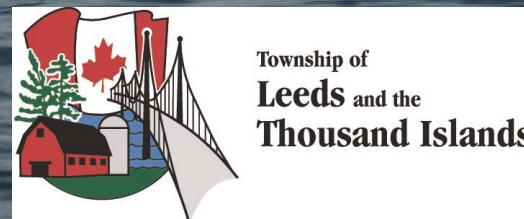
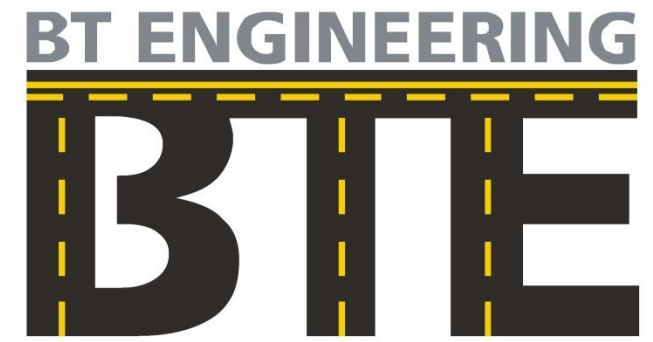


TOWNSHIP OF LEEDS AND THE THOUSAND ISLANDS

TRANSPORTATION MASTER PLAN / ACTIVE TRANSPORTATION PLAN





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July 2019



Township of
Leeds and the
Thousand Islands

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INTRODUCTION

The Township of Leeds and the Thousand Islands (Township) is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. The Township comprises several communities including Escott, Ivy Lea, Lansdowne, Lyndhurst, Rockport, Seeley's Bay, Selton as well as approximately 40 small hamlets.

A comprehensive and sustainable transportation plan is essential for the municipality to:

- Continue to plan for efficient development;
- Plan for the rehabilitation and replacement of existing infrastructure; and
- Establish consistent transportation standards.

Vision Statement

“The Township of Leeds and the Thousand Islands embraces a mandate to preserve, enhance, and celebrate its diverse history, scenic beauty and natural resources in the development of its future. While doing so, the Township will pursue initiatives to foster the development of a model community – an equitable, financially sound, and environmentally responsible community in which to live, to work, and to play for present and future residents. The Township recognizes it covers a large geographic area with multiple settlement areas and geographic areas with unique character, history, development characteristics, pressures, and needs.”

The Township currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation and Active Transportation related infrastructure within the current planning horizon (20 year planning horizon).

This TMP/ATP provides an outline of a staged plan for programs, policies and projects which will improve existing transportation infrastructure and promote Active Transportation within the Township. Active Transportation is defined by the Public Health Agency of Canada to be: *“any form of human-powered transportation (such as) walking, cycling, using a wheelchair, in-line skating or skateboarding.”*

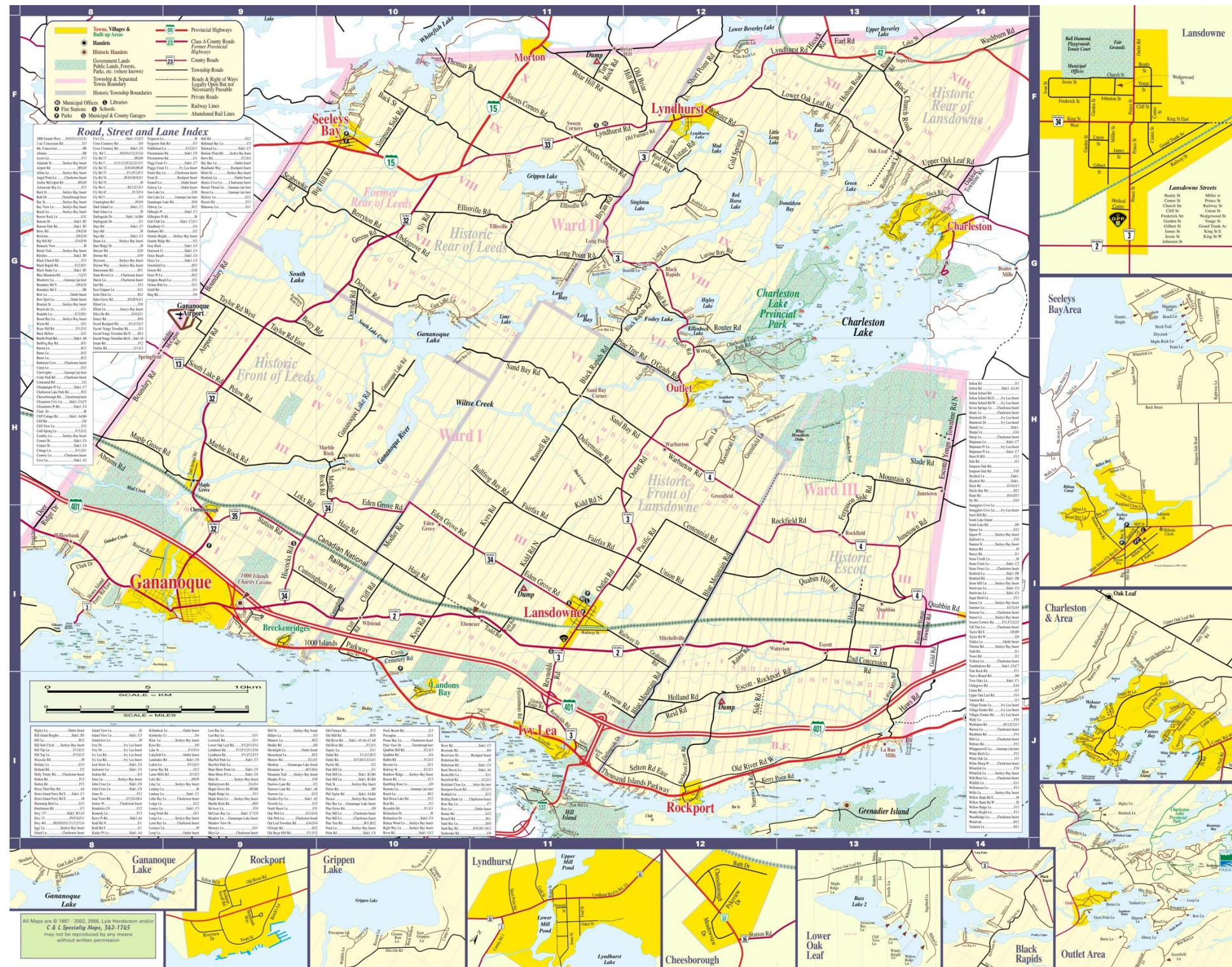
In partnership with stakeholders (such as the County, Ministry of Transportation (MTO), Parks Canada and the St. Lawrence Parks Commission) the study developed and reviewed potential programs, policies and projects to improve infrastructure and connectivity and to promote Active Transportation and safety throughout the Township. Benefits of implementing the plan include:

- Opportunities to promote eco-tourism in support of area businesses;
- Healthier lifestyles as increased physical activity leads to a significant improvement in a number of health indicators;
- Decreased emissions of greenhouse gases with a reduced reliance on motor vehicles;
- Potential cost savings and reduction of environmental impacts resulting from fewer projects to support motorist traffic (increased number of Active Transportation trips within the Township);
- Creation of a Road Design Standards document to improve existing transportation facilities such as road surfaces, drainage and / or cross section;
- Identification of bridge improvements for structural condition and safety; and
- Improved connectivity within the Township.

The TMP/ATP is proposed as a living document that will serve as a general guide and will evolve over time to satisfy changing needs, opportunities and priorities within the Township.

The Township of Leeds and the Thousand Islands is working on prioritizing the implementation of transportation and Active Transportation infrastructure to promote tourism, safety, long-term planning and connectivity.

INTRODUCTION



GOALS and OBJECTIVES

The vision of the TMP/ATP is “to promote leadership and community partnerships that make the Township a healthy, prosperous and sustainable community, with Active Transportation as a key component of a safe, accessible, integrated transportation system linking where we live, work and play”.

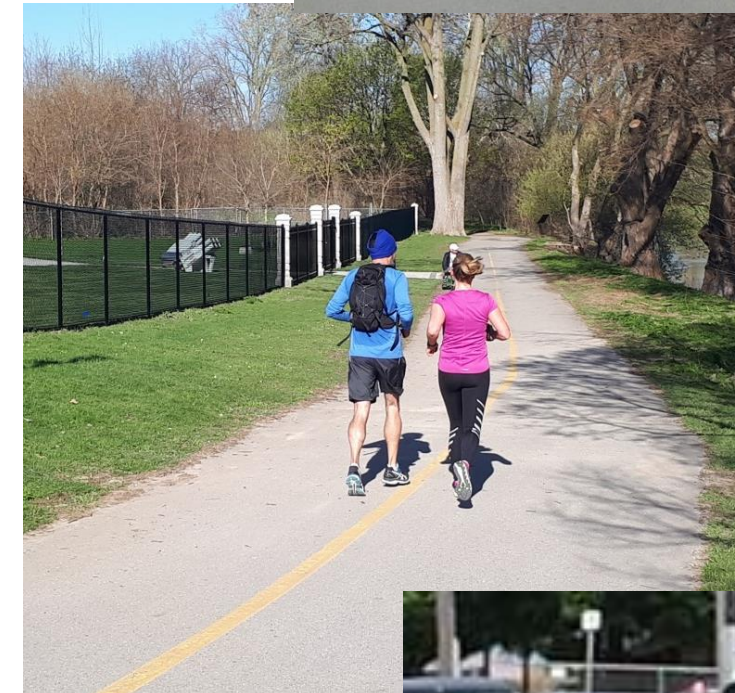
The need to better accommodate active modes of transportation is increasing within the Township and across Canada. Goals for promoting Active Transportation within the Township through the implementation of supporting programs, policies and infrastructure as identified in the TMP/ATP include:

- A Vibrant Economy that supports area businesses through an expanded tourist industry.
- To encourage Healthier Lifestyles within our community. Increased physical activity such as walking and cycling leads to a significant improvement in a number of health indicators.
- A Healthier Planet with decreased emissions of greenhouse gases and a reduced reliance on motor vehicles.
- Improved Accessibility for individuals of all ages, levels and abilities. Typically 20 to 40% of people do not drive due to age, ability or expense.
- To Improve Safety for all modes of travel, adopting a Complete Streets approach to future transportation projects.

Objectives of the TMP/ATP include:

- Providing a long term vision for Active Transportation within the Township so that staged implementation of infrastructure improvements can be provided more cost effectively, working towards the long term goals.
- Achieving 80% implementation of the Initial Projects identified in the plan over the next 10 years.
- Addressing the needs of the community by improving connectivity.
- Limiting the potential for future liability through improved transportation safety.

Goals and Objectives are achieved cost effectively through staged implementation and monitoring of the long term Master Plan.



TOURISM

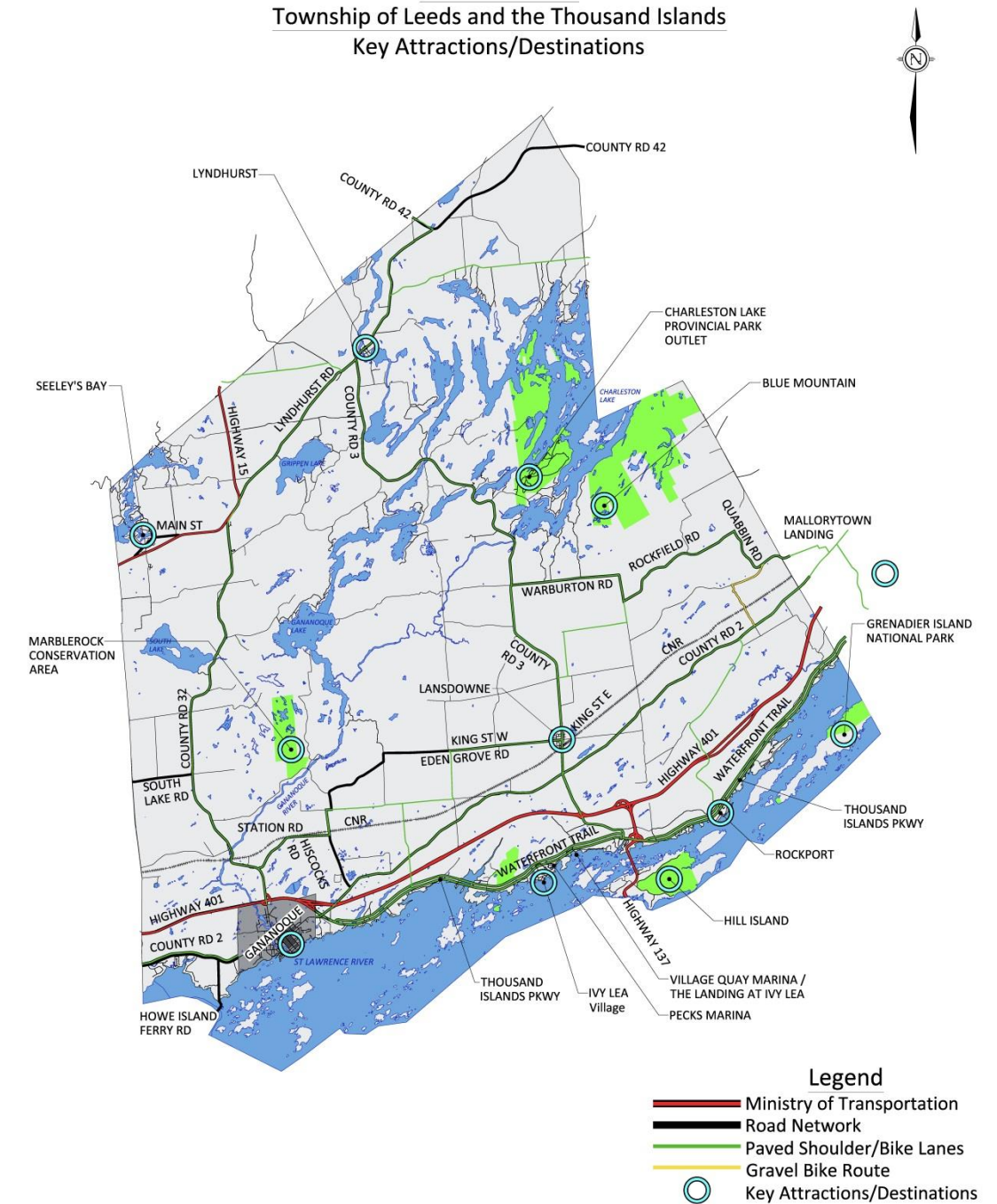
Ontario is in the process of implementing a cycling strategy “CycleON” to promote cycling across the province, and has unveiled the province’s first cycling tourism plan “Tour by Bike”.

Tourism is a vital part of the Township’s economy. The physical geography and the cultural and historical landscape attractions throughout the Township combined with an “Open for Active Transportation Business” philosophy create opportunities to:

- Capitalize on the rapid growth in cycling tourism that Ontario has been experiencing;
- Benefit from growing interest in healthy and active lifestyles;
- Promote and expand existing paddling routes;
- Build upon Provincial Initiatives #CycleON and #PaddleON;
- Support local businesses and communities that thrive on the tourist industry; and
- Establish or expand partnerships with organizations that include area businesses, Town of Gananoque, Parks Canada, St. Lawrence Parks Commission, area cycling, ATV, hiking, and paddling clubs.

Businesses around Ontario are benefiting from the tourist dollars being generated by active transportation. In surveys completed for Cycle Tourism Reports in Prince Edward County, Essex County and Halton Region, 40% to 63% of businesses indicated cyclists were either a ‘core’ or ‘regular’ part of their business.

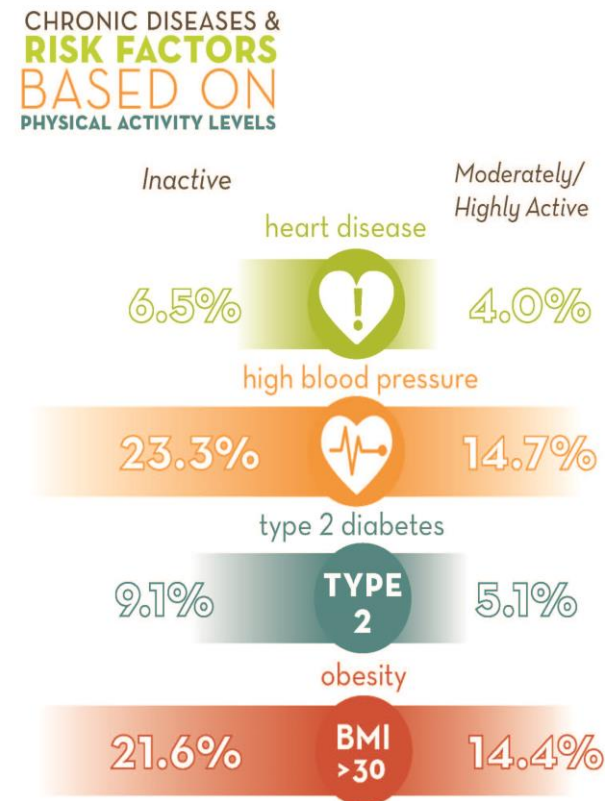
Schedule 01
Township of Leeds and the Thousand Islands
Key Attractions/Destinations



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

HEALTH

The Canadian Association of Physicians for the Environment has identified that “chronic diseases such as heart disease and diabetes are rising across Canada at alarming rates.” The health benefits of physical activity; reducing the risk of heart disease, high blood pressure, diabetes and obesity; are clear and well known. Most Canadians however, are not physically active enough to achieve those benefits which results in billions of dollars in additional health care costs in Canada annually. Many people are too busy to find time to exercise by going to the gym or participating in sports, but using active modes of transportation builds that physical activity into our everyday life. Each hour per week of moderate or vigorous physical activity, such as walking or cycling, is associated with a 4%-9% reduction in the risk of death from all causes.

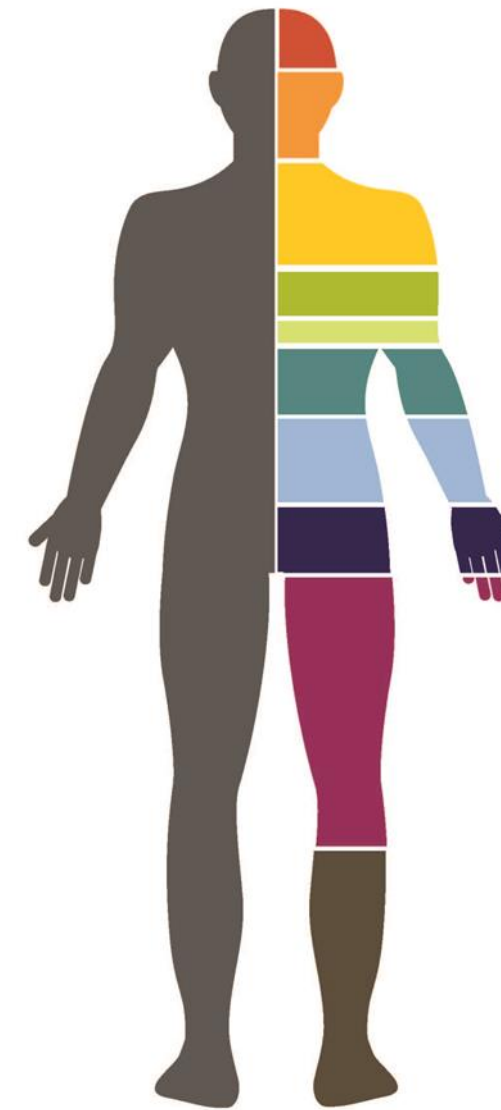


Canadian Community Health Survey, 2011/2012

Cycling, walking, and other active modes of transportation offer an opportunity to become physically active while completing travel trips that may otherwise have relied on an automobile.

Any programs, policies and projects that result in an increase in the number, frequency and duration of trips using active modes of transportation will result in a corresponding improvement in health indicators, a reduction in health care costs to society and an overall reduction in premature death.

HEALTH BENEFITS OF PHYSICAL ACTIVITY



- Older adults who are physically active are almost 40% less likely to develop **ALZHEIMER'S DISEASE** than those who are physically inactive.¹
- Engaging in physical activity can impact **MENTAL HEALTH**:
 - Decreases in:
 - Depression
 - Anxiety
 - Stress
 - Panic Disorders²
 - Increases in:
 - Self-Esteem³
 - Mood⁴
 - Happiness
 - Satisfaction⁵
- Active commuting has been associated with significant reductions in the risk of **BREAST CANCER**.⁶
- Active commuting has been shown to reduce the incidence of **HEART DISEASE AND STROKE**.^{7,8}
- Physical activity reduces **HIGH BLOOD PRESSURE**.⁷
- Regular physical activity, along with healthy eating and weight control, can reduce **TYPE 2 DIABETES** incidence by 60%.⁹
- People who use active transportation are at lower risk of being **OBESE**.¹⁰
- Physical activity has been associated with a 24% reduction in risk of **COLON CANCER**.¹¹
- Physical activity increases **MUSCULAR STRENGTH, ENDURANCE AND FLEXIBILITY**.¹³
- Physical activity has been shown to help build bone mass and decrease risk of **OSTEOPOROSIS**.¹²

Active Transportation can be the preventative medicine that fosters better personal health. The World Health Organization has identified promotion of active modes of transportation, such as walking and cycling, to be one of the few policy decisions that have the potential to significantly reduce chronic diseases.

Note: Health statistics and graphics presented on this page are sourced from the 2014 Active Transportation & Health Indicators Report, produced by Peterborough Public Health, GreenUP, and the City of Peterborough

SAFETY

Regular physical activity such as walking and cycling can have a substantial impact on improving health and life expectancy. Ontarians, however, not only need to walk and cycle, they need to be able to walk and cycle safely. One of the greatest obstacles to promoting Active Transportation, and increased walking and cycling can be a perceived lack of safety for pedestrians and cyclists. MTO data shows that the largest proportion of vehicle collisions with cyclists and pedestrians (over 65%) occurs at intersections.



Concern for the safety of pedestrians and cyclists led the Office of the Chief Coroner for Ontario to complete a Pedestrian Death Review and a Cyclist Death Review. The Pedestrian Death Review, released in 2012, identified:

- Pedestrians over 65 years of age accounted for a disproportionate share of pedestrian fatalities (13.2% of the population but 36% of the fatalities)
- Peak hours for pedestrian collisions were between 2:00 pm and 10:00 pm, largely coinciding with peaks in traffic volumes
- 76% of pedestrian fatalities occurred in urban areas and 24% in rural areas
- Five circumstances accounted for 70% of pedestrian deaths:
 - Pedestrians hit at a mid-block location while crossing (31%)
 - Pedestrians hit on the sidewalk and/or shoulder of the road (14%)
 - Vehicle going straight through the intersection while the pedestrian crossed without right-of-way (11%)
 - Vehicle turning left while the pedestrian crossed with right-of-way at the intersection (7%)
 - Vehicle turning right while the pedestrian crossed with the right-of-way at the intersection (7%)

The Pedestrian Death Review recommendations included:

- That a “Complete Streets” approach be adopted to guide development. Complete Streets is designed to be safe, convenient and comfortable for

every user regardless of travel mode, physical ability or age (See page 14 for a detailed description of the Complete Streets approach).

- Proposed amendments to the Highway Traffic Act including allowing municipalities to erect non-signalized pedestrian crossings in midblock areas.

The Cycling Death Review found that of the fatalities:

- 86% were male;
- 78% were struck by an automobile;
- 65% occurred in urban environments; and
- 53% occurred during daylight conditions

Recommendations from the Cycling Death Review included:

- Adoption of a “Complete Streets” approach focused on the safety of all road users;
- A comprehensive cycling safety public awareness and education strategy;
- Establishing a “one-metre” rule for vehicles passing cyclists; and
- Prioritizing the development of paved shoulders on provincial highways.

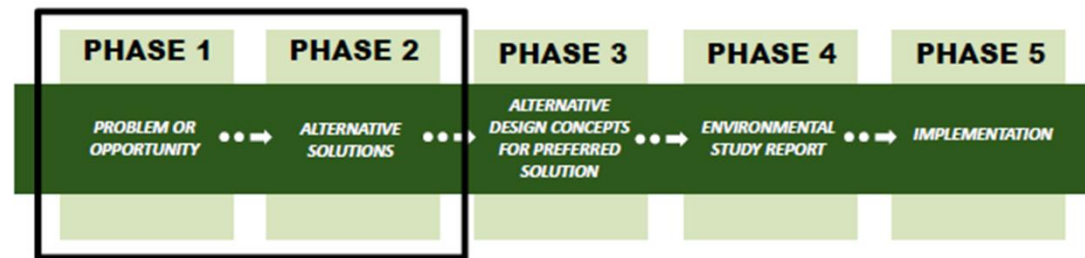


Research shows that there are two main requirements to improve the safety of pedestrians and cyclists:

- 1) Designated pedestrian and cyclist infrastructure that is safe and designed to enhance the users experience; and
- 2) More pedestrians and cyclists to create a “safety in numbers” effect.

Bicycle Helmets – “Don’t ride without one.” Wearing a helmet remains one of the most important actions that a cyclist can take to reduce their risk of serious injury.

STUDY PROCESS



The study was undertaken as a Master Plan according to the Municipal Engineers Association Class Environmental Assessment (EA) and satisfies Phases 1 and 2 of the Class EA Process.

Master Plans are long range plans which integrate infrastructure requirements for existing and future conditions with environmental assessment planning principles. The TMP/ATP was initiated in February 2018. BT Engineering Inc. was retained by the Township to develop a comprehensive Master Plan that would accomplish the following:

- Identify potential **projects** in the form of road and Active Transportation links, including the expansion and improvement of existing infrastructure as well as recommending new trail and roadway facilities, culminating in an improved Active Transportation and transportation network;
- Identify potential **policies** that can foster and increase road safety for all users, communal knowledge of safe transportation practices, and ease transportation through the Township for all modes; and
- Identify potential **programs** that can improve awareness, and education of safe and healthy ways of getting around in the Township.

Phase 1 included a comprehensive review of background studies, reports and existing infrastructure and mapping provided by the Township related to road, bridge and Active Transportation studies. Phase 1 culminated in the production and distribution of a Draft Study Design report. The Final Study Design is provided in **Appendix A**. The Study Design defined the vision, objectives, consultation strategy and summarized existing routes and background study material.



Phase 2 implemented the Study Design. The Project Team, with input from local cycling clubs, key stakeholder groups and the general public, developed the following:

- A long list of potential projects utilizing a variety of transportation and Active Transportation infrastructure for public review and comment; and
- A draft list of potential policies and programs.

Phase 2 culminated in the following:

- Key Attractions / Destinations
- Township Road Map
- Preliminary New Projects
- Marine Projects
- Cycling Routes (Projects)
- ATV Routes (Projects)
- Bridges (Projects)

CONSULTATION

The TMP/ATP was completed following the Municipal Class EA Phases 1 and 2 by establishing the need and justification for the project, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements.

Online Submission Form

An online submission form program was conducted throughout the study to reach out to a broader spectrum of the Township. The submission form was used to help collect comments from the public on potential future projects, programs, and policies that they would like to see come to fruition. The online submission form asked the public for specific and general improvements that could be made to the Township's transportation system. The responses from the online submission forms were collected and can be seen as a part of the long list of potential projects, general comments, and potential programs and policies.

Community Café Event

The Community Café was an initial informal event to facilitate conversation by providing participants with a comfortable and welcoming environment. The event was organized to create a network of dialogue about issues that matter to the stakeholders and community. The meeting was held on Thursday, April 26, 2018 at Fire Station No. 1 in Lansdowne, Ontario.

Public Information Centres (PIC's)

The first Public Information Centre (PIC) for this project was held at various public events within the Township in the months of May and June. These events were as follows:

- Saturday, May 19, 2018 at three locations within the Township: Lansdowne Fairgrounds (Annual Plant Sale), Seeley's Bay (The Bays Big Sale Day on Main Street), and Lyndhurst (Yard and Plant Sale on Lyndhurst Road). Consultant staff was available from 8:00 am to 12:00 pm.
- Saturday, June 9, 2018 in Lansdowne at the Annual Senior's Expo in the Lansdowne Community Hall. Consultant staff was available from 9:00 am to 1:00 pm.
- Saturday, June 16, 2018 in Rockport at the School House Jam in the Rockport Recreation Hall. Consultant staff was available from 9:00 am to 12:00 pm.

Several techniques were used to proactively involve the public such as a Study Design, an on-line survey, Community Café, Technical Advisory Committee, two Public Information Centres (PIC's), use of Social Media platforms and public meetings.



CONSULTATION

The second PIC was held at the Lansdowne Fire Hall on November 15, 2018 from 5:00 pm to 8:00 pm.



Key Stakeholders

Key stakeholders that participated in the study included numerous Township groups, as well as other agencies and interest groups. A full list of stakeholders that were consulted can be found in **Appendix A** and **Appendix B** and include:

- 1000 Islands ATV Club
- Lyndhurst Rejuvenation Committee
- Thousand Islands Bicycle Co.
- Seeley's Bay and Area Resident's Association
- Seeley's Bay Seniors
- CHPC Transportation Program
- Rockport Development Group
- 1000 Islands Helping Hands
- Lansdowne Association for Revitalization
- Charleston Lake Association
- Club Friends of Charleston Lake Association
- Seeley's Bay Health Care
- Lansdowne Seniors Club

EXISTING FACILITIES

The Township is located within the United Counties of Leeds and Grenville, and is largely rural in nature, extending over approximately 615 square kilometres with a population of 9,700 people. Previous studies completed by the Township include the Age Friendly Community Dimensions Study and the Roads/Infrastructure Needs Study among others. Several of these studies have noted the need for improvements to transportation and Active Transportation infrastructure.

Transportation

There are currently 16 bridges in operation owned by the Township as well as a heritage structure formerly over La Rue Mills Creek.

The transportation network includes private roads, local roads owned by the Township, County roads, Highway 401 (MTO) and the St. Lawrence Parkway (St. Lawrence Parks Commission).

The Township also has public docks to allow residents and tourists to access the rivers and lakes. Charleston Provincial Park can be found within the Township and canoe/kayak access is available in Outlet owned by the Cataraqui Region Conservation Authority. Boat access to the Gananoque River is available in the Town of Gananoque.

Active Transportation

The Waterfront Trail currently connects the east and west ends of the Township but a connection is lacking from the south to the north. On-road facilities are used by residents and tourists to travel throughout the Township by Active Transportation (such as cycling) with some sidewalk connections within settlement areas (such as Lansdowne, Lyndhurst, Seeley's Bay, Rockport and Ivy Lea).

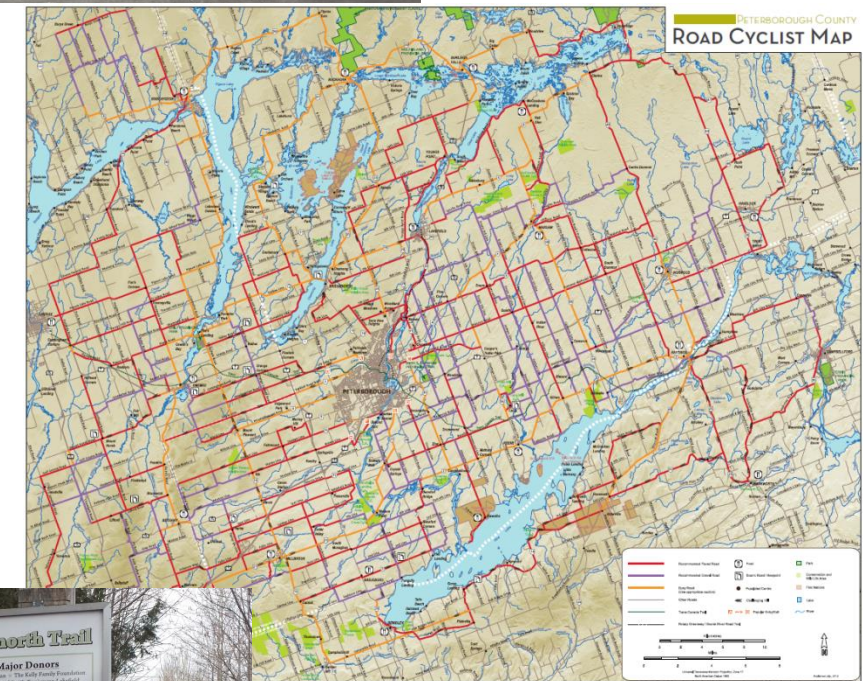
Additional existing trails can be found on the Frontenac Arch Biosphere Network website including trails for walking/hiking, cycling, paddling, skiing or touring.

On-road cycling facilities are starting to be considered and developed within the Township. The suitability for cyclists to share existing roadways with motor vehicle traffic is dependent on a variety of factors including: traffic volumes, traffic speeds, roadway geometry and surface type.

Rockport also has the Rockport Heritage Walking Tour, to discover the hamlet on the St. Lawrence River.

Parking at trailheads or paddling route accesses to provide convenient access, bike racks to allow cyclists to secure their bicycles, roadway crossings and benches placed strategically along some routes to provide pedestrians or

cyclists an opportunity to rest or a vantage point to view the scenery, are among the other existing facilities / amenities that require expansion to more fully support active transportation.

