

Report To:	Council
From:	M. Paul Cripps, P. Eng., Commissioner, Engineering Services
Date:	June 24, 2019
Report No:	ENG-019-19
Subject:	Appleby Line (Derry Road to Rattlesnake Point) Design Report for Phase 1 and Phase 2 Road Improvements – Update
Recommendation:	THAT Council approve staff to proceed to the detailed design phase for Preferred Alternative 5 (as shown in Appendix I) for phase 1 and phase 2 improvements to Appleby Line (Derry Road to Rattlesnake Point);
Recommendation:	design phase for Preferred Alternative 5 (as shown in Appendix I) for phase 1 and phase 2 improvements to

EXECUTIVE SUMMARY

ENG-006-19, presented at the March 25 Council meeting, identified Alternative 3 as the preferred design solution for Appleby Line. This was based on a wide range of criteria, including natural and social environment, property impacts, technical and transportation factors and cost. Alternative 3 was recommended, as it addressed the deficiencies identified, while minimizing environmental impacts, including cutting of the natural escarpment rock face. Based on key stakeholder input at that meeting and subsequent Council direction, Engineering staff have developed a hybrid of Alternative 3 and Alternative 4 - Alternative 5, which minimizes property purchase but results in some excavation of the natural rock face.

Additional consultation has been undertaken with the Niagara Escarpment Commission (NEC) regarding the possibility of proceeding with Alternative 5. The NEC requested more information regarding the details and extent of rock excavation, visual/aesthetic



impacts and impacts to the rock crevices, as the blue spotted salamander hibernates in these crevices.

Modifications to Alternatives 3 and 4 as presented in this report were required to find an appropriate balance between NEC concerns regarding rock cut, environmental impacts and stakeholder concerns regarding property purchase. Staff met with the NEC to discuss Alternative 5 and have achieved agreement in principal to the design.

Staff met separately with the property owner of 7145 Appleby Line whose property is most affected by the work proposed at the hairpin turn. The property owner reviewed Alternative 5 and had comments that we are currently addressing, however, the owner agreed in principal to the design (see Appendix III). Staff feel that we have achieved consensus with the stakeholders in the project.

We are now in a position to submit a formal development application to the NEC, and staff are seeking Council's endorsement to do so.

Engineering staff are working towards a construction start date in the spring of 2020 for the construction of Phases 1 and 2 with completion in late summer 2020, pending resolution of environmental and permitting issues, property acquisition and subsequent approvals from the required agencies.

REPORT

Background

Report ENG-019-19 is being brought forward to Council as an update to report ENG-006-19, with respect to the preferred design alternative for phases 1 and 2 for Appleby Line, between Derry Road and Rattlesnake Point Conservation Area. Report ENG-006-19 provided the background information for this project and outlined work completed to-date. Subsequent to the Council meeting on March 25, Engineering staff have further consulted with the NEC and are reporting back to Council regarding the feasibility of proceeding with Alternative 5 as the preferred design. Alternative 5 is a hybrid solution of Alternatives 3 and 4 and is intended to address concerns of the NEC and the local property owner most affected by the project.



Discussion

General Design

During the preliminary design work for phases 1 and 2, four improvement alternatives were considered and assessed for the hairpin curve, as follows:

- Option 1: Do nothing
- Option 2: Close road to through traffic with cul-de-sacs
- Option 3: Widening while minimizing rock cut, and
- Option 4: Widening with rock cut

An assessment was prepared considering a wide range of criteria including natural and social environment, property impacts, technical and transportation factors and cost. Due to property impacts related to Option 3, the revised preferred alternative is Option 5; minimum widening with rock cut. The preferred alternative addresses the deficiencies previously identified in report ENG-006-19, including safety, ability of vehicles to negotiate the hairpin curve, pavement deterioration, poor surface and groundwater drainage and frequent emergency calls, while minimizing property taking. Alternative 5, which mitigates rock cut has been discussed with the NEC.

Land

In order to implement the preferred design alternative, a widening of the existing road allowance at the location of the hairpin curve is required. The land required for the widening that currently belongs to 7145 Appleby Line is identified as approximately 152 m². A preliminary plan identifying the anticipated minimum property requirements is included in Appendix II to this report and a property appraisal is currently underway. The intent of staff is to reach an amicable agreement regarding any road widening requirements. This has been discussed further with the landowner and a consensus reached.

Permits

As detailed in report ENG-006-19, the study team has consulted with CH, MNRF and NEC at several points throughout the design process to-date.

The NEC will require a development permit application for phase 1 and phase 2 work to be submitted at the completion of detailed design. With modification of the preferred design to Alternative 5, investigation of mitigation options and development of an appropriate mitigation plan for rock cut has been achieved.



Subsequent to the Council meeting on March 25, Town staff further consulted with the NEC regarding the feasibility of proceeding with preferred design Alternative 4, and the NEC provided the following feedback:

- The NEC will require details on any proposed rock cut. This would include the method that would be implemented to achieve the rock cut and the extent of the cut. Additional details regarding how the cut would affect the rest of the face of the escarpment would also be required.
- 2. The details of the impact, from a visual or aesthetic point of view would be required for both Alternative 3 and Alternative 4 in order for the NEC to make a decision regarding their support for either option.
- 3. If the NEC were to support a rock cut, there would be a window in which to do that, as the blue spotted salamander hibernates in the rock crevices.
- 4. The NEC's paramount concern is any impact to the escarpment.

