

Study Design  
Class Environmental Assessment  
Ward Street Widening

County of Peterborough  
RFP No. P-14-2016

Engage Engineering Ltd.  
Project No. 16107  
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## 1.0 Introduction

The County of Peterborough has initiated an Environmental Assessment (EA) to study alternatives for the widening of Ward Street in Bridgenorth (the Study). This EA is being conducted in accordance with the Municipal Class EA process. Ward Street is the main transportation corridor through Bridgenorth and provides connectivity from the City of Peterborough to the northern portions of Peterborough County. Ward Street also functions as the main street in Bridgenorth, providing access to commercial and residential properties.

Since the original two-lane cross section was constructed, traffic volume has steadily increased over time along the Ward Street corridor. Recent traffic data from the County suggests that the Ward Street corridor is beyond the capacity for a two-lane road during peak periods such as morning/evening rush hour and during the summer season. With the Causeway Link/Bridgenorth Bypass not scheduled within the next 10-year period, the County needs to evaluate road widening alternatives in Bridgenorth to alleviate capacity issues in the near to medium term horizon (5 - 10 year period).

This EA will evaluate various alternatives to widening Ward Street to provide improvements for traffic capacity and flow in the near to medium term horizon. The Study will satisfy Phase 1 through 4 of the EA process, culminating in the preliminary design of a recommended solution for Ward Street. The detailed design of the corridor will be completed in the future. The project is being planned as a Schedule C undertaking and will include the required public and agency consultation, along with the filing of an Environmental Study Report (ESR) with the Ministry of the Environment and Climate Change (MOECC) at the conclusion of the Study.

This Study Design outlines the County's approach to completing the EA Study. It will serve as a guide for the Technical Advisory Committee (TAC) throughout the project and ensure that the County's approach to the project is transparent and remains focused for the duration of the project.

The Study Design provides the following information:

- Study purpose and objectives
- Site specific issues and opportunities to be addressed
- Confirmation of the Study area and limits
- Preliminary work plan outlining approach to the project
- Summary of proposed consultation program in accordance with EA requirements

## 2.0 Study Purpose and Objectives

### 2.1 Study Area

The Study area includes Ward Street in the settlement area of Bridgenorth, from Champlain Road to the James Gifford Causeway (CR14). The Study area is shown in **Figure 1**.

**Figure 1: Project Study Area**



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## 2.2 Study Objectives

The primary objective of the Study is to identify a recommended plan for Ward Street that will provide additional traffic capacity and improve traffic flow for the near to medium term horizon. However, Ward Street also functions as the main street in Bridgenorth, providing access to commercial centres, residential properties and recreational areas in the community. For that reason, the Study must also address more than traffic capacity. The recommended plan should provide for improved access to commercial properties, improved opportunities for pedestrian travel through the community and provision of links for active transportation in accordance with the recommendations of the County Active Transportation Master Plan (ATMP). The recommended plan should also consider the streetscape and built-form of the Ward Street corridor and provide opportunities for implementation of the recommendations in the Selwyn Community Improvement Plan (CIP).

## 2.3 Study Issues and Opportunities

The following is a preliminary list of the issues and opportunities that will need to be considered during the consultation and evaluation process of this EA. This list will evolve as the Study progresses.

### Traffic Capacity and Access

- Address capacity shortfalls through the corridor (throughput and at intersections) for near to medium (5-10 year) horizon
- Improve access to commercial nodes

### Utility Constraints

- Utility relocation to accommodate wider road cross section
- Changing utility standards may affect cost and scope of relocation

### Right-of-Way (ROW)/Property Constraints

- Ward St. ROW is between 18 and 20 m wide which is considered narrow for an arterial road
- The narrow ROW will prove to be challenging to accommodate additional traffic lanes as well as provide space for sidewalks and active transportation links
- Existing properties may encroach within the ROW, which will create challenges for widening and grading

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### **Bridgenorth Bypass**

- There is strong opposition to the bypass project from some members of the community; local stakeholders may associate the Ward Street study with the bypass

### **Balancing Competing Needs**

- Ward Street provides access to commercial properties as well as residential properties
- These stakeholder groups may have competing interests and needs which will need to be considered through the consultation process

### **Pedestrian and Active Transportation Opportunities**

- Pedestrian movement is important to promote a more walkable and inviting streetscape in Bridgenorth; the recommended plan should incorporate sidewalks to improve walkability in the community
- Consideration must be given to the recommendations of the County Active Transportation Master Plan for cycling infrastructure

### **Proximity to Chemong Lake/Storm Sewer Outlets**

- Consideration must be given to addressing runoff volume and quality to Chemong Lake consistent with current environmental regulations and standards