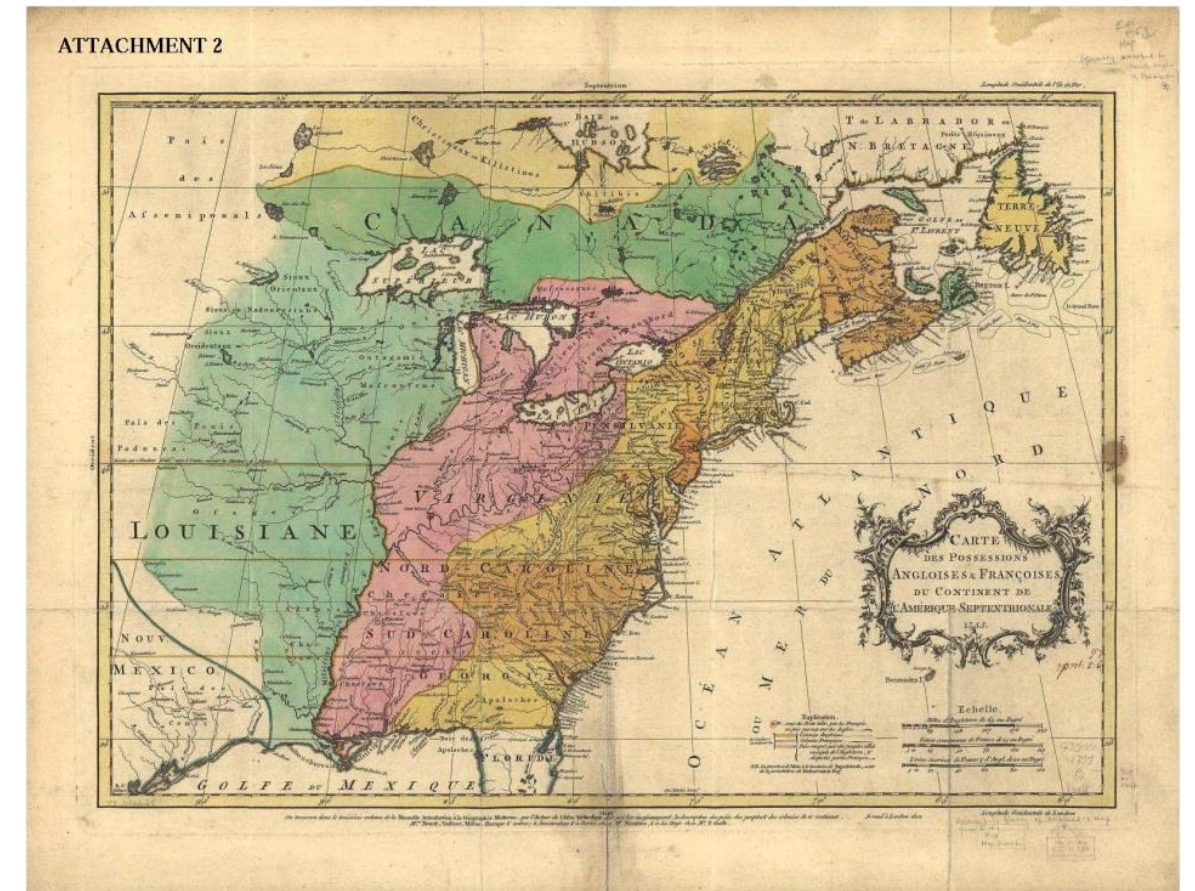


FIRST NATION HISTORY

This chapter recognizes the long historical use of the 1000 Islands as part of the traditional land of the First Nations. The First Nations peoples have a history of thousands of years of occupation as they evolved from early hunters and gatherers in North America to the current day First Nations Peoples. The two figures on this page illustrate the occupation of the area when the first European settlers arrived (1755 drawing).

In this area and to the south, the Haudenosaunee people created the confederacy of 5 nations of Mohawk tribes as the first democracy in North America. The US government has made significant use of this model in drafting the US constitution. The Haudenosaunee utilized the 1000 islands area as a major travel route and the occupation of islands continued into the 20th Century with Grenadier Island being the last surrendered land in the Township.

In addition, the Algonquin's, from the north have a history of utilizing the area. This included fall deer hunting in areas along Charleston Lake.



GENERATION OF ALTERNATIVES

Alternative projects, programs and policies were developed as part of the TMP/ATP to create a long range plan for roadway and bridge improvements as well as Active Transportation (walking, cycling, and paddling) within the Township. Key principles that were considered were that each alternative should be **safe**, should be **accessible**, and should **connect to places people want to go**. The initial list of potential facilities was expanded through a Community Café event, public consultation meetings and discussions with agencies and stakeholders. A long list of projects included roadway standards, marine facilities, separated multi-use paths, bridge improvements, and Active Transportation facilities such as public washrooms and bike racks.

It must be recognized that cyclist behaviour varies depending on the skill and experience of the cyclist. Active Transportation infrastructure should be designed to accommodate as many users and user types as possible. Typically, cyclists can be categorized into one of the following four groups:





Strong and Fearless cyclists will cycle on any roadway that bicycles are permitted, regardless of the speed and volume of traffic on the adjacent roadway and regardless of whether cycling-specific infrastructure exists.

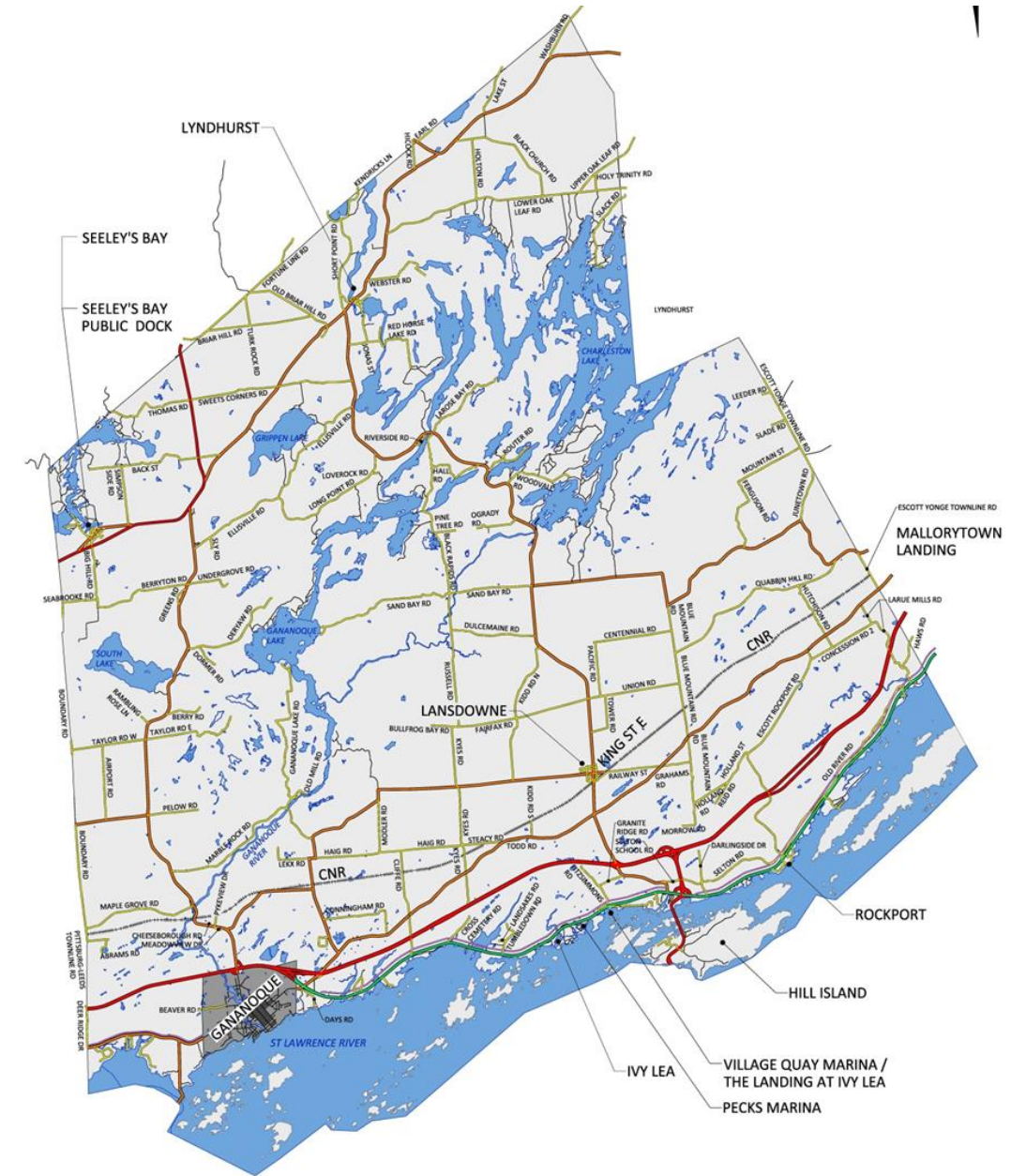
Enthusied and Confident cyclists are those who are comfortable sharing the roadway with motor vehicles but prefer doing so either within their own designated area (i.e. with pavement markings and/or signage for the preferential or exclusive use of cyclists) or on low speed/low volume roadways.

Interested but Concerned riders represent approximately 60% of the population, the bulk of the cycling community. They typically prefer to ride on low volume, low speed roads or multi-use pathways totally separated from motor vehicle traffic. They often ride less frequently but may become *Enthusied and Confident* with more experience, encouragement, education and better facilities.

Together, *Enthusied and Confident* riders and *Interested but Concerned* riders comprise the target cyclist groups for much of the infrastructure improvements proposed as part of the plan. The goal of improving cycling infrastructure is to provide more cycling opportunities for the *Interested but Concerned* cycling community so that they can gain the confidence and experience necessary to become *Enthusied and Confident*.

No Way – No How individuals represent approximately 30% of the population. They are not cyclists and either have no interest in becoming cyclists or are unable to ride. They are still important from the perspective of encouraging good driving behaviour and greater awareness of pedestrians and cyclists.

Strong and Fearless	Enthusied and Confident	Interested but Concerned	“No Way – No How”
			
1%	7%	60%	32%







Alternatives were developed for various projects, programs and policies to create a long range plan for both transportation and Active Transportation within the Township.

GENERATION OF ALTERNATIVES

Types of Facilities for Cyclists

Shared Roadways			Fully Paved Shoulders	Bike Lanes	Multi-Use Pathways	
Unsigned Low Volume Roads	Signed	Pavement Markings			Within Road Right-Of Way	Separate Alignment
						
Suitable for lower volume roads with lower operating speeds. As volumes of vehicles and/or cyclists increase, signage and roadway markings may be added.			Improves conditions for pedestrians and cyclists, while also improving motor vehicle safety and reducing maintenance costs.	Dedicated facility often limited to urban settlement areas. Provides separation between cyclists and motor vehicles.	Greatest separation between motor vehicles and active modes. Offers greatest opportunity to attract "Interested but Concerned" category of cyclist.	

Types of Facilities for Pedestrians

Sidewalk	Fully Paved Shoulder	Multi-Use Pathway	Road Crossings
			
Fully separate facility limited to pedestrians only. Typically limited to urban settlement areas.	Serves needs of pedestrians and cyclists, while also improving vehicle safety. Offers improved pedestrian facility for rural areas.	Greatest separation between motor vehicles and active modes. Requires speed limits on cyclists to protect pedestrian safety.	Crossings remove barriers created by high volume/high speed roadways. Ranges from pavement markings and signage to signalization.

Other Facilities

Facilities that improve access to or enhance Active Transportation opportunities without adding Active Transportation linkages to the network are included under "Other Facilities". Examples include:

- Scenic lookouts/dwelling areas that overlook areas of natural beauty;
- Visible and secure bicycle parking; and
- Vehicle parking at:
 - Multi-use pathway access locations
 - Paddling lake and river accesses
 - Conservation Areas



COMPLETE STREETS

Complete Streets are multi-modal streets for everyone, designed and operated to provide safe access for all road users, including pedestrians, cyclists and motorists of all ages and abilities. This approach places a greater emphasis on pedestrians, cyclists, accessibility and streetscape by providing separate space within the right-of-way for these modes of travel. It will assist in changing the traditional approach that for many years has focused on the provision of roads to accommodate motor vehicles. Our local success story is the Waterfront Road along the 1000 Islands Parkway

Implementing a guideline for a “Complete Streets” approach to infrastructure projects within the Township would:

- Provide safe, accessible streets for people of all ages and abilities;
- Give people a range of transportation choices;
- Promote healthy and livable communities;
- Contribute to environmental sustainability;
- Support economic prosperity; and
- Create vibrant and attractive people places.



Source: Brockville Active Mobility matters



Source: Brockville Active Mobility Matters



POLICIES

Policies are principles and/or guidelines designed to be used by the Township decision makers to both improve existing roadway conditions and to influence greater adoption of active transportation. Proposed policies have been divided into the following categories:

- 1) Planning;
- 2) Design and Construction; and
- 3) Financing.



This plan has also created a Road Design Standards report (see **Appendix C**) that will be the basis of the design and construction of new or reconstructed roads in the Township.

Adopting Active Transportation supportive strategies and initiatives as part of the planning process is recognized as an opportunity to improve economic prosperity through the promotion of tourism, economic development and healthy lifestyles for residents and area visitors. Best practices to support Active Transportation should consider where feasible and appropriate:

- 1) Transportation policy to encourage Active Transportation to schools, libraries, etc.
- 2) Age-friendly policies for those who aren't as mobile but are interested in being mobile i.e. improve sidewalks.
- 3) Collaboration between the Township and County for policies such as paved shoulders on County Roads.

Promoting safety and accessibility for all modes of travel is desired by all. To further support active transportation, the Township should consider, where physically and economically feasible:

- 1) Transportation standards to define the obligations of motorists, cyclists, and ATV users alike for passing (add a policy for ATV/vehicles/cycling passing).
- 2) Create accessible ramp and/or curb cut-outs at sidewalks (or temporary portable ramps) to meet current accessibility standards. This benefits accessibility for the community such as mobility devices and stroller access.
- 3) Provide tactile plates at intersections on sidewalks for accessibility.
- 4) Use of community safety zones with signage and speed reduction in local communities.

Successful staged implementation is dependent on funding. Funding priorities for Active Transportation routes should be considered in the capital works program as follows:

- Roads scheduled for reconstruction / resurfacing

- Road sections with major safety concerns
- Major Active Transportation corridors
- Corridors providing network connectivity

For a full list of collected comments and potential policies, see **Appendix D**.



PROGRAMS

Programs are further plans of action that may require but in and support from external stakeholders such as the County, MTO, St. Lawrence Parks Commission, and/or partnerships with other organizations (such as the Thousand Islands Helping Hands) that are designed to increase active transportation. Programs have been divided into the following categories:

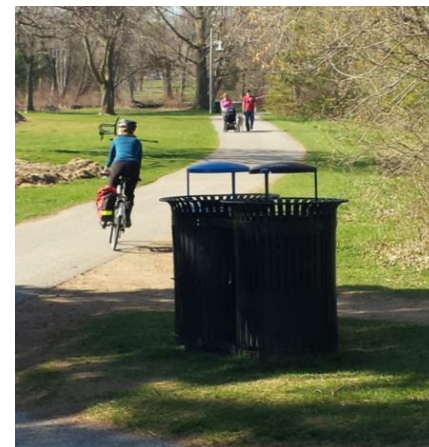
- 1) General;
- 2) Safety and Education; and
- 3) Promotion / Marketing / Encouragement / Tourism.



Sample Wayfinding in other municipality

General

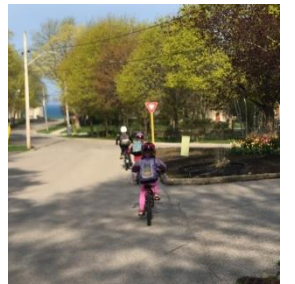
- **Active Transportation** – Encourage Active Transportation and limited vehicle use
- **Cycling** – Adopt draft Trails Plan to create friendly designated areas / routes with the Township
- **Paddling** – Create a paddling route network including negotiated ROW for portages and insurance
- **Shuttle** – Partnering services with the Casino and Gananoque / Kingston / Brockville to shuttle people from those cities to the entire Township rather than just the casino
- **Boating** – There should be monitoring of boat slips to ensure short term usage
- **Facilities** – Washrooms and kayak / canoe stations need cleaning
- **Facilities** – General facility maintenance such as deck repair or lawn cutting.
- **Facilities** – Long term expectation to implement nodes every 20 km along the Waterfront Trail with accommodation such as beds and food



Programs are further plans of action designed to increase Active Transportation throughout the Township. The alternatives were divided into three categories: General; Safety and Education; and Promotion/Marketing/ Encouragement/ Tourism.

Safety/Education

- **Education** – Education program to promote safe cycling
- **Education** – Create an educational program for ATV usage within the Township. (It is not clear if ATVs are to use the shoulder or the roadway or how to pass cyclist on the road with vehicles in lane as well.)
- **Road Safety** – Partnership with groups for Road Safety Challenge to find funding
- **Crossovers** – Education package to describe new provincial pedestrian crossovers
- **Walking** – Walking to School Bus Program (let students off at the Fire Hall in Lansdowne and provide supervised walks home)
- **Walking** – Walk-to-school weeks during the fall and spring months
- **Carpool** – Encourage MTO to build a carpool lot at Reynolds Road and 401



Promotion/Marketing/Encouragement/Tourism

- **Advertisement** – Advertisements in magazine to bring tourists
- **Shuttle** – Shuttle bus programs for canoe / kayakers and seniors to travel throughout the Township or bring tourists from Brockville / Gananoque/ Kingston
- **Messaging** – Messaging to educate people on reducing the risk of transferring invasive species when entering waterways such as the website, signage and facilities for washing
- **Businesses** – Identify businesses along cycle routes for eco-tourism partnership (providing bike racks, repair stations supplies, secured bike storage, bed and breakfast, bike locker, Parks Canada oTENTik etc.)
- **Boating** – Program with Gananoque from Bateau Channel; leave boat in Gananoque for eco-tourism canoe / kayak rental
- **Promotion** – Promote Township for tourists travelling on Rideau Canal as they pass Seeley's Bay to support people visiting and stop at restaurant, etc. This is a real opportunity for tourists and the Highway 15 travel route.



For a full list of collected comments and potential programs, see **Appendix D**.

The TMP/ATP developed a conceptual network that has identified road, bridge, marine and Active Transportation projects. This list of facilities was expanded through a Community Café event, Public Information Centres, and discussions with agencies and stakeholders. A long list of projects included separated trails, roadway improvements, parking facilities, pedestrian crossings and new or improved trail networks.

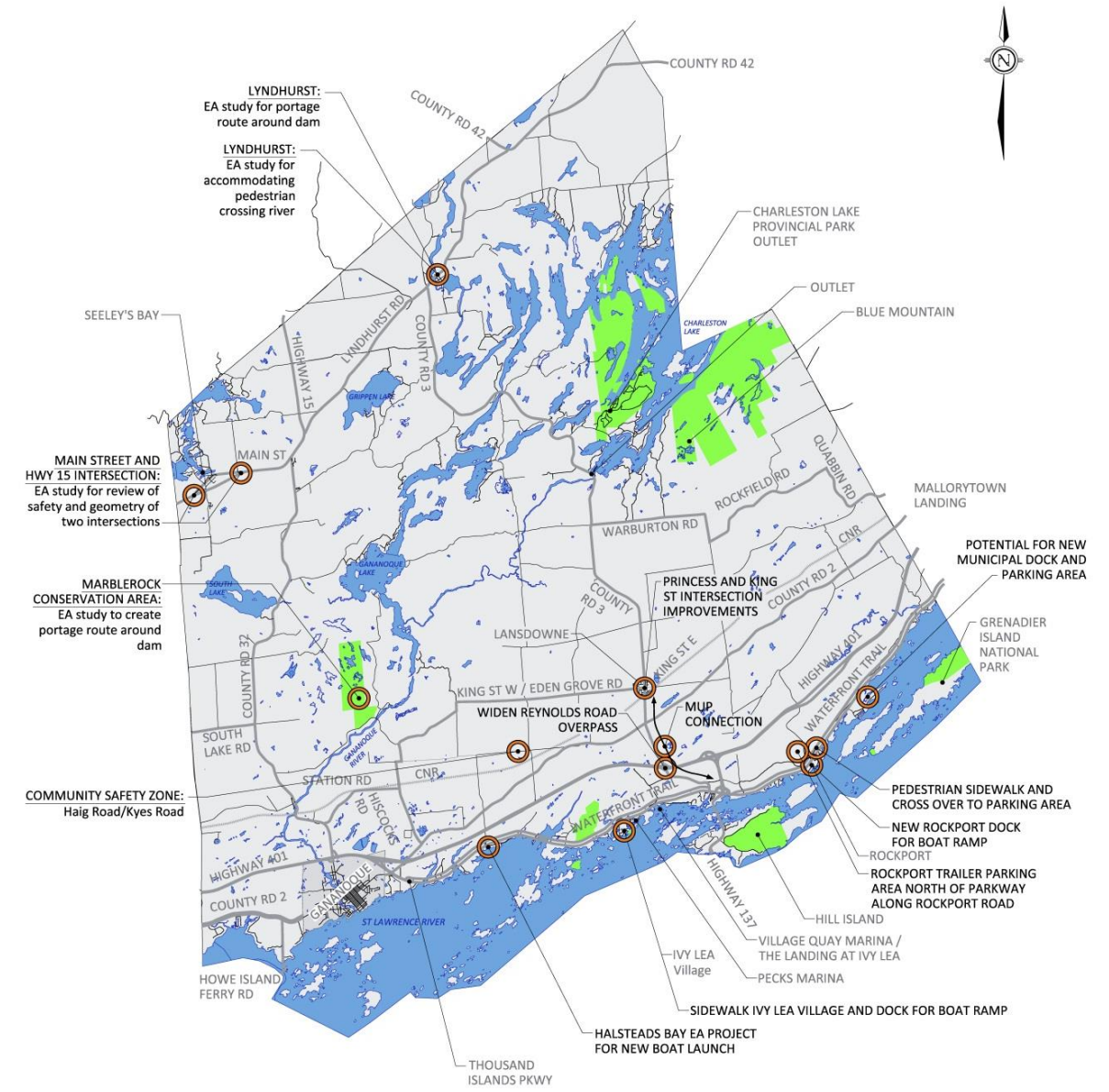
The long list of projects was evaluated to assist in establishing priorities for the Township.

PROJECTS



The TMP/ATP has created a network within the Township for improvements to all modes of transportation including: marine, vehicular, and Active Transportation (such as cycling, paddling or walking).

Schedule 02
Township of Leeds and the Thousand Islands
Preliminary New Projects



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

 Preliminary New Project Location

PROJECTS

Road Projects

The Township is home to 330 km of road. These roads are serviced, maintained and owned by the Township.

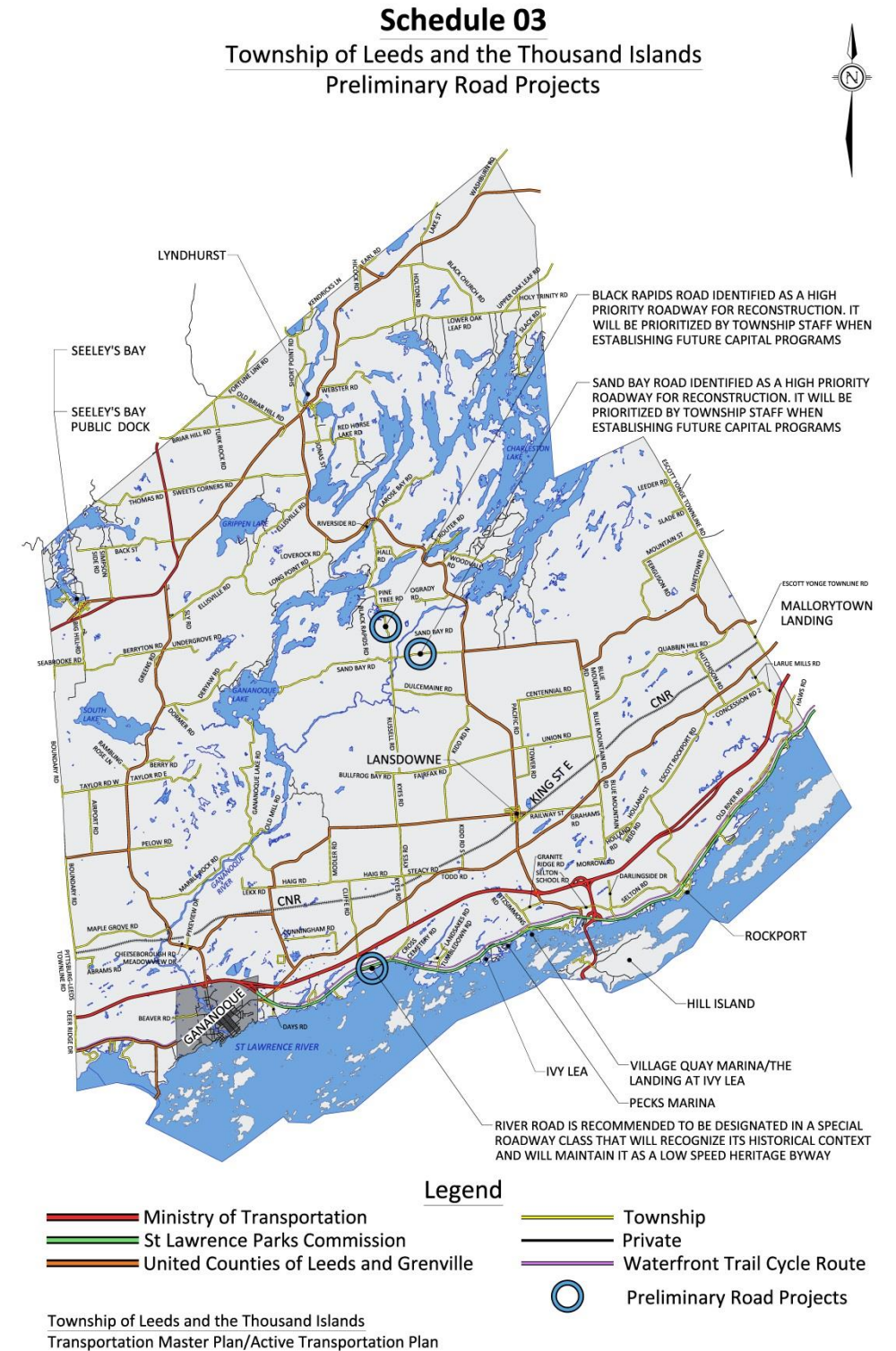
The Township road network services cars, bikes, ATVs, and pedestrians for permanent residents and tourists. Enhancing the current road system could result in improved safety, tourism opportunities, and connectivity throughout the Township.



Numerous roads within the Township require maintenance, or improvements. These roads may have poor drainage (resulting in water on the road) and are a concern for motorists as there is an increased risk of hydroplaning and seasonal road closures. Other comments include: uneven grade, visibility issues, dangerous intersections, insufficient clear zone to lateral hazards and poor road surfaces.



For a full list of collected comments and potential road projects, see **Appendix E**.



PROJECTS

Marine

The Township is located on the St. Lawrence Seaway and Rideau Canal and is a part of the famous Thousand Islands region; home to many marine tourist destinations, boat tours, marinas, cottages, and private boat owners.



The Thousand Islands is rich with tourist destinations, many of which are best accessible by boat. Among the approximately 1,800 islands within the Thousand Islands are medieval style castles, 1812 battlegrounds, and colonial forts. There is extensive boating traffic on the St. Lawrence River and the Rideau Canal (a UNESCO World Heritage Site); including world class freighters, tour boats, cottage-goers and jet skis.

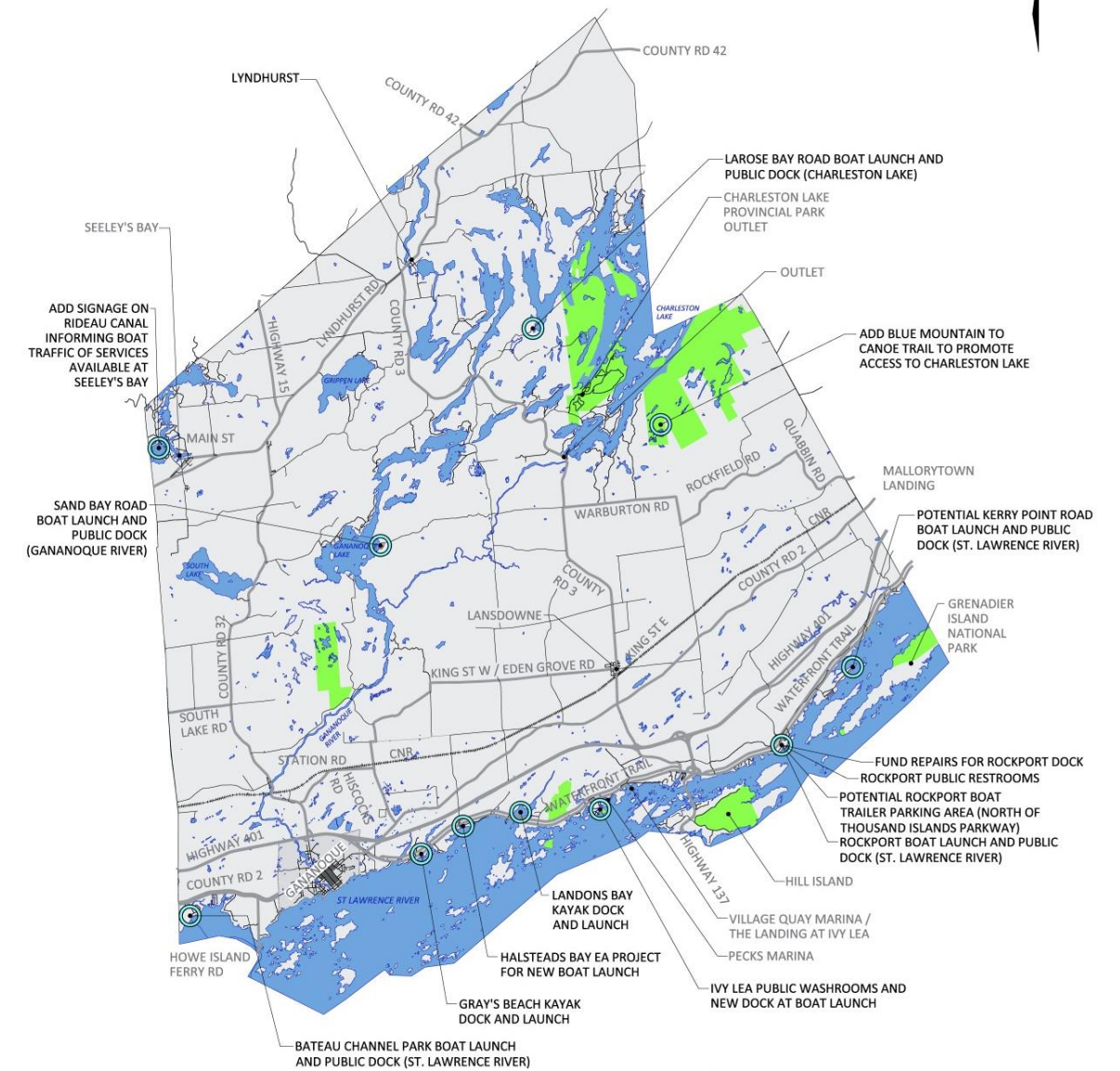
Through public consultation and preliminary research, a plan was developed to improve the resources available in the Township.



The plan outlines a number of preliminary facilities that will help with issues such as: boat launches for water access for locals wishing to boat, containing the spread of invasive species, boat parking, water navigation, and boat storage.

For a full list of collected comments and potential marine projects, see **Appendix E**.

Schedule 04
Township of Leeds and the Thousand Islands
Preliminary Marine Projects



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

Preliminary Marine Projects

PROJECTS

Paddling

The Township is on the St. Lawrence River, and the Rideau Canal; it is also home to numerous lakes and rivers including South Lake, Grippen Lake, Fodey Lake, Lime Lake Killenbeck, Lake, Red Horse Lake, Highley Lake, Charleston Lake, Green Lake, and Gananoque Lake.

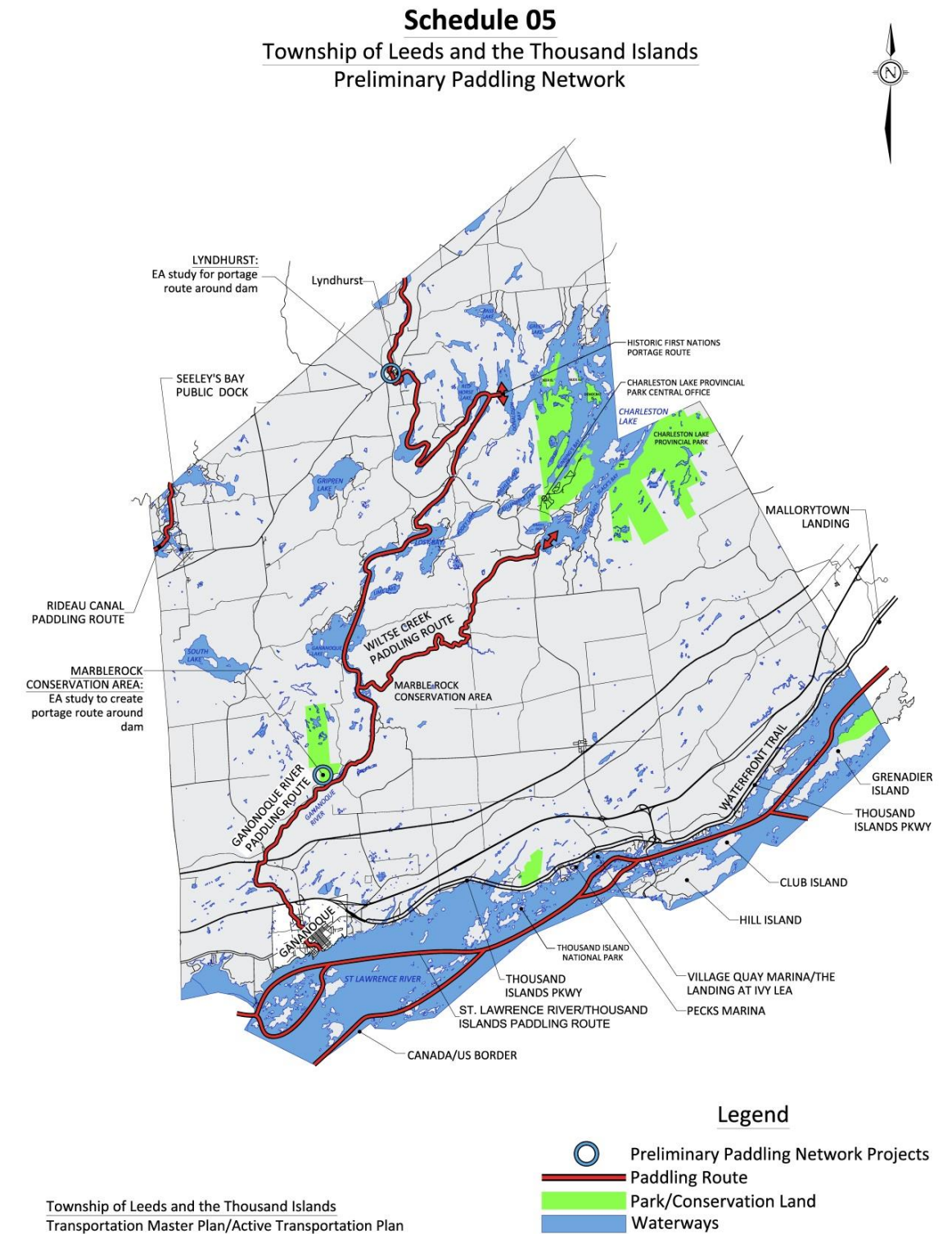


The St. Lawrence River runs 3,058 km from Lake Ontario to the Gulf of St. Lawrence, and forms the Canada - United States border. The Rideau Canal is 146 km long and connects Kingston to Ottawa. The Rideau Canal cuts through the Township at Seeley's Bay. Both the St.

