

**Municipality of Chatham-Kent**

**Infrastructure and Engineering Services**

**Engineering and Transportation Division**

**To:** Mayor and Members of Council

**From:** Jason Cikatricis, C.E.T.,  
Engineering Technologist - Engineering & Transportation Division

**Date:** June 28, 2019

**Subject:** Tender Award: Contract T19-197 – New Scotland Line over  
McDougall Drain Culvert Replacement, Community of Harwich.

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**Recommendations**

It is recommended that:

1. The tender in the amount of \$833,940.00 (including HST) for the work associated with Contract T19-197 – New Scotland Line over McDougall Drain Culvert Replacement, Community of Harwich, be awarded to Clarke Construction Inc. of Blenheim, Ontario.
2. The Mayor and Clerk be authorized to enter into the recommended agreements.

**Background**

The New Scotland Line over McDougall Drain Culvert was built in 1957. The structure has an east-west orientation and is located on New Scotland Line 0.61 km east of School Line in the Community of Harwich. This twin-cell concrete culvert carries 2 lanes of predominantly vehicular traffic across the McDougall Drain, 2 continuous spans with a total crossing length of 7.3 m and a maximum clearance of 2.0 m. The deck has a travel width of 6.7 m and an overall width of 8.6 m.

With an Average Annual Daily Traffic volume (AADT) of 1,000, the crossing is lightly used with truck volumes accounting for less than 10 percent of the total traffic. The speed limit at the bridge location is 80 km/hr.

Bi-annual inspections have been conducted by the Municipality of Chatham-Kent (as legislated under the *Public Transportation and Highway Improvement Act*) to continually monitor the condition of the structures and to ensure public safety. All structures form part of the comprehensive 20 year Plan managed by the Engineering and Transportation Division.

As per the 2018 Ontario Structure Inspection Manual (OSIM) inspection, and the 2018 inspection completed by GM Blueplan Engineering, the New Scotland Line over McDougall Drain Culvert was documented as having:

- Spalled, delaminated and disintegrated concrete at various locations throughout the structure.
- Various areas exhibiting efflorescence and corroded rebar.



Figure 1. New Scotland Line over McDougall Drain Culvert

### **Comments**

This contract consists of the following work:

- Removal of the existing twin-cell concrete culvert.
- Installation of a new single-cell precast concrete box culvert.
- Installation of precast concrete retaining walls.
- Installation of asphalt road wearing surface.
- Installation of rip-rap erosion protection at the drain banks and ends of the new concrete culvert.

This replacement will provide approximately 75 years of service.

## **Innovation**

The replacement of the existing twin-cell concrete culvert with a single cell concrete culvert allows for better water flows and lower maintenance costs. Currently, the wall in the center of the existing culvert catches debris that must be routinely removed. The removal of the debris creates an on-going maintenance cost for Public Works or Drainage staff.

The length of the replacement concrete box culvert and the addition of precast concrete retaining walls eliminates the need to install guiderails on and around the culvert. Elimination of the guiderails save on initial construction cost, future maintenance costs, and allow more clearance at the culvert for wider vehicles.

This tender specifies construction shall not begin until July 15, 2020. Due to this large lead time; Chatham-Kent receives a larger number of bidders and more competitive prices.

A mandatory site meeting and test dig were held on June 6, 2019 in order for bidders to witness the poor soil conditions specified in the Geotechnical Report. Bidders are able to see and assess the existing soil conditions first-hand in addition to the Geotechnical Report in order to accurately prepare their bid.

The Tender was let on May 29, 2019 and the Purchasing Officer received and opened tenders for the work on June 27, 2019. The following table summarizes the bids received.

The tender results are as follows:

Bidder	Location	Bid (including HST)
Clarke Construction Inc.	Blenheim, ON	\$ 833,940.00
Henry Heyink Construction Ltd.	Chatham, ON	\$ 843,206.00 *
South Shore Contracting of Essex County Inc.	Essex, ON	\$ 994,880.25
Sterling Ridge Infrastructure Inc.	LaSalle, ON	\$ 1,038,999.97
Facca Inc	Ruscom, ON	\$ 1,104,010.00
Murray Mills Excavating & Trucking (Sarnia) Ltd.	Sarnia, ON	\$ 1,207,332.68

\*Denotes a clerical error that does not affect the ranking.

Per the terms of the tender, work may commence after July 15, 2020 with a total completion date of November 15, 2020. The road will be closed for the duration of construction, however a detour will be in place.

The lowest tender bid submitted by Clarke Construction Inc. was within the budget estimate.

### **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**

The Tenders were opened by the Purchasing Officer and reviewed by the Engineering and Transportation Division and by GM Blueplan Engineering.

### **Financial Implications**

Project fees associated with this contract will be funded as summarized in the following table:

Financial Implications  
New Scotland Line over McDougall Drain Culvert Replacement

Project Costs

Recommended Tender <sup>A</sup> (Including HST)	\$ 833,940.00
Less HST Rebate 11.24%	- \$ 82,951.20
<b>Total Current Project Costs</b>	<b>\$ 750,988.80</b>
<b>Total Current Project Funding</b>	<b>\$ 750,988.80</b>

**Note A:** Contingency, and Material testing and Inspection is carried as an allowance of \$103,500.00 within the contract; and is accounted for in the Recommended Tender.

