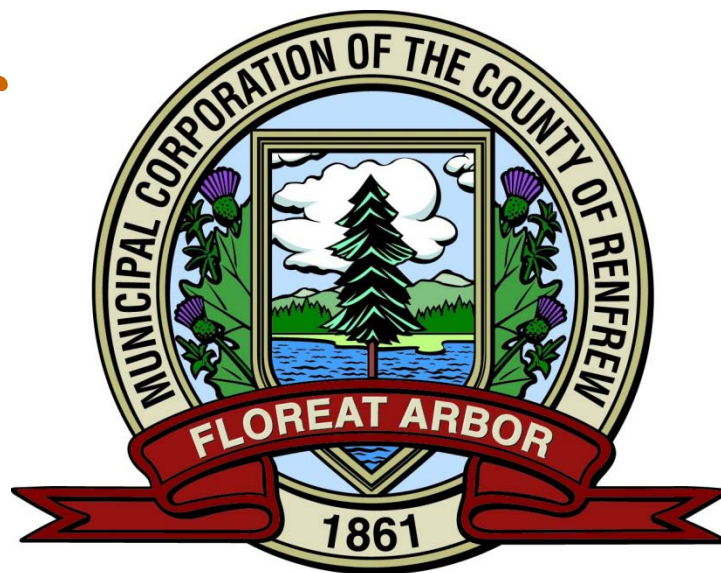


# *County of Renfrew*

Public Works and  
Engineering



## Public Open House No.2

County Road 71 (Matawatchan Road) From Highway 41 to County Road 65 (Centennial Lake Road) Environmental Assessment (EA) Study

June 28, 2011

# Presentation Outline

- Introduction
- Aims and Objectives
- Study Area
- Key Issues and Existing Conditions
- EA Process
- Transportation and Geometric Review
- Roadway Alternatives and Implementation Strategy
- Costs
- Next Steps

# County of Renfrew

## Department of Public Works and Engineering

### Departmental Responsibilities

#### **Director of Public Works and Engineering -Dave Darch**

- Overall management of department consisting of Operations and Capital divisions
- 811 km of Roads located in 17 municipalities
- 258 bridges and large culverts located on County and local roads
- 4 patrol areas
- 5 patrol garages
- Long Range Programming and planning
- Special projects

# Department of Public Works and Engineering

## Operations Division

- Manager - Steve Boland
- Operation and maintenance of County road and bridge system
- Fleet inventory and maintenance
- Planning and scheduling of maintenance operations (Scratch Coat Paving)
- Annual Budget:           6.0 M    (Property Tax Based funding)



# Capital Program in Greater Madawaska

## 2006 - 2011

- County Road 71 Rehabilitation/ Reconstruction 2007, 2008, & 2010
- County Road 34 Reconstruction 2009, 2010, & 2011
- County Road 508 Rehabilitation 2008
- County Road 65 Rock Cut Stabilization 2010
- Colterman Bridge Replacement 2006
- Calabogie Bridge Rehabilitation 2011
- Constant Creek Bridge Rehabilitation 2011
- Value of work \$6,391,000

# Capital Program in Greater Madawaska con't

## Planned Work 2012-2014

- County Road 71 Rehabilitation/ Reconstruction 2012, & 2013
- County Road 34 Reconstruction 2012, 2013, & 2014
- County Road 508 Rehabilitation 2012
- Centennial Lake Bridge Rehabilitation 2013
- Est. Value of work \$6,950,000

# Aims and Objectives of Public Open House

## No. 2

The goal of this meeting is to present the following:

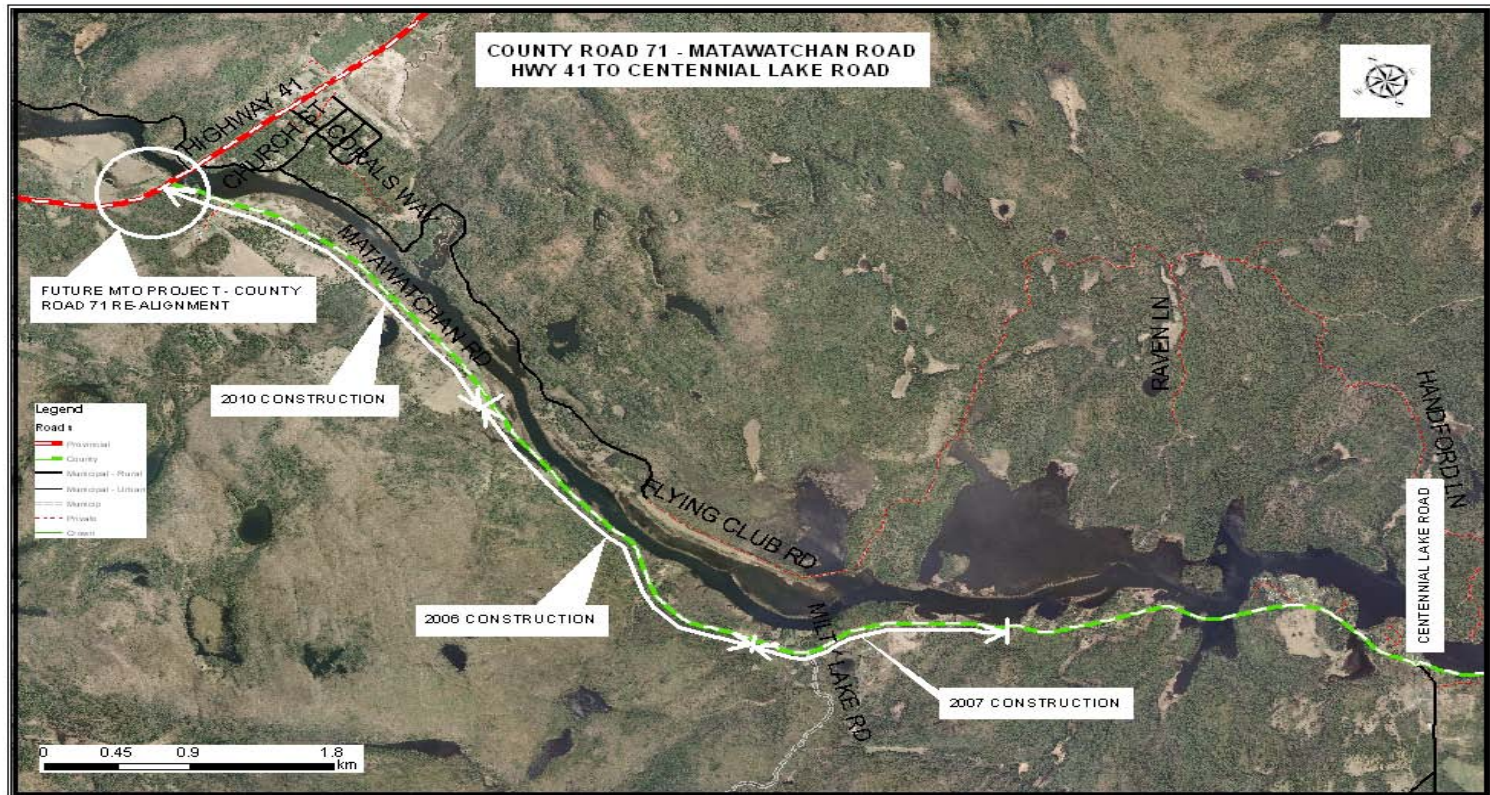
- Problem definition and needs
- Geometric deficiencies (horizontal and vertical alignment, clearzone, (i.e. trees, rocks adjacent to road), shoulder width and type; lane width, etc)
- Alternative approaches to roadway design;
- Impacts to private property;
- Improvement costs;
- Potential Long Range Planning approach to improvements;
- Schedule; and
- To obtain your comments on the material presented

# Introduction

- County Road 71 is a 2-lane rural road, posted speed of 80 km/h
- County Road system generally provides higher operating speeds and accommodates uses such as emergency vehicles and commercial vehicles.
- Roadway design typically reflects the higher speeds and usage needs including safer cross sectional elements (i.e. lane width, shoulder width)
- 6.4 km of the roadway has been reconstructed in 2006, 2007 and 2010 to current County standards.
- For the remaining 3.3 km of County roadway, pavement needs, narrow roadway width, roadway safety (curves, steep hills, stopping sight distance) need to be addressed and prioritized

# Matwachan Road Project Areas

## Hwy 41 – CR 65



# Aerial Photo Project Area



# Key Issues and Constraints

- Narrow existing right-of-way
- Proximity to the Madawaska River
- Drainage
- Rideability/pavement
- Skewed intersections
- Roadway users, accommodate pedestrians and cyclists
- Utilities
- Property impacts

# Key Issues and Constraints con't

- Operating speeds
- Safety (curves, shoulder width)
- Design consistency
- Cost of improvements
- Prioritization/staging of improvements
- Long-term planning
- Existing poor surface conditions
- Safety of road access from adjacent lands

# Existing Conditions



Typical conditions illustrating poor pavement



- Newly constructed section (2007)
- Wider platform (lane and shoulders)
  - Good visibility (no hazards)