Lawrence River and the Rideau Canal are popular paddling routes. Other popular paddling routes within the Township include the Gananoque River Canoe Route and the Wiltse Creek Canoe Route. Paddling in the Township is promoted through a number of clubs and organizations including the Gananoque Canoe Club. The Township's waterways offer the public another form of active transportation. The plans presented at the PIC's included existing paddling routes and input on the suitability of some of those routes was provided. In addition, the Township should consider providing signage to or installation of access points to the waterway network for paddle platforms.

The provincial initiative "PaddleON" provides a new opportunity to promote canoeing and kayaking; an activity that invites local residents and tourists to experience the Township by water and explore local features and wildlife from a different perspective.

For a full list of comments and potential paddling projects carried forward, refer to **Appendix E**.



PROJECTS

Cycling

The Township has a vibrant cycling community comprised of local residents and seasonal tourists. Cycling in the Township is supported by the provincial “GO biking” initiative. The Township’s cycling network consists of the Waterfront Trail, and several well-cycled roads.

The Waterfront Trail is a 37 km, freshly paved (2014) bike path that runs in parallel to the Thousand Island Parkway, from Gananoque to Brockville. Along the Waterfront Trail, there are amenities available to the cyclists including: public beaches, swimming, public parks with washrooms, picnic areas, hiking trails, and camping / lodging. All roads and the path are free to use and open to the public. Popular tourist destinations along the Waterfront Trail include:



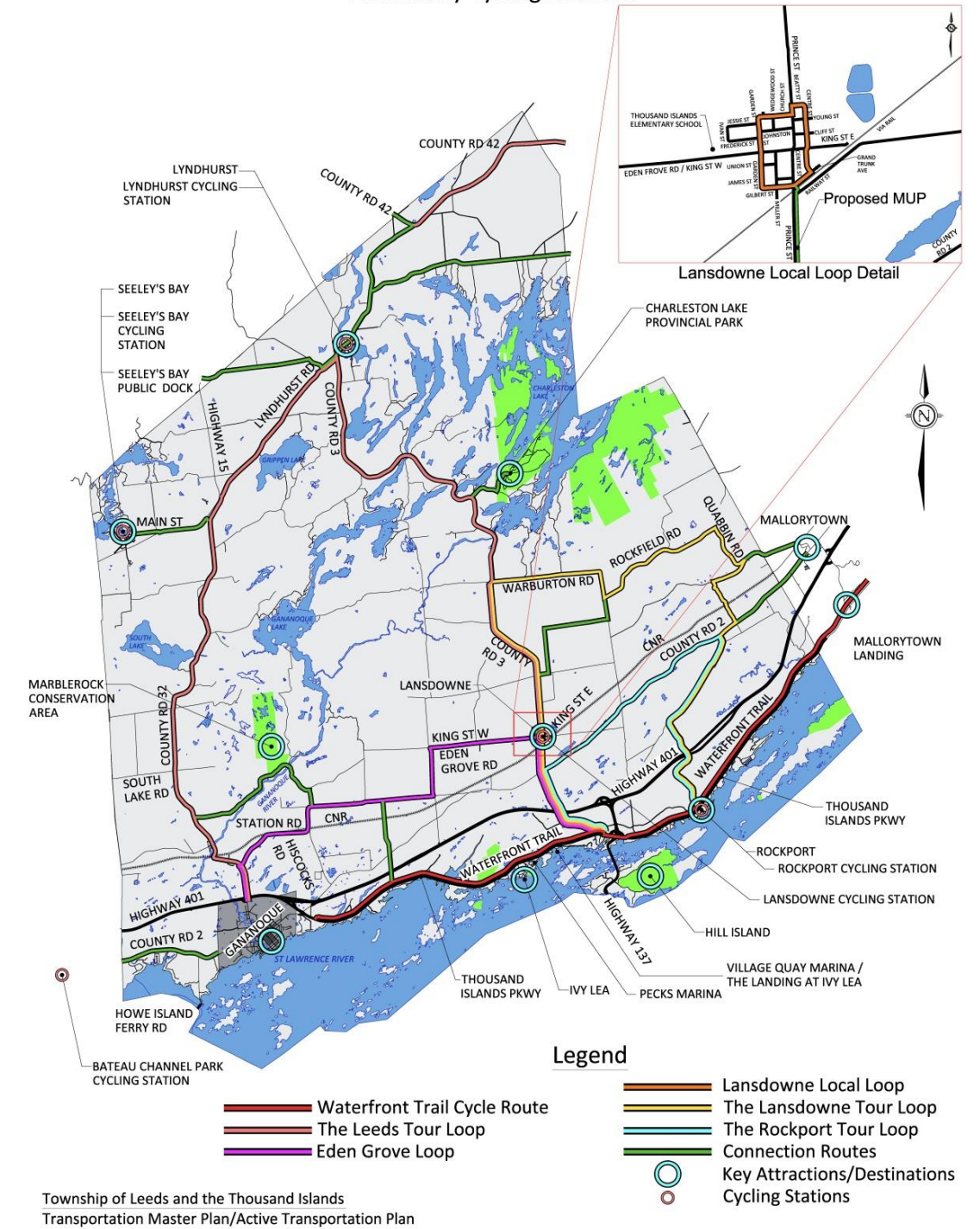
Brown’s Bay Beach, Mallorytown Landing, Landon Bay Center, Rockport, Gananoque, and Ivy Lea Campground. Exits, attractions, and towns are clearly signed along the length of the Waterfront Trail.

For a full list of comments and potential cycling projects carried forward, refer to **Appendix E**. The initial cycling projects to be carried

forward will be five cycling stations located throughout the Township for storage and repairs at the following locations: Seeley’s Bay; Lansdowne; Rockport; Furnace Falls (Lyndhurst); and Bateau Channel. The Township should also consider bike rental stations.



Schedule 06 Township of Leeds and the Thousand Islands Preliminary Cycling Network



The Township also has a vibrant walking community comprised of local residents along with seasonal tourists. The Waterfront Trail is a popular destination for pedestrians, as well as seasonal visitors in settlement areas using the boat launches and signed historic walking trails. The Township also contains numerous shorter walking trails such as Bateau Channel Trail; Marble Rock; Landon's Bay; and the trail network within the Charleston Lake Provincial Park.

For a full list of comments and pedestrian improvements carried forward, refer to **Appendix E**.

PROJECTS

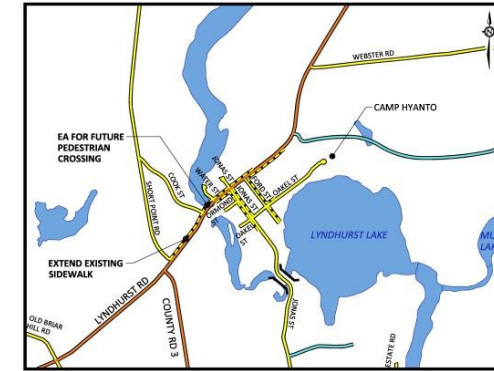
Pedestrians



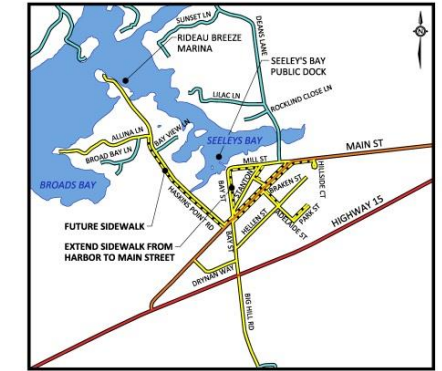
Schedule 07

Township of Leeds and the Thousand Islands
Preliminary Sidewalk Network

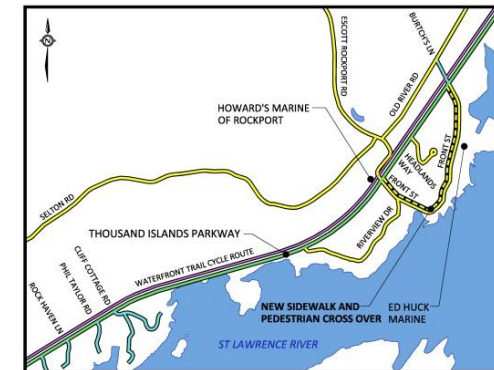
LYNDHURST



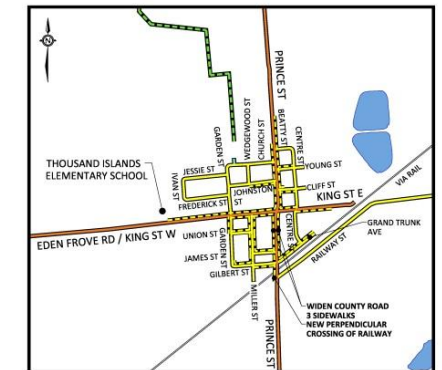
SEELEY'S BAY



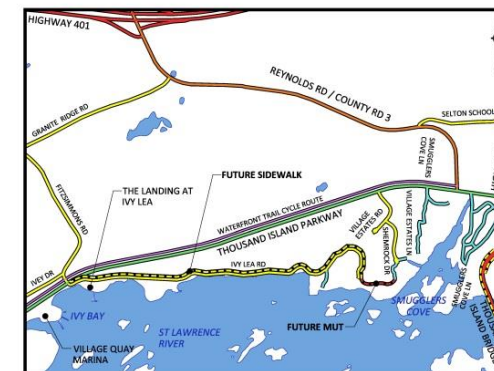
ROCKPORT



LANSDOWNE



IVY LEA / SELTON



Legend

- Ministry of Transportation
- St Lawrence Parks Commission
- United Counties of Leeds and Grenville
- Township
- Private
- Sidewalk
- Multi Use Trail (MUT)
- Waterfront Trail Cycle Route
- Off-road ATV Trails
- Bridges

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

PROJECTS

ATV

The Township has a community of All-terrain Vehicle (ATV) enthusiasts. Currently there are ten recognized ATV trails within the Township. These ATV trails are adjacent to active roads. In order for ATV users to reach the trails they must share the road with motorists.

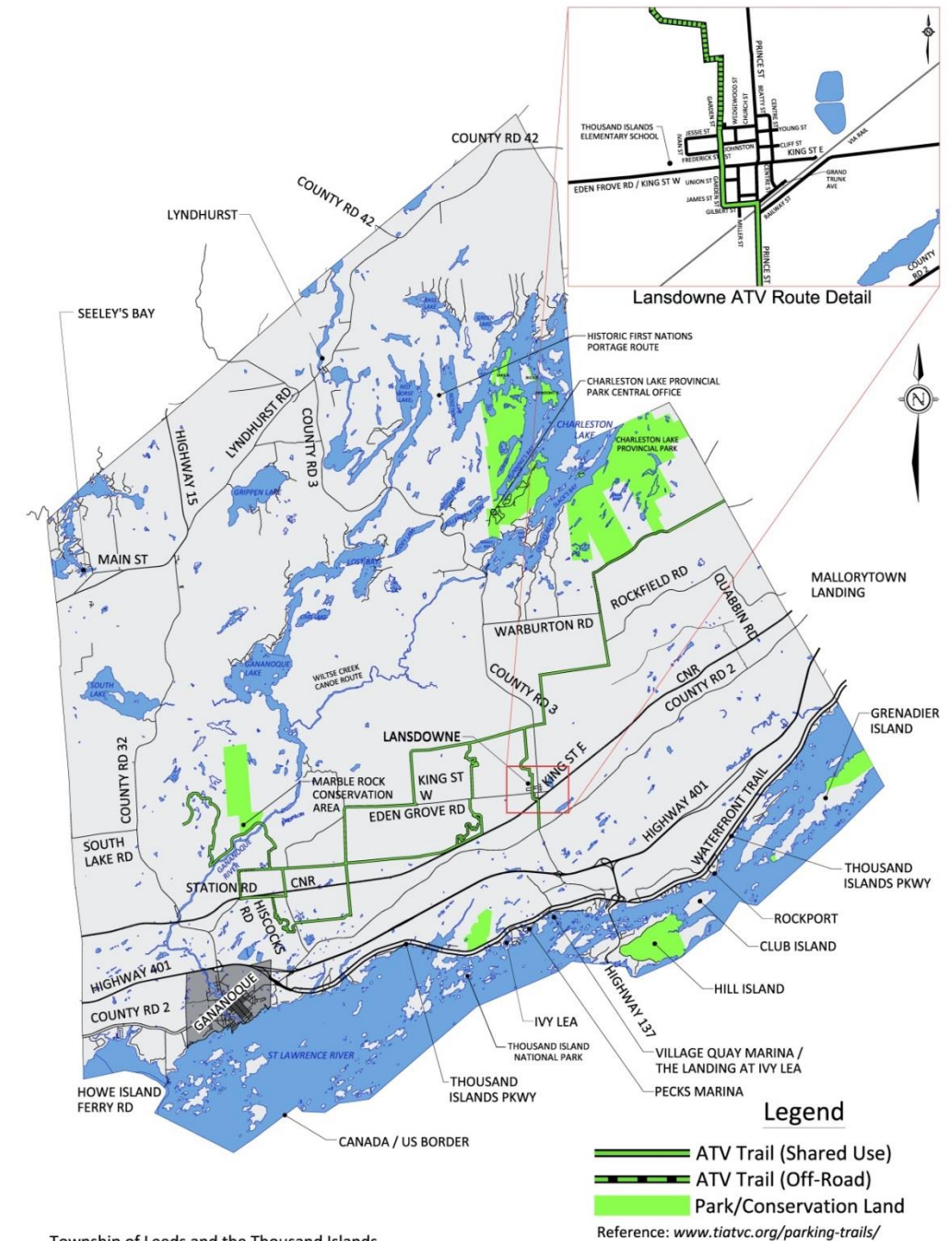


In collaboration with the Thousand Island ATV Club and the residents of the Township, the following is recommended: any of the adjacent roads that exhibit significant ATV traffic should have surface treated shoulders; the shoulders should be wide enough to accommodate both ATV users and motorists simultaneously, with no interference; and there be educational programs put into place describing ATV usage.



Programs should be implemented that clarify the use of the right-of-way for ATVs i.e. whether they are allowed to use the lane or should use the shoulder, and that dictate how ATVs are to pass cyclists while motorists are also in the lane. For a full list of comments and potential ATV projects carried forward, refer to **Appendix E**.

Schedule 08
Township of Leeds and the Thousand Islands
Preliminary All Terrain Vehicles Network



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

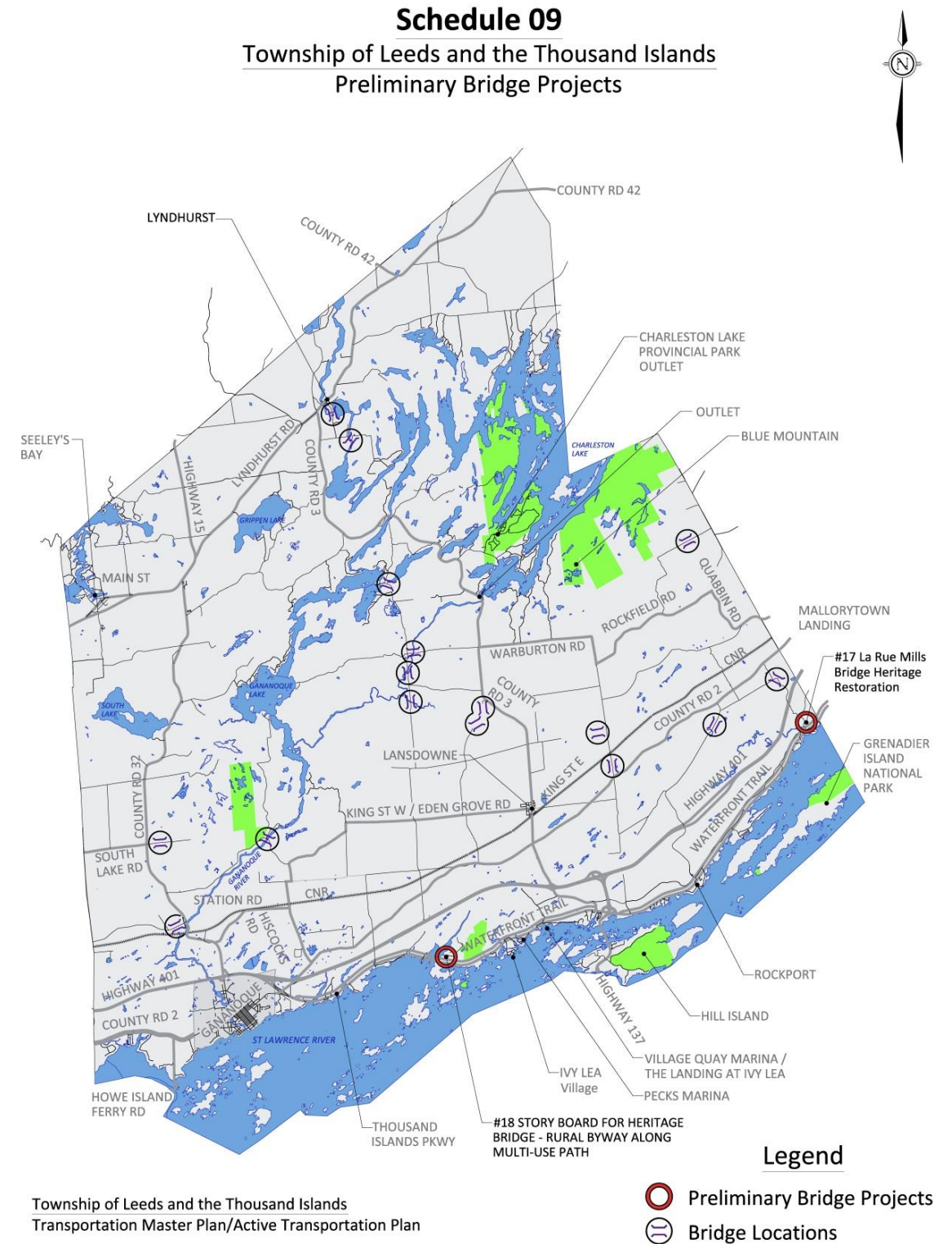
PROJECTS

Bridges

The current road network of the Township encompasses sixteen (16) bridges / culverts and two (2) inactive heritage bridges.

Through public consultation and preliminary research, a plan was developed to improve the resources available for managing the bridges. **Appendix F** serves as a database for all active operational bridges, the specific repairs they require, and the reconstruction period for each bridge. **Appendix E** also describes the requirements to restore the Heritage River Road Bridge to working condition. It also describes the potential addition of a storyboard for the heritage bridge along the Thousand Islands Parkway multi-use pathway, and the reintroduction of a bridge running between the mainland and Tar Island.

For a full list of comments and potential bridge projects carried forward, refer to **Appendix E** and **Appendix F**.



References

- 1) Ontario Traffic Manual Book 15 – Pedestrian Crossing Treatments, June 2016.
- 2) Ontario Traffic Manual Book 18 – Cycling Facilities, December 2013
- 3) Bikeways Design Manual, Ontario Ministry of Transportation, March 2014
- 4) Geometric Design Guide for Canadian Roads, Transportation Association of Canada (TAC), September 1999
- 5) Geometric Design Standards for Ontario Highways, Ontario Ministry of Transportation, 1994
- 6) Guide for the Development of Bicycle Facilities , AASHTO, 2012

REFERENCES

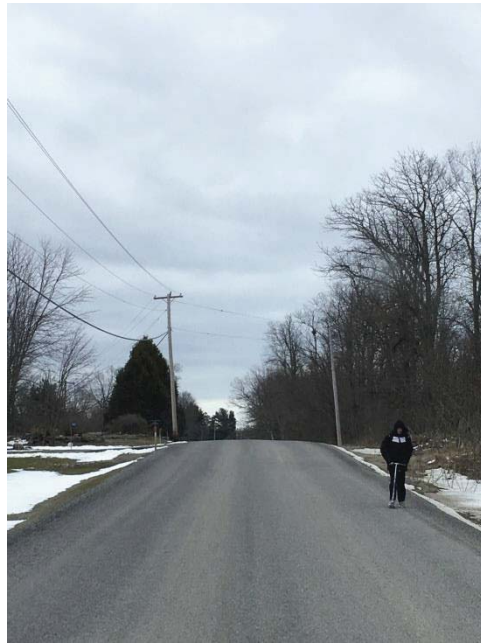


Appendix A

Final Study Design

The Township of Leeds and the Thousand Islands Transportation Master Plan Study Design Report

FINAL



November 13, 2018

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Glossary of Terms

1.0 Introduction

1.1 Background

The Township of Leeds and the Thousand Islands is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to continue to plan for efficient development. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County and municipal planning and transportation related needs.

The Township of Leeds and the Thousand Islands currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

The TMP/ATP will provide direction for the planning, coordination and implementation of the road network as well as active transportation amenities. This plan will also guide the development and implementation of policies, in consideration of the need to examine existing and future transportation needs within the municipality.

The TMP/ATP planning process will consider a number of built improvements to the transportation network that may have impacts on the natural, social and cultural environments. As such, it is subject to the Municipal Class Environmental Assessment process (Class EA), under the Province of Ontario's Environmental Assessment Act.

This document, the initial public document for the Municipal Class EA, presents a blueprint of the Work Plan and Study Process for this Transportation Master Plan. It will identify an initial list of issues, and outline the key activities required to complete the study including the EA planning process and the anticipated schedule for completion. This report will be circulated at the initiation of the study to various stakeholders and presented to the study's Advisory Committee and the general public at the first Public Information Centre (PIC).

The TMP/ATP will be completed as a standalone report. The final document will include a wide array of recommendations covering:

- Network Connectivity;
- Cost/Affordability;
- Maintenance;
- Safety;
- Facilities; and
- Marketing/Education.

For any physical improvements subject to the Municipal Class EA process, the ATMP will complete Phases 1 and 2 of Class EA by establishing the need and justification for the project, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements.

2.0 Study Approach

2.1 Need and Justification

The Transportation Master plan will define transportation projects, programs and policies that will integrate Township transportation planning and land use planning. It will also allow the Township to integrate strategies with other jurisdictions (Town of Gananoque, County of Leeds and Grenville, MTO, St. Lawrence Parks Commission and Parks Canada).

Active Transportation elements of the plan will provide a number of benefits to both individuals and communities over motorized forms of travel. These include:

- Decreased emissions of greenhouse gases, particulates, volatile organic chemicals, and numerous other harmful chemical pollutants; and
- Increased physical activity leads to significant improvement in a number of health indicators, including decreased likelihood of chronic diseases such as Heart Disease and Stroke, Type 2 Diabetes and many forms of cancer.

The TMP/ATP will identify policy and infrastructure improvements that will aim to increase the mode share of forms of Active Transportation; primarily cycling and walking throughout the Township.

2.2 Study Issues

Transportation

The Transportation Master Planning will establish design standards for Township roads and bridges including cross sectional width and surface types by class of roadway. These classes are typically defined by traffic

volume or commercial vehicle use. The planning will also consider future projects within the horizon of the Official Plan including new roads or bridges, upgrades to existing roads or bridges, rehabilitation type projects, and safety improvements (such as intersection/site distance, stop control, etc).

Active Transportation

Active transportation is any form of human-powered transportation. It is any trip made for the purpose of reaching a destination actively. Active transportation modes are fundamental elements of more sustainable urban transportation systems. They are the least polluting, most equitable, and most affordable modes of transportation. Active transportation also supports important health and fitness objectives, and promotes social interaction within communities.

To effectively meet mobility needs, the transportation system should offer a balance of transportation choices, reducing reliance on a single mode and promoting active and healthy alternatives. As part of this assessment, an active transportation network will be developed to encourage all modes of human-powered transportation in the Township through the provision of a safe, well-connected network of on- and off-road facilities.

Education of the benefits of Active Transportation will be a key element to the plan's success. The Plan will seek to build upon the education programs that have typically been initiated in many municipalities by Area Health Units.

Local issues we expect to be identified for both transportation and active transportation may include but not be limited to:

- A multi-modal transportation system
- Local vehicular and cycling routes on Township or County roads that may provide linkages to the Provincial network on the Thousand Islands Parkway or to tourist destinations at Charleston Lake
- Cycling and pedestrian linkages to major commercial businesses
- Pedestrian connections (sidewalks and crossings) within settlement areas
- Paved shoulders on Township, County or MTO linkages
- Bridge projects based on structural needs
- Bridge cross section widenings for active transportation
- Safety improvements for substandard horizontal or vertical curves
- Safety improvements for intersections (improved visibility or operation) such as the Lansdowne County Road intersection (Prince Street/ King Street West/ King Street East)
- Paving or surface treatment of Township Roads based on traffic demand or active transportation needs
- Signage and wayfinding
- School crossing and community safety zones
- Use of new pedestrian crossover standards now approved for use in Ontario
- Canoe routes/boating facilities (an example would be Township boat ramps to access island properties being added or upgraded to include dockage)
- New road corridors

3.0 Study Process

3.1 Public Consultation Approach

Several techniques to proactively involve the public will be used. Our work program proposes the following key elements:

- Preparation of this draft Study Design Report that documents our consultation plan, technical work plan and study schedule.
- Advertise the commencement of the study and request members of the public register for consideration to be a member at large on the Advisory Committee (members of the public can review the Study Design to determine their interest (or non interest) in participating on the Advisory Committee).
- A Community Café / focus group workshop.
- Consultation and communication with external agencies.
- PIC No. 1 to introduce the draft Study Design and seek public/agency input.
- PIC No. 2 to present a coarse screening of alternatives and a preliminary prioritization of proposed policies and improvements.
- An Advisory Committee workshop to review the public input for the proposed plan and to finalize the prioritization of recommendations.
- Advertise a Notice of Completion and posting of the report for public review.
- Public presentation to Council to present and seek endorsement of the study recommendations.

3.2 Work Program

The following sections summarize major elements of our technical work program:

Task 1: Information Gathering

This task involves the collection and organization of the data necessary for the analysis and evaluation of transportation

projects/strategies. Sources of information and activities may include:

- Assembly and preliminary review of study materials;
- Obtain digital mapping, photographs and associated drawings;
- Field reviews of key corridors;
- Collect background reports including but not limited to the Township and County Official Plans, Secondary Plans, existing programs and policies and relevant EA's; and
- Review AT programs and policies of other comparable municipalities.

Task 2: Study Design

The Study Design describes, at the outset of the study, the intended approach in completing this assignment. The Study Design document will help establish the foundation for the transportation and environmental planning and public consultation processes. This document will be posted on the Township website at the outset of the study and sent to external agencies as a draft for public review and comment. The draft Study Design allows the early identification of the major issues and concerns, and in addition, recognizes areas of consensus or agreement.

Task 3: Community Café

The Community Café is scheduled at the beginning of the study to provide stakeholders and community members an opportunity to let the project team know what they need from the study. The input provided is used to develop alternatives and then later in evaluating the preferred alternatives and in preliminary and detail design of the preferred alternatives. The Community Café will:

- Confirm existing constraints;

- Document the existing profile of transportation users;
- Define deficiencies (existing /future operational problems) within the current network; and
- Generate operational improvement alternatives or strategies.

Task 4: Environmental Review

The environmental review will undertake a high level identification of environmental influences that should be considered when evaluating choices for future transportation decisions, including built heritage and cultural heritage landscapes.

A technical memorandum on environmental issues related to Township of Leeds and the Thousand Islands transportation will be submitted. This deliverable will be produced early in the study to allow its use and public review as a reference document for subsequent decision-making.

Task 5: Development of Network Improvements

The assessment of transportation network requirements will be carried out to ensure the development of an integrated multi-modal plan. The work plan will include:

- Review/update the inventory of existing roadway networks and roadway improvements and protection
- Assessment of roadway classifications
- Identification of intersection safety improvements
- Review/update the inventory of existing pedestrian and cycling facilities based on information provided by the Township
- Identify community destinations to be served by the pedestrian/cycling network

- Identify existing and planned active transportation routes in neighbouring municipalities where connections to the Township would be desirable from a route continuity perspective
- Review background reports and any existing plans/ policies related to active transportation
- Obtain input from Township staff regarding known issues/ public complaints
- Review the existing policies for the provision of sidewalks on Township streets based on roadway classification, vehicular and pedestrian demand
- Review existing policy or practice for sidewalk and multi-use pathway design criteria.

Task 6: Evaluate Connectivity with Adjacent Municipalities

The Township of Leeds and the Thousand Islands does not exist in isolation; connections to facilities between Kingston and Brockville including Gananoque are essential to support the movement of people using active transportation into and out of the Township. In developing the TMP/ATP, such linkages will be reviewed from a multi-modal perspective, taking into account any network improvements being planned by other jurisdictions.

Task 7: Best Practises Review and Policy Development

This task will complete a review of best practises considering policies currently being used by other counties or cities. Some of the best practises will relate to:

- Transportation policy within the Township
- Active transportation policy along transit routes and designated cycling corridors
- Traffic signage
- Route designation

- Environmental protection
- Bicycle lanes and cycle tracks
- Benches and other pedestrian amenities
- Bicycle facilities / amenities
- Sidewalks
- Multi-use trails
- Accessibility standards

Output:

- Transportation policies and practises (to be developed) to support the long term TMP/ATP vision and best practises of other jurisdictions
- Define a sustainable and affordable policy of asset preservation following best practises of other transportation authorities
- Recommendations for implementation (action plan of next steps to implement these recommendations)

Task 8: Development, Analysis and Prioritization of Alternative Roadway Projects and Strategies

Task 8.1 Development of Alternative Improvement Projects, Programs and Policies

The alternatives will be generated through the technical analysis and discussions with the Township, Advisory Committee, agencies and the general public. The list of alternative projects, programs, policies and strategies will be confirmed with the public, as required as part of the EA process, including the “Do Nothing” option. The forecast needs of the system (short term and long term) will be prioritized. This will include traffic operations, safety, illumination, active transportation, asset management and preservation as well as level of service standards (considering affordability constraints).

Alternative improvements may include:

- Intersection improvements such as roundabouts or tactile warning devices for visually impaired pedestrians
- Roadway reclassification
- Road widening or contractions
- “Share the Road” and route signage
- Traffic control measures including audible signals
- Multi-use pathways
- Bike lanes, wider shared lanes or paved shoulders
- New sidewalks or recreational pedestrian links

Task 8.2 Prioritization of Alternatives

This study will include a systematic, traceable analysis and evaluation of the active transportation needs in the Township, (based on the generation, analysis and evaluation of alternative projects or strategies). It will include input received as part of the public consultation program in the development of a TMP/ATP.

The prioritization will include the affordability of the future projects/ strategies and conformance/ integration with the Township’s Transportation Master Plan. The Advisory Committee will participate in weighting exercises to provide direct input into the decision-making process.

The ability to implement future projects in the Township will be constrained by funding. A key component of the prioritization of projects and traffic management measures will be the evaluation of these options and the long term life cycle cost to construct and maintain this infrastructure.

Output:

- The objective will be to define a long term vision for Transportation and Active Transportation within the Township

- Listing of capital need and priority of projects by planning horizons in 5 year increments, up to 25 years
- Financial Plan (order of magnitude) of costs of the plan per year in current dollars
- Develop a financial strategy that matches the plan
- Identify potential sources of funding or partnering or alternative delivery methods.

Task 9: Public Information Centres

The public consultation program meetings are will include:

- A Community Café
- PIC No. 1 to collect public opinion surveys while presenting the long list of alternatives, traffic and safety analysis, and coarse screening of alternatives.
- PIC No. 2 will present the analysis and evaluation and potential priorities of projects, transportation policies and strategies to carry forward.

The PIC's will include coloured graphics and text boards to describe the process and provide an opportunity for the public to provide comment. A briefing package of the materials will be provided for elected officials prior to the meeting.

Task 10: Preparation of Transportation Master Plan/ Active Transportation Plan Report

The preparation of the draft and final active transportation planning reports will meet the requirements of the Class EA. The report will document the study methodology, findings, public involvement and recommendations. A draft version will be submitted to the Township for review prior to the preparation of the final document.

4.0 Project Schedule

The proposed Project Schedule is included in **Table 1**.

