

Municipality of Chatham-Kent

Infrastructure and Engineering Services

Engineering and Transportation Division

To: Mayor and Members of Council

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

Date: September 22, 2020

Subject: Amended Request for Proposal Award: R19-374 – Talbot Trail
Municipal Class Environmental Assessment, Community of
Romney

Recommendations

It is recommended that:

1. The scope change valued at \$201,422.50 (including HST), be added to the Contract R19-374: Request for Proposal – Talbot Trail Municipal Class Environmental Assessment for an amended total cost of \$421,038.00 (including HST), and awarded to BT Engineering Inc.
2. The Mayor and Clerk be authorized to sign the necessary agreement.

Background

At the December 2, 2019 Council meeting, Council approved a report for the Request for Proposal (RFP) award of Contract No. R19-374, Talbot Trail Municipal Class Environmental Assessment (EA) at a cost of \$219,615.50 including HST which was awarded to BT Engineering Inc. A copy of this report is attached as Appendix A.

The Municipal Class EA for Talbot Trail was initiated in January 2020 to consider alternatives for either:

- The rehabilitation of the existing corridor to address the issue of road failure/slope instability; or
- For the road realignment/road reclassification that would offset Talbot Trail from the zone of shoreline erosion.

The initial study area shown in green in the figure below (Figure 1) focused on the immediate need for areas of slope failure. This area included shoreline from approximately Zion Road to Port Road which includes the failure location just east of Coatsworth Road.

In these areas the zone of failure has increased since the release of the RFP. In addition, the completion of the Lake Erie Shoreline study has now identified the limits of shoreline failure will extend easterly to Erieau. The Shoreline Study was completed following the award of the RFP to BT Engineering and now that the study is complete, the scope of work is therefore recommended to increase.

A key aspect of the Class EA process is public consultation. Consultation completed to date has included circulation of a Draft Study Design and completion of a Community Café meeting with the public/stakeholders to review the needs of the community and identify issues involved with the project. At the Community Café event, the public identified a need to determine a long-term solution for the entire Lake Erie shoreline where erosion is or will be occurring. To do so requires consideration of the shoreline easterly to Cedar Springs. This extension is shown in purple in the figure below (Figure 1).

Figure 1 – Initial and Proposed Study Area



Comments

The proposed study approach will now be to define the long range plan for a new Talbot Trail that will accommodate the 100 year shoreline erosion associated with climate change. This will ensure that the recommendations allow a phased implementation of an overall plan.

In consultation with BT Engineering, the Ministry of Environment, Conservation and Parks (MECP) will not accept completing the EA in two studies as the recommendations are inter-related. Historically the MECP have not allowed “piece-mealing” the EA into smaller pieces of a larger overall study area.

The approach of a staged implementation of a larger project will be described as a statement of flexibility in the EA. The Consultant on this project, BT Engineering, have used this approach in approximately 10 EA’s accepted by MECP. Doing so can allow an endless life of EA which avoids the need for future addenda and additional costs. Once the project is initiated and updated in subsequent Official Plan amendments, the EA can be described as a single EA with phased implementation possibly over the next century

or as Council determines/budget permits. The project will be staged with phased implementation possible as failures occur or funding is received and avoid the need to undertake future addendums to the EA study.

The recommendation to approve this amended contract will allow the Consultant, BT Engineering, to extend the study area from Port Road to east of County Road 12. This will allow for the consideration of connections to the east that connect to Blenheim and neighboring communities. Expanding the limits of the Study Area will:

- Determine a solution for the entire Talbot Trail corridor being compromised by slope instability/road failure;
- Avoid environmentally piece-mealing the projects;
- Allow the Municipality to protect this plan when future land development and/or sales occur. New purchasers will be aware of the future road project and future access plans if/as required;
- Consider a solution for connections between adjacent communities; and
- Not prejudge a solution for the corridor beyond the limits of the current study.