Photo illustrating sharp horizontal and vertical curves, reduced visibility, and adjacent rock outcrop

*Poor Drainage – no ditches*



*Poor Visibility at Entrance*  
*Narrow Right-of-way*  
*Poor Road Alignment*



## *Poor Sightlines at Entrance*



## *Substandard Vertical Curve*



*Narrow Shoulder*



## *Insufficient Platform Width*

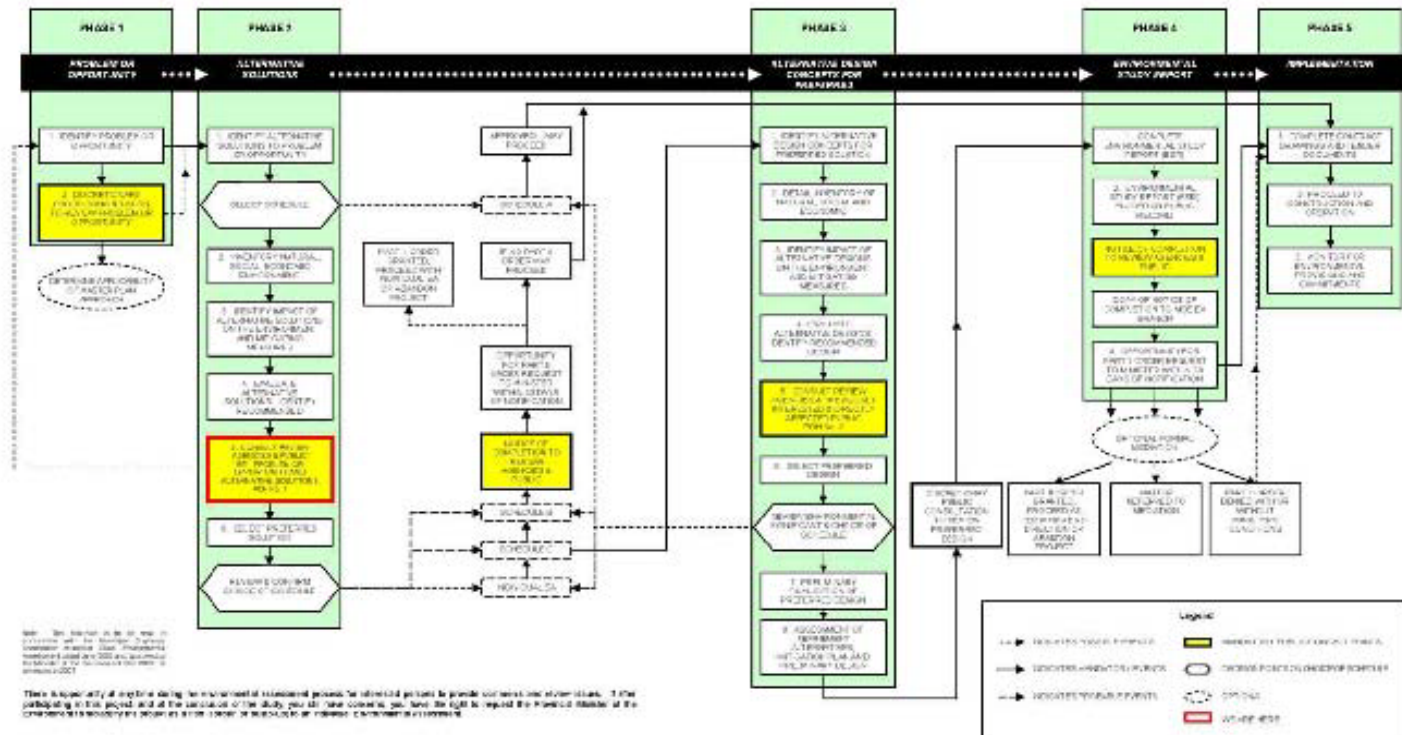


*Insufficient Clear Zone Width  
Poor Surface Condition*



# Class EA Process

Municipal Class Environmental Assessment Process



# EA Requirements and Issues

- Remaining work is considered by County to be a Schedule B undertaking due to the requirement to acquire property and address project impacts along Madawaska River.
- Safety (curves, shoulder width) is a priority
- Design consistency, standards and driver expectations
- Cost of improvements must be affordable, and balanced within County system.
- Prioritization/staging of improvements
- Long-term planning to ensure that future improvements can be implemented
- Address Existing poor surface conditions as a priority
- Safety of road access from adjacent lands
- Potential endangered species and fish habitat impacts can be mitigated
- No other EA constraints have been identified at this time