Table 1: Preliminary Study Schedule Summary

Task	Date
Project Start-Up Meeting	March 2018
Study Design	March 2018
Study Commencement Notice	April 2018
Information Gathering	March– April 2018
Community Café	April 2018
PIC No. 1	May/June 2018
Environmental Review	March– May 2018
Development of Network Improvements (Projects)	March– April 2018
Evaluate Connectivity with Area Municipalities	March– April 2018
Best Practices Review and Policy/Program Development	March– April 2018
Submit Coarse Screening of Options	Summer 2018
Refinement to Development, Analysis and Prioritization of Candidate Roadway Projects and Strategies	Summer 2018
PIC No. 2	November 2018
Refinements to Policies, Programs and Preferred Network (Projects)	Winter 2019
Draft TMP/ATP	Winter 2019
Final TMP/ATP submission to Township	Winter 2019

Glossary of Terms

• AA DT	Annual Average Daily Traffic – the average 24-hour, two-way traffic per day for the period from January 1st to December 31st.
• Active Transportation (AT)	Refers to any form of human-powered transportation – walking, cycling, using a wheelchair, in-line skating or skateboarding
• Alignment	The vertical and horizontal position of a road.
• Alternative	Well-defined and distinct course of action that fulfils a given set of requirements. The EA Act distinguishes between alternatives to the undertaking and alternative methods of carrying out the undertaking.
• Alternative Planning Solutions	Alternative ways of solving problems or meeting demand (Alternatives to the Undertaking).
• Alternative Design Concepts	Alternative ways of solving a documented transportation deficiency or taking advantage of an opportunity. (Alternative methods of carrying out the undertaking).
• Alternative Project	Alternative Planning Solution, see above.
• ANSI	Area of Natural or Scientific Interest
• ATP	Active Transportation Plan
• Berm	Earth landform used to screen areas.
• BMP	Best management practice.
• Bump-Up	The act of requesting that an environmental assessment initiated as a class EA be required to follow the individual EA process. The change is a result of a decision by the proponent or by the Minister of Environment to require that an individual environmental assessment be conducted.
• Bypass	A form of realignment in which the route is intended to go around a particular feature or collection of features.
• Canadian Environmental Assessment Act (CEAA)	The CEAA applies to projects for which the federal government holds decision-making authority. It is legislation that identifies the responsibilities and procedures for the environmental assessment.

• Class Environmental Assessment Document	An individual environmental report documenting a planning process which is formally submitted under the EA Act. Once the Class EA document is approved, projects covered by the class can be implemented without having to seek further approvals under the EA Act provided the Class EA process is followed.
• Class Environmental Assessment Process	A planning process established for a group of projects in order to ensure compliance with the Environmental Assessment (EA) Act. The EA Act, in Section 13 makes provision for the establishment of Class Environmental Assessments.
• Compensation	The replacement of natural habitat lost through implementation of a project, where implementation techniques and other measures could not alleviate the effects.
• Consortium	A group of businesses or organizations allied to take on a project.
• Corridor	A band of variable width between two locations. In transportation studies a corridor is a defined area where a new or improved transportation facility might be located.
• Criterion	Explicit feature or consideration used for comparison of alternatives.
• Cumulative Effects Assessment	Cumulative Effects Assessment assesses the interaction and combination of the residual environmental effects of the project during its construction and operational phases on measures to prevent or lessen the predicted impacts with the same environmental effects from other past, present, and reasonably foreseeable future projects and activities.
• Decibel (dB)	A logarithmic unit of measure used for expressing level of sound.
• dBA	‘A’ weighted sound level; the human ear cannot hear the very high and the very low sound frequencies as well as the mid-frequencies of sound, and hence the predicted sound levels, measured in dBA, are a reasonable accurate approximation of sound levels heard by the human ear.

• Detail Design	The final stage in the design process in which the engineering and environmental components of preliminary design are refined and details concerning, for example, property, drainage, utility relocations and quantity estimate requirements are prepared, and contract documents and drawings are produced.
• DFO	Department of Fisheries and Oceans.
• EA	Environmental Assessment
• EA Act	Ontario Environmental Assessment Act (as amended by S.O. 1996 C.27), RSO 1980.
• Environment	Air, land or water, Plant and animal life, including human life, The social, economic and cultural conditions that influence the life of humans or a community, Any building structure, machine or other device or thing made by humans, Any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or Any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario.
• Environmental Effect	A change in the existing conditions of the environment which may have either beneficial (positive) or detrimental (negative) effects.
• Environmentally Sensitive Areas (ESA's)	Those areas identified by any agency or level of government which contain natural features, ecological functions or cultural, historical or visual amenities which are susceptible to disturbance from human activities and which warrant protection.
• Equivalent Sound Level (Leq)	The level of a continuous sound having the same energy as a fluctuating sound in a given time period. In this report Leq refers to 24-hour, 16 or 18-hour averages.
• ESR	Environmental Study Report. The final documentation for Schedule C project, defining the project, consultation process, preferred solution and mitigation measures.
• Evaluation	The outcome of a process that appraises the advantages and disadvantages of alternatives.

• Evaluation Process	The process involving the identification of criteria, rating of predicted impacts, assignment of weights to criteria, and aggregation of weights, rates and criteria to produce an ordering of alternatives.
• External Agencies	Include Federal departments and agencies, Provincial ministries and agencies, conservation authorities, municipalities, Crown corporations or other agencies other than MTO.
• General Arrangement	Structural plan of the bridge and proposed works including elevations and cross-sectional views of the bridge.
• Factor	A category of sub-factors.
• HADD	Harmful Alternation, Disturbance or Destruction of fish habitat.
• Harmonized EA Process	Harmonized planning process for this project that will meet both the Provincial and Federal EA requirements.
• Individual Environmental Assessment	An environmental Assessment requiring the submission of a document for approval by the Minister, pursuant to the EA Act and which is neither exempt from the EA Act nor covered by a Class EA approval.
• Mitigating Measure	A measure that is incorporated into a project to reduce, eliminate or ameliorate detrimental environmental effects.
• Mitigation	Taking actions that either remove or alleviate to some degree the negative impacts associated with the implementation of alternatives.
• MNRF	Ministry of Natural Resources and Forestry.
• MOECC	Ministry of the Environment and Climate Change.
• MTCS	Ministry of Culture, Tourism and Sport.
• MTO	Ministry of Transportation Ontario.
• Noise Attenuation	A mitigation measure used to lessen the intensity of the noise level (dBA) where the noise level is increased in a noise sensitive area greater than 5 dBA 10 years after completion.

• NSA	Noise Sensitive Area is a noise sensitive land use, which has an outdoor living area associated with the residential unit.
• OLA	Outdoor Living Area is the part of an outdoor amenity area provided for the quiet enjoyment of the outdoor environment.
• Planning Alternatives	Planning alternatives are “alternative methods” under the EA Act. Identification of significant transportation engineering opportunities while protecting significant environmental features as much as possible.
• Planning Solutions	That part of the planning and design process where alternatives to the undertaking and alternative routes are identified and assessed. Also described as “Alternative Project” under the federal EA Act.
• PIC	Public Information Centre
• Prime Agricultural Areas	Prime agricultural areas as defined in municipal official plans and other government policy sources.
• Project	A specific undertaking planned and implemented in accordance with the Class EA including all those activities necessary to solve a specific problem.
• Project File	The final product of a Schedule B project. This is a completion of all data/reports produced for the project.
• Proponent	A person or agency that carries or proposes to carry out an undertaking, or is the owner or person having charge, management, or control of an undertaking.
• Public	Includes the general public, interest groups, associates, community groups, and individuals, including property owners.
• Realignment	Replacement or upgrading of an existing roadway on a new or revised alignment.

• Recommended Plan	That part of the planning and design process, during which various alternative solutions are examined and evaluated including consideration of environmental effects and mitigation; the recommended design solution is then developed in sufficient detail to ensure that the horizontal and vertical controls are physically compatible with the proposed site, that the requirements of lands and rights-of-way are satisfactorily identified, and that the basic design criteria or features to be contained in the design, have been fully recognized and documented in sufficient graphic detail to ensure their feasibility.
• Route Alternatives	Location alternatives within a corridor.
• SADT	Summer Average Daily Traffic – the average 24-hour, two-way traffic for the period from July 1st to August 31st including weekends.
• Screening	Process of eliminating alternatives from further consideration, which do not meet minimum conditions or categorical requirements.
• Sub-factor	A single criterion used for the evaluation. Each sub-factor is grouped under one of the factors.
• TMP	Transportation Master Plan
• Traceability	Characteristics of an evaluation process which enables its development and implementation to be followed with ease.
• Undertaking	In keeping with the definition of the Environmental Assessment Act, a project or activity subject to an Environmental Assessment.



TRANSPORTATION MASTER PLAN /
ACTIVE TRANSPORTATION PLAN

Appendix B
Record of Consultation

The Township of Leeds and the Thousand Islands Transportation Master Plan Study Design Report

PIC No. 1 Summary Report FINAL



July 9, 2018

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Appendices

- Appendix A Notice
- Appendix B PIC No. 1 Exhibits
- Appendix C Comment Sheets

1.0 Introduction

The Township of Leeds and the Thousand Islands is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to: continue to plan for efficient development; plan for the rehabilitation and replacement of existing infrastructure; and create consistent transportation standards. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County and municipal planning and transportation related needs.

The Township of Leeds and the Thousand Islands currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

The project location is shown in **Figure 1**.

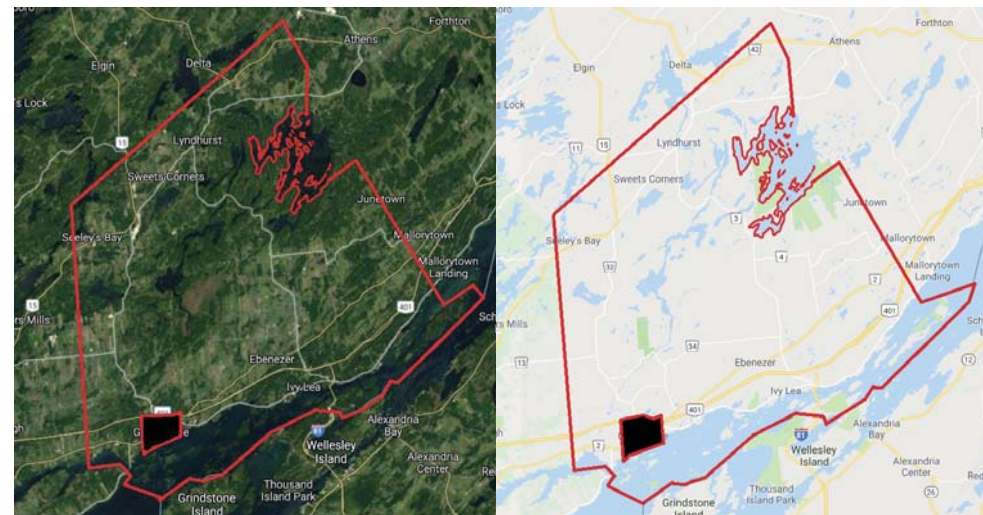


Figure 1: Project Location

The first Public Information Centre (PIC) for this project was held at various public events within the Township in the months of May and June. These events were as follows:

Saturday, May 19, 2018 at three locations within the Township: Lansdowne Fairgrounds (Annual Plant Sale), Seeley's Bay (The Bays Big Sale Day on Main Street), and Lyndhurst (Yard and Plant Sale on Lyndhurst Road). Consultant staff were available from 8:00 am to 12:00 pm.

Saturday, June 9, 2018 at the Annual Senior's Expo in the Lansdowne Community Hall. Consultant staff were available from 9:00 am to 1:00 pm.

Saturday, June 16, 2018 at the School House Jam in the Rockport Recreation Hall. Consultant staff were available from 9:00 am to 12:00 pm.

The PIC presented the following:

- Project goals and the Problem and Opportunity Statement;
- Draft Study Design (Work Plan) for comments;
- Benefits of promoting Active Transportation; and
- Explain the study process.

Consultant representatives were available to respond to any inquiries.

All members of the public and interest groups were invited to the first PIC to view the presentation material and to discuss the project with the consultant representatives.

Over the course of the three weekends a total of twenty-two (22) people registered at the first PIC.

2.0 Public and Agency Consultation

One of the key aspects of the project is to provide the public, interested parties, affected agencies and stakeholders with the opportunity for input. In order to ensure this objective is met, a public and agency notification program was undertaken. The program includes a number of communication mechanisms, discussed in the following sections. A draft Study Design Report is available on the project website and was at the PIC for public review.

2.1 Newspaper Notice and Flyers

Notice of the first PIC was advertised using social media, including Twitter. Notices were sent out to the mailing list to agencies and stakeholders. The notice is found in **Appendix A**.

2.2 Agency and Stakeholder Contacts

The Notice of PIC was issued in advance of the PIC. Agencies, stakeholders and interest groups contacted included:

- Aboriginal Affairs and Northern Development Canada
- Canadian Environmental Assessment Agency Ontario Region
- Transport Canada - Navigable Waters Protection Program
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of the Environment and Climate Change (Eastern Region)
- Ministry of Indigenous Relations and Reconciliation
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Rideau Valley Conservation Authority
- Ministry of Community and Social Services – Eastern Region
- Ministry of Innovation, Science and Economic Development Canada
- Ministry of Municipal Affairs and Housing
- Lansdowne Association for Revitalization
- Lyndhurst Rejuvenation Committee
- Rockport Development Group
- Seeley's Bay and Area Resident's Association
- Leeds and District Western Horse Club
- Leeds and the Thousand Islands Archive
- 1000 Islands ATV Club
- 1000 Islands Kayaking
- Gananoque Canoe Club
- Leeds and the Thousand Islands Historical Society
- Seeley's Bay Athletics
- Charleston Lake Provincial Park
- Rideau Canal National Historic Site
- St. Lawrence Parks Commission
- Cataraqui Region Conservation Authority
- Thousand Islands National Park
- Town of Gananoque
- Township of Rideau Lakes
- Township of Front of Yonge
- City of Brockville
- United Counties of Leeds and Grenville
- Thousand Islands Area Residents Association
- Thousand Islands Association
- Township Taxpayers Association (TTA)
- Wheels of Care
- Furnace Falls (Lyndhurst) Senior's Group
- Seeley's Bay Senior's Club
- Lansdowne Senior's Club
- Youth Advisory Committee
- Algonquin to Adirondacks Association (A2A)
- Charleston Lake Association

- Friends of Charleston Lake Association
- Frontenac Arch Biosphere Reserve
- Gananoque River Waterways Association
- Lower Beverley Lake Association
- Thousand Islands Watershed Land Trust
- Leeds and Grenville District Health Unit
- Community & Primary Health Care - SAIL
- Seeley's Bay Health Centre
- St. Lawrence and District Medical Centre
- Economic Development Committee
- Environmental Action Committee
- 1000 Islands Helping Hands
- CHPC Transportation Program
- Seeley's Bay & Lyndhurst Chamber of Commerce
- 1000 Islands Chamber of Commerce
- 1000 Islands Bridge Authority
- Thousand Islands Bicycle Co.
- Allstream
- Bell
- Enbridge Gas Distribution
- Hydro One Distribution
- Hydro One Transmission
- Hydro Ottawa
- Rogers Communications

2.3 Indigenous Peoples

Indigenous Peoples groups that were contacted include:

- Algonquins of Pikwakanagan
- Algonquins of Ontario
- Kinouchepinini Algonquin First Nation
- Kijicho Manito Madaouskarin – Anishinaabe Baptiste
- Algonquins of Greater Golden Lake First Nation
- Mattawa / North Bay Algonquin First Nation
- Shabot Obaadjiwan First Nation
- Snimikobi Algonquin First Nation
- Whitney and Area Algonquin Community
- Hiawatha First Nation
- Moose Deer Point First Nation
- Ottawa Region Métis Council
- Métis Nation of Ontario
- Williams Treaty First Nation
- Bonnechere Algonquins First Nation
- Chippewas of Georgina Island
- Mississaugas of the New Credit First Nation
- Mississaugas of Scugog Island First Nation
- Beausoleil First Nation
- Alderville First Nation
- Curve Lake First Nation

3.0 PIC Comments

Four (4) display panels/boards were set up at a table at each location on all three weekends to be viewed at leisure. Attendees were encouraged to identify issues relating to roads, bridges, active transportation, and marine on the PIC display boards to develop a long list of potential projects within the Township. Comment sheets were also available for attendees to take home or provide comments at all PIC locations. A copy of the PIC No. 1 presentation boards is provided in **Appendix B**.

A total of twelve (12) comment sheets were received at the PIC over the three weekends. Copies of the comments, excluding personal information, are provided in **Appendix C**. The results of the comments and discussions are summarized in the following sections.

3.1 Summary of Comments

The results of the comments received and discussions held at the first PIC are summarized below in **Table 1**. The comments have been summarized by general subject matter.

Comment	Number of Respondents	Comment Sheet Reference No.
More guide rails on County Road 3 / Reynolds Road south of Highway 2 to Highway 401 and south of Lyndhurst.	1	1A and 1B
Checkered 90° angle signs at the elbow coming into Lansdowne on Railway Street (especially driving west into town).	1	1
Drainage Standards for Black Rapids Road.	1	2
Consider the use of "Adult Stations" along bike routes.	1	3
County Road 3 cycle lane / paved shoulders, the road is heavy with bike traffic.	1	4
Bike racks within villages.	1	4
Separate (from existing roads) facilities to villages to connect / promote tourism in the area.	1	5
Provide facilities to bring people from St. Lawrence Recreational Trail north.	2	5, 8
Provide safe routes for cyclists.	1	5
Docks / marina on public lands north of Lyndhurst historic bridge (see map for location).	1	6
Rent out space for people to store boat during summer in Lyndhurst.	1	6
Cataraqui trail: <ul style="list-style-type: none"> • Link to the trail within the Township • Old rail bed converted to MUP <ul style="list-style-type: none"> ▪ Snowmobile trail during winter ▪ Non-motorized trail during summer 	1	7

Comment	Number of Respondents	Comment Sheet Reference No.
• Provide link (esp. snowmobiles) to Township from trail to promote tourism in Township		
Create a cycling plan for bike transport from New York State across International Bridges. (Provide amenities along County Road 3 corridor for cyclists (County Road 2, Lansdowne, Outlet, and Lyndhurst) i.e. bike rack, bench, repair area bike shuttle) during summer.	1	8
Separate motorized vehicles / bikes.	1	8
Create bus / bike shuttle across International Bridge.	1	8
Consider sidewalk on Fredrick Street.	1	9
• Consider better lighting. The settlement areas are dark. • The street light near the Lansdown Elementary School.	1	9
Improve / add lighting on Big Hill Road.	1	10
The hydro wire on Big Hill Road hangs too low and must be moved higher.	1	10
Add missing links in sidewalk from Seeley's Bay Retirement Home to Seeley's Bay Public Dock.	1	11
Add sidewalk from Perry's Place Bar and Grill to Bay Street across park.	1	11
Dockage at Rockport is sparse due to the closure of Caiger's, and the reduction of private properties offering docking services.	1	12
Add walking path from Lansdowne to Thousand Island Parkway	1	13
Concern of a localized drainage issue at the south end 58 Village Estates Lane. The existing culvert is too low to flow and the overland flow is directed to their lot Consider creating a ditch around the turning basin to me directed to the river.	1	14

Summary of verbal comments

Bridge

- Replace Black Rapids Road Bridge in combination with road reconstruction (widening and grade raise)
- Covey Bride on Red Horse Road - long range property protection for realignment to north and road improvements to flatten horizontal and vertical curves

- Wiltse Concrete Bridge on Sand Bay Road - replacement of guide rail and treatments
- Wiltse Creek Double Lane Bridge on Russell Road - replacement of bridge railing
- Pelow Road Bridge - replace bridge with record and commemoration of heritage granite masonry abutments
- Kidd Road North (South Bridge) - replacement of guide rail and treatments
- Kidd Road North (North Brige) - replace bridge with widened roadway platform and grade raise of 1 - 2 m to flatten profile
- Union Road culvert - replace bridge with widened roadway platform
- Mountain Street Bridge - replace bridge with widened roadway platform. Documentation to communicate heritage masonry abutments
- La Rue Mills Road culvert - provision of steel beam guide rail
- Heritage River Road Former Bridge - this structure is recommended for heritage preservation as a historic site along the Thousand Islands Parkway. Current repairs will include repair and protection of dry stone abutments

Marine

- Construct a dock at the Rockport boat launch
- Support the community association for the repaving of the Rockport customs dock for community use
- Create a canoe route plan in Transportation Master Plan for posting on a Township website
- Create a portage around the river dam at Marble Rock Road. Complete Environmental Assessment to consider acquisition of residential property on Old Mill Road for west side portage

Road

- North of Sand Bay Road - roadway recommended for total reconstruction including horizontal and vertical curve flattening from Sand Bay / Road County Road 3. Closed drainage system should be used in areas of localized constraints such as heritage barn
- Russell Road - surface treatment of riding surface
- Red Horse Lake Road / Jones Street - improve sight visibility

Active Transportation

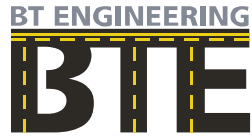
- Create a MUP corridor connecting St. Lawrence Parks Commission Recreational Trail to Lansdowne parallel to County Road 3
- Request MTO construct a cycling / MUP widened structure at Highway 401 at Reynolds Road as a part of replacement structure

- Provide amenities along County Road 3 corridor for cyclists (County Road 2, Lansdowne, Outlet, and Lyndhurst) e.g. bike rack, bench, repair area

4.0 Conclusions

The PIC No. 1 conclusions were:

- Support for expanding cycling routes.
- Request for roadway improvements to improve drainage.
- Improve sidewalk surfaces and width.
- Safety improvements at Lansdowne King Street / Prince Street and Seeley's Bay / Highway 15 intersections.
- Multi-use pathway link to Lansdowne on widened Highway 401/ Reynolds Road structure.
- Improvements in Rockport for pedestrians, boat launch, and boat and trailer parking.
- Improvements to local roads including Black Rapids Road and Russell Road.
- Localized safety improvements to improve visibility.



**NOTICE OF PUBLIC INFORMATION CENTRE NO. 1
LEEDS AND THE THOUSAND ISLANDS TRANSPORTATION MASTER PLAN/
ACTIVE TRANSPORTATION PLAN**

Appendix A Notice

INTRODUCTION

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/ Active Transportation Plan (TMP/ATP). This Study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

STUDY PROCESS

The TMP/ATP is being conducted as a Master Plan project under the *Municipal Class Environmental Assessment (2007)*, as amended in 2015. The Study will complete Phases 1 and 2 of the Class EA Process by establishing the need and justification for the projects, policies and programs, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public.

PUBLIC CONSULTATION

A draft Study Design is available on the Township's website. The draft Study Design describes the study approach, study process and public consultation program.

The first Public Information Centre (PIC) is being held at three locations within the Township to listen to concerns and help define transportation issues and potential projects, policies and programs. The PIC is scheduled for:

Date: Saturday, May 19, 2018

Time: 8:00 am to 12:00 pm

Location 1: Seeley's Bay - Bay Days, Main Street, Seeley's Bay, Ontario

Location 2: Lyndhurst Sidewalk/Yard/Plant Sale, Lyndhurst Road, Lyndhurst, Ontario

Location 3: Annual Plant Sale at Lansdowne Fairgrounds, Lansdowne, Ontario

A second PIC will be held in the fall with a notice being placed on the Township's website to present the Study recommendations.

There is an opportunity at any time during the Class EA process for interested persons to provide comments. All information will be collected in accordance with the Freedom of Information and Protection of Privacy Act (2009). With the exception of personal information, all comments will become part of the public record. Persons will be advised of future communication opportunities by electronic notice. The draft Study Design, notices and updates will be posted on the Township website at: <http://www.leeds100islands.ca/>

For more information or if you wish to be placed on the study's mailing list, contact either:

Steve Taylor, P.Eng.
EA Project Manager
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
Tel: 613-228-4813
Fax: 1-613-280-1305
Email: steven.taylor@bteng.ca

Adam Goheen
Director of Operations
Township of Leeds and the Thousand Islands
1233 Prince Street
P.O. Box 280
Lansdowne, Ontario K0E 1L0
Tel: 613-659-2415 ext. 211
Fax: 613-659-3619
Email: agoheen@townshipleeds.on.ca

Appendix B PIC No. 1 Exhibits



Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan



Public Information Centre No. 1

Saturday, May 19, 2018

Welcome

Welcome to the first Public Information Centre (PIC) event for the Transportation Master Plan / Active Transportation Plan (TMP/ATP) for the Township of Leeds and the Thousand Islands.

The purpose of this event is to listen to concerns and help define transportation issues and potential projects, policies and programs.

The Township of Leeds and the Thousand Islands initiated this TMP/ATP to create a comprehensive and sustainable transportation plan for efficient development.

The final document will include recommendations covering:

- Future Projects
- Municipal Standards
- Accessibility
- Policies and Programs
- Facilities
- Marketing and Education

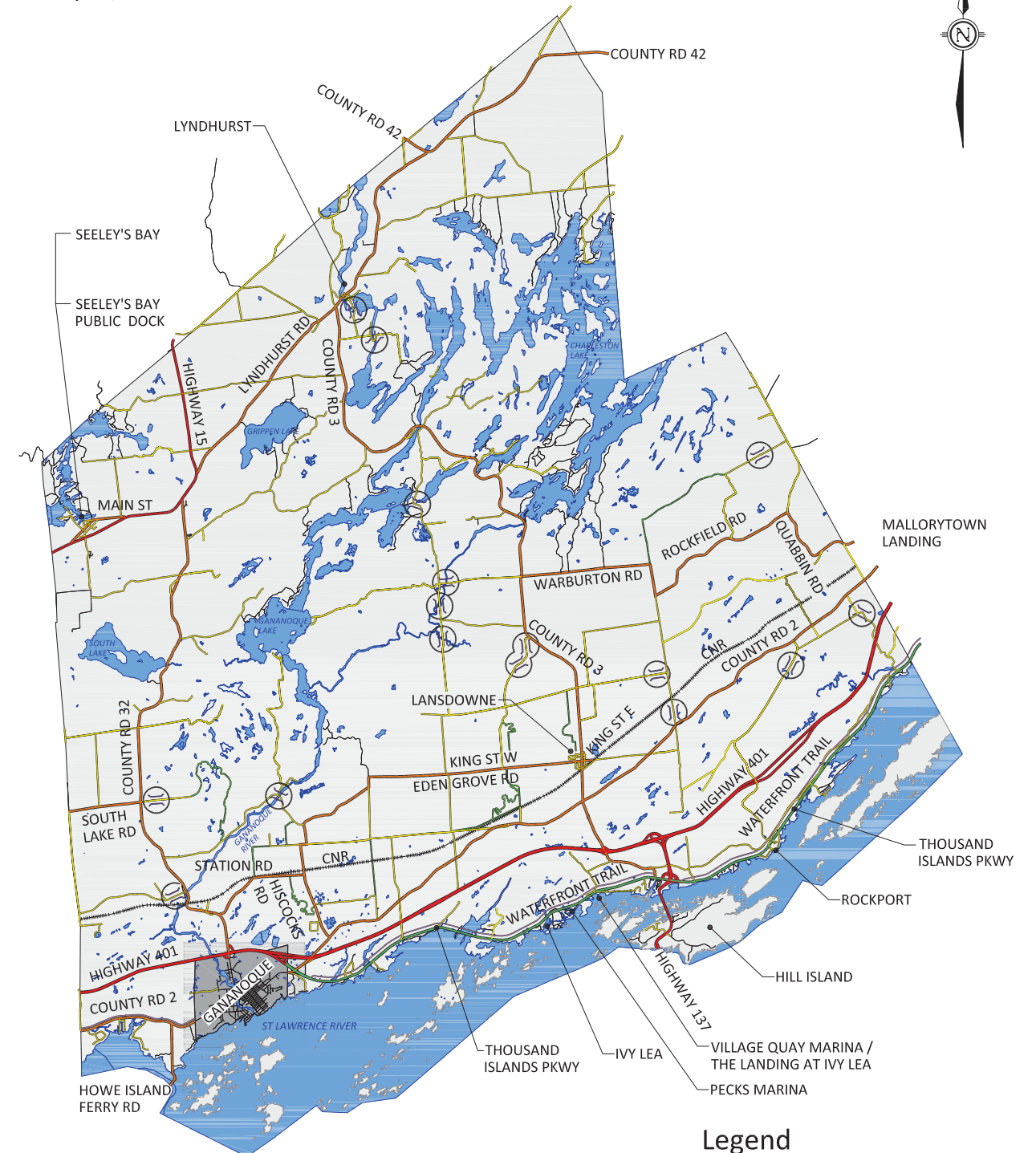


Township of Leeds and the Thousand Islands

Transportation Master Plan / Active Transportation Plan

Can you identify potential projects for consideration by the study to be a priority?

May 19, 2018



Questions

- 1) What roadway improvements should be considered?
- 2) What should be the standard for Township roads?
- 3) What bridge improvements should be considered?

Legend

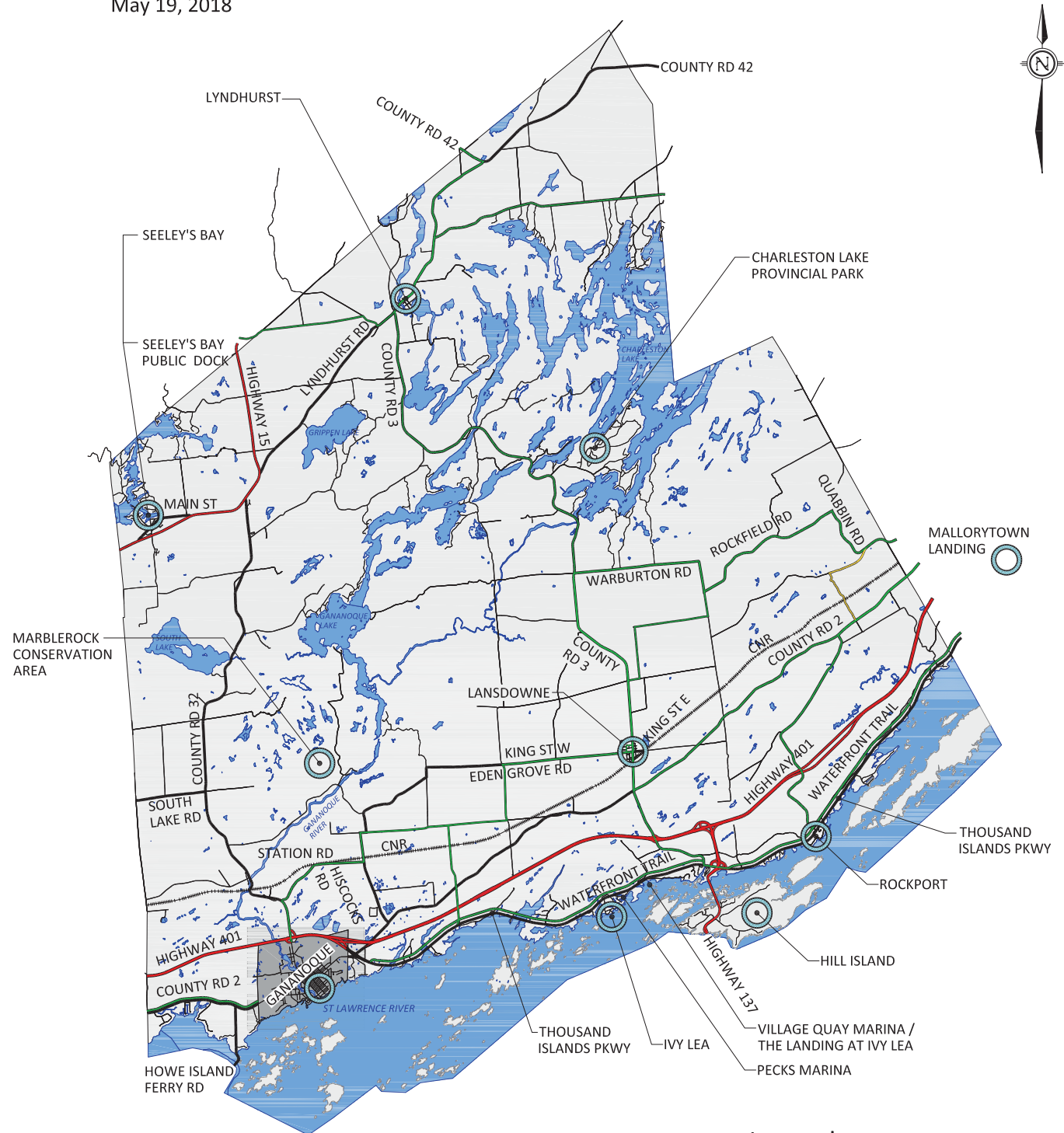
- Ministry of Transportation
- St Lawrence Parks Commission
- United Counties of Leeds and Grenville
- Township
- Private
- Waterfront Trail Cycle Route
- Off-road ATV Trails
- Bridges

Township of Leeds and the Thousand Islands

Transportation Master Plan / Active Transportation Plan

Can you identify potential projects for consideration by the study to be a priority?

May 19, 2018



Legend

- Ministry of Transportation
- Public Roads
- Private Roads
- Paved Cycle Routes
- Gravel Cycle Routes
- Destinations

Questions

- 1) What provisions should be made for active transportation?
- 2) What facilities (washrooms, docks, ect.) should be made available for active transportation users?