Contingency allowance may or may not be expended and is recommended to address any unforeseen issues which present during the course of the project and are not covered by the contract specifications.

Materials Testing and Inspection allowance may or may not be expended and is recommended to test and inspect construction materials for compliance with the contract specifications during the course of the project.

The culvert project costs listed above will be funded from Bridge Lifecycle Reserve.

Prepared by:

Reviewed by:

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Jason Cikatricis, C.E.T.  
Engineering Technologist,  
Engineering and Transportation

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

Reviewed by:

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Thomas Kelly, P.Eng., MBA  
General Manager  
Infrastructure and Engineering Services

Consulted and confirmed the content of the consultation section of the report by:

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Jennifer Scherle  
Purchasing Officer

Attachments:                      Appendix A - Consultant's Letter of Recommendation

(RTC:\Infrastructure & Engineering\I&ES\2019\4150 – Tender Award Contract T19-197  
New Scotland Line over McDougall Drain Culvert Replacement)



July 2, 2019  
Our File: 518036

Municipality of Chatham-Kent  
PO Box 640, 315 King St. W  
Chatham, ON N7M 5K8

Attention: Jason Cikatricis, C.E.T.  
Engineering Technologist, Infrastructure and Engineering Services

Re: New Scotland Line over McDougall Drain  
Culvert Replacement  
Tender Results  
Contract No.: T19-197

Dear Mr. Cikatricis:

This letter is to confirm the results of the tender opening held on Thursday June 27, 2019 for the New Scotland Line over McDougall Drain Culvert Replacement project.

The tender period officially closed at 1:30PM, and bids were opened publicly at the Municipality of Chatham-Kent's Council Chambers at approximately 2:00PM. In all, six (6) bids were received. All bidders had a representative present at the mandatory site meeting.

Results of the tender are as follows:

Bidder	Subtotal	HST	Total Price	
1. Clarke Construction Inc. 342 Chatham Street South Blenheim, ON N0P 1A0 Tel.: (519) 676-7226 Email: <a href="mailto:clarkedrainage@bellnet.ca">clarkedrainage@bellnet.ca</a>	\$738,000.00	\$95,940.00	\$833,940.00	
2. Henry Heyink Construction Ltd. 275 Colborne Street Chatham, ON N7M 5R9 Tel.: (519) 354-4593 Email: <a href="mailto:info@heyink.on.ca">info@heyink.on.ca</a>	<del>\$724,200.00</del> \$746,200.00	\$97,006.00 \$97,006.00	\$843,206.00 \$843,206.00	(Corrected)
3. South Shore Contracting of Essex County Inc. 144 Keown Street Essex, ON N8M 1J3 Tel.: (519) 961-9316 Email: <a href="mailto:jmallott@sscessex.com">jmallott@sscessex.com</a>	\$880,425.00	\$114,455.25	\$994,880.25	
4. Sterling Ridge Infrastructure Inc. 6260 Westar Drive Windsor, ON N9J 3W3 Tel.: (519) 978-3111 Email: <a href="mailto:bsmith@sterlingridgegroup.com">bsmith@sterlingridgegroup.com</a>	\$919,469.00	\$119,530.97	\$1,038,999.97	



5. Facca Incorporated 2097 County Road 31 Ruscom, ON N0R 1R0 Tel.: (519) 975-0377 Email: <a href="mailto:don@facca.com">don@facca.com</a>	\$977,000.00	\$127,010.00	\$1,104,010.00
6. Murray Mills Excavating & Trucking (Sarnia) Ltd. 4970 Kimball Road Sarnia, ON N7T 7H5 Tel.: (519) 332-8923 Email: <a href="mailto:estimates@murraymillsexcavating.com">estimates@murraymillsexcavating.com</a>	\$1,068,436.00	\$138,896.68	\$1,207,332.68

All tenders have been checked for errors, omissions, qualifications and obvious imbalances. One error was found in the sub-total by Henry Heyink Construction Ltd. whereby the sub-total price was incorrectly totaled. When corrected, this mathematical error had no effect on the ranking of the bids. For your reference, attached is a spreadsheet comparing all of the unit and total prices received with our estimate.

Clarke Construction Inc.'s price of \$833,940.00 (incl. HST), the low tender price, is \$58,929.50 (6.60%) lower than the Engineer's Estimate, and is \$9,266.00 (1.10%) lower than the second bidder.

Clarke Construction Inc.'s bid is a quality bid and is in line with the Engineer's Construction Cost Estimate. Clarke Construction Inc. is a reputable contractor whom we are familiar with.

**Based on the above, we recommend that the contract for this work be awarded to the low bidder, Clarke Construction Inc.**

We trust that you will find the above to be in order. Upon your direction, we will advise the contractor and prepare the contracts for execution.

Please contact our office should you have any comments or questions regarding the above, or wish to discuss this matter in more detail.

Yours truly,  
GM BLUEPLAN ENGINEERING LTD.  
Per

Brad Walt, C.E.T.  
Encl.