# Planning Solutions

## How do we address the problem?

<b>Preliminary Evaluation of Alternative Planning Solutions</b>			
<b>Do Nothing</b>	<b>Pavement Rehabilitation</b>	<b>Improve/Realign County Road 71 with minor operational improvements</b>	<b>Reconstruction to design 80 km/hr</b>
Maintains the current roadway and bridge alignments. Does not implement any improvements. Does not address identified roadway and structural (i.e. culverts) deficiencies or plan for future travel demand.	Rehabilitate the existing County Road 71 pavement to improve its operation and increase safety.	Improve/realign existing County Road 71 to improve its operation and increase safety. Replace culverts and improve drainage where required.	Reconstruct road to improve the operation and safety along. Significant changes to entrances and property required. Increased environmental effects
✘	✔	✔	✔
<b>DO NOT CARRY FORWARD</b> (Does not address the identified safety issues associated with the road deterioration)	<b>CARRY FORWARD</b> Does not, on its own, address the identified safety issues such as visibility, clearzone (rock, trees), lack of shoulders but pavement rehabilitation/reconstruction will be required as part of a basket of solutions	<b>CARRY FORWARD</b> as part of a basket of solutions	<b>CARRY FORWARD</b> as part of a basket of solutions

# Transportation Review

- Traffic volumes generally decrease from north to south
- Summer traffic volumes are the highest
- Peak 2-way volume (Sat Aug 2, 2008) was 853, 2.1 km south of Highway 41 and 795 at 8.3 km south of Highway 41
- Average Annual Daily Traffic (AADT) 520 vehicles per day in 2002, AADT 442 vehicles per day in 2006
- Volumes suggest that traffic is through traffic
- 5 reported collisions over the last 8 years (2000-2008)
- 3 collisions attributed to wild animals
- No fatal collisions

# Existing Geometrics

	Existing	Typical County Road
<b>Lane width</b>	• 3.0 m	• 3.25 m minimum • 3.5 m desirable
<b>Shoulder width</b>	• Varies (0.5 m to 2.0m)	• 1.5 m minimum • 2.0 m desirable • Consideration of paved shoulders on curves
<b>Clear zone</b>	• Varies (0.5 m to 4.0 m)	• 4.0 m minimum
<b>Guiderail</b>	• Required throughout the majority of the study area but not present	• Guiderail required on shoulders
<b>Vertical curves 19 Sag curves</b>	• Majority designed to less than 65 km/h	• Design to 80 km/h minimum (rural area)
<b>Vertical curves 20 Crest curves</b>	• 8 less than DS=50 km/h	• Design to 80 km/h minimum (rural area)
<b>22 Horizontal curves</b>	• 5 curves do not meet the minimum 250 m radius	• 250 m minimum radius for 80 km/h design
<b>Surface Type</b>	• Surface treatment	• Double lift asphalt (based on AADT traffic volumes)

# County Roadway Design Standards

Design Standard	Location	Desirable Standard	Minimum
Design Speed	• Rural	• 90 km/h	• 80 km/h
	• Urban	• 80 km/h	• 50 km/h
Lane width		• 3.5 m	• 3.25 m
Shoulder width		• 2.0 m	• 1.5 m
Drainage/ditching		• 0.5 m ditch (below subgrade)	• 0.3 m ditch (below subgrade)
Curves		• Design dependent on design speed. • Reduce design speed where required due to constraints, and provide warning signage.	
Right-of-way width		• 26 m	• 20 m

# General Implementation Strategies

## First Open House

- Reconstruction of all needs based on an 80 km/h design speed
- Reconstruction of all needs based on a reduced design speed of 60 km/h
- Identify longer term plan and implement select projects as funding becomes available. For the remaining sections, the County will protect property through land use planning.

# Comments From Public Open House # 1

- Many would you like to see the remaining section of County Road 71 resurfaced as soon as possible.
- Poor road conditions are damaging vehicles
- Would like project completed in a 3-year plan
- Causeway and rock cuts should be widened to provide additional room for pedestrians
- Concern regarding visibility at several locations along County Road 71
- Would support a 60 km/h reduced speed limit

# Comments From Public Open House # 1

- Greater Madawaska Fire Department has concerns regarding the safety of emergency vehicles and other vehicles travelling County Road 71
- Roadway platform is insufficient to accommodate larger vehicles (logging trucks/dump trucks) and fire vehicles
- Several requests for additional information

# Accomplished Since Public Open House # 1

Progress since First POH December 3, 2009

- Completed modified contract on first 2.8 km section from Highway 41, with minimal road widening.
- Completed scratch-coat paving in Causeway areas to address areas with poorest pavement condition
- Revised 5-year program and budget to advance completion of remaining work from 2014 to 2013
- Continued with design for the final 3.3km section of the Road.
- Established implementation schedule for remaining work.
- Resolved several outstanding property issues.