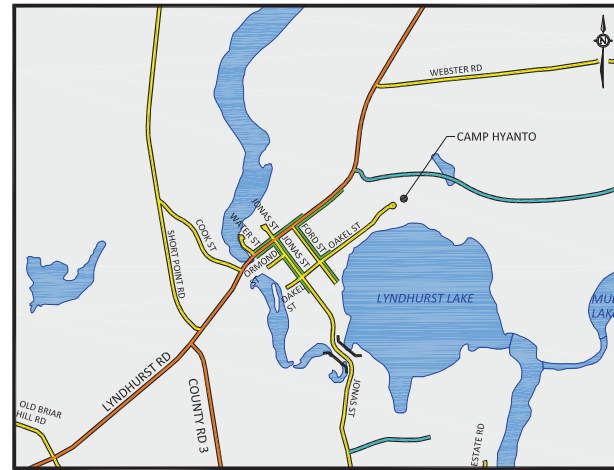
Township of Leeds and the Thousand Islands

Transportation Master Plan / Active Transportation Plan

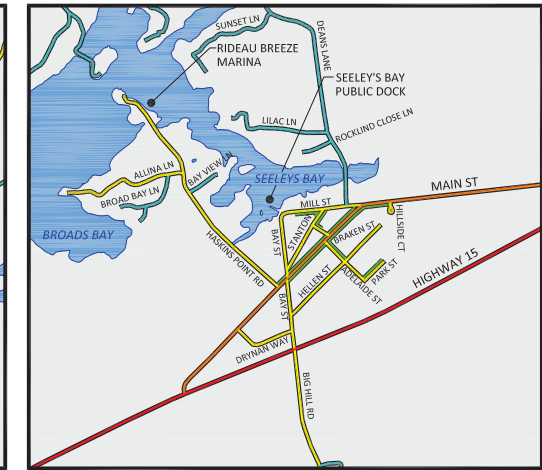
Major Settlement Areas

May 19, 2018

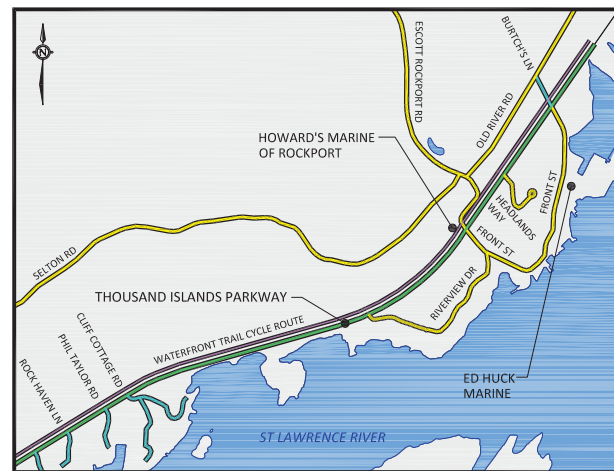
LYNDHURST



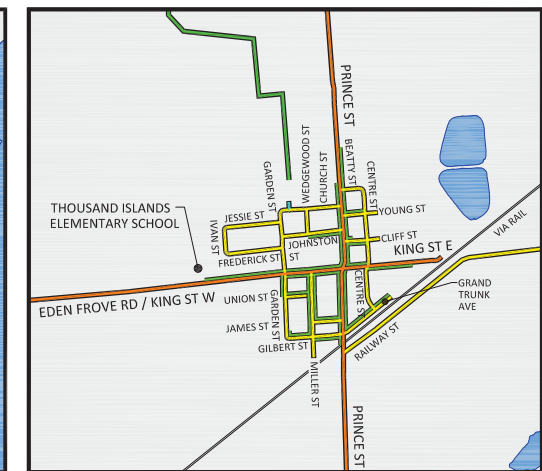
SEELEY'S BAY



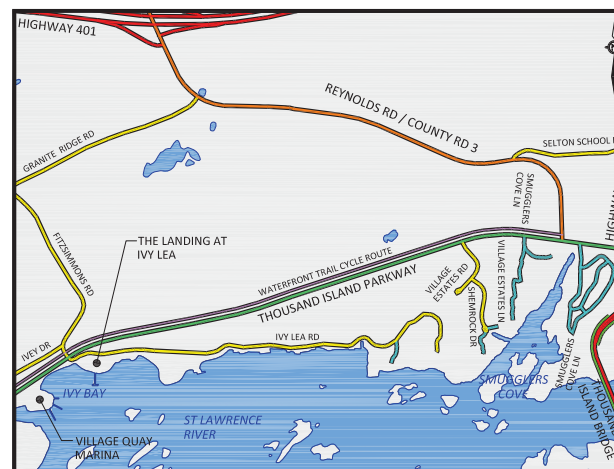
ROCKPORT



LANSDOWNE



IVY LEA / SELTON

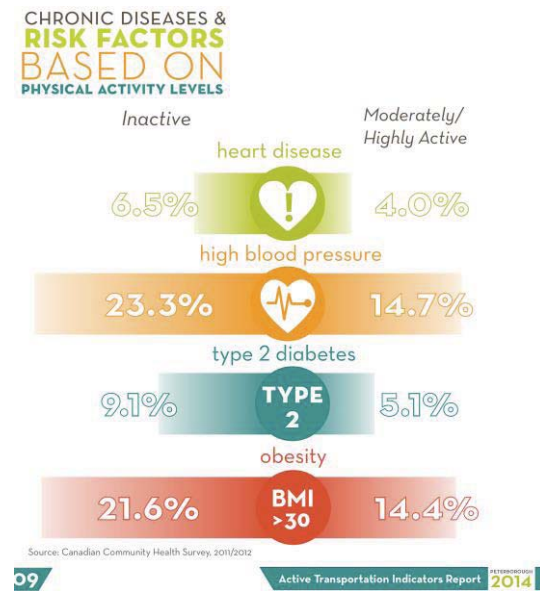


- ### Legend
- Ministry of Transportation
 - St Lawrence Parks Commission
 - United Counties of Leeds and Grenville
 - Township
 - Private
 - Sidewalk
 - Waterfront Trail Cycle Route
 - Off-road ATV Trails
 - Bridges

Benefits of Promoting Active Transportation

Health

The World Health Organization has identified promotion of active modes of transportation, such as walking and cycling, to be one of the few policy decisions that has the potential to significantly reduce chronic diseases.



Economic

Surveys completed for Cycle Tourism Reports indicate that 40% to 60% of businesses in Prince Edward County, Essex County and Halton Region identified cyclists as either a “core” or “regular” part of their business.

Safety

Addressing safety concerns for pedestrians and cyclists by identifying infrastructure needs and priorities could lead to more active transportation users in the Township.

Environment

Significant environmental benefits can be achieved by reducing the need to rely on motorized transportation.

Next Steps

Following this meeting we will:

- Complete technical investigations and inventories – Spring/Summer 2018
- Review all comments from PIC No. 1 – May/June 2018
- Review Projects, Programs and Policies – Summer 2018
- Hold Public Information Centre No. 2 – Fall 2018
- TMP/ATP Report – Fall 2018

How can you remain involved in the Study?

- Request that your name/e-mail be added to the mailing list
- Provide a completed comment sheet
- Contact the Township’s representative or the consultant at any time

Any of our representatives that are present can assist you with the above activities.

Thank you for your participation in tonight’s meeting.

Your input into this study is valuable and appreciated.
Please provide your completed comment form on or before
Monday, June 4, 2018.

Personal Information contained on the comment form is collected pursuant to the Municipal Freedom of Information and Protection of Privacy Act and will be used for the purpose of responding to your request. Questions about this collection should be directed to the Township Project Manager.

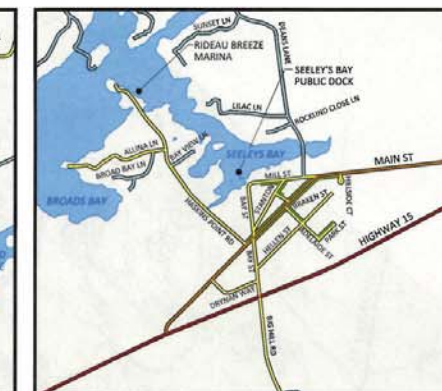
Appendix C Comment Sheets

Township of Leeds and the Thousand Islands
 Transportation Master Plan / Active Transportation Plan
 Major Settlement Areas
 May 19, 2018

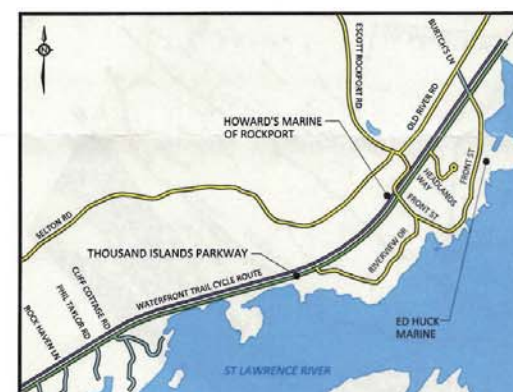
LYNDHURST



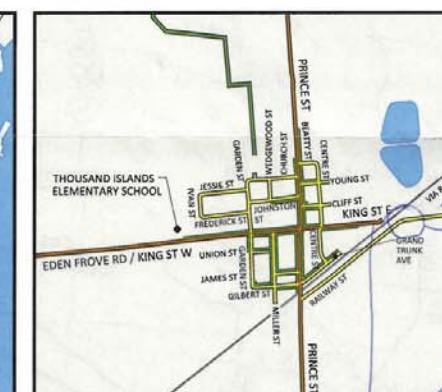
SEELEY'S BAY



ROCKPORT



LANSDOWNE



checker board sign

IVY LEA / SELTON



- Legend**
- Ministry of Transportation
 - St Lawrence Parks Commission
 - United Counties of Leeds and Grenville
 - Township
 - Private
 - Sidewalk
 - Waterfront Trail Cycle Route
 - Off-road ATV Trails
 - Bridges

see street lights ahead



Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan

Public Information Centre No. 1

Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

① More guard rails on City Rd 3/Keynolds Rd.
- S. of Hwy 2 to 401

- S. of Lyndhurst

② Checkerboard 90° angle signs at the elbow coming into town on Railway St. (esp driving west into town)

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Monday, June 4, 2018** to:

Steve Taylor, P.Eng.
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
Tel: (613) 228-4813 Fax: 1 (613) 280-1305
steven.taylor@bteng.ca

Personal Information contained on this form is being collected pursuant to the Municipal Freedom of Information and Protection of Privacy Act and will be used for the purpose of responding to your request. Questions about this collection should be directed to the Township Project Manager.

Name / Organization:

Address:

City / Town:

Postal Code:

Email address:

Please check a box if you would like to be added to our mailing list to be informed of the publication of the EA. mailing address email



Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan

Public Information Centre No. 1

Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Drainage standards
Black Rapids Road

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Monday, June 4, 2018** to:

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Tel: (613) 228-4813 Fax: 1 (613) 280-1305
steven.taylor@bteng.ca

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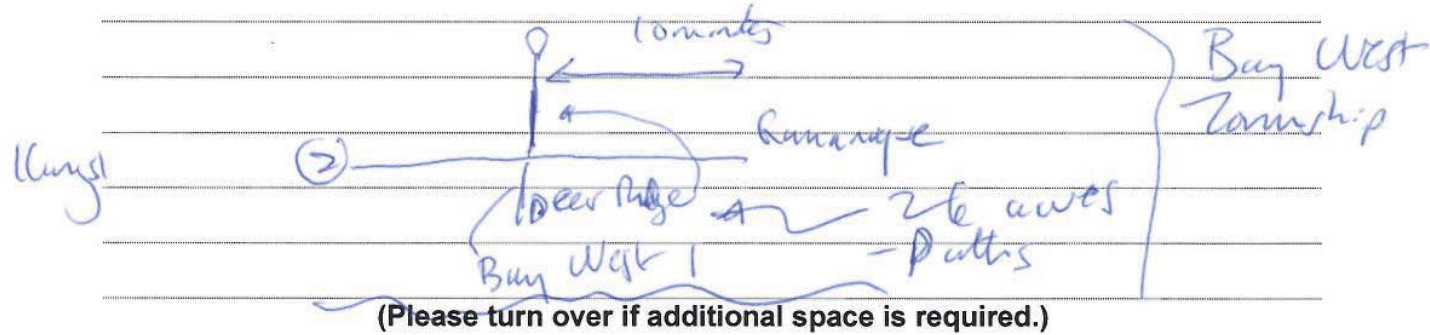


Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1

Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Consider the use of "Adult Streets" along ^{bike} water
- Landscape with Township



(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Monday, June 4, 2018** to:

Steve Taylor, P.Eng.
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
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Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

CR3 cycle lane / paved shoulders
Lots of cyclists
Bike racks within villages

(Please turn over if additional space is required.)

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Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Handwritten comments: separate (from existing roads) facilities to villages to connect / promote tourism in the area; provide facilities to bring people from St. Lawrence recreational trail north; -safe routes.

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by Monday, June 4, 2018 to:

Contact information for Steve Taylor, P.Eng. at BT Engineering Inc., including address, phone, fax, and email.

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Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Handwritten comments: docks/marina on public lands north of Lyndhurst historic bridge (see map for location); -rent out space for people to store boats during summer.

(Please turn over if additional space is required.)

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Cataragui trail
- link to the trail within the Township
- old rail bed converted to MUP &
↳ snowmobile trail during winter
↳ non-motorized during summer
- provide link (esp. snowmobiles) to Township from trail
to promote tourism in Township

(Please turn over if additional space is required.)

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Township of Leeds and the Thousand Islands
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Public Information Centre No. 1

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Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Conversation with Councillor [redacted]
- discussed we need an improved bike network /
links
- She was supportive of separating vehicles/bikes
and we discussed ① MUP how Parkway to Comberline
② Bus/Bike shuttle across International
bridge

(Please turn over if additional space is required.)

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Township of Leeds and the Thousand Islands
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Public Information Centre No. 1

Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

- ① Consider sidewalks on Frelade Street
- ② Consider better lighting. The settlement areas are dark.
- ③ The street light near the Cambridge Elementary School.

(Please turn over if additional space is required.)

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Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1

Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

- MORE Lighting - Big Hill Rd
- Hydro wires - High on Big Hill Rd
- more electric services - 15 Highway

(Please turn over if additional space is required.)

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Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1
Saturday, May 19, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

ADD Missing Links in sidewalk from Sr's Home to Dock
Provide a link across the grass behind Perry's Place to shorten distance

(Please turn over if additional space is required.)

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Name / Organization: [Redacted]
Address: [Redacted]
City / Town: [Redacted] Postal Code: [Redacted]
Email address: [Redacted]

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Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1
Saturday, June 16, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Dockage at Rockport and Narrows is getting sparse now that Caigers is now an addiction centre and more private properties stop offering dockage.

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Monday, July 2, 2018** to:

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Name / Organization: [Redacted]
Address: [Redacted]
City / Town: [Redacted] Postal Code: [Redacted]
Email address: [Redacted]

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Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1
Saturday, June 9, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

[Redacted comment]

① deposit for bike pathway from Leaside to 1000 Fish Pond

(Please turn over if additional space is required.)

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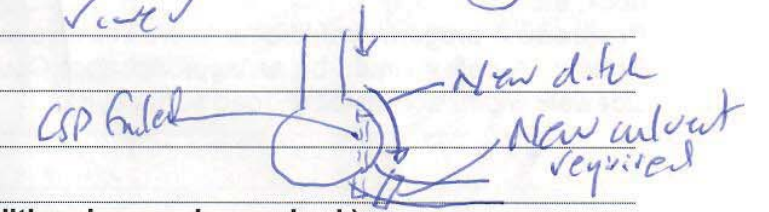


Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan
Public Information Centre No. 1
Saturday, June 9, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

① Concern of a localized drainage issue at the south end 59 Village Estates Lane. The existing culvert is too low to flow and there is overland flow is directed to their lot.

Consider creating a ditch around the driveway basin to be directed to the road



② lived 31 years there and no repairs/resurfacing

(Please turn over if additional space is required.)

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**Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan**

Public Information Centre No. 1

Saturday, June 9, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented, to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

(Please turn over if additional space is required.)

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The Township of Leeds and the Thousand Islands Transportation Master Plan Study Design Report

PIC No. 2 Summary Report FINAL



December 11, 2018

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Appendices

- Appendix A Notice
- Appendix B PIC No. 2 Exhibits
- Appendix C Comment Sheets

1.0 Introduction

The Township of Leeds and the Thousand Islands is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to continue to plan for efficient development, plan for the rehabilitation and replacement of existing infrastructure, and create consistent transportation standards. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County and municipal planning and transportation related needs.

The Township of Leeds and the Thousand Islands currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

The project location is shown in **Figure 1**.

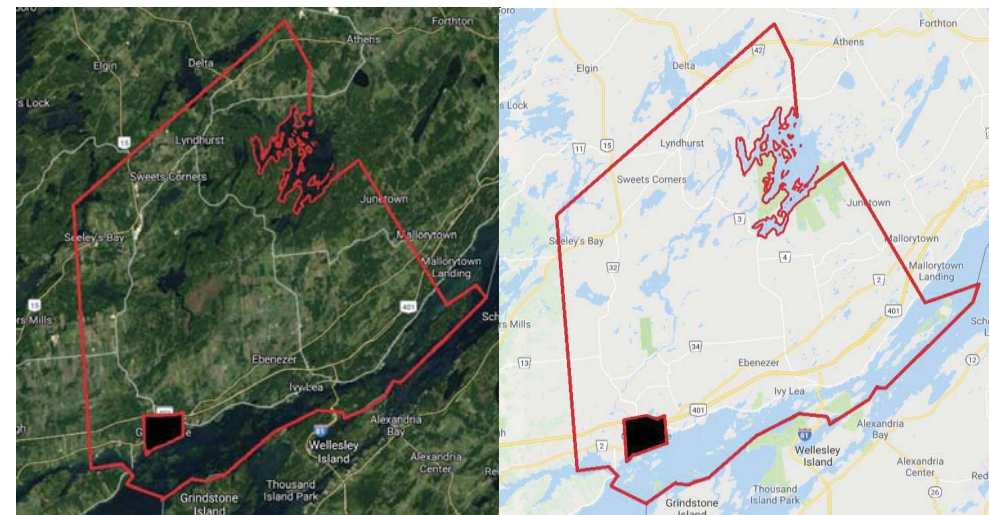


Figure 1: Project Location

The second Public Information Centre (PIC) for this project was held at Fire Station 1 (Lansdowne) on November 15, 2018 from 5:00 pm to 8:00 pm.

The PIC presented the following:

- Project goals and the Problem and Opportunity Statement;
- Prioritization of project, programs and policies; and
- Draft Schedules (maps), to be included in the Final Report.

Consultant and Township staff were available to respond to any inquiries.

All members of the public and interest groups were invited to the second PIC to view the presentation material and to discuss the project with the consultant representatives.

A total of seven (7) people registered at the second PIC.

2.0 Public and Agency Consultation

One of the key elements of the project is to provide the public, interested parties, affected agencies and stakeholders with the opportunity for input. In order to ensure this objective is met, a public and agency notification program was undertaken. The program includes a number of communication mechanisms, discussed in the following sections.

2.1 Newspaper Notice and Flyers

Notice of the first PIC was advertised using social media, including radio and Twitter. Notices were sent out to the mailing list to registered members of the public, agencies and stakeholders. The newspaper notice was placed in three newspapers: The Mural (November 7, 2018); The Review-Mirror (November 8, 2018); and The Gananoque Report (November 8, 2018). The newspaper notices are included in **Appendix A**.

2.2 Agency and Stakeholder Contacts

The Notice of PIC was issued in advance of the PIC. Agencies, stakeholders and interest groups contacted included:

- Aboriginal Affairs and Northern Development Canada
- Canadian Environmental Assessment Agency Ontario Region
- Transport Canada - Navigable Waters Protection Program
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of the Environment, Conservation and Parks (Eastern Region)
- Ministry of Indigenous Relations and Reconciliation
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Rideau Valley Conservation Authority
- Ministry of Community and Social Services – Eastern Region
- Ministry of Innovation, Science and Economic Development Canada
- Ministry of Municipal Affairs and Housing
- Lansdowne Association for Revitalization
- Lyndhurst Rejuvenation Committee
- Rockport Development Group
- Seeley's Bay and Area Resident's Association
- Leeds and District Western Horse Club
- Leeds and the Thousand Islands Archive
- 1000 Islands ATV Club
- 1000 Islands Kayaking
- Gananoque Canoe Club
- Leeds and the Thousand Islands Historical Society
- Seeley's Bay Athletics
- Charleston Lake Provincial Park
- Rideau Canal National Historic Site
- St. Lawrence Parks Commission
- Cataraqui Region Conservation Authority
- Thousand Islands National Park
- Town of Gananoque
- Township of Rideau Lakes

- Township of Front of Yonge
- City of Brockville
- United Counties of Leeds and Grenville
- Thousand Islands Area Residents Association
- Thousand Islands Association
- Township Taxpayers Association (TTA)
- Wheels of Care
- Furnace Falls (Lyndhurst) Senior's Group
- Seeley's Bay Senior's Club
- Lansdowne Senior's Club
- Youth Advisory Committee
- Algonquin to Adirondacks Association (A2A)
- Charleston Lake Association
- Friends of Charleston Lake Association
- Frontenac Arch Biosphere Reserve
- Gananoque River Waterways Association
- Lower Beverley Lake Association
- Thousand Islands Watershed Land Trust
- Leeds and Grenville District Health Unit
- Community & Primary Health Care - SAIL
- Seeley's Bay Health Centre
- St. Lawrence and District Medical Centre
- Economic Development Committee
- Environmental Action Committee
- 1000 Islands Helping Hands
- CHPC Transportation Program
- Seeley's Bay & Lyndhurst Chamber of Commerce
- 1000 Islands Chamber of Commerce
- 1000 Islands Bridge Authority
- Thousand Islands Bicycle Co.
- Allstream
- Bell
- Enbridge Gas Distribution
- Hydro One Distribution
- Hydro One Transmission
- Hydro Ottawa
- Rogers Communications

2.3 Indigenous Peoples

Indigenous Peoples groups that were contacted include:

- Algonquins of Pikwakanagan
- Algonquins of Ontario
- Kinouchepinini Algonquin First Nation
- Kijicho Manito Madaouskarin – Anishinaabe Baptiste
- Algonquins of Greater Golden Lake First Nation
- Mattawa / North Bay Algonquin First Nation
- Shabot Obaadjiwan First Nation
- Snimikobi Algonquin First Nation
- Whitney and Area Algonquin Community
- Hiawatha First Nation
- Moose Deer Point First Nation
- Ottawa Region Métis Council
- Métis Nation of Ontario
- Williams Treaty First Nation
- Bonnechere Algonquins First Nation
- Chippewas of Georgina Island
- Mississaugas of the New Credit First Nation
- Mississaugas of Scugog Island First Nation
- Beausoleil First Nation
- Alderville First Nation
- Curve Lake First Nation

3.0 PIC Comments

Twenty-three (23) display panels/boards were set up around the perimeter of the room, including the nine (9) Schedules (Maps) of the TMP/ATP plan to be viewed at leisure. Attendees were encouraged to identify additional issues relating to roads, bridges, active transportation, and marine on the PIC display boards. Comment sheets were also available for attendees to take home or provide comments at all PIC locations. A copy of the PIC No. 2 presentation boards is provided in **Appendix B**.

A total of three (3) comment sheets were received at the PIC and an additional six (6) were received during the three-week comment period. Copies of the comments, excluding personal information, are provided in **Appendix C**. The results of the comments and discussions are summarized in the following sections.

3.1 Comments

The results of the comments received and discussions held at the second PIC are summarized below in **Table 1**. The comments have been summarized by general subject matter.

Table 1: Written Comments Public Information Centre No. 2 - November 15, 2018		
Comment	Number of Respondents	Comment Sheet Reference No.
General support for the TMP/ATP.	3	1, 4, 5
Additional active transportation for walking trails and connections.	1	1
Identify destinations in relation to target populations (i.e. retirement homes).	1	
Have old railway sites been considered as connections?	1	1
Identify how connected the Township is to external neighbours and plans (such as Ontario by Bike/Cycle Ontario)	1	1
Is consultation with youth considered?	1	1
Consider signage (safety) as a program.	1	1
Presently, plans for pedestrians are isolated/ segregated to villages. If we include pedestrians outside of villages this may help connect communities.	1	1
Schedule 7 (Sidewalk Network): extend north side	1	2

**Table 1: Written Comments
 Public Information Centre No. 2 - November 15, 2018**

Comment	Number of Respondents	Comment Sheet Reference No.
sidewalk to Short Point Road.		
Schedule 7 (Sidewalk Network): add sidewalk from the harbour to Main Street/park entrance.	1	2
Support for Schedule 6 (Cycling Network)	2	2, 6
What other projects were identified on Schedule 3 (Preliminary Road Projects)?	1	2
Potential trail in Ivy Lea from Ivy Lea Road to Shemrock Drive.	1	2
Community safety zones, specifically on Haig Road approaching Kyes Road, should be implemented.	1	3
Support for docks at Kerry Point Road.	1	4
Need paved shoulders throughout the Township.	1	5
Need to repair/replace failing bridges.	1	5
Support for signage for/on walking/hiking trails within the Township.	1	5
Need to remove hydro poles from driving lane of the roadway on County Road 3 in Lansdowne.	1	6
Agreement for low visibility turning onto Reynolds Road from Highway 401 off-ramp.	1	6
New docks need to include parking	1	6
Install street lighting on Hill Island at Highway 137/ Skydeck Road/ Stratford Road.	1	7
Water access points (such as the lookouts) need to be upgraded and promoted within the Township as well as on the 401.	2	7, 8
Signage for lookouts and swimming.	1	7
Support for additional boat launches with parking.	1	7
Gravel roads need to be better maintained (Long Point Road).	2	8, 9

4.0 Summary of Comments

The comments from PIC No. 2 were:

- Support for multiple docks for water access on the St. Lawrence River.
- Should consider Landon's Bay Lookout as an additional dock location.
- Should consider extending the Ivy Lea sidewalk to the Village Estates Road.
- Reduce operating speeds on the 1000 Islands Parkway at Rockport and consider a roundabout as a gateway.
- Include fencing along the sidewalks in Rockport to divide public and private space.
- MTO should provide curb breaks at the Waterfront Trail termination in Gananoque.
- There is a need for washrooms along the Waterfront Trail.
- Should consider community safety zones within the Township (first location at Kyes Road/Haig Road).
- General support for the plan and schedules (maps).

Appendix A Notice

BY SALLY SMID

There were a variety of ways that Ontario Library Week was recognized locally this year. In Athens it was celebrated with a free draw involving 4 baskets of age related books. The Front of Yonge Public Library in Malton offered cups of warm cider

and cookies as well as two brief presentations. On October 18th the Front of Yonge Public Library Board unveiled a mural created to honour and thank June Noble and the Friends of the Library committee. The Friends Committee also presented a check to the library to support the Overdrive Advantage Program which provides

direct transfer of audio books, eBooks, movies, and music to computers and portable devices. Librarian Lisa Marston expressed her thanks for all of the committee's fundraising efforts.

To find out more about what your local libraries have to offer go to your township website or visit the Facebook site of your local library.



(L-R) Athens Librarians Diane Benschop and Karen DeJong provided a draw for baskets of books as part of Library Week this year.



Soldier Riverthieves concert

The band will unveil live performances of their original sophomore album, Soldier, which explores the military experiences of the musicians, two of whom are currently serving in the Canadian Army.

"These songs were all written to celebrate and to reflect on the soldiering life," says Devon Matsalla, multi-instrumentalist and veteran of Afghanistan, Bosnia, and Haiti. "I'm really happy with the way the whole album has turned out: not all the tunes are sad - some are even funny - but it felt good to get it all out and onto the studio recording."

Although the core members of the Riverthieves have been playing the National Capital Region since the early 2000s, the band had to hit the pause button in 2009 for several years while Matsalla, and his band mate, Finley Mullally, completed back to back tours of Afghanistan and Haiti, followed by Matsalla's posting to Valcartier.

Ontario Library Week

Lyn Citizens of the Year 2018

Many attested that the 2018 Lyn Citizens of the Year were a most deserving couple who have faced challenges but are always cheerfully willing to give to their community! Organizers were pleased with the turnout to honour Leonard and Liz Healy at the Lyn Heritage Museum. Presenter Margie Mulvihill spoke of their "longstanding contributions and active involvement in Village life since the 1980s".

Len has been a Mason and served as Grandmaster and has been very involved with the Lyn Days, the Kinsmen and at the Christ United Church. Liz initiated "Bee's Knees" at the church and has served in a variety of ways with the 1000 Islands Quilters Guild. She received the Big Sister Of the Year Award in the 1990s and they are proud parents of Robyn and granddaughter Halle.

Many described the couple as always being willing to step up and help out. Family and friends were on hand for the annual award presentation to the pair who have lived in Lyn since 1983 and have been "two of the most active members of the



Lyn Citizens of the Year 2018, Leonard and Liz Healy.

community over the years". Their pastor Rev. Wendy MacLean, described the co-recipients as "we give" people. "Len's generosity of spirit is outstanding and his patience is nothing short of miraculous", declared MacLean. "Liz delivers generosity with gusto and enthusiasm!" She is also a skilled quilter.

It was noted that the couple recently volunteered at the fall fair at Lyn Public School, despite having no child or grandchild involved there. Diagnosed with Guillain-Barré syndrome in the 90s, Liz spent five months in treatment for the serious disorder. Despite this set back, she showed strength and determination by moving beyond the illness and has remained an active member of the community. In accepting the award, Mrs. Healy indicated how happy she was with her great home and neighbours and is so glad to "be in a community in which it is so easy to give". Len said that it was a "joy for them to constantly give" and they support each other in their busy lives contributing to their community.

The Lower Beverley Lake Park Management Board invites You to enjoy the sights of Delta's

CELEBRATING THE SEASON

Bundle up for an evening stroll or wagon ride around the Park to see the trees and buildings all magically lit, with over 100,000 lights.

4 WEEKENDS ONLY! NEW

Open Friday & Saturday Nights from 5:00 p.m. to 8:30 p.m.

November 30th & December 1st • December 7th & 8th
December 14th & 15th • December 21st & 22nd

Meals are served at the United Church, 36 King Street, Delta (Side Entrance) 4 p.m. to 7 p.m.

December 1st Beef Stew / \$12 per person	December 15th Turkey Dinner / \$18 per person
December 8th Lasagna / \$12 per person	<i>*Reservations are required for the Turkey Dinner by calling 613-928-2712 or emailing harymary@ripnet.com</i>

December 22nd - Shepherd's Pie / \$12 per person

Between the hours of 5:00 p.m. and 8:30 p.m.:

- Wagon ride tours to the park will depart from the Fair Grounds at 110 Mill Creek Drive.
- Tours of the Old Stone Mill will be offered at 44 King Street.
- Hot Dogs / Coffee / Public Washrooms available at the Old Town Hall, 8 Lower Beverley Lake Park Road.
- Admission for Adults (13 and older): \$5 Youth (12 years of age and under): Free

Visit www.beverleylakepark.com for additional information

Notice of Public Information Centre No. 2 Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan

Introduction: The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/ Active Transportation Plan (TMP/ATP). This Study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

Study Process: The TMP/ATP is being conducted as a Master Plan project under the Municipal Class Environmental Assessment (2007), as amended in 2015. The Study will complete Phases 1 and 2 of the Class EA Process by establishing the need and justification for the projects, policies and programs, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public.

Public Consultation: A Study Design is available on the Township's website. The Study Design describes the study approach, study process and public consultation program.

The second Public Information Centre (PIC) is being held within the Township to listen to concerns and present the potential projects, policies and programs. The second PIC is scheduled for:

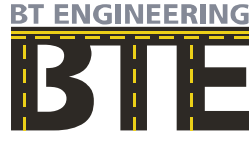
Date: Thursday, November 15, 2018
Time: 5:00 pm to 8:00 pm
Location: Fire Station 1 (Lansdowne) 1233 Prince Street, Lansdowne, Ontario K0E 1L0

There is an opportunity at any time during the Class EA process for interested persons to provide comments. All information will be collected in accordance with the Freedom of Information and Protection of Privacy Act (2009). With the exception of personal information, all comments will become part of the public record. Persons will be advised of future communication opportunities by electronic notice. The draft Study Design, notices and updates will be posted on the Township website at: <http://www.leeds100islands.ca/>

For more information or if you wish to be placed on the study's mailing list, contact either:

Steve Taylor, P.Eng. EA Project Manager BT Engineering Inc. 100 Craig Henry Drive, Suite 201 Ottawa, Ontario K2G 5W3 Tel: 613-228-4813 Fax: 1-613-280-1305 Email: steven.taylor@bteng.ca	Adam Goheen Director of Operations Township of Leeds and the Thousand Islands 1233 Prince Street P.O. Box 280 Lansdowne, Ontario K0E 1L0 Tel: 613-659-2415 ext. 211 Fax: 613-659-3619 Email: agoheen@townshipleeds.on.ca
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Appendix B PIC No. 2 Exhibits



Welcome! Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan

Welcome to the second Public Information Centre (PIC) meeting for the Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan (TMP/ATP) Study. **Please record your attendance and obtain a comment sheet at the registration desk.**

Several background reports are available at the Resource Table. Should you have any questions regarding the materials, background reports or any other aspect of the study, please speak to the Township or Consultant staff members in attendance.

We encourage your input/feedback on the material being presented on the display boards. Please deposit completed comment sheets in the comment box or mail/e-mail to the address at the bottom of the form by **November 30, 2018**.

There is an opportunity at any time during the Class EA process for interested persons to provide written input. Any comments received will be collected under the Environmental Assessment Act and, with the exception of personal information, will become part of the public record.