### **Selwyn Community Improvement Plan**

- The Selwyn CIP identifies improvements to improve the character and built-form of the corridor including on-street parking as well as making it more pedestrian friendly
- Recommendations include continuous sidewalks, improved pedestrian crossings and streetscaping improvements

## **3.0 Study Process**

### **3.1 EA Process**

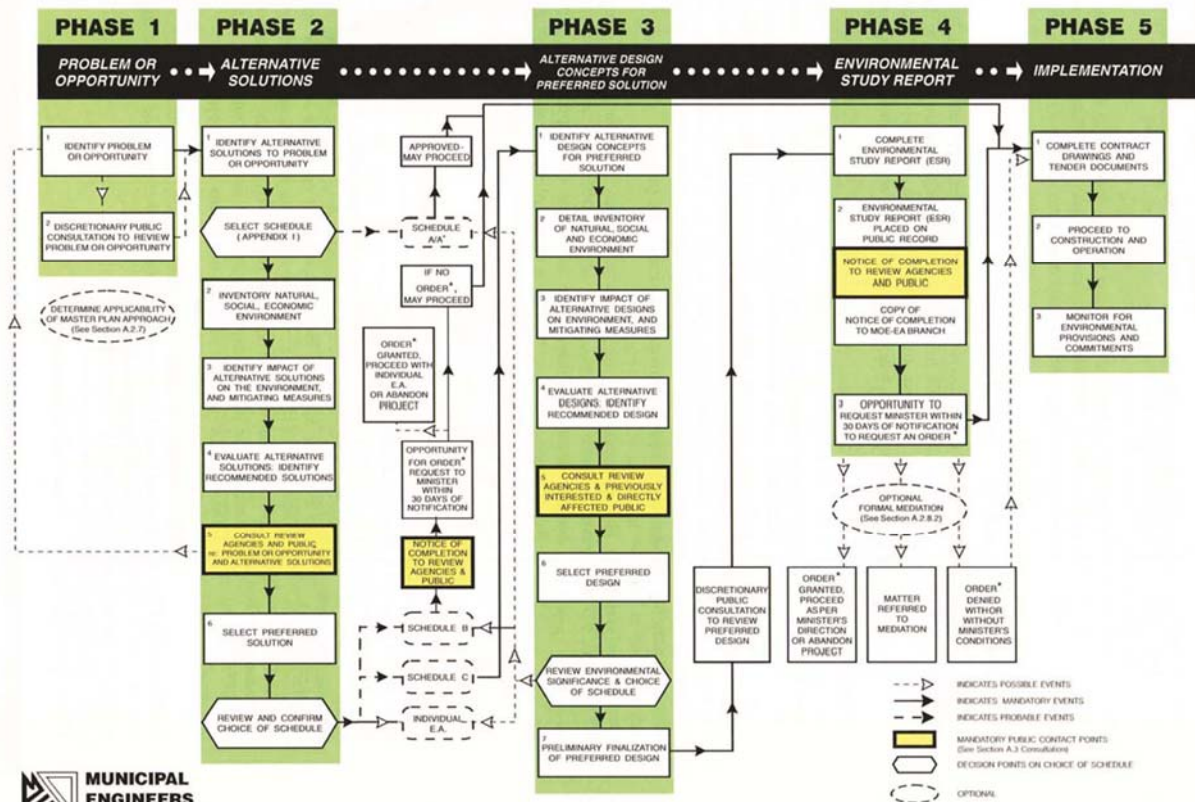
The Ward Street Study shall be completed in accordance with the *Municipal Class Environmental Assessment, 2007 (MCEA)*. The MCEA outlines the process for completing EA for various classes of Municipal Projects. The Ward Street Study is being completed as a Schedule 'C' project, which is the most rigorous level of Class EA identified in the MCEA. Schedule 'C' road projects are typically higher value and more complex projects.

The Class EA provides a framework for planning municipal projects. The EA process ensures that all reasonable alternatives are evaluated prior to selection of a preferred solution. The process provides for mandatory public and agency contact through various means. There are typically five phases in the EA process, as summarized below:

- Phase 1: Identification of the Problem/Opportunity**
- Phase 2: Develop Alternative Solutions & Preferred Solution**
- Phase 3: Evaluate Alternatives for Preferred Solution**
- Phase 4: Prepare Environmental Study Report (ESR)**
- Phase 5: Implementation of Project**

The Provincial Class EA process is illustrated in detail in **Figure 2, Municipal Class Planning and Design Process**. The Ward Street Study will be completed to Phase 4 at this time, with detailed design and implementation to be completed at a future date.