The study area extension will:

- Undertake environmental inventories for the natural, social, and cultural environments to determine existing conditions;
- Measure the environmental effects of each alternative;
- Determine the long term transportation improvements required to service the community (arterial road alignment for the Talbot Trail and local roads, or private property accesses to the new Talbot Trail, as the shoreline moves inland based on 100 year climate change forecasts); and
- Complete the public consultation and documentation mandated by the Municipal Class EA process.

A Scope Change was supplied by BT Engineering in the amount of \$201,422.50 to complete the additional work associated with this Municipal Class EA extension to Cedar Springs.

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 Purchasing Officer was consulted during the preparation of this report and reviewed by the Engineering and Transportation Division, Infrastructure and Engineering Services.

Financial Implications

The engineering services associated with this project are to be funded through the lifecycle roads budget.

The project summary is set out in the following table:

**Amended Proposal R19-374
Talbot Trail Municipal Class Environmental Assessment
Community of Romney**

Description	Total
A) Initial Project Costs	
Total Cost including HST	\$219,615.50
Less HST Rebate 11.24%	-\$21,844.94
Total Initial Project Costs	\$197,770.56
B) Scope Change Recommendation	
Total Cost including HST	\$201,422.50
Less HST Rebate 11.24%	-\$20,035.30
Total Recommended Scope Change	\$181,387.20
C) Amended Project Funding	
Lifecycle Roads Budget – 100%	\$379,157.76
Total Amended Project Funding	\$379,157.76

The recommendation in this report has an associated financial implication of \$201,422.50 (incl. HST) in consulting fees as the initial project cost (\$219,615.50 incl. HST) was already approved by Council at the December 2, 2019 Council Meeting.

Prepared by:

Reviewed by:

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

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

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

Jennifer Scherle
Purchasing Officer
Financial Services

Attachments: Appendix A – 4192 – RFP Award R19-374 Talbot Trail Municipal
Class EA RTC

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374 – Talbot Train Municipal Class EA

Municipality of Chatham-Kent
Infrastructure and Engineering Services
Engineering and Transportation

To: Mayor and Members of Council

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

Date: November 15, 2019

Subject: Talbot Trail Temporary Options and Request for Proposal Award: RFP R19-374, Talbot Trail Municipal Class Environmental Assessment, Community of Romney

Recommendations

It is recommended that:

1. The proposal in the amount of \$219,615.50, including HST for the Talbot Trail Municipal Class Environmental Assessment, Community of Romney be awarded to BT Engineering Inc.
2. The Mayor and Clerk be authorized to sign the necessary agreements.

Background

Talbot Trail, or formally Kent County Road 3, is an east/west regional arterial road with through traffic from the County of Essex to the County of Elgin. The majority of the road alignment contained within Chatham-Kent closely fronts Lake Erie. Due to high water levels and wave energy from the lake, the road has been experiencing slope instability, erosion, flooding and deterioration above and beyond historic rates.

Chatham-Kent Engineering retained geotechnical services from Golder Associates Corporation in late 2018 to study the impact of the accelerated deterioration and erosion of the shoreline at a section of Talbot Trail. Golder has since been carrying out detailed technical exploration and slope assessment to evaluate the Lake Erie bluff slope and erosion conditions on a 150 m section of Talbot Trail, 500 m east of Coatsworth Road. East of this particular section of roadway had previously been relocated in 2010 due to the shore erosion having a negative impact on the road structure. Based on the uncertainties associated with potential slope and subsequent road failures, the roadway was closed at this location in July, 2019 in the interest of public safety.

As a result of the closure, two detour routes were established, one for local traffic utilizing Port Road and Coatsworth Road and one for heavy truck 'through' traffic using Middle Line from Blenheim to Wheatley. Stevenson Road was considered for this detour route however, the

turning radii and traffic control in the hamlet of Stevenson did not support this increase in traffic flow. With the suggested detours in place, Concession Line 2 between Coatsworth Road and Stevenson Road has been used as a local detour road around the closure site as well.