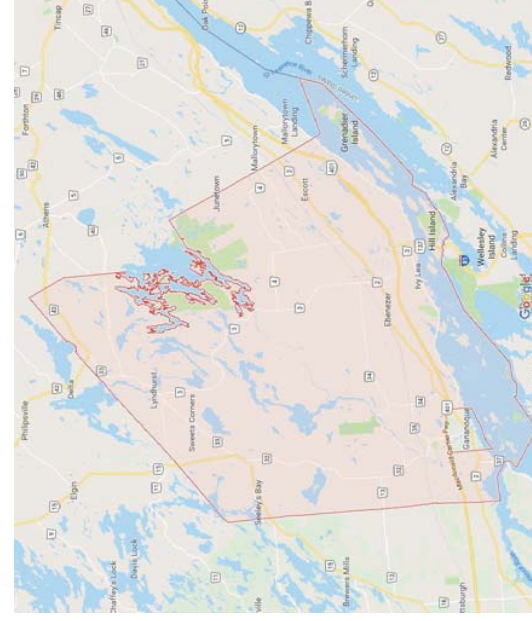


Introduction

The Township of Leeds and the Thousand Islands is seeing significant growth in a maturing population as well as experiencing an annual influx of seasonal residents and tourists. This Study will provide recommendations to the Township to prioritize the implementation of transportation and active transportation related infrastructure within the current planning horizon.

For any infrastructure improvements subject to the Municipal Class EA process, the TMP/ATP will complete Phases 1 and 2 of the Municipal Class EA by establishing the need and justification for the study, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements.

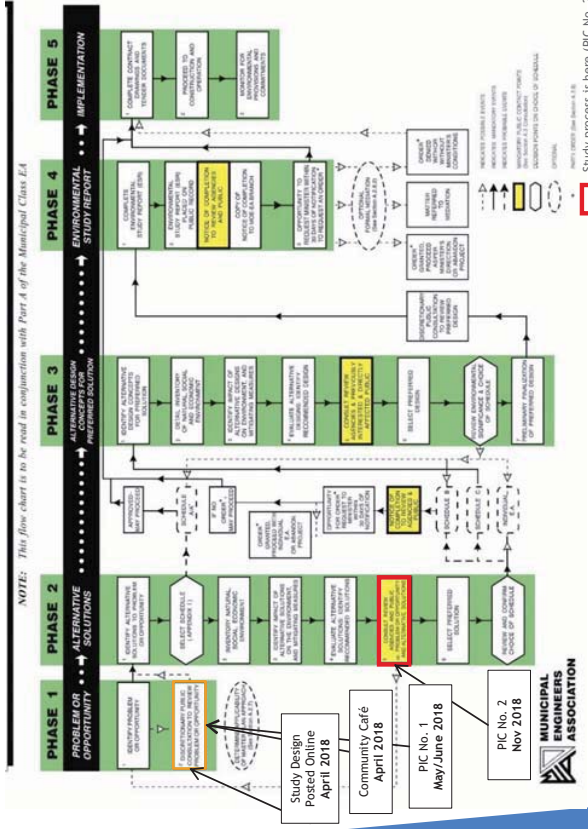
A Study Design describing the study process was prepared for agency and public review and was presented at the first PIC. It is available at the Resource Table and has been posted on the Township's website <http://www.leeds1000islands.ca> for public review and comments.



Municipal Class Environmental Assessment (Class EA) Process

This Class Environmental Assessment will follow the requirements of the Municipal Class EA (amended 2015) and Companion Guide (2017), copies of which are available at the Resource Table. Master Plans are long range plans which integrate infrastructure requirements for existing and future conditions with environmental assessment planning principles.

The TMP/ATP is being completed following the Municipal Class EA Phases 1 and 2 by establishing the need and justification for the project, considering all reasonable alternatives with acceptable effects on the natural, social and cultural environments, and proactively involving the public in defining a recommended plan for improvements.



Need and Justification

The TMP/ATP will define transportation projects, programs and policies for transportation planning and land use planning. It will also allow the Township to integrate planning strategies with other jurisdictions (Town of Gananoque, County of Leeds and Grenville, MTO, St. Lawrence Parks Commission and Parks Canada).

Active Transportation is defined as any human powered mode of travel. The TMP/ATP will identify policy and infrastructure improvements that will aim to increase the modal share of forms of Active Transportation; primarily cycling and walking throughout the Township.

Active Transportation elements of the plan will provide a number of benefits to both individuals and communities over motorized forms of travel. These include:

- ▶ Decreased emissions of greenhouse gases, particulates, volatile organic chemicals, and numerous other harmful chemical pollutants; and
- ▶ Increased physical activity leads to significant improvement in a number of health indicators, including decreased likelihood of chronic diseases such as Heart Disease and Stroke, Type 2 Diabetes and many forms of cancer.



Community Café Input

At the study's initial public meeting, completed in Stage 1, twelve (12) people attended the Community Café that was held on Thursday April 26, 2018.

Four topics of conversation were provided for discussion and the following are major issues identified at the meeting.

- ▶ Roads/Bridges
 - Poor drainage within the Township
 - Safety improvements at intersections and speed enforcement
 - Improved facilities for people parking, cycling and walking in the Township
- ▶ Active Transportation
 - Paved shoulders on County roads to provide links
 - Provide facilities such as washrooms, rest stops, water stops, bike racks at destinations, parking at trail heads etc.
 - Missing sidewalk links in settlement areas
 - Increase safety and improve infrastructure for cyclists to attract users
 - Signage
- ▶ Marine
 - Parking and washrooms at boat launches
 - Create water access for canoe/kayakers and additional docks for boats
 - Signage
- ▶ Programs and Policies
 - Advertisement to attract tourists
 - Partnerships with existing programs in the Township and County
 - Collaboration with County on providing paved shoulders
 - Integration with ATV network

A copy of the Community Café Report is available on the Resource Table.



Prioritization of Projects Roads/Bridges

A long list of potential projects was generated through an online survey, the Community Café, the first Public Information Centre (held at various locations on three different weekends within the Township), and discussions with stakeholders. Nine (9) schedules (maps), to be included in the final report, were developed to illustrate projects carried forward as a long-term plan for the Township. Although no ranking of specific projects is defined, the following recommendations are provided:

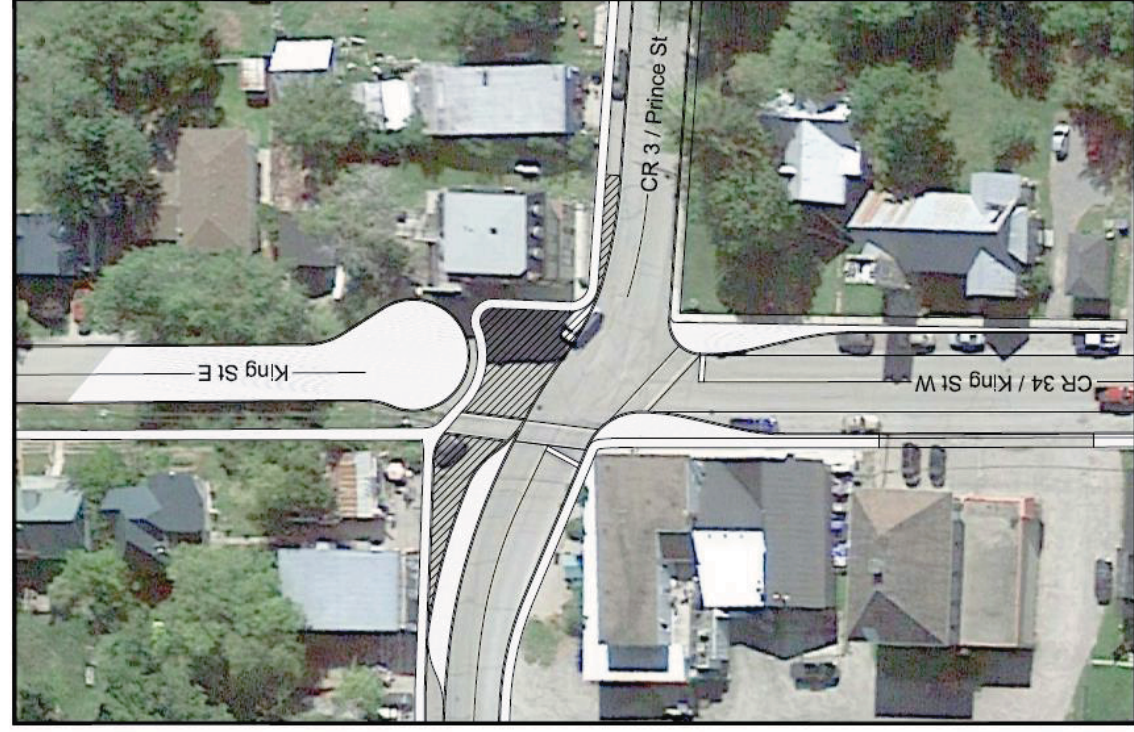
- ▶ Roads should be designed to a common standard (a Township standard for local roads was developed during the Study).
- ▶ The Old River Road is recommended to be a special class, recognizing it's historical context and will remain a low speed heritage byway.
- ▶ Any local private road requested to become a municipal road (several were identified in the study) would need to be upgraded to a Township standard with a 20 m right-of-way before being accepted.
- ▶ Several existing roadways were identified as high need such as Black Rapids Road and Sand Bay Road. Those identified by the public will be considered by Township staff when establishing a future capital program.
- ▶ Bridges were documented for future improvements.
- ▶ Parking for trailers north of the 1000 Islands Parkway on Rockport Road.

These schedules are illustrated on the following exhibits.





County Road 3 (Prince Street)/County Road 34 (King Street) Intersection Improvements
Township of Leeds and the Thousand Islands



Prioritization of Projects Active Transportation

Active Transportation Projects were recommended including:

- ▶ A multi-use path from the Thousand Islands Parkway to Lansdowne
- ▶ Washroom(s) on the Waterfront Trail
- ▶ Establish a network of cycling routes to promote tourism
- ▶ Facilities such as bike racks, water stops and benches at rest stops

These schedules are illustrated on the following exhibits.



Prioritization of Projects Marine

Marine Projects were recommended including:

- ▶ Boat launches at Rockport and Ivy Lea
- ▶ Potential new boat launch and parking on Kerry Point Road
- ▶ EA studies for portage links at Marble Road Dam (Gananoque River) and Lyndhurst Dam
- ▶ Provide general water access (Gananoque River)
- ▶ Signage to Seeley's Bay from Rideau Canal system

These schedules are illustrated on the following exhibits.



Prioritization of Projects Pedestrians

Pedestrian projects were recommended including:

- ▶ EA study for pedestrian access at Lyndhurst Bridge
- ▶ New sidewalks at Ivy Lea
- ▶ Improve sidewalks at Lansdowne (new Township standard)
- ▶ Pedestrian crossover and extension of sidewalks (Rockport) and Seeley's Bay (to dock)

These schedules are illustrated on the following exhibits.

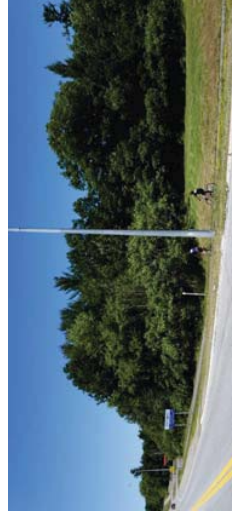


Prioritization of Projects Projects by Other Jurisdictions

The plan has included identifying potential improvements by other agencies. These projects include:

- ▶ Highway 15 intersection safety improvements (MTO)
- ▶ Widening Reynold's Road Highway 401 structure to accommodate a MUP (MTO)
- ▶ Paved shoulders on County Roads (County of Leeds and Grenville)
- ▶ MUP from 1000 Islands Parkway to Lansdowne (County of Leeds and Grenville)
- ▶ Improvements to Prince Street/King Street intersection in Lansdowne (County of Leeds and Grenville)
- ▶ Improvement to CN Rail crossing for pedestrians (County of Leeds and Grenville)
- ▶ Heritage bridge signage along Waterfront Trail – Bridge 17 and 18 (St. Lawrence Parks Commission)
- ▶ Commemoration of Indigenous People history within the Township (St. Lawrence Parks Commission)
- ▶ Inclusion of canoe routes within Township through cooperative marketing (Parks Canada)

The detailed Projects Memorandum is available on the Resource Table.



10

Prioritization of Programs and Policies

A long list of programs and policies was generated through an online survey, the Community Café, the first Public Information Centre (held at various locations on three different weekends within the Township), and discussions with stakeholders.

Policies are principles and/or guidelines designed to be used by the Township to improve existing roadway facilities, provide a guideline for future roadway improvements, and to influence greater adoption of active transportation.

Programs are further plans of action that could involve the Township, and/or partnerships with other organizations (such as the 1000 Islands Helping Hands or school programs, etc.) designed to increase Active Transportation and mobility throughout Township of Leeds and the Thousand Islands.

The Programs and Policies Memorandum describes ideas carried forward for review by the Township and is available on the Resource Table.



11

Prioritization of Programs Key Programs

Key programs carried forward in the plan include:

- ▶ Collaboration with existing programs such as the Gananoque Casino shuttle and private sector transit for seniors
- ▶ Encourage active transportation within settlement areas including walking programs for students
- ▶ Create a Cycling Plan to create friendly designated areas/routes within the Township
- ▶ Create a Paddling Route Network including negotiated ROW for portages
- ▶ Monitor boat slips to ensure short term usage
- ▶ Washroom and facility cleaning program
- ▶ Education programs to promote safe cycling, ATV passing requirements, and new provincial pedestrian crossovers

The Programs and Policies Memorandum describes ideas carried forward for review by the Township and is available on the Resource Table.



12

Prioritization of Policies Key Policies

Key policies carried forward in the plan include:

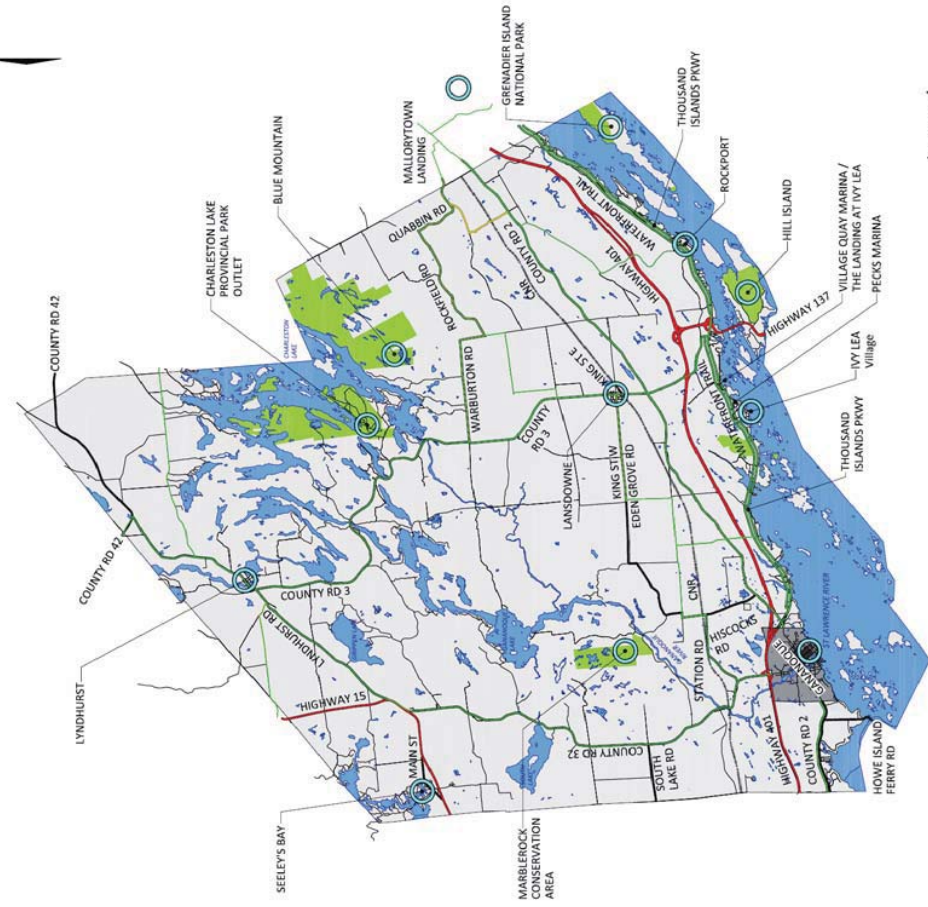
- ▶ Provision of tactile plates at pedestrian crossings
- ▶ New sidewalk and drainage standards within the Township
- ▶ Age friendly policies such as providing shuttle services or improving sidewalks
- ▶ Accessible ramps at sidewalks

The Programs and Policies Memorandum describes ideas carried forward for review by the Township and is available on the Resource Table.



13

Schedule 01
Township of Leeds and the Thousand Islands
Key Attractions/Destinations



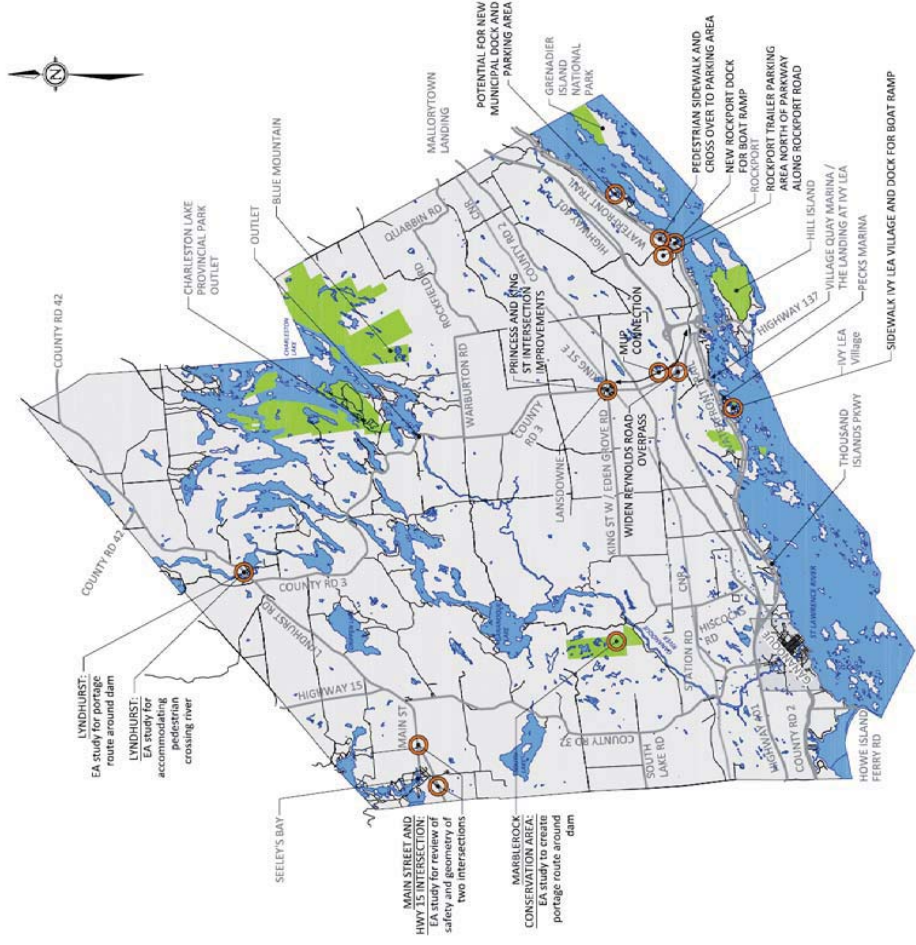
- Legend**
- Ministry of Transportation
 - Road Network
 - Paved Shoulder/Bike Lanes
 - Gravel Bike Route
 - Key Attractions/Destinations

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

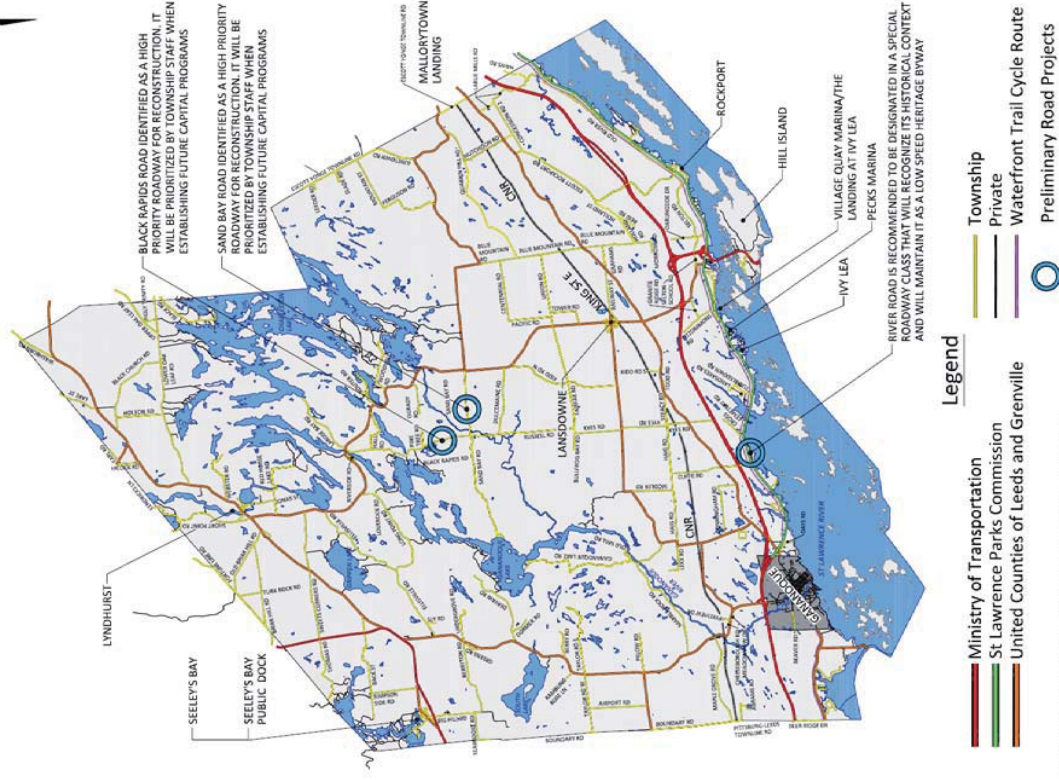
Township of Leeds and the Thousand Islands
Transportation Mater Plan/Active Transportation Plan

Preliminary New Project Location

Schedule 02
Township of Leeds and the Thousand Islands
Preliminary New Projects

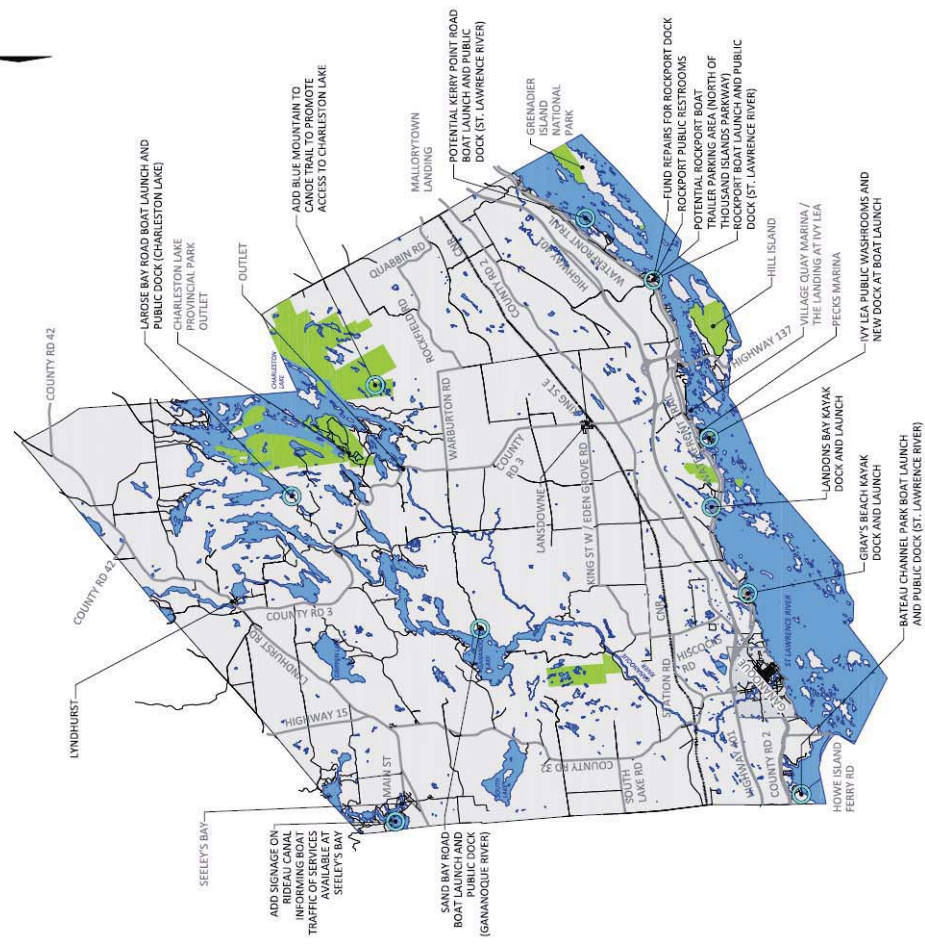


Schedule 03
Township of Leeds and the Thousand Islands
Preliminary Road Projects



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

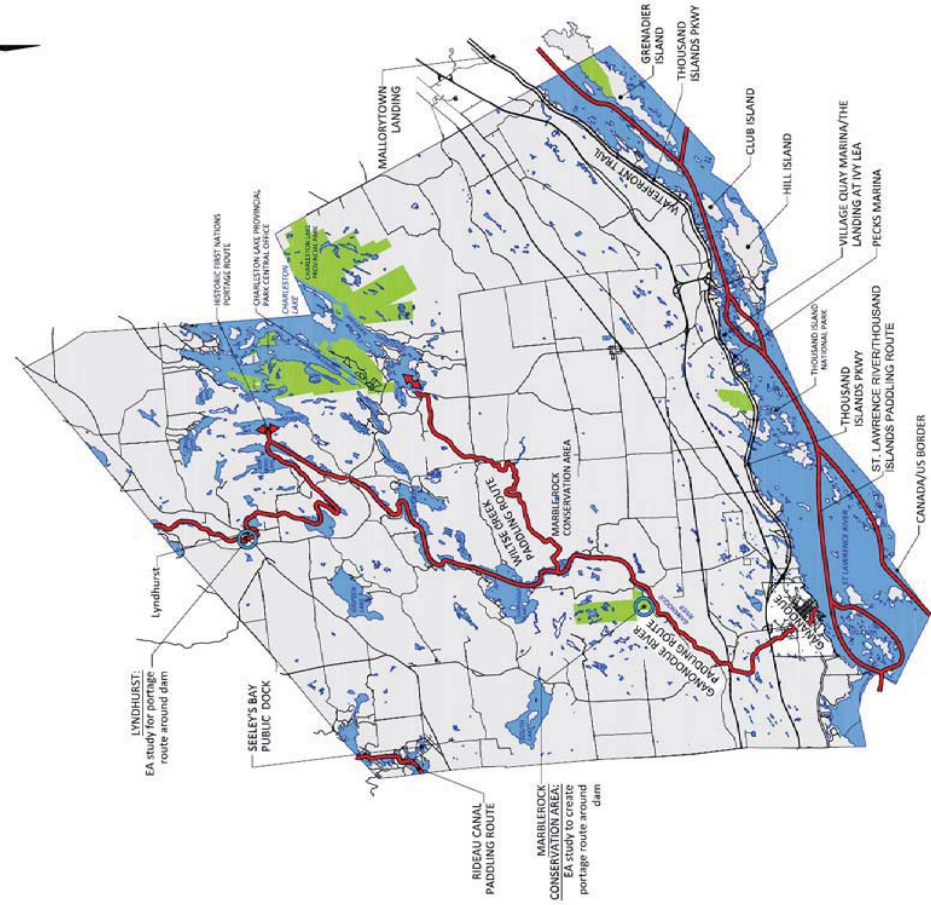
Schedule 04
Township of Leeds and the Thousand Islands
Preliminary Marine Projects



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

Preliminary Marine Projects

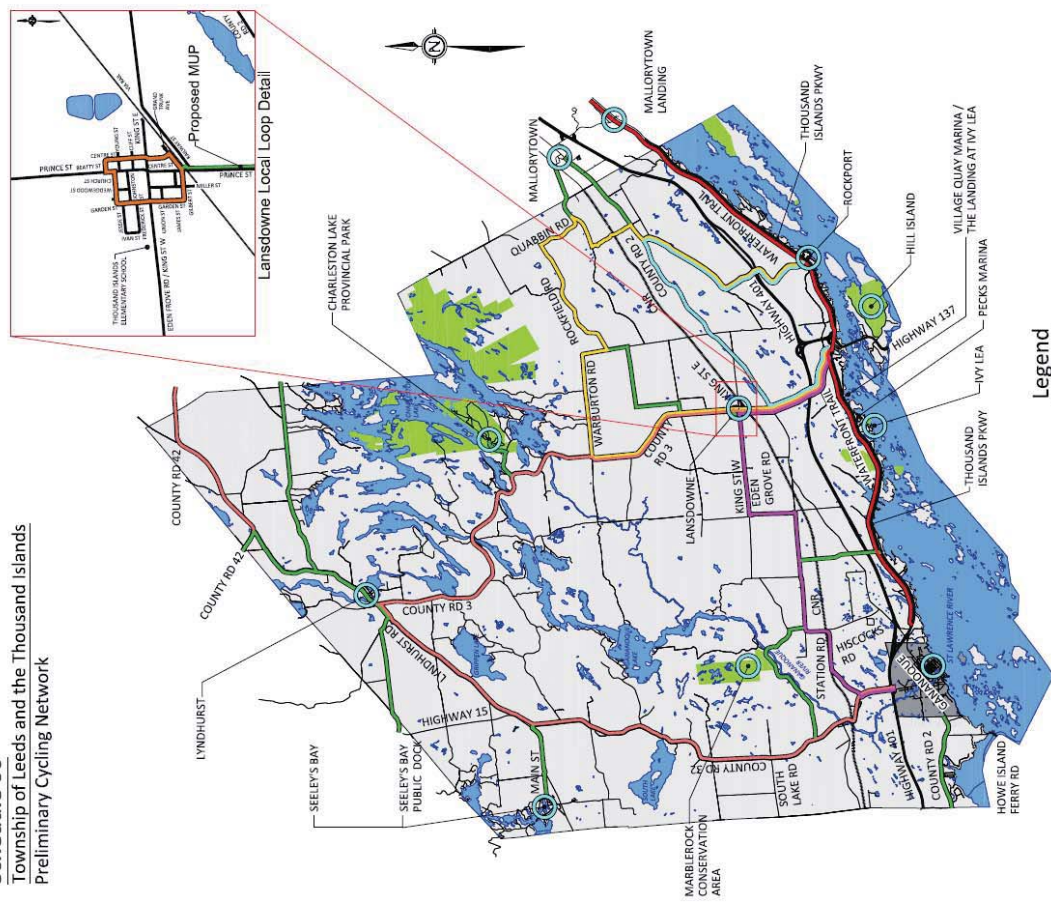
Schedule 05
Township of Leeds and the Thousand Islands
Preliminary Paddling Network



- Legend**
- Preliminary Paddling Network Projects
 - Paddling Route
 - Park/Conservation Land
 - Waterways

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

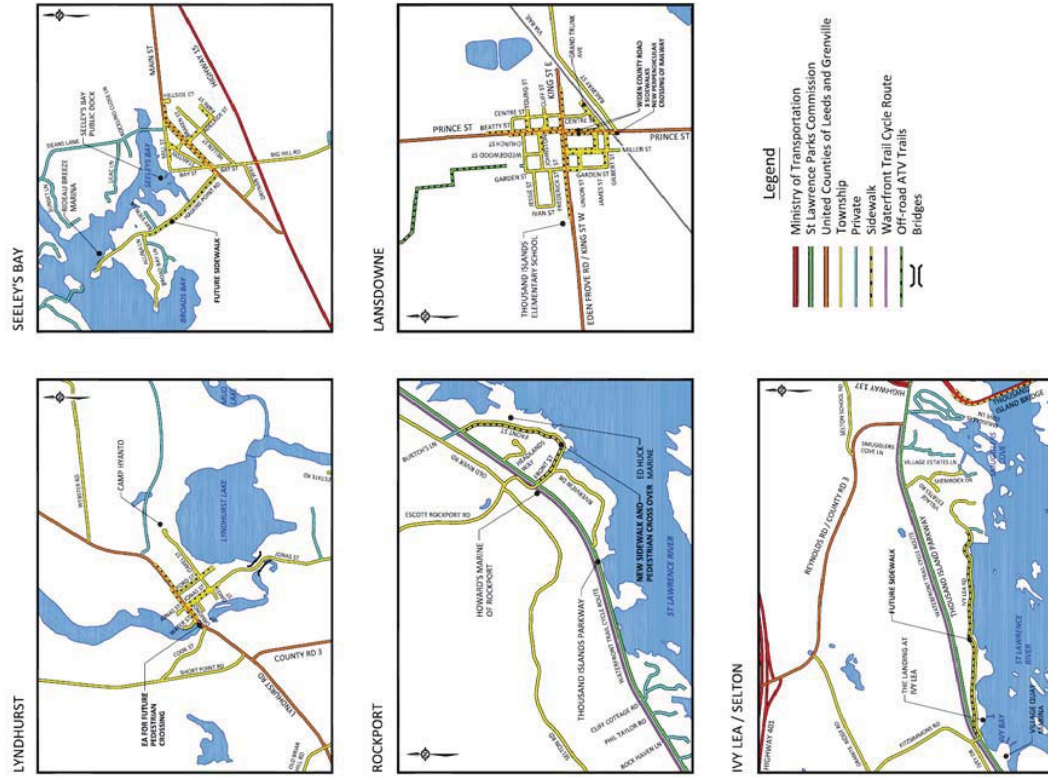
Schedule 06
Township of Leeds and the Thousand Islands
Preliminary Cycling Network



- Legend**
- St. Lawrence Recreational Trail
 - The Leeds Tour Loop
 - Eden Grove Loop
 - Lansdowne Local Loop
 - The Lansdowne Tour Loop
 - The Rockport Tour Loop
 - Connection Routes
 - Key Attractions/Destinations