**Figure 2 – EA Process**



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## 3.2 Consultation Program

A Technical Advisory Committee (TAC) has been established for the project that includes staff members from the County, Selwyn Township and the Consultant Team. The TAC has representation by the project owners and key decision makers.

A consultation program was developed specifically to address the study issues for the Ward Street EA. The consultation program includes several types of communication to engage the community and agency stakeholders, including:

- Development of a project specific stakeholder list of agencies and community stakeholders with input from the TAC
- Project Notices including Notice of Study Commencement, Public Information Centres and Notice of Study Completion
- Advertising of all Notices in local papers, posting of Notices on County and Township websites and mailing of all Notices to key agency and community stakeholders
- Two formal Public Information Centres (PIC's) at critical points during the project to provide all stakeholders the opportunity for review and comment on the project
- Smaller, informal meetings with specific community groups to allow for open discussion about the groups specific concerns

### Public Information Meetings

It is anticipated that two (2) PIC's will be held throughout the project. Both PIC's will be Open House format with display material and representatives from County, Township and the Consultant Team present to answer questions and provide additional information. The meetings will be held at the Bridgenorth Library.

PIC No. 1 will focus on the project goals, the opportunities and constraints, and to seek input from stakeholders on specific issues and concerns on the Ward Street corridor. Preliminary alternatives will be presented at the meeting to seek input from the stakeholders. PIC No. 2 will present the Preferred Solution, the evaluation criteria and process as well as provide opportunity for input and comment on the Preferred Solution from the Community. Input from the meeting will be used to refine the Preferred Solution prior to completing the EA.



## **Local Stakeholder Meetings**

It is anticipated that this project will generate significant interest from residents and businesses in the community, since Ward Street provides access to both types of properties. Because these groups often have differing needs and priorities, the consultation program includes smaller, informal meetings with these community groups. These meetings will be coffee house style meetings where open discussions about the groups specific interests and concerns can be explored more fully than in a PIC format. There will be at least one local stakeholder meeting with both the business groups and residents during the consultation process.

### **3.3 Work Program**

The work program for the Ward Street Widening project is summarized by major task below.

#### **Project Start-Up & Background Review**

Upon project award the Technical Advisory Committee (TAC) will be established with representatives from County, Selwyn Township and the Consultant Team. The TAC will provide overall guidance for the project to ensure objectives are met. A preliminary meeting will be held to review project scope, schedule and deliverables. Relevant background information will be gathered and reviewed including:

- Previous Ward Street studies related to traffic and widening
- Selwyn Community Improvement Plan (CIP)
- County Transportation Master Plan (TMP) and Active Transportation Master Plan (ATMP)
- Available traffic data for Ward Street and proposed data collection methodology
- Available mapping and drawings related to Ward Street

#### **Consultation Plan/Study Design**

The Study Design outlines the County's approach to completing the EA. The Study Design will serve as a guide and reference point for the Technical Advisory Committee. It will ensure that the County's approach to the project is transparent and remains focused for the duration of the study. The Study Design provides the following information:

- Study purpose and objectives
- Site specific issues and opportunities to be addressed
- Confirmation of the Study area and limits

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- Preliminary Work plan outlining approach to the project
  - Summary of proposed consultation program in accordance with EA requirements

The Study Design will be posted on the County’s website so that stakeholders can review the process and understand the County’s approach to the project.

### **Supporting Technical Studies**

The Consulting Team will review the background information for the project to confirm what types of supporting studies are required. This information includes geotechnical investigations, topographic/legal survey and inspection of the existing storm sewer infrastructure on Ward Street. This information will be used to support the analysis and evaluation of alternatives for the project. Engage will coordinate these supporting studies and integrate the information into the EA Study.

### **Traffic Analysis**

Improving corridor capacity and traffic flow is one of the key objectives of this EA. A comprehensive traffic data collection and analysis program will be completed to quantify the existing traffic operations within the corridor and to test capacity improvements of alternative solutions. Key elements of the traffic analysis program include:

- Design of traffic count program to collect 2017 data and travel survey to supplement and update the previous traffic and travel survey completed by the County
- Conduct traffic count program including pedestrian/bicycle counts
- Set up Ward Street traffic model to include all municipal streets and principal commercial entrances
- Model the traffic simulations for alternative scenarios for each peak hour period.
- Complete traffic analysis including summary of comparative intersection performances with focus on Levels of Service and residual capacities for additional future traffic.
- Based on this review and pedestrian/cycling volumes and data collected during the traffic count program, confirm recommendations for improvements to existing active transportation links along the Ward Street corridor.