A site meeting was held on July 31, 2019 with Chatham-Kent Infrastructure and Engineering Services, Fire and Emergency Services, members of Council and the public in attendance. The purpose of the meeting was to discuss the recent closure and the next steps going forward to address the situation. At this meeting, several requests were made which include:

1. That administration provide a public report that explains the rationale which prompted the closure.
2. That administration provide to Council options to re-open Talbot Trail.
3. That administration provide to Council options to improve the local road (Concession Line 2).

In association with the Lower Thames Valley Conservation Authority, the Municipality of Chatham-Kent is also undergoing a Lake Erie Shoreline Study, which stretches from the western Municipal boundary in Wheatley to Clearville in the southeast boundary of Chatham-Kent, including the subject section of Talbot Trail. The purpose of the shoreline study is to explore the influence of climate change on future coastal hazards due to changes in storms and ice cover and the associated challenges for the coastal communities of Chatham-Kent. This study is currently in progress with an expected completion date of March, 2020.

The subject project is to be part of the 2019 lifecycle roads budget. It is the intention of the Municipality that the engineering services be initiated in 2019 with the EA being completed by the end of 2020.

Comments

1. Rationale that Prompted the Closure

Chatham-Kent Engineering instructed Golder Associates to prepare a public document that details the rationale that prompted the closure of Talbot Trail. This document was provided to Council electronically as well as included in the information package as part of the November 18, 2019 Council meeting.

2. Temporary Improvement Options along Talbot Trail

The options below that contain high-level estimates are temporary works that the Municipality can proceed with within the existing right-of-way of Talbot Trail. As these options are temporary and do not impact private lands, a Municipal Class Environmental Assessment (EA) is not required to be completed. From the report appended herein as **Appendix A**, there are 2 options to consider:

- Option 1 - 75 per cent bank excavation, which consists of removing all trees and excavating 67,100 cubic meters of material and stockpiled on site or placed on the wetted edge, covering exposed bank with straw matting and revegetation with drainage piping below. This unloading of the bank will provide a service life of approximately 5 years at a cost of approximately \$2,000,000 (or \$400,000 per year of service). The length of the project will be approximately 110 working days.
- Option 2 – same as Option 1, with but with armouring of the slope using engineered material for slope stability. This option will provide a service life of approximately 12.5 years at a cost of approx. \$4,000,000 (or \$325,000 per year of service). The length of the project will be approximately 120 working days.

Both options above would require a Coastal Engineering analysis to satisfy the requirements of the local Conservation Authority and other government authorities and both options do not include detailed design and engineering. The estimated costs for Coastal and detailed design engineering is between \$300,000 to \$600,000 for each option.

3. Concession Line 2 – Local Road Improvements

Due to the road closure of Talbot Trail between Coatsworth Road and Stevenson Line, Concession Line 2 has seen increased daily traffic volumes. Concession Line 2 is currently a gravel road with a total length of 4.2 km, with an average width of 7.5 m.

The Coatsworth-Robinson Extension Drain runs along the south portion of the road between Coatsworth Road and Stevenson Road. The drain includes a concrete culvert at the intersection of Coatsworth Road and Concession Line 2.

Engineering has reviewed Concession Line 2 in order to provide an estimate to upgrade the existing gravel roadway. In accordance with the Municipality's Road Upgrade Policy and to maintain proper road and shoulder widths for an improved road surface, the existing road and concrete culvert will require widening.

Road upgrades will include a surface treatment (tar & chip) road with granular shoulders and a new (extended) concrete box culvert at the intersection of Coatsworth Road and Concession Line 2. These improvements are to accommodate local traffic only. Truck traffic will still be required to use the current posted detour route of Middle Line.

If improvements to Concession Line 2 are considered, the approximate cost is \$3,209,200 including HST.

