greater than 3.0 m in span will continue to be assessed through the Council approved Bridge Divestment Criteria. Should any of these bridges pass the divestment criteria matrix, they will continue to move into the required public consultation process and brought back to Council for direction as required.

Bridge projects will continue to be prioritized based on their current Ontario Structure Inspection Manual (OSIM) ratings. Bridges that are to be reviewed for direct assignment to consultants for design and contract administration in 2022 are included in Appendix A. Bridge and culvert tender approvals will continue to be brought to Council for approval. Projects that require pre-construction work are being proposed prior to detailed design and construction and therefore may not be constructed during the 2022 construction season. Where feasible, bridge projects will continue to allow for a 2 year construction window in an effort to achieve cost savings.

### Roads

The following table lists road related projects that are being proposed for 2022. This table includes projects that are required both in advance of and during construction as a requirement of the annual contracts. These projects do not include the annual maintenance contracts or innovation contracts that typically contain lists of roads and locations. These larger contracts will continue to be brought to Council as individual reports requiring approval.

**Table 2 - 2022 Road Projects (Recommendation 2)**

<b>Project Description</b>	<b>Location</b>	<b>Estimated Cost</b>
Lifecycle geotechnical testing for all road contracts	Various Communities	
Geotechnical investigations in advance of contract preparations	Various Communities	
Miscellaneous road repairs or related works including grade adjustments, drainage repairs or curb/gutter repairs.	Various Communities	
Total (approx. 8 unique projects/reports)		\$300,000

### Storm Projects

The following table lists storm related projects that are being proposed for 2022. This table includes projects that are required both in advance of and during construction as a requirement of the annual contracts.

**Table 3 – 2022 Storm Projects (Recommendation 3)**

Project Description	Location	Estimated Cost
Storm CCTV investigations	Various Communities	
Miscellaneous catch basin installations, repairs and minor grading works	Various Communities	
Miscellaneous storm sewer replacements and repairs	Various Communities	
Miscellaneous maintenance Hole replacements, repairs and rehabilitations	Various Communities	
Total (approx. 8 unique projects/reports)		\$250,000

**Sidewalk & Curb**

The following table lists sidewalk and curb related projects that are being proposed for 2022. This table includes projects that are required both in advance of and during construction as a requirement of the large annual contracts. These projects do not include the larger annual maintenance contracts or innovation contracts that typically contain lists of sidewalks and locations. These larger contracts will continue to be brought to Council as individual reports requiring approval.

**Table 4 - 2022 Sidewalk & Curb Projects (Recommendation 4)**

Project Description	Location	Estimated Cost
Miscellaneous sidewalk and curb repairs including grading and drainage works	Various Communities	
Total (approx. 8 unique projects/reports)		\$200,000

**Guiderail**

The following table lists guiderail projects that are being proposed for 2022. This table includes projects that are required to maintain the guiderail inventory to the standards set out in the MTO Roadside Design and Evaluation Manuals.

**Table 5 - 2022 Guiderail Projects (Recommendation 5)**

Project Description	Location	Estimated Cost
Miscellaneous guiderail repairs	Various Communities	
Total (approx. 3 unique projects/reports)		\$150,000

### Traffic Signals

The following table lists traffic signal projects that are being proposed for 2022. This table includes projects that would be considered emergency repairs required to maintain the safe operation of traffic signals throughout the Municipality.

**Table 6 - 2022 Traffic Projects (Recommendation 6)**

Project Description	Location	Estimated Cost
Miscellaneous traffic signal repairs	Various Communities	
Total (approx. 5 unique projects/reports)		\$50,000

It is important to note that all of the 2022 lists above are also subject to additional changes as urgent repairs emerge which may shift priorities.

### Areas of Strategic Focus and Critical Success Factors

The recommendations in this report support the following areas of strategic focus:

- ☒ Economic Prosperity:  
Chatham-Kent is an innovative and thriving community with a diversified economy
- ☐ A Healthy and Safe Community:  
Chatham-Kent is a healthy and safe community with sustainable population growth
- ☐ People and Culture:  
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community
- ☐ Environmental Sustainability:  
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendations in this report support the following critical success factors:

- ☒ Financial Sustainability:  
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- ☐ Open, Transparent and Effective Governance:  
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- ☐ Has the potential to support all areas of strategic focus & critical success factors
- ☐ Neutral issues (does not support negatively or positively)

**Consultation**

No other Departments were consulted in the preparation of this report.

**Financial Implications**

<b>2022 Estimated Projects Costs</b>	
Estimated Municipal Miscellaneous Bridge & Culvert Expenses	\$2,680,000
Estimated Municipal Road Projects	\$300,000
Estimated Municipal Storm Projects	\$250,000
Estimated Municipal Sidewalk & Curb Projects	\$200,000
Estimated Municipal Guiderail Projects	\$150,000
Estimated Traffic Signal Projects	\$50,000
<b>Total Estimated Project Costs</b>	<b>\$3,630,000</b>
<b>Funding Sources For 2021 Estimated Projects</b>	
Bridge and Culvert Lifecycle Reserves	\$2,680,000
Road Lifecycle Reserve	\$300,000
Storm Lifecycle Reserve	\$250,000
Sidewalk and Curb Lifecycle Reserves	\$200,000
Guiderail Lifecycle Reserve	\$150,000
Traffic Signal Lifecycle Reserve	\$50,000
<b>Total Funding Sources</b>	<b>\$3,630,000</b>

Prepared by:

Reviewed by:

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Attachments:           Appendix A – Bridges to be Reviewed in 2022

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## **Appendix A**

### **Bridges to be Reviewed in 2022**

Bluewater Line over Card Drain  
Hill Road over Morpeth #1 Drain (Old Course)  
5th Concession Line over Horton Drain  
Jacob Road over McFarlane Relief Drain  
Dundas Bridge  
Owen Road over Rankin Drain  
Dashwheel Road over Forbes Internal Drain  
Coatsworth over Government #4 Drain  
Kennedy Road over Rankin Creek Drain (North)  
Claymore Line over Big Creek Drain  
Seventh Line over Flook & Hinton  
Murray Street over Sydenham River  
Klondyke Road over Two Creeks Drain  
McKay's Line over Leatherdale Drain  
5th Concession Line over Government #4 Drain  
Sixteenth Line over 18 & 19 Sideroad Drain  
Beechwood Line over Buller Drain  
Kennedy Road over Rankin Creek Drain (South)  
Snobelen Road over Proctor Drain  
Middle Line over Government #2 & #3 Drain  
Drake Road over Hooper King Drain  
Horton Line over Lucas Drain  
5th Concession Line over Two Creeks Drain  
Lowes (Creek Road over McGregor Creek)  
Bear Line Road over McFarlane - Relief Drain  
Henderson Line over Duffus Drain  
Ninth Line over Government #1 Drain  
Booth Road over Otter Creek Drain - East  
Talbot Trail over Verbeek #2 Drain  
Talbot Trail over Cooper Drain - Outlet Portion  
Cedar Hedge Line over Little Bear Creek Drain  
Jeannette's Creek Road over Forbes Internal Creek  
Brook Line over Big Creek Drain  
Clearville Road over Clear Creek  
Bloomfield Road over Flook and Hinton Drain  
Belle Rose Line over Rivard Drain  
Caledonia Road over Big Creek Drain  
Brick Road over Dankey Creek  
Talbot Trail over McArthur Drain - East  
Talbot Trail over Clear Creek  
AD Shadd Road over Carter Drain  
Eleventh Line over Flook and Hinton Drain  
Four Rod Road over Simmons Drain  
6th Concession Line over Baker Drain  
Erieau Road over McGregor Holdaway (North)  
Erieau Road over McGregor Holdaway (South)  
Scane Road over Harrison Drain  
Lindsay Road over Leonard Drain  
Dover Centre Line over Dyer Drain  
Drake Road over 6th & 7th Sideroad Drain  
Erie Street South over Two Creeks Drain