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

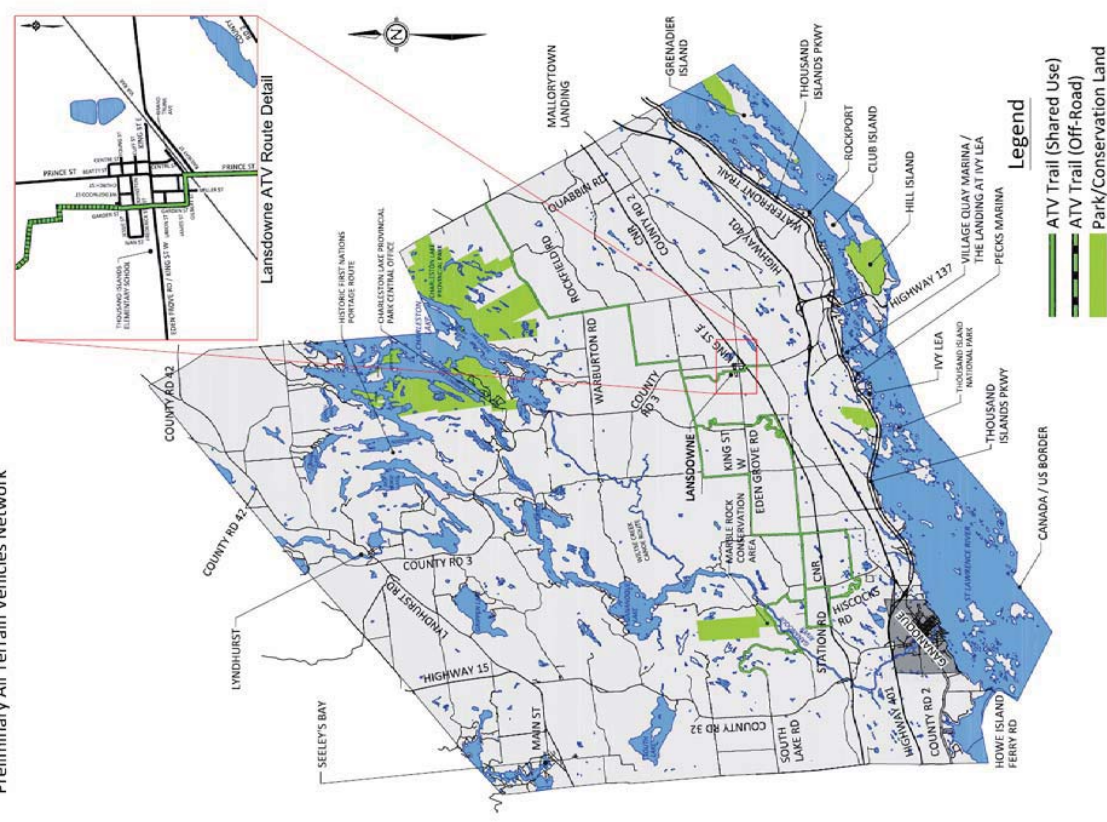
Schedule 07
Township of Leeds and the Thousand Islands
Preliminary Sidewalk Network



- Legend**
- Ministry of Transportation
 - St. Lawrence Parks Commission
 - United Counties of Leeds and Grenville
 - Township
 - Sidewalk
 - Waterfront Trail Cycle Route
 - Off-road ATV Trails
 - Bridges

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

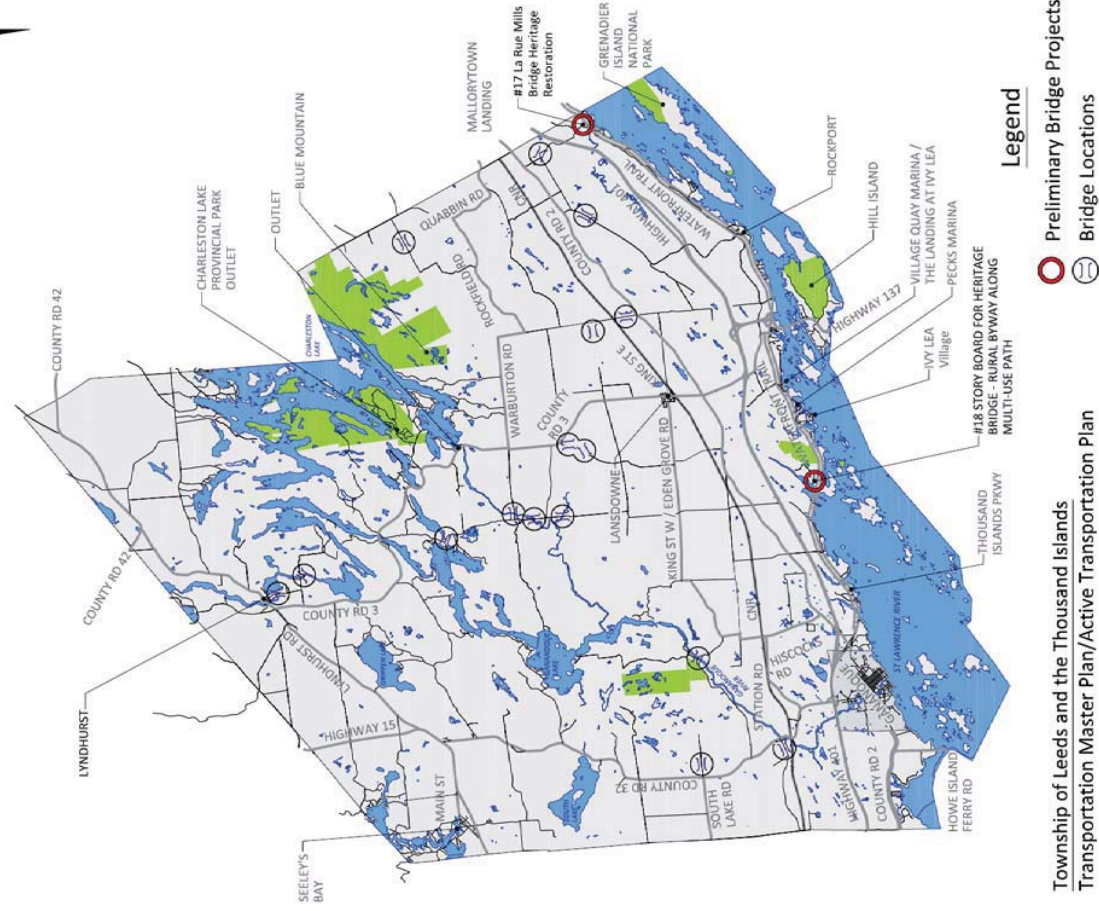
Schedule 08
Township of Leeds and the Thousand Islands
Preliminary All Terrain Vehicles Network



- Legend**
- ATV Trail (Shared Use)
 - ATV Trail (Off-Road)
 - Park/Conservation Land
- Reference: www.trafic.org/parking-trails/

Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

Schedule 09
Township of Leeds and the Thousand Islands
Preliminary Bridge Projects



Township of Leeds and the Thousand Islands
Transportation Master Plan/Active Transportation Plan

Next Steps

Following this meeting we will:

- ▶ Review all comments – December 2018
- ▶ Finalize TMP/ATP Report – January 2019

How can you remain involved in the Study?

- ▶ Request that your name/e-mail be added to the mailing list
- ▶ Provide a completed comment sheet
- ▶ Contact the Township's representative or the consultant at any time

Any of our representatives that are present can assist you with the above activities.

Thank you for your participation in tonight's meeting.

Your input into this study is valuable and appreciated.

Please provide your completed comment form on or before **November 30, 2018**.

All information is collected in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*.

Appendix C Comment Sheets



1

Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan

Public Information Centre No. 2

Thursday, November 15, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented.

This is a great process glad to have the opportunity!

Additional active transportation - recreation parks and walking trails (marble rock)

↳ connections identified between them

Sidewalks - identify destinations (ie groceries, post office schools) in relation to target populations (ie retirement homes, residential neighborhoods)

old Railway sites ?? Have they been considered as connectors?

How identify how connected the township is to external neighbors - identify external plan (ie: waterway, Ontario by Bike / Cycle Ontario)

Is Consultation being considered e youth?

Considerations for signage (safety) - could be part of the education piece (?), cycling repair stations being considered
(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Friday, November 30, 2018** to:

Steve Taylor, P.Eng.
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
Tel: (613) 228-4813 Fax: 1 (613) 280-1305
steven.taylor@bteng.ca

P2

1

Transportation Master Plan / Active Transportation Plan

Public Information Centre No. 2

Thursday November 15, 2018

Presently, pedestrian active transportation is isolated or segregated to villages. If we include pedestrian outside of villages this might help connect villages to walking trails.

Consider walking, running, wheeling outside of denser areas.

Thanks!



2

3

Township of Leeds and the Thousand Islands
Transportation Master Plan / Active Transportation Plan

Public Information Centre No. 2

Thursday, November 15, 2018

Thank you for attending today's public meeting. Please provide your comments on any of the material presented.

Schedule 7 - Lynnhurst → sidewalk on north side extended to short point (to meet boxes + store)
- see up bay - harbour to main st/park entrance.

Sched. 6 - yes!

Sched 3 - what other projects were I.D.'ed

possible trail in my loc - open/maintain (haul) to subdivision @ end of road (would be visible (where travel rd ends, to open, unmaintained).

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Friday, November 30, 2018** to:

Steve Taylor, P.Eng.
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
Tel: (613) 228-4813 Fax: 1 (613) 280-1305
steven.taylor@bteng.ca

Handwritten signature

Darcie Dillon

From: Steve Taylor [redacted]
Sent: November 11, 2018 9:19 AM
To: [redacted]
Cc: agoheen@townshipleeds.on.ca [redacted] Darcie Dillon'
Subject: RE: TLTI Study for a TMP/ATP Notice in Gan Reporter

Thanks [redacted]
Darcie please add this as a second page to mark's comment sheet.
Steve

Steve Taylor P.Eng., M.Eng., CVS-LIFE, P.E.
President
100 Craig Henry Drive, Suite 201
Ottawa, Ont. K2G 5W3
E-Mail: steven.taylor@bteng.ca
Phone: 613-228-4813
FAX: 1-613-280-1305
Toll Free: 1-855-228-4813
www.bteng.ca

-----Original Message-----

From: [redacted]
Sent: November 10, 2018 11:11 PM
To: Steve Taylor
Cc: agoheen@townshipleeds.on.ca; [redacted] Darcie Dillon
Subject: Re: TLTI Study for a TMP/ATP Notice in Gan Reporter

Thanks Steve.
To answer your question, it is vehicles travelling in both directions. Those entering Haig from Kyes heading west accelerate up to 80 as they drive through this section and many of those heading east towards Kyes are already travelling in excess of 80 before slowing down at the T intersection. These are not residents living in this section of Haig as they know better but are others using Haig as a convenient route. I wish to revise one thing. I did a count of the homes and there are actually 19 now that are in this development.

Regards,
[redacted]

Sent from my iPad

> On Nov 10, 2018, at 7:41 PM, Steve Taylor <steven.taylor@bteng.ca> wrote:
>
> [redacted]
> Here is a question. With the offset Tee intersection at Kyes Rd all vehicles on Haig Rd have to stop at that intersection. Can you give an opinion: is the speed issue related to westbound vehicles coming from Kyes or eastbound vehicles approaching Kyes Rd.
>

> Steve
 >
 >
 >
 > Steve Taylor P.Eng., M.Eng., CVS-LIFE, P.E.
 > President
 > 100 Craig Henry Drive, Suite 201
 > Ottawa, Ont. K2G 5W3
 > E-Mail: steven.taylor@bteng.ca
 > Phone: 613-228-4813
 > FAX: 1-613-280-1305
 > Toll Free: 1-855-228-4813
 > www.bteng.ca

> -----Original Message-----

> From: [REDACTED]
 > Sent: November 9, 2018 9:29 AM
 > To: agoheen@townshipleeds.on.ca; [REDACTED]
 > Cc: steven.taylor@bteng.ca
 > Subject: Re: TLTI Study for a TMP/ATP Notice in Gan Reporter

> Dear Steve and Adam,
 > I reviewed the notice provided in this weeks Gan Recorder. Although it states that the Study Design is available on the Township's website unfortunately I cannot find it. It would have been helpful to provide the actual link. It is not under the Transportation Plan.
 > That being said, I would like to bring forward for consideration the installation of 50 km speed limit signs at a specific location on Haig Road. As you may be aware the east end of Haig Rd approaching Kyes Rd is a rural residential development with over a dozen homes. There is no speed limit restriction so the majority of vehicles driving through this area travel in excess of 80 km per hour. Many of these homes have small active children who on occasion are on the roadside. It has become extremely dangerous for both adults and children when walking along the shoulders. Personally I have had several instances when cars travelling almost 100kph have missed me by just 2-3 ft. I am requesting that 50 km/hr signs be posted at the westernmost end of this development and at the Kyes Rd intersection. In addition, Children Playing signs should also be installed.
 > I have written the previous Town Council and my request was ignored. As our duly elected new Council please give this due consideration before someone is seriously injured.

> Your concerned citizen,

> [REDACTED]

> Sent from my iPad

> This email has been checked for viruses by AVG.

> <https://www.avg.com>



Transportation Master Plan / Active Transportation Plan - Part 2

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure.

After you've had a chance to review the [Nov 16 Summary Report](#), [May 2018 Café Report](#) and the [Draft Study Design Report](#), please tell us what you think.

Guiding Definitions

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

4

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

4

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

Although unable to attend the 16th Nov meeting I have seen the Summary Report you have posted on the website. The list of initiatives looks promising for the community where I spend the majority of my summers, and to which I hope to eventually retire. I am particularly interested in the potential* for municipal docks and parking on Kerry Point Road, near Tar Island, where we have our cottage. I look forward to hearing how this potential develops because, as a cottage owner on Tar, having a reliable method for accessing our cottage is a high priority to us.

* Page 8 and Schedule 02 – “Potential new boat launch and parking on Kerry Point Road”

Note – I also emailed this same message to the email address of the EA Project Manager posted on your website.

Thank-you for your consideration of this potential development

██████████
██████████████████

Would you like to meet with Staff to discuss your comments? *

Yes

No

Your name

██████████████████

Phone

██████████████████

Email

██████████████████
██████



Transportation Master Plan / Active Transportation Plan - Part 2

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure.

After you've had a chance to review the [Nov 16 Summary Report](#), [May 2018 Café Report](#) and the [Draft Study Design Report](#), please tell us what you think.

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Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

Paved shoulders, there are multiple roads within the township that have been "repaired" leaving them much more narrow and without any real shoulder to speak of.

Bridges - please describe any projects, programs or policies you would like to see implemented.

Repair and replacement of failing bridges

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

Better signage for and on walking/hiking trails within the township

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



Transportation Master Plan / Active Transportation Plan - Part 2

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After you've had a chance to review the [Nov 16 Summary Report](#), [May 2018 Café Report](#) and the [Draft Study Design Report](#), please tell us what you think.

Guiding Definitions

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

Place- Prince Street in the Village of Lansdowne
Project - the removal of the Hydro poles from the driving lane of the roadway.
Reasons - Safety, The vehicles with height or width are unable to navigate with out hitting the poles (see the chunks of missing pole), impeding the on coming traffic or hitting the vehicles parked on the side of the road.
The fact that this has been made as an emergency route means an increase in the traffic and an increase to the hazards of a narrow road way with poles to be hit or drivers moving over at last minute to avoid them and endangering on coming traffic.
Note: main route for service vehicles (fire trucks, delivery trucks), animal trailers, campers, transports, school buses.

Bridges - please describe any projects, programs or policies you would like to see implemented.

I agree with the danger of low advisability when turning onto Reynolds road at 401 hwy bridge. People are continually pulling out in front of vehicles going south over the bridge.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

I see from the report that paved sides on hwy 2 from Lansdowne to Gananoque are not included for cycling. We are being educated on alternative ways of transport but not given a safe way. Especially no safe way for youth with out transport via car to get to Gananoque and back for work or school and public activities.

It needs to be done for safety and for a public daily need as there are no buses. Also for physical activity.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

Docking also needs to include parking



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Roads - please describe any projects, programs or policies you would like to see implemented.

Install street lights on Hill Island at the junction of hwy 137 and SKYDECK Road and Stratford Road. This is a high traffic area and poses a safety issue for residents turning east on SKYDECK or west on Stratford Road. Transport trucks regularly pull off at this junction to check their paperwork before crossing the border. On overcast/rainy/snowy days it is very difficult to see where the turnoffs are or vehicles pulling out from those intersections. A single street light would improve the safety dramatically.

As an option there are existing light poles (2 or 3) on the SKYDECK Road that could be utilized through negotiations with the current landowners. I'm not sure who owns these light poles - the landowner or the township? This might prove to be a cost effective solution.

Hill Islanders pay very high taxes and receive virtually no services. The lack of light at this intersection is a serious public safety issue.

Bridges - please describe any projects, programs or policies you would like to see implemented.

[Empty text box for bridge suggestions]

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

We live in a very beautiful area, however there are not enough water access points where the travelling public can see the area (ie the international bridge. The current pull off spots should be have upgraded road surfaces as they can be filled with potholes. Water access points should be promoted so more of the travelling public might decide to pull off the 401 and extend their visit to the municipality and spend more money at local businesses.

Mark potential swimming spots along the parkway and clean up those areas and perhaps add some sand. We see people swimming off the rocks at several pull-offs so this should be highlighted.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

7

Another boat launch with a proper ramp and enough space in the area to park vehicles and trailers. The current ramp in Rockport is located at an extremely busy location (cruise ships) and is very difficult to navigate around all the vehicles and passengers. The ramp is also in poor condition and drops off at an angle as boats are backed into the water.

Would you like to meet with Staff to discuss your comments? *

Yes

No

Your name

Phone

Email



8

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Roads - please describe any projects, programs or policies you would like to see implemented.

Better surfacing of gravel roads in TLTI, especially Long Point Road

Bridges - please describe any projects, programs or policies you would like to see implemented.

[Empty text box for bridge projects]

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

Better promotion of paddling/portaging routes

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

[Empty text box for marine projects]



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Roads - please describe any projects, programs or policies you would like to see implemented.

We would like to see our dirt properly maintained. Not just skim over the pot holes , but actually remove them. Our vehicles are being torn apart. With the economy the way it is , who could afford replacements. Do Not our taxes cover this?

Township of Leeds and the 1000 Islands Transportation Master Plan / Active Transportation Plan

Community Café Report

May 2018



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1.0 INTRODUCTION

The Township of Leeds and the Thousand Islands is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to: continue to plan for efficient development; plan for the rehabilitation and replacement of existing infrastructure; and create consistent transportation standards. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County and municipal planning and transportation related needs.

The Township of Leeds and the Thousand Islands currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure within the current planning horizon.

1.1 Background

This report summarizes the comments gathered at the Community Café Event carried out by BT Engineering Inc. (BTE). The Community Café took place on Thursday, April 26, 2018 at Fire Station No. 1 in Lansdowne, Ontario. The Community Café was conducted with the public and key stakeholders as part of the Master Planning process. The purpose of the workshop was to review the scope of the Study and to solicit discussion on potential projects, programs and policies for the TMP/ATP.

1.2 Consultation

The Notice of Study Commencement was issued at the beginning of April 2018 and advertised the Community Café, with information included to register for the event. Agencies, stakeholders and interest groups contacted included:

- Aboriginal Affairs and Northern Development Canada
- Canadian Environmental Assessment Agency Ontario Region
- Transport Canada / Navigable Waters Protection Program
- Ministry of Agriculture, Food and Rural Affairs
- Ministry of the Environment and Climate Change (Eastern Region)
- Ministry of Indigenous Relations and Reconciliation
- Ministry of Natural Resources and Forestry
- Ministry of Tourism, Culture and Sport
- Rideau Valley Conservation Authority
- Ministry of Community and Social Services – Eastern Region
- Ministry of Innovation, Science and Economic Development Canada
- Ministry of Municipal Affairs and Housing
- Lansdowne Association for Revitalization
- Lyndhurst Rejuvenation Committee
- Rockport Development Group
- Seeley's Bay and Area Resident's Association
- Leeds and District Western Horse Club
- Leeds and the Thousand Islands Archive
- 1000 Islands ATV Club
- 1000 Islands Kayaking
- Gananoque Canoe Club
- Leeds and the Thousand Islands Historical Society
- Seeley's Bay Athletics
- Charleston Lake Provincial Park
- Rideau Canal National Historic Site
- St. Lawrence Parks Commission
- Cataragui Region Conservation Authority
- Thousand Islands National Park
- Town of Gananoque
- Township of Rideau Lakes
- Township of Front of Yonge
- City of Brockville
- United Counties of Leeds and Grenville
- Thousand Islands Area Residents Association

- Thousand Islands Association
- Township Taxpayers Association (TTA)
- Wheels of Care
- Furnace Falls (Lyndhurst) Senior's Group
- Seeley's Bay Senior's Club
- Lansdowne Seniors Club
- Youth Advisory Committee
- Algonquin to Adirondacks Association (A2A)
- Charleston Lake Association
- Friends of Charleston Lake Association
- Frontenac Arch Biosphere Reserve
- Gananoque River Waterways Association
- Lower Beverley Lake Association
- Thousand Islands Watershed Land Trust
- Leeds and Grenville District Health Unit
- Community & Primary Health Care/SAIL
- Seeley's Bay Health Centre
- St. Lawrence and District Medical Centre
- Economic Development Committee
- Environmental Action Committee
- 1000 Islands Helping Hands
- Seeley's Bay & Lyndhurst Chamber of Commerce
- 1000 Islands Chamber of Commerce
- 1000 Islands Bridge Authority
- Thousand Islands Bicycle Co.
- Allstream
- Bell
- Enbridge Gas Distribution
- Hydro One Distribution
- Hydro One Transmission
- Hydro Ottawa
- Rogers Communications

Indigenous Peoples groups that were contacted include:

- Algonquins of Pikwakanagan
- Algonquins of Ontario
- Kinouchepinini Algonquin First Nation
- Kijicho Manito Madaouskarin – Anishinaabe Baptiste
- Algonquins of Greater Golden Lake First Nation
- Mattawa / North Bay Algonquin First Nation
- Shabot Obaadjiwan First Nation
- Snimikobi Algonquin First Nation
- Whitney and Area Algonquin Community
- Hiawatha First Nation
- Moose Deer Point First Nation
- Ottawa Region Métis Council
- Métis Nation of Ontario
- Williams Treaty First Nation
- Bonnechere Algonquins First Nation
- Chippewas of Georgina Island
- Mississaugas of the New Credit First Nation
- Mississaugas of Scugog Island First Nation
- Beausoleil First Nation
- Alderville First Nation
- Curve Lake First Nation

1.3 Methodology

The Community Café process follows the principles of the “World Café” philosophy; namely, that people want to talk together about issues that matter, and that that as we talk together we are able to collectively achieve greater wisdom. People have the capacity to work together and can collectively be creative and insightful when actively engaged in meaningful conversations. The Community Café is a simple yet effective conversational method for fostering dialogue, accessing collective intelligence and creating innovative possibilities for action.

The six Café principles are:

- Set the context
- Explore questions that matter
- Encourage everyone's contributions
- Connect diverse perspectives
- Listen together for insights

- Share collective discoveries

The TMP/ATP Community Café was an informal event that facilitated conversation by providing participants with a comfortable and welcoming environment. The event was set up with tables, flowers, and background music to evoke a feeling of familiarity and comfort.

The event was organized to create a network of dialogue about issues that matter to the stakeholders and community. Each conversation was chosen to reflect the most important parameters of the project, and to realize the desired goals of the participants. Four topics were provided as discussion points to reflect the actual concerns of the community. As participants moved between the tables, key ideas and perspectives were exchanged which provided new insights to the project.

Café facilitators were stationed at each table to provide a neutral voice to the discussion. Facilitators encouraged all participants to contribute to the conversation and to remain focused on the topic being discussed. As participants moved between tables, the facilitators briefed the table on what was previously discussed. This allowed the table to build on the previous group's discussion, and provide a different insight into the topic.

The four topics that were chosen to be discussed during the event included the following:

1. Roads/Bridges
2. Active Transportation
3. Marine (docks)
4. Programs and Policies

Each discussion lasted approximately 15 minutes before participants were asked to move to a new discussion table.

1.3.1 Opening Presentations and Exhibits

The Community Café event began with an introductory presentation, which is provided in **Appendix A**. Exhibits were displayed around the room, which are provided in **Appendix B**.

The introductory presentation and exhibits summarized project issues and the approach/process. Following the project introduction, the process and objectives of the Community Café event were explained. The participants then moved to the small tables to begin discussion on the applicable topic.

2.0 TOPIC DISCUSSIONS

At each table a topic of conversation was provided for discussion. Each topic had several questions associated with the topic; however, the conversation often diverged from the given questions. This allowed for the conversation to flow freely, and created an encouraging environment for everyone at the event to contribute ideas and perspectives. It also provided the participants an opportunity to direct the conversation to questions that are relevant to their actual concerns.

The following pages summarize the ideas and comments expressed during the event and in correspondence received post-meeting (see **Appendix C**). All of the comments are listed based on the discussion topic of the tables. Maps of the Township were shown at the Community Café and attendees were encouraged to mark up the maps with potential projects and issues. These marked-up maps are illustrated in **Figure 1** to **Figure 4**.

2.1 Roads/Bridges

Key Questions:

1. Are traffic congestion/delays or road surface type issues?
2. What do you feel are the safety concerns?
3. What road, bridge or intersection improvements would you like to see?

Comments:

General

- Roads with a poor surface include Quabbin Hill Road, Sandy Bay Road, Ferguson Road, Long Point, Road and Russell Road. All these roads have poor drainage as they typically have flat grades because of the topography.
- Ditches are often not effective or non-existent.
- Dean's Lane has constant issues with the culvert (add to projects).
- Ditch cleanouts are a priority and improved drainage.
- There should be road standards in the Township.
- There is a need to communicate to the public what the timing is for maintenance activities (grading, plowing, ditching, and brushing).
- The public should be able to know the standard for maintenance of the road for after a major rainfall for scheduled grading etc.
- Need an after-hours emergency number to call in for road or bridge emergency services. Publish number on website.
- The sizes of particles for surface treated roads are too large for cyclists.
- Please consider a wider platform.
- The wider platform could be available for cyclists
- The hard curb – please use rolled curbs (safer for cyclists).
- Maintenance for freezing rain is a growing issue. Should we be considering alternate materials?

- Speed enforcement is an issue.
- Maintenance of removing sand/salt seems to be a delay in the spring clean-up.
- Animals – outlet and Killenbeck Lake on County Road (CR) 3.
- Mowing.
- Wider paved shoulders at both ends of any bridges along the 1000 Islands Parkway to accommodate tourists and families with kids fishing. Stairs at either end of any bridges to lower the abutment extended for fishing, viewing, photographing etc. to keep touring public away from delicate ecosystems.

Seeley's Bay

- Seeley's Bay entrance from Highway 15 should be considered for safety improvement because of the traffic growth on Highway 15. There is a need to slow the speed of traffic to permit safe access to the settlement area.
- There is nothing south of Morton to slow down Highway 15 traffic southbound vehicles travelling past Seeley's Bay.
- The entrance to Seeley's Bay from Highway 15 is an issue (lighting is not adequate for the turn lanes).
- It is tough coming into the settlement area. The turn on Highway 15 has hazards. There is a skew.
- In Seeley's Bay there has been a lot of work (good).

Lansdowne

- The intersection on CR3 in Lansdowne is the largest safety concern.
- The intersection in Lansdowne has poor safety because of the visibility constraints of the existing buildings, but it is a landmark that maintains the original cultural heritage features of the village, and the former Lansdown hardware store may be a heritage building. There was consensus that everything happens at this corner i.e. busy location. It is the business core.
- On the east side of King Street the street is steep.
- Could we consider a bypass?
- There is a pedestrian safety issue at the intersection (visibility and curb heights).
- There is an issue with hydro poles on CR3 (within road surface) and can these be removed and sidewalks widened?
- It would be desirable to rehabilitate the street and maintain the building frontage on CR 3 in Lansdowne as these buildings are examples of old buildings in that block and original character of the Village.
- Condition of the train tracks in Lansdowne at the rail crossing should be improved.
- Reduce the speed from 80 km to 60 km before the bend at 948 CR 2 East straight through to the other side of Rapid Valley. This is an EDR and when traffic is rerouted the intersection where CR2 meets CR3 at Rapid Valley becomes congested. It becomes dangerous for drivers as well as children waiting for a bus/dropped off the bus.

Haskins Point

- Haskins Point Road is narrow access to Parks Canada.

- Does Parks Canada contribute to the road accessing to the area? Would they partner?

Ivy Lea and Rockport

- The Ivy Lea and Rockport cruise areas.
- Could the parking areas for bases be moved north of the Parkway?
- There is congestion at both locations.
- The Gananoque Boat Line generates significant traffic.
- Boat launches create traffic and there should be provision for parking cars and trailers.
- Traffic from boat ramps should consider parking north of Parkway.

Sweets Corners

- Sweets Corners. There are two sharp vertical curves and there is a horizontal curve beyond a vertical. These are marked on the plan.

Lyndhurst

- The Lyndhurst Bridge should provide safe walking/cycling access to cross the bridge. It is a dangerous connection between one side of the village and the other.

County Road 2/County Road 3

- Intersection of CR 2 and Prince Street at Rapid Valley has high speed collisions.
- The EDR creates a large safety concern.

Black Rapids Road

- Black Rapids Road has a bridge 6-7 years ago. There are washouts. Serious concerns.
- The nutrients from farm land are impacted by Black Creek floods Black Rapids Road going to outlet has a long history of settlement (CR3)

Kidd Road

- Kidd Road North is used as a shortcut and there is a bridge and approaches – large holes.

Sand Bay Road

- Sand Bay Road – flooding is an issue.

Russel Road

- Russell Road – poor condition with no base.

Lynhurst Road

- CR3 to Lyndhurst Road - vegetation blocks visibility.
- Skew angle of Sweets Corners/Lyndhurst intersection (poor visibility)

Old Briar Hill Road

- The sight visibility at Old Briar Hill Road – Check improving sight triangle on east side.

Dulcemaine Road

- Visibility off Dulcemaine Road for southbound drivers on CR3

Highway 401/Reynolds Road Interchange

- Reynolds Road overpass is narrow with poor surface condition within the interchange

- Poor visibility at Reynolds Road intersection.
- Contact OPP for collision intersection.

Highway 401 WB Entrance from Parkway

- Entrance to 401 on east side of Gananoque is unconventional and considered less safe.
- The 401 interchanges must be improved - there is so much truck traffic with EDR events.

King Street

- The stone wall at King Street/Prince Street is too high to see around the corner. Could the wall be shorter?

2.2 Active Transportation

Key Questions:

1. What type of facilities would you like to see for pedestrians and cyclists?
2. Do you feel safe walking or cycling along Township roads or streets?
3. How should cyclists be accommodated? On road? Off road? Shared facility?
4. What users and cyclist types should be accommodated along the corridor? (recreational or commuter cyclists?)
5. What are the key attractions that should be accessible to pedestrians/cyclists?
6. What are missing linkages in the settlement area for sidewalks?
7. What do you think are barriers preventing you from walking/cycling rather than driving?
8. What are the missing linkages in the cycling network?

Comments:

- Paved shoulders on County roads (Highway 2, Highway 32, CR3, 1000 Islands Parkway to Charleston Lake Park specifically) would be desirable.
- Beyond dense traffic roads, have shared lanes, sharrows, painted green lanes for cyclists, share signs.
- At walking/cycling paths provide public porto-potties/washrooms.
- Provide rest stops – picnic table, benches.
- Coordinate facilities with vehicle pit stops.
- Provide water stops. There are a lot of long distance cyclists with nowhere to get water.
- Improve curb design. Hard curbs are bad for cyclists as they can't maneuver away from trucks or vehicles quickly. Consider rolled curbs in settlement areas.
- Provide parking facilities at head of cycling route/walking trail.
- When repaving roadways – consider cyclists hazards such as manhole cover depth from repaving is too low for cyclists who can't see them. Dangerous for cyclists.
- Provide bike racks at destinations or support businesses who will store bikes so cyclists don't have to remove their packs from their bikes. Issue of stolen packs/bikes.
- Create circular cycling routes rather than to/from routes on the same road.
- Create standard for Paving roads with smaller granular or using large granular on shoulders.
- Provide signage for "Share the Road."

- Include off-road mountain biking as part of the plan.
- Identify tourist attractions: Charleston Lake Park, Adirondak to Algonquin Park collaborative, places to eat or buy groceries/food, parkway lookouts that are maintained.
- Tourist "pretty areas."
- Accommodate long distance cyclists through the area.
- Provide signage to St. Lawrence Park for long distance cyclists. They don't always know about it.
- Signage for places to park, washrooms, etc.
- Provide advertisements on websites, at markets, to draw people who are spending time in the area, accessibility to markets.
- There are missing sidewalks in Lyndhurst, Seeley's Bay.
- Consider sidewalk repair for existing facilities.
- Create walking trails including Marble Rock and the Rideau Trail Association. Have parking lots at trailheads.
- Provide canoe trailhead to get your canoe in the water.
- Paddle docks on the waterfront to coincide with walking trails.
- Create Gananoque River access points and signage of access.
- Support Thousand Islands Kayaking – they have paddling trails and designs for docks.
- The Township is 30% seniors and 30% low income families. Find a way to engage these residents for successful plan.
- Provide a sidewalk to the medical centre in Lansdowne and from Lyndhurst Bridge to the post office on both sides.
- Define sidewalk design: drainage, width, curbs, paving, and surface type.
- Sidewalks should be accessible: low curb height, depression at intersections.
- Accommodate pedestrian access south of Lansdowne across the tracks.
- The train tracks in Lansdowne are horrendous for all crossing users.
- Big Hill Road for cycling in Seeley's Bay is a safety concern. Visibility in the area vs. speed of vehicles is unsafe for cyclists.
- Not a lot of cyclists in the area due to safety and lack of cycling infrastructure except west of Gananoque and the St. Lawrence Recreational Path.
- Shoulders of roadways are in disrepair and should be rehabbed to provide safer and user friendly facility for active transportation.
- Partner with the share the road cycling coalition (paved shoulder strategy).
- Seniors walking on paved shoulders with strollers should be considered as active transportation users.
- Active transportation should be considered for residents as well as tourists.
- Link to the Cataragui Trail.
- Paved shoulders on CR3 and provide access to Charleston Lake. People bring their bikes to Charleston Lake and then don't use them because there are no facilities.
- Seeley's Bay is in disrepair.
- Use the Frontenac Arch Biosphere.
- Walking trails: liability between private lands and Township trails.