# Proposed Project Schedule

## ACTIVITY

**Conceptual Design**  
**Public Meeting to review conceptual Design**  
**Phase 1 & 2 Preliminary Design, stakeholder consultation**  
**Determination of property requirements**  
**Public Meeting**  
**Geotechnical Soils Report phase I & II**  
**Consult Stakeholders and Approval Agencies for phase I**  
**Property Acquisition phase 1**  
**Legal Survey for phase 1**  
**Complete Detailed design phase I**  
**Finalize detailed cost estimate for phase I, Tender project**  
**Agency approvals for water crossings phases I & II**  
**Utility Relocation phases I & 2**

## SCHEDULE

**May- June 2011**  
**June 28,2011**  
**July – September**  
**September 2011**  
**October 2011**  
**Fall 2011**  
**November 2011**  
**Fall 2011**  
**December 2011**  
**January 2012**  
**April 2012**  
**April 2012**  
**May 2012**

# Proposed Project Schedule – con't

## ACTIVITY

## SCHEDULE

<b>Construction phase I</b>	<b>Summer 2012</b>
<b>Preliminary Design for final phase</b>	<b>July 2012</b>
<b>Consult Stakeholders and Approval Agencies for phase II</b>	<b>December 2012</b>
<b>Phase II Design</b>	<b>February 2013</b>
<b>Finalize detailed cost estimate for phase II</b>	<b>February 2013</b>
<b>Property Acquisition phase II</b>	<b>January 2013</b>
<b>Legal Survey for phase II</b>	<b>February-March 2013</b>
<b>Complete detailed design and tender phase II</b>	<b>April 2013</b>
<b>Construction phase II</b>	<b>June-August 2013</b>

# Proposed Improvements

- Increase Right-of-way width to accommodate reconstructed road with suitable surface width and shoulders.
- Horizontal and vertical realignment of road to improve safety and address requirement for improved visibility in identified areas.
- Will not meet 80kph design speed in several areas
- Post appropriate warning and regulatory signage
- Defer nonessential rehabilitation with large costs and/or environmental impacts (Causeway and rock cuts)

# Proposed Design Controls

- Achieve minimum 60 kph design speed, 80 kph where practical
- Complete resurfacing and subsurface drainage improvements in rock cut and causeway areas .
- Defer major widening at rock cut and of causeway until funds available and environmental approvals obtained.
- Improve surface drainage throughout.
- Replace culverts, widen shoulders and driving surface
- Rideability/pavement
- Consolidate or relocate entrances to adjoining properties
- Consider widened platform for other roadway users, Allow for future improvements to accommodate pedestrians and cyclists .
- Relocate Utilities
- Reduce property impacts

# Conclusions

- General support from the Public to Rehabilitate County Road 71 as soon as possible
- The Road cannot be upgraded to the County 80 KM design at reasonable cost, and without significant impacts on local residents.
- Some lower priority or higher cost improvements can be deferred until funds are available, providing safety and the condition of the road is improved.
- The County can acquire and protect additional Road Right-of- way to allow for future improvements, and obtain any necessary regulatory approvals.
- The County may consider a lower design speed for certain areas of the road as an interim measure to reduce costs and the impacts on adjacent landowners.

## Conclusions con't

- Based on the current 5 Year Capital Plan for Matawachan Road, the most needed improvements can be constructed if they are staged over the next two years providing the necessary property is acquired and the regulatory approvals obtained.
- The roadway construction will include significant improvements to horizontal and vertical alignment, removal of roadside hazards and better visibility along the road and at driveways and entrances.
- The County will meet with individual owners to review the roadway improvements and the effects on their properties.
- An opportunity will be provided for the public to review the final design before tendering and construction.

# Next Steps

- Review all Comments
- Confirm Alternative Planning Solutions
- Contact landowners and obtain options for required property
- Complete a improvement prioritization list
- Present the study findings to the County of Renfrew

In 2011, the County will continue with the planning and design of the highest priority project(s). At this time, subsequent EA studies will be completed to assess the transportation and environmental impacts (i.e. wetlands, fisheries, archaeological potential, property impacts) associated with each project.

# How can you remain involved?

- Providing a written comment sheet
- Contacting the County of Renfrew or consultant at any time during the study
- Regular project updates can be obtained through the Environmental Studies link on the County's public Works and Engineering web page at <http://www.countyofrenfrew.on.ca/publicworks.htm>

# QUESTIONS?



**THANK YOU FOR  
ATTENDING**