Item Description	Total
Road Reconstruction with Surface Treatment	\$2,135,000
Concrete Culvert Replacement	675,000
Engineering	30,000
Subtotal	2,840,000
HST 13%	369,200
Total Cost	\$3,209,200

Municipal Class EA

In accordance with the Provincial Municipal Class Environmental Assessment (EA) guidelines, an EA is required to evaluate both short and long term options and provide a final recommendation for improvement. The EA shall assess Talbot Trail from 2nd Concession Line (Ellerbeek Road) to Port Road in the Community of Romney in its current state and indicate what upgrades or rehabilitative measures are needed to address the road failure and slope instability. Alternative designs, not limited to road relocation(s) to the north, repairs and/or improvements along Talbot Trail’s current alignment, and/or reclassification of roads may be considered as viable options.

Two (2) separate proposals were received by the Purchasing Officer on November 6, 2019 and forwarded to the Engineering and Transportation Division for review and evaluation by the evaluation panel using the Council approved evaluation matrix as provided in the proposal call to all submitting firms. The two proposals submitted were from, BT Engineering Inc., and R.V. Anderson Associates Limited.

The proposals were received using a two-envelope system with the fee schedule submitted in a separate envelope, opened by the panel only after the ratings had been determined. Due to the complexity of the project and the specialized nature of the work, the respondents were required to score at least 70% (686 points on the technical proposal) of the maximum on the evaluation matrix to have their fee envelope opened. Failure to achieve this grade resulted in a non-compliant submission.

Table 1: Summary of Evaluation Scores

Rank	Submitting Firm	Office Location	Final Score
1.	BT Engineering Inc.	London, ON	1271.6
2.	R.V. Anderson Associates Limited	London, ON	905.7

Both proposals submitted adhered to the requested content of the RFP. The proposal submitted by BT Engineering Inc. illustrated the staffing resources, methodology and quality controls necessary to initiate and successfully complete the project. Based on the panel

review process, the proposal submitted by BT Engineering Inc. was deemed to be the preferred submission ranked highest by the panel.

The Lake Erie Shoreline Study, once completed, will act as a resource for the Talbot Trail EA.

Areas of Strategic Focus and Critical Success Factors

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

- Economic Prosperity:
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- Neutral issues (does not support negatively or positively)

Consultation

The proposals were received, opened and distributed to the Engineering and Transportation Division by the Purchasing Officer. Proposals were reviewed, evaluated and ranked by a panel consisting of the Director of Engineering and Transportation, the Manager of Infrastructure Services, and Engineering Technologists.

The Purchasing Officer was consulted in the preparation of this report.

Financial Implications

The engineering services associated with this project are to be funded through the 2019 lifecycle roads budget.

The project summary is set out in the following table:

**Proposal R19-374
Talbot Trail Municipal Class Environmental Assessment
Community of Romney**

Description	Total
A) Project Costs	
Recommended RFP	\$194,350.00
Plus HST 13%	\$25,265.50
Total Cost including HST	\$219,615.50
Less HST Rebate 11.24%	-\$21,844.94
Total Project Costs	\$197,770.56
B) Estimated Project Funding	
2019 Lifecycle Roads Budget – 100%	\$197,770.56
Total Project Funding	\$197,770.56

The low tender bid submitted by BT Engineering Inc. was within the budget estimate.

The recommendation in this report has an associated financial implication of \$197,770.56 in consulting fees.

Prepared by:

Reviewed by:

Debbie Cooper, C.Tech
Engineering Technologist
Engineering and Transportation

Mark McFadden, P.Eng.
Manager, Infrastructure Services
Engineering and Transportation

Reviewed by:

Reviewed by:

Chris Thibert, P.Eng.
Director
Engineering and Transportation

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

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

Jennifer Scherle
Purchasing Officer
Financial Services

Attachments: Appendix A - Golder Associates Slope Remediation – Short Term
 Concepts and Preliminary Budget

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Train Municipal Class EA