

# County of Peterborough

## ROADS PATROL SOFTWARE

### MUNICIPAL PROFILE:

POPULATION: 55,800 (2016 Census)

LOCATION: Central Ontario

SIZE: 3,769.29 km<sup>2</sup>

TOTAL PRIVATE DWELLINGS: 70,551

GREAT LAKES WATERSHED: Lake Ontario

### BACKGROUND

The County of Peterborough has demonstrated considerable effort in adapting to and mitigating the effects of climate change. They have participated collaboratively in multiple sustainability efforts within the Greater Peterborough area, such as the Sustainability Peterborough Community Plan. In 2016, Sustainable Peterborough developed a Climate Change Action Plan (CCAP) for the Greater Peterborough Area (including the County of Peterborough) to reduce local contributions to climate change and prepare the community for present and future impacts.

The County of Peterborough sees that asset management is essential for the future resilience of the community. The County owns, operates, and maintains a wide-ranging inventory of tangible capital assets. This includes 1,430 lane kilometres of paved roadway and 156 engineered structures (including bridges and culverts with spans equal to or greater than 6 metres). Given the rise of more frequent spring and fall freeze-thaw cycles, the County wanted to further investigate how assets exposed to these conditions are currently being impacted.

### PROJECT DESCRIPTION

As part of this project, the County of Peterborough is geo-locating issue locations and documenting the conditions of specific assets through a mobile application built on a Windows Smart Mobile device. Advantage Data Collection (third party provider) was utilized to compile data on all County signs. County staff were used to data capture all road-based assets, such as culverts, bridges, road segments, and potholes. These are geo-located on a map using the County's GIS system.

### OBJECTIVES

The objectives of this project were threefold:

- Improving the monitoring of road conditions and longevity of resources that are impacted by changing environmental factors;
- Increasing the County's ability to identify problem areas and, once identified, research options and implement solutions; and
- Enhancing road user safety (e.g. drivers, cyclists, pedestrians).

### PROJECT PLANNING

A first meeting was held with the County of Peterborough Public Works Department on March 13, 2017, to discuss project objectives and system needs. Subsequently, a series of meetings were held with Public Works, IT, Climate Change, and Corporate Projects staff to discuss available options and to set up demos for the software.



Clark Breuls



Overview of priority failures in Keene Area



Edit window for sign pole

In 2017, Advantage Data Collection completed the following tasks:

- Inspection, inventory, and assessment of regulatory traffic control signs (including retroreflectivity and barcoding);
- Inspection, inventory, and assessment of warning traffic control signs (including retroreflectivity and barcoding);
- Data post-processing work;
- Final Report that summarizes results of the sign inspection;
- Updated sign database with current sign information and inspection results;
- Updated mapping software with current sign information and inspection results.

Offsite data collection and verification of road and culvert conditions were also conducted by Public Works staff during this period.

### FUNDING

Funding for the project was supported by the \$7,000 grant from the MOECC for participating in the Collaborative Implementation Group project. These funds were matched by cash or in-kind contributions on behalf of the County of Peterborough.

### PARTNERSHIPS

The project involved significant collaboration among various County departments. No formal external partnership was needed for this project.

### CHALLENGES

Several key challenges were encountered during the planning and implementation of the project.

These include:

- **PROJECT GROWING IN SCOPE:** Initially, the objective of the project was to gather data on pavement conditions (i.e. potholes). The project scope grew to include condition assessments of other assets. This proved to be a challenge as limited financial and human resources were unable to accommodate these additional goals.
- **COMPETING PRIORITIES:** Staff and Council were faced with competing priorities. Consequently, additional human and financial resources were not made available. This has been especially challenging considering that the project was growing in scope.
- **STAFF CHANGE:** The County of Peterborough lost key staff members over the course of this project. This created gaps in knowledge, skills, and capacity, which slowed down the project for a few months.

### POSITIVE OUTCOMES

Several positive outcomes were achieved as a result of the project.

- **IMPROVED INTER-DEPARTMENTAL PARTNERSHIPS:** The participation and support of various departments from the beginning of the project to its culmination resulted in increased collaboration.
- **INCREASED KNOWLEDGE OF THE CONDITIONS OF THEIR ASSETS:** This will allow the County to update their Assessment Management Plan.

### MEASURING OUTCOMES

The success of this project is currently defined by the number of geo-located issue locations.

## LOOKING AHEAD

The public is currently able to report poor road conditions (such as potholes) using the County's website. Presently, the auto-integration between "Report a problem" on the website and the County's system is not yet complete, but a full integration of these two components is envisioned. The County foresees fully integrating the public portal into the data collection system through their Customer Relations Module.

The County's Asset Management Plan is currently being updated. As per Provincial legislation, it will include a risk assessment that is based on climate change hazards and impacts. In addition to this, a breakdown of the County-owned equipment and facilities will be assessed and entered into the system.



## Acknowledgements

This project was made possible by the Ontario Ministry of Environment and Climate Change, under the Canada-Ontario (COA) Respecting the Great Lakes.

## The Great Lakes Adaptation Project Collaborative Implementation Groups

The Collaborative Implementation Groups (CIG) project targeted 12 municipalities throughout the Great Lakes watershed to identify and implement an adaptation initiative in their community over the period of one year (January 2017 – December 2017). The CIGs came together at various stages to share experiences, challenges, and opportunities on such items as measuring progress through indicators, project financing, budgeting, scheduling, evaluation, monitoring, and reporting. Ultimately, the CIGs were an opportunity to bring together practitioners struggling with implementation challenges to create a peer support network that brings these individuals together (both online and in person) to collectively work through the implementation of an identified action and share the resulting experiences.

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