- Parkway on trail: On a bicycle downhill and crossing roadways stop signs should be on the roadways before and after the trails. Often cyclists are travelling quickly and visibility is poor.
- Rules of the cycling route should be available to educate users on how to properly use the path (i.e. walk and bike on the right except to pass)
- Provide better facilities for convoys of cyclists (who travel side-by-side or in large groups) on County roads.
- Integration with the Frontenac Arch Biosphere and the 5th Annual Eastern Ontario Active Transportation Summit (held in Brockville in 2018).
- Where vehicle traffic is encouraged to travel straight through a town/village, provide “Peoplescapes” or “Streetscapes” (i.e. spaces for pedestrians and protected cycling paths with dedicated routes for pedestrians as potential traffic calming measures, street markets, multipurpose space).
- Provide multi-use paths within settlements.
- Provide bike lanes on King Street West in Lansdowne.
- Lansdowne railway crossing for active transportation is terrible.
- Reduce train noise through the Township.
- Widen Haskins Point Road; it is very narrow even for vehicles and unsafe for users.
- Provide parking lots for active transportation users (i.e. at trailheads or to provide canoe/kayak access).
- Provide a sidewalk to casino from the last point in Gananoque.
- Prioritize connection from St. Lawrence Parkway and Recreational Trail to Lansdowne.
- Reynolds Road Bridge is unsafe for pedestrians and cyclists crossing at that point.
- Missing linkages include: Lyndhurst (provide safe connection to Charleston Lake Park that is not on the main roadway), provide signage to get to Charleston Lake Park.
- Canoe routes: Marble Rock Dam is owned by Energy Ottawa but the Gananoque River is an excellent canoe route in the Township. Provide signed route for portage to get around the dam.
- A bike shop within the Township is desirable.
- Pedestrians and cyclists should be required to use multi-use paths if available, not walk on the street.
- Direction arrows on pathways to indicate two-way traffic to allow cyclists to pass groups of people “hogging” the pathway.
- Signs on the roadway to impose fines for not using the bike path.
- No cyclists allowed on the 1000 Islands Parkway (they should only use the recreational trail).
- Kayak docks/launching stations along the parkway at Landon’s Bay, Greys Beach and Mallorytown.
- Safer walking and cycling paths throughout the Township.
- Identification of streams that are suitable for canoeing/kayaking and safe access points.
- Safety improvements for intersections for improved visibility/operation such as the Lansdowne CR intersection (Prince Street/King Street).

2.3 Docks

Key Questions:

1. At what locations in the Township should docks be built?

2. What improvements to existing docks should be considered?
3. What types of facilities are you looking for at a dock (parking, washrooms, etc.)

Comments:

- 2 existing boat launches (Rockport and Seeley’s Bay) and new location at Bateau Channel.
- There should be parking for all areas.
- There should be boat slips provided at all three locations (match Seeley’s Bay).
- Provide wifi for tourists.
- There should be monitoring of boat slips.
- Should they lease out facilities such as the Rockport boat ramp?
- Friends of “Rockport Customers House” - a partnership with the Township.
- Good partnership with Rockport Customers House to provide services.
- Seeley’s Bay wifi good to connect to adjacent local services – would check in and pay fee online.
- Facilities: washrooms and kayak/canoe stations are available but they need cleaning.
- Seeley’s Bar and Area Residents’ Association has worked to get the porta-potty/construction.
- There is now a porta-potty at Haskins Road.
- Consider a toilet trailer for Rockport/Ivy Lea.
- Bateau Channel Park – Consider boat launch and washrooms.
- Coordinate with the Town of Gananoque.
- In Seeley’s Bay they are actually on the Rideau Canal and it is the only location in the Township to the Canal.
- Real opportunity for tourists and the Highway 15 travel route.
- Add signage on Canal (for boat traffic) of all available services available in Seeley’s Bay.
- The plan could encourage other marina’s (private) in the Township.
- Would like to have a service for 1-way canoe for a water trail (Bateau Channel to Gananoque).
- Canoe trips: starts in Morton, Rideau Canal portage route access.
- Rock Dunder and Blue Mountain trails.
- Support more boat traffic.
- There is a 15 minute walk from the Rideau (200 ft and a great lookout).
- Support PaddleON events.
- Buy right-of-way where pathway crosses private property to Blue Mountain.
- Thanksgiving Monday parking (150 cars) to Blue Mountain (9 km return trip).
- There has never been a reported find of a Clovis Point – arrowhead in the Township but in close proximity.
- Create a program to connect businesses – local experiences, eco-tourism.
- Long term expectation to build nodes at 20 km with accommodations such as beds and food (like Spain El Camino Santiago Trail).
- For example: Furnace Falls B&B, stay.
- Preserve the historic River Road Bridge as part of the road needs study.
- Support provision of wildlife corridor passages, Charleston Lake to Bridge.

- Create water access such as:
 - Sand Bay Road – Old road allowance at Sand Bay
 - Larose Bay Road for access to water
- Create funding to create trails.
- Most trails are on public lands.
- Giant docks are not preferred as they do not align with the natural character left within the Township.
- A dock and improved access along the 1000 Islands Parkway rest-stop near Rockport.
- Public ramps and docks with parking lots for public access.

2.4 Programs and Policies

Key Questions:

1. What programs should be considered by the study?
2. What policies should be considered by the study?

Comments:

- Advertisements in magazines to bring tourists.
- Make cycling in the Township more user friendly to attract tourists.
- Signage on 1 m passing distance from cyclists.
- Education program on how to safely pass a cyclist.
- Partnership with groups for road safety challenge to find funding.
- New pedestrian crossovers with an education package sent from the Township.
- Roadkill program to find hot spots for animal crossings.
- Transportation policy to encourage active transportation to schools, libraries etc.
- Walking to School Bus Programs (let off students are the Fire Hall in Lansdowne and provide supervised walks home).
- Walk-to-School Weeks during the fall and spring months.
- Encourage active transportation and reduce vehicle use/increase carpooling to reduce emissions and increase safety in the Township.
- How to combat invasive species (such as garlic mustard or wild parsnip) and other environmental issues such as salt and endangered species.
- Temporary portable ramps for getting on the sidewalk.
- Tactile plates at intersections on sidewalks for accessibility.
- Cycling friendly designated areas/routes within the Township.
- Education programs for ATV usage within the Township. It is not clear if ATVs are to use the shoulder or the roadway or how to pass cyclists on the road with vehicles in the lane as well.
- Add a policy for ATV vs. vehicles vs. cycling.
- Support from the Township for clubs to self-police (such as trail cameras to take pictures of infractions).
- Collaboration between the Township and County for policies such as paved shoulders on County Roads

- Programs for sharing cycling equipment such as bikes, backpacks, etc.
- Liability policy between the Township and Energy Ottawa for the Marble Rock Dam route so canoeists can portage around the dam on Gananoque River.
- Paddling trail through the municipality and insurance requirements.
- Paved shoulder policy.
- Paved multi-use pathway along trail routes (such as along CR 2 from Brockville to Gananoque).
- Shuttle bus programs for canoe/kayakers and seniors to travel throughout the Township or bring tourists from Brockville/Kingston. One example is Innisfil Transit: a transit system was too expensive for Innisfil so they partnered with Uber as an on-demand, shared transportation option powered by Uber and subsidized by the Town.
- Public transportation program for those who can't afford a vehicle or don't want one.
- Public transportation program for youth/seniors to go to main towns/cities for trips such as getting to/from jobs, shopping, after-school activities.
- Shuttle people to the northern settlements. Cruises could shuttle people to markets within the Township.
- Partnering services with the Casino and Gananoque/Kingston/Brockville to shuttle people from those cities to within the entire Township rather than just the casino.
- Age friendly policies for those who aren't as mobile but are interested in being mobile.
- Recreation and retirement within the Township should be the draw. Although the average age is in the 50s, there should be recreation to draw young people to visit/stay.
- Restrict trucks parking on the road in settlement areas, such as in Lyndhurst where every weekend a 53 ft truck is parked on residential streets, in Seeleys Bay and Lansdowne.
- Consideration for wildlife within the Township such as safe wildlife road crossings when bridge work is done to increase safety for human transportation.
- Messaging to educate people on reducing the risk of transferring invasive species when entering waterways.

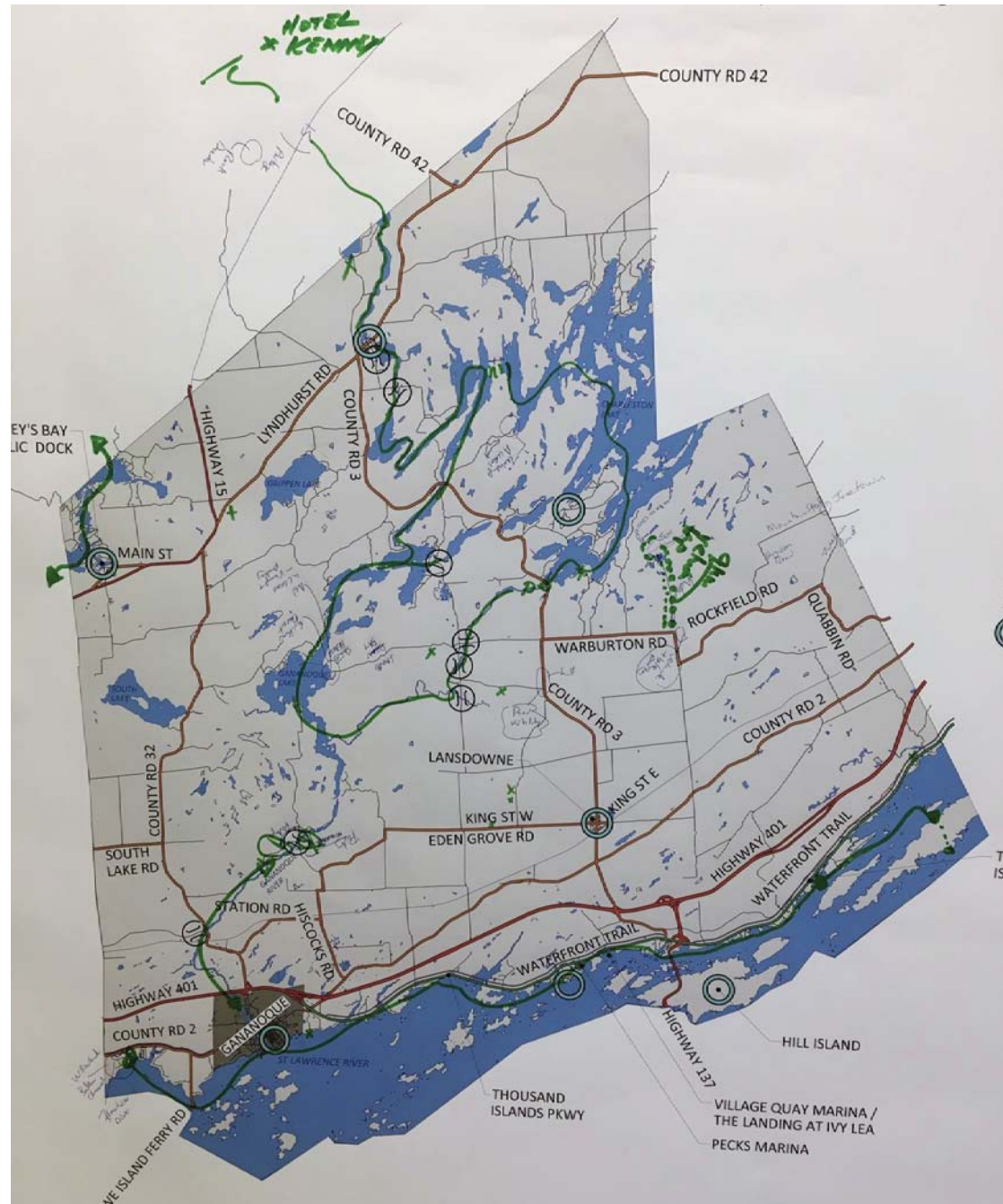


Figure 1: Potential Township Canoe Routes, Issues and Projects

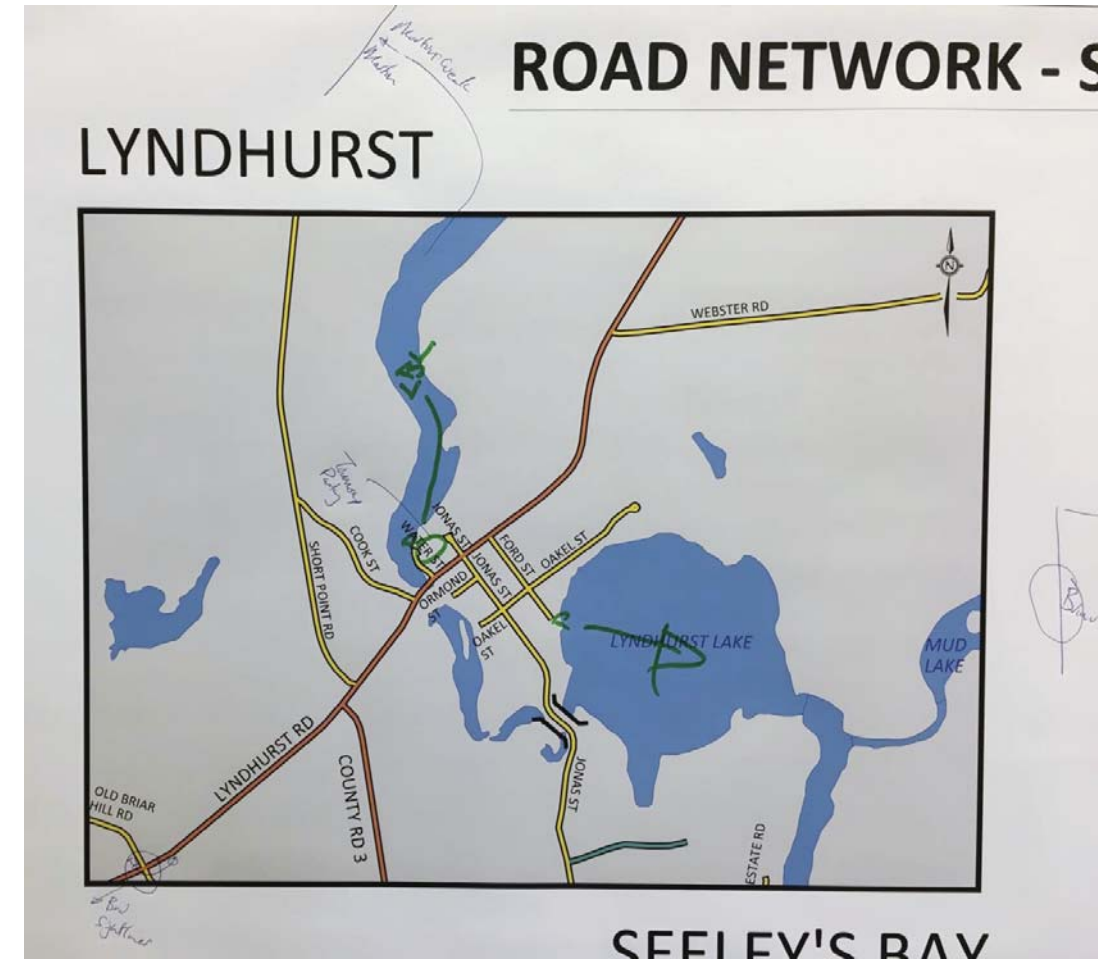


Figure 2: Potential Projects and Issues in Lyndhurst

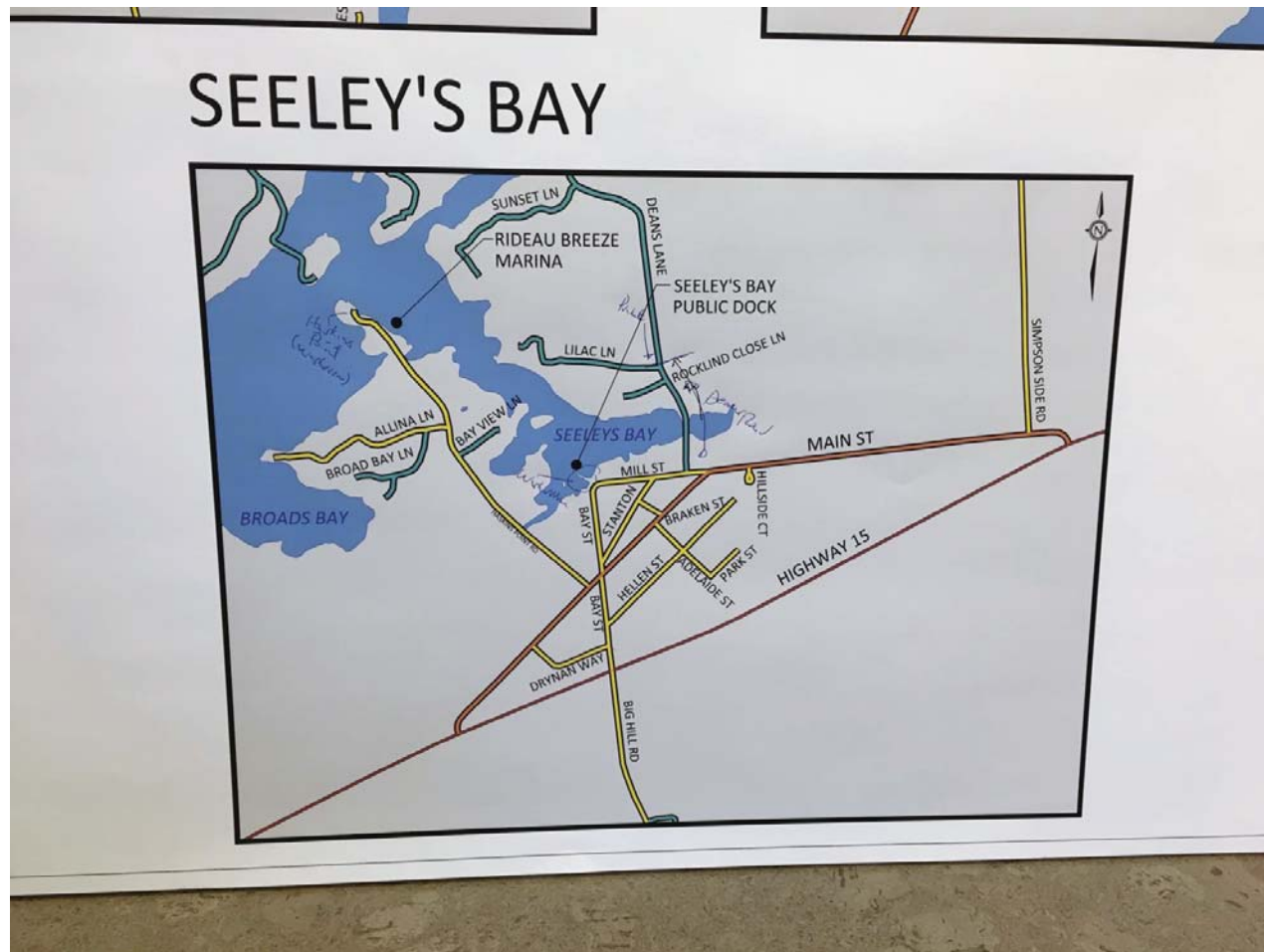


Figure 3: Potential Projects and Issues in Seeley's Bay

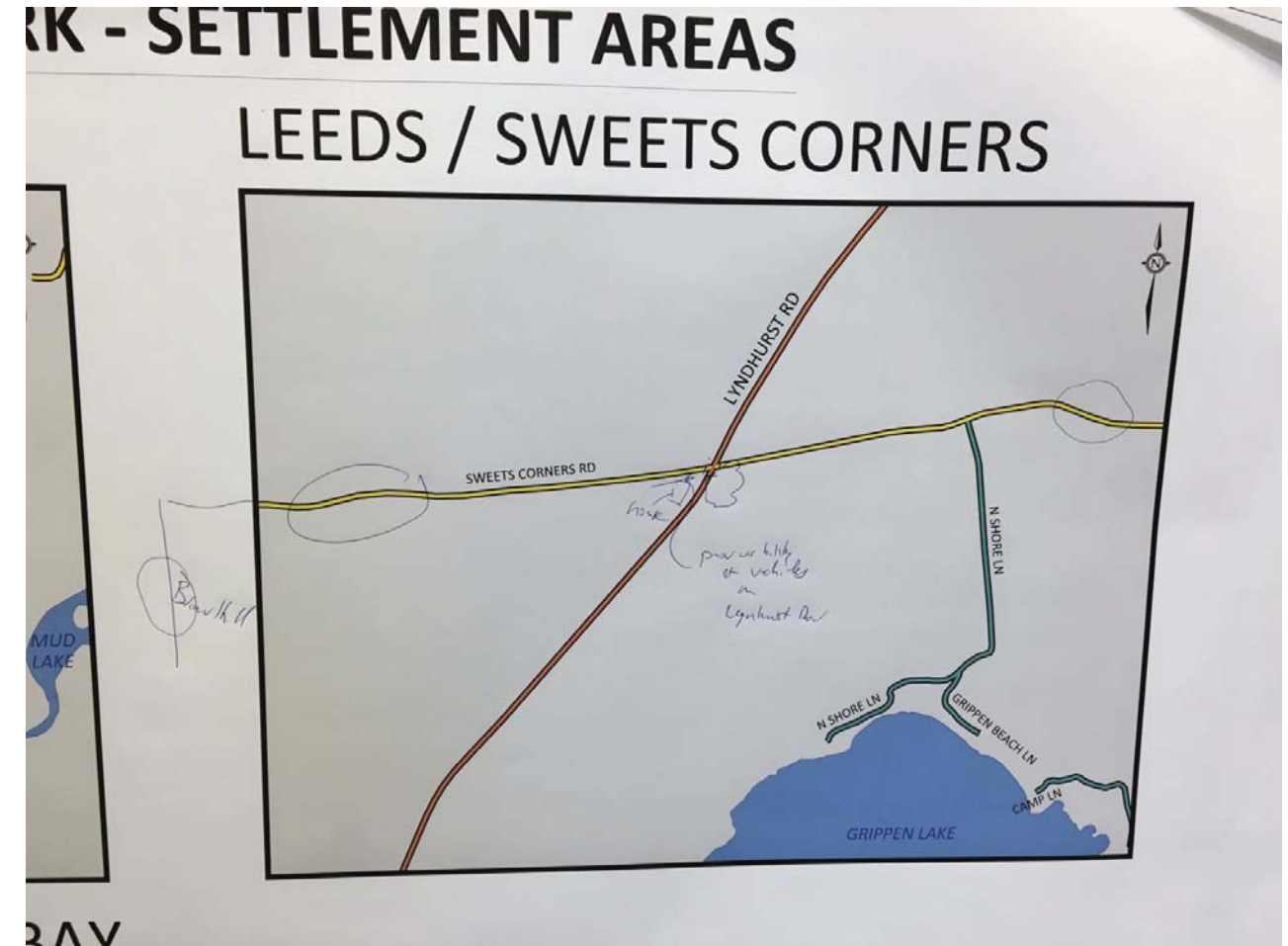


Figure 4: Potential Projects and Issues in Sweets Corners

3.0 NEXT STEPS

The discussion presented in this report represents the opinions of the public and stakeholders. These discussions will be used as input by the Planning Team for subsequent steps in developing the Master Plan. The alternatives will be presented to the public at the first Public Information Centre tentatively scheduled for May 19, 2018.

Readers of this report are cautioned that the recorded ideas and discussions are unsubstantiated and may or may not be feasible, and require development. They do, however, represent the best effort to identify the issues and alternatives for the project that are consistent with the values of the public/stakeholders in attendance.

Appendix A

Introductory Presentation



Township of Leeds and the Thousand Islands

Transportation Master Plan /
Active Transportation Plan



Community Café

April 26, 2018

Project Introduction

- The Township of Leeds and the Thousand Islands initiated this Transportation Master Plan/Active Transportation Plan to create a comprehensive and sustainable transportation plan for efficient development.
- The final document will include recommendations covering:
 - Future projects
 - Municipal standards
 - Accessibility
 - Policies and Programs
 - Facilities
 - Marketing and Education



Work Program

Phase 1 - Step 1 Data Collection

- Project Start-up
- Information Gathering
- Study Design

Phase 1 - Step 2 Identify Problems and Opportunities

- Advisory Committee Workshop/ Community Cafe
- Environmental Review
- Development of Network Improvements
- Evaluate Connectivity with Area Municipalities
- Best Practices Review and Policy Development
- Development, Analysis and Prioritization of Potential Roadway Projects and Strategies
- Public Information Centre
- Preparation of Transportation Master Plan/Active Transportation Plan

Township of Leeds and the
Thousand Islands



Opportunities

- Promotion of eco-tourism and the resulting economic benefits
- Build upon Provincial Initiatives #CycleON and #PaddleON
- Reduction of motorized vehicle trips / improve environmental sustainability
- Promote healthier lifestyles



Local Issues

- Safety improvements for major intersections (improved visibility or operation) such as the Lansdowne County Road intersection (King Street East and Prince Street)
- Paving or surface treatment of Township Roads based on traffic demand or active transportation needs
- Signage and wayfinding
- School crossing and community safety zones
- Use of new pedestrian crossover standards now approved for use in Ontario
- Canoe routes/boating facilities (an example would be Township boat ramps to access island properties being added or upgraded to include dockage)
- New road corridors

Local Issues

- Local vehicular and cycling routes on Township or County roads that may provide linkages to the Provincial network on the Thousand Islands Parkway or to tourist destinations at Charleston Lake
- Cycling and pedestrian linkages to major commercial businesses
- Pedestrian connections (sidewalks and crossings) within settlement areas
- Paved shoulders on Township, County or MTO linkages
- Bridge projects based on structural needs
- Bridge cross section widenings for active transportation
- Safety improvements for substandard horizontal or vertical curves
- Safety of tourist areas accessing the 1000 Islands cruises

Draft Study Design

The Draft Study Design, available on the project website, was prepared to:

- Present the proposed problem/opportunity statement
- Summarize the proposed work plan
- Describe the study process to meet the requirements of the Ontario Environmental Assessment Act

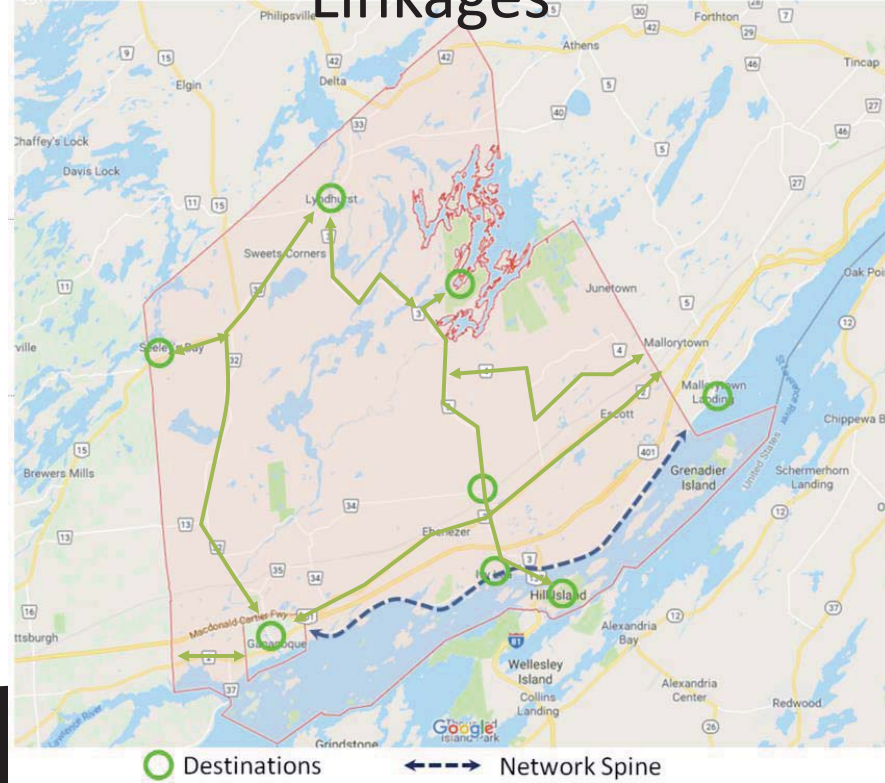
The Township of Leeds and the
Thousand Islands
Transportation Master Plan
Study Design Report

DRAFT



March 20, 2018

Active Transportation Potential Linkages



Elements of TMP/ATP (For Discussion)



TMP/ ATP Elements \	Facilities	Roads	Bridges	Active Transportation (Walking, Cycling and Canoeing)	Marine (Docks)
Projects					
Programs					
Policies					

Schedule



Task	Date
Project Start-Up Meeting	March 2018
Study Design	March 2018
Study Commencement Notice	April 2018
Information Gathering	March – April 2018
Community Café	April 2018
PIC No. 1	May 2018
Environmental Review	March – May 2018
Development of Network Improvements (Projects)	March – April 2018
Evaluate Connectivity with Area Municipalities	March – April 2018
Best Practices Review and Policy/Program Development	March – April 2018
Submit Coarse Screening of Options	May 2018
Refinements to Development, Analysis and Prioritization of Potential Roadway Projects and Strategies	May - July 2018
Draft TMP/ATP	August 2018
PIC No. 2	Fall 2018
Refinements to Policies, Programs and Preferred Network (Projects)	Fall 2018
Final TMP/ATP Submission to Township	Fall 2018

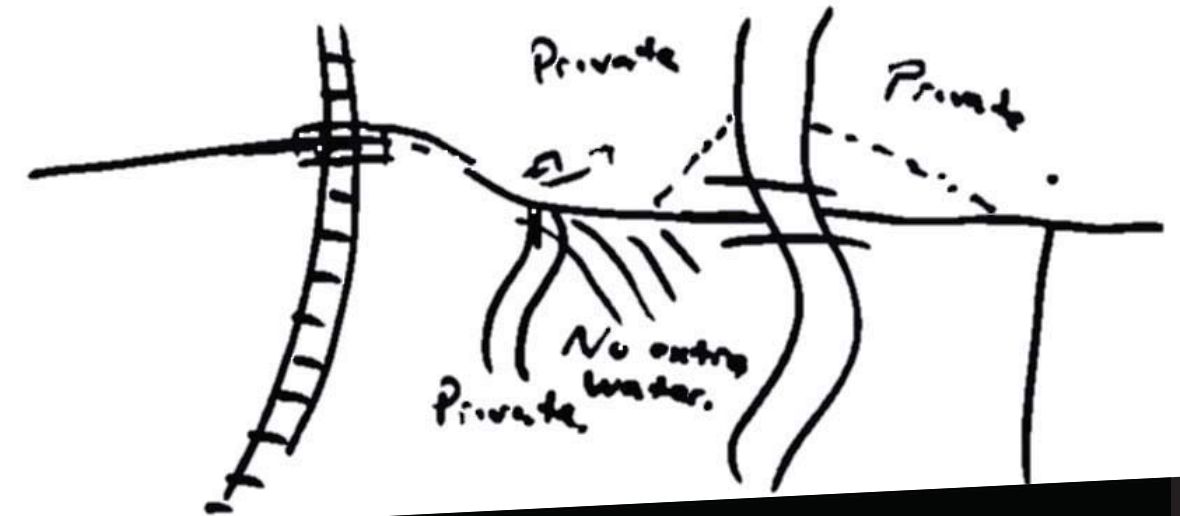
Community Café



Café Process

- Participants will be divided into small groups to allow conversations and dialogue
- At the conclusion of a discussion period participants will be asked to change tables and mix between topics
- Participants are free to sit out a session
- A recorder will make notes of the discussion of problems and potential solutions, and invoke questions to generate discussion

Sample Doodle



Café Approach

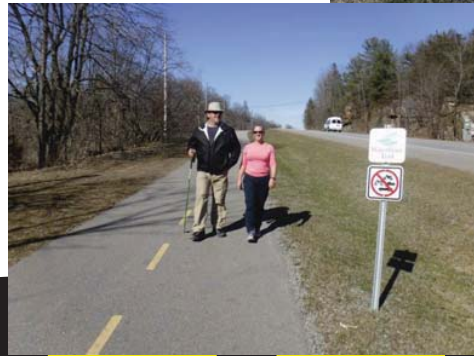
- Focus on dialogue between neighbours
- We are here to listen to your values and priorities
- Informal discussion of topics
- Encouraged to doodle sketches
- Build consensus of perspectives
- Discussion will be recorded

Small Group Discussions



Tonight's Café Discussion Topics

- Roads/ Bridges
- Active Transportation
- Docks
- Programs and Policies



Appendix B Community Café Exhibits



Township of Leeds and the Thousand Islands

Transportation Master Plan / Active Transportation Plan



Community Café
Thursday, April 26, 2018
Lansdowne, Ontario

Welcome

Welcome to the Community Café event for the Transportation Master Plan / Active Transportation Plan for the Township of Leeds and the 1000 Islands. The purpose of this event is to listen to concerns and help define transportation issues and potential projects, policies or programs.

The Township of Leeds and the Thousand Islands initiated this Transportation Master Plan/ Active Transportation Plan to create a comprehensive and sