

Municipality of Chatham-Kent

Engineering and Infrastructure Services

Engineering and Transportation Division

To: Mayor and Members of Council

From: Chris Thibert, P.Eng
Director, Engineering and Transportation

Date: March 9, 2021

Subject: 2021 Proposed Engineering Lifecycle Reserve Projects

Recommendations

It is recommended that:

1. The 2021 Municipal Bridge and Culvert Projects as outlined in 'Table 1a' be approved for \$11,700,000 and funded from the Bridge Lifecycle Reserve or Culvert Lifecycle Reserve.
2. The 2021 Municipal Bridge Pre-Construction Expenses, estimated at \$1,280,000 and as outlined in 'Table 1b', be approved and funded from the Bridge Lifecycle Reserve.
3. The 2021 Municipal Road Projects, estimated at \$250,000 and as outlined in 'Table 2', be approved and funded from the Roads Lifecycle Reserve.
4. The 2021 Municipal Storm Projects, estimated at \$250,000 and as outlined in 'Table 3', be approved and funded from the Storm Lifecycle Reserve.
5. The 2021 Municipal Sidewalk Projects, estimated at \$100,000 and as outlined in 'Table 4', be approved and funded from the Sidewalk 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 GM. 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.

The estimates of each individual project have been removed to ensure a competitive bid process.

Comments

Bridges and Culverts

The following tables list a number of bridge or culvert related projects that are being proposed for 2021. These tables include projects that require advanced utility relocations, specific permits/approvals, survey works, geotechnical investigations, consulting services or contracting services for repairs, rehabilitations or replacements.

**Table 1a - 2021 Bridge and Culvert Projects – Contracting Services
(Recommendation 1)**

Project Description	Location	Estimated Cost
5th Concession Line over Horton Drain Culvert Replacement	Romney	
Bluewater Line over Running Creek Bridge Rehab	Chatham Township	
Bluewater Line over Skinner Drain Bridge Rehab	Chatham Township	
Heron Line Bridge over Rivard Drain Bridge Rehab	Dover	
Third Line Bridge Rehab over Raleigh Plains Drain Bridge Rehab	Raleigh	
Drake Road over Finn and Cooper Bridge Rehab	Raleigh	
Third Line over Dreary Drain Bridge Rehab	Raleigh	
Drake Road over Carter Drain South Culvert Replacement	Raleigh	
Drake Road over Johnston Drain Culvert Rehab	Raleigh	
Fairview Line over McKinley Drain Culvert Rehab	Harwich	
Heron Line over Boyle Drain Culvert Rehab	Dover	
McDougall Line and Queen's Line Intersection Realignment	Tilbury-East	
Kimball over Otter Creek Bridge Rehab	Chatham Township	
Wheatley Road over Burgess Drain Bridge Rehab	Romney	
Wheatley Road over Government Drain #4 Bridge Rehab	Romney	
William Street Bridge Rehab	Community of Chatham	
Countryview Line Culvert over Purdie Creek Bridge Replacement	Chatham Township	
4th Concession Line over Baker Drain Culvert Replacement	Romney	
Big Pointe Road over Myers Drain Culvert Replacement	Dover	
Totals (19 projects/reports)		\$11,700,000

Table 1b - 2021 Pre-Construction Expenses (Recommendation 2)

Project Description	Location	Estimated Cost
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. 45 unique projects/reports)		\$1,280,000

*Projects requiring consulting services are being proposed for detailed design in either 2021 or 2022 with construction to follow in the following year(s). The following structures are currently under review:

- Jacob Road over McFarlane Relief Drain
- Dundas Bridge
- Dashwheel Road over Forbes Internal Drain
- Kennedy Road over Rankin Creek Drain (North)
- Kennedy Road over Rankin Creek Drain (South)
- 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
- Snobelen Road over Proctor Drain
- Middle Line over Government #2 & #3 Drain
- Drake Road over Hooper King Drain
- Booth Road over Otter Creek
- Bloomfield Road over Flook and Hinton
- Horton Line over Lucas Drain
- Murray Street over Sydenam River
- Lacroix Street Bridge over Thames River
- Croton (Oakdale over Sydenham River)
- Langstaff Line over Sydenham River

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.

Project Timing

The projects identified in Table 1a are based on current Ontario Structure Inspection Manual (OSIM) ratings and are identified for works to take place between 2021 and 2024. The majority of these projects were designed internally and are tender ready.

Projects that require pre-construction work (Table 1b) are being proposed prior to detailed design and construction and therefore may not be constructed until 2022 at the earliest.

Projects identified for contracting services will continue to allow for a 2-year construction window in an effort to achieve cost savings.

Roads

The following table list a number of road related projects that are being proposed for 2021. This table include 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 roads and locations. These larger contracts will continue to be brought to Council as individual reports requiring approval.

Table 2 - 2021 Road Projects (Recommendation 3)

Project Description	Location	Estimated Cost
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)		\$250,000

Storm Projects

The following table list a number of storm related projects that are being proposed for 2021. This table include projects that are required both in advance of and during construction as a requirement of the annual contracts.

Table 3 - 2021 Storm Projects (Recommendation 4)

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. 7 unique projects/reports)		\$250,000

Sidewalks

The following table list a number of sidewalk related projects that are being proposed for 2021. This table include 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 - 2021 Sidewalk Project (Recommendation 5)

Project Description	Location	Estimated Cost
Miscellaneous sidewalk repairs including grading and drainage works	Various Communities	
Total (approx. 3 unique projects/reports)		\$100,000

It is important to note that all of the 2021 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

2021 Estimated Projects Costs	
Estimated Municipal Bridge and Culvert Projects	\$11,700,000
Estimated Municipal Miscellaneous Bridge Expenses	\$1,280,000
Estimated Municipal Road Projects	\$250,000
Estimated Municipal Storm Projects	\$250,000
Estimated Municipal Sidewalk Projects	\$100,000
Total Funding Sources	\$13,580,000
Funding Sources For 2021 Estimated Projects	
Bridge and Culvert Lifecycle Reserves	\$12,980,000
Road Lifecycle Reserves	\$250,000
Storm Lifecycle Reserves	\$250,000
Sidewalk Lifecycle Reserves	\$100,000
Total Funding Sources	\$13,580,000

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Attachments: None

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