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## **Inventory of Natural, Social and Cultural Environments**

### **Social Environment**

Social considerations related to the Ward Street corridor will be collected and analyzed. Key areas of focus will include:

- Existing land use within the corridor
- Access to residential and commercial properties
- Proposed improvements to built form identified in Community Improvement Plan
- Pedestrian movement and connectivity within the corridor
- Active transportation links and recommendations of the ATP

### **Natural Heritage Features**

The Ward Street corridor has been urbanized with development occurring over time. For that reason, it is not anticipated to contain significant natural heritage features. A desktop review of the features within the Study area including flora, fauna and species at risk (SAR) will be completed using data from the Ministry of Natural Resources databases. Based on the level of development within the corridor there is a low likelihood of suitable habitat or environmental features. A review of the drainage and outlet of the storm sewer system will be completed as part of the Study. The existing Ward Street storm sewer outlets to Chemong Lake in several locations. Widening of the road will increase runoff so alternatives will be evaluated to attenuate this increase as part of the design.

### **Cultural Environment**

Peterborough County is home to several First Nations communities, including Curve Lake north of Bridgenorth. The project stakeholder list includes several First Nations groups and agencies. Contact will be made early in the consultation process with these groups to ensure First Nations input and concerns are addressed.

### **Identify and Evaluate Alternatives**

Various alternatives for the widening of Ward Street will be developed through consultation with the TAC. The alternatives will include various cross sections for the corridor including three lanes, four lanes, lane configurations with cycling facilities and lane configurations with varying pedestrian facilities. The “Do Nothing” alternative of leaving the existing corridor in place will also be included in the evaluation, as required by the EA process.

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A preliminary screening of the alternatives will be completed to confirm which alternatives best meet the project objectives. Alternatives that do not satisfy the project objectives or have significant impacts that cannot be mitigated will be screened out and not carried forward for further analysis.

Evaluation criteria will be developed for the project to provide a clear and traceable analysis of the alternatives. The evaluation criteria will be developed with the TAC and will consider the natural, social, cultural and economic impact of the project. Factors that will be part of the evaluation include:

- Capacity improvement
- Ability to incorporate elements of the CIP
- Provision of pedestrian and cycling infrastructure
- Improved access to residential and commercial properties
- Impacts to natural environment
- Impacts to property and utilities
- Alternate corridor

### **Public Information Center No. 1**

PIC No. 1 will present the project goals and objectives, the opportunities and constraints and seek input from stakeholders on specific issues and concerns on the Ward Street corridor. Preliminary traffic analysis data and cross section alternatives will be presented at the meeting, as well as the results of the screening process to screen out alternatives that do not satisfy project objectives and will not be carried forward. The PIC will be held at the Bridgenorth Library. A summary report will be prepared for PIC No.1 outlining the key comments received.

### **Analysis and Evaluation of Alternatives**

Following PIC No.1, the alternatives will be refined based on input from the meeting and local stakeholder meetings. The alternatives will be evaluated using the criteria developed by the TAC. The evaluation process will score and rank the various alternatives to provide a clear and traceable process for selection of a preferred alternative. The preferred alternative will be identified and carried forward for preliminary design.

### **Preliminary Design**

The preliminary design will be developed in greater detail for the Preferred Alternative. Preliminary design plans will be prepared outlining the alignment, cross

section, drainage elements, property impacts and utility relocations. Detailed cost estimates will be prepared for the Preferred Alternative.

### **Public Information Centre No. 2**

Public Information Centre No. 2 will present the Preferred Alternative including the evaluation criteria, the results of the evaluation process, and the rationale in selecting the preferred alternative. The PIC will include results of the traffic analysis and modelling as well as the preliminary design plans and cross section for the corridor.

### **Prepare and File ESR**

Following PIC No. 2, input received from the PIC will be used to refine the Preferred Alternative to the Recommended Plan and preliminary design drawings. At this time, an Environmental Study Report will be prepared for the EA project. The ESR will document the Study process, findings, consultation program and the recommended plan for the Ward Street corridor. The ESR and plans will be presented to County and Township Councils for endorsement and the Study will be filed on the public record.

## **4.0 Project Schedule**

Key dates for the Ward Street EA project are summarized below:

<b>Task</b>	<b>Completion Date</b>
Project Award & Project Start Up	January 2017
Study Design	February 2017
Background Review/Information Gathering	February 2017
Develop Alternatives	March 2017
PIC #1	April/May 2017
Refinement of Alter/Evaluation of Alternatives	June 2017
PIC #2	July/August 2017
Refine Design of Preferred Solution	August 2017
Prepare Final Project Reporting	September 2017
Filing of ESR	October 2017