Addressing this feedback led to the creation of Alternative 5. Engineering staff and our consultant team have conducted further topographical survey of the existing rock face, further evaluated a means to minimize rock cut while respecting reduced property taking.

It should be noted that the NEC's support of design Alternative 5 is not guaranteed at this time although staff and our consultant team have mitigated their concerns, as well as those of the adjacent landowner. The NEC will not make a final decision on a proposal until a permit application has been made and the commenting agencies have provided their comments and conditions – this permit review process can be lengthy, and based on previous experience, our consultant team has estimated approximately 4 months for this process. If the NEC issues a notice of decision to refuse a permit, then the applicant (the Town, in this case) has the option to appeal the decision (within 14 days of receipt of the Notice of Decision) to the Ministry of Natural Resources and Forestry. The following information is available on the NEC website regarding the appeal process:

Upon receipt by the Niagara Escarpment Commission, an appeal is forwarded to the Environmental Review Tribunal which appoints an independent Hearing Officer from the Niagara Escarpment Hearing Office to process the appeal. The Hearing Officer will make a report to the Minister of Natural Resources and



Forestry within 30 days after the conclusion of the Hearing or within such longer period as Minister may permit.

The work required to address the NEC feedback and to further advance Alternative 5 must be completed prior to submitting a formal permit application.

Construction

The construction of this project depends on permit approvals and land acquisition. Construction of phases 1 and 2 was originally scheduled for summer 2019; however, given the additional work that is required to address the NEC feedback at this time, the schedule has been revised. Construction for phases 1 and 2 is now anticipated to start in Spring 2020, with completion in Summer 2020.

Financial Impact

Funding for this design project was included in the 2017 approved budget in the total amount of \$154,212. Construction of phases 1 and 2 has been approved through the 2019 capital budget in the amount of \$426,533. Phase 3 is included in the forecast for design in 2021 and construction in 2023 with a total estimated cost of \$3,200,205. Operating impacts associated with the road improvements are expected to be minimal and will be incorporated through future budgets.

Respectfully submitted,

M. Paul Cripps, P. Eng. Commissioner, Engineering Services

For questions, pleaseJohn Brophy, Director,905-878-7252x2516contact:Infrastructure

Attachments

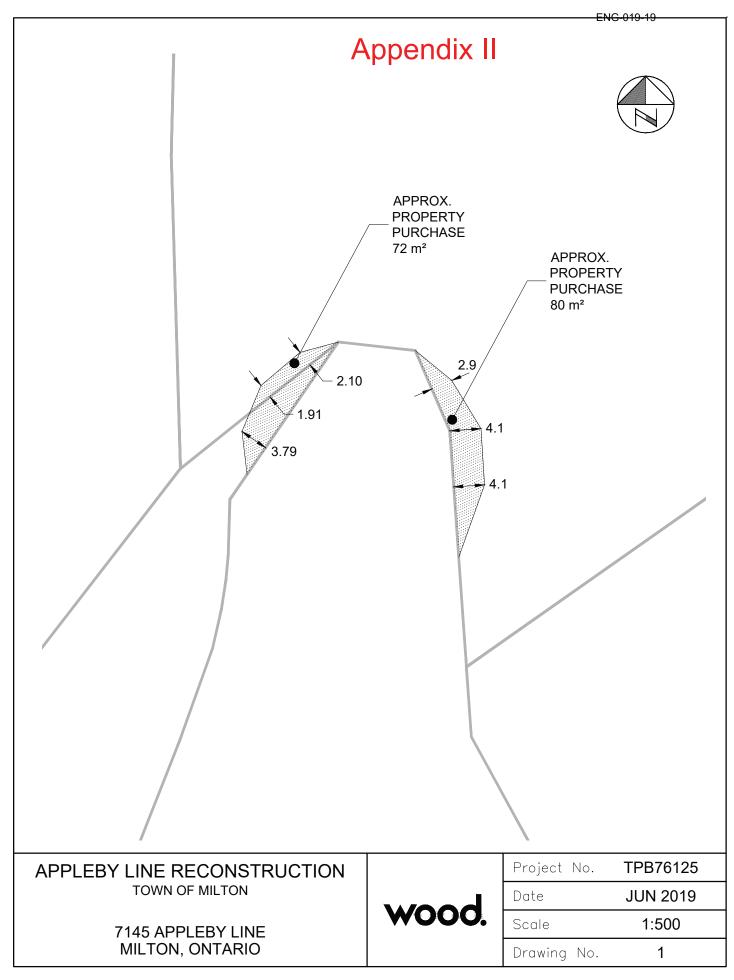
Appendix I: Preferred Design Alternative 5Appendix II: Preliminary Property Requirements for Alternative 5Appendix III: Email from Property Owner

CAO Approval Andrew M. Siltala Acting Chief Administrative Officer

APPENDIX I

ENG-019-19





From: Sent: To: Cc: Subject:

Follow Up Flag: Flag Status: Follow up Flagged

John Brophy

Hi john,

We have had a discussion together and spoken to our Lawyer and agree to your proposal pending agreed upon clarifications.

Thursday, June 06, 2019 1:49 PM

Paul Cripps; **Conversation**

I have alerted town councillors Best and Dirksen of our decision to proceed.

Thank you both for your spirit of compromise.

Let's get this sale done as quickly as possible and potentially the construction can start in 2019.

Best regards,

Sent from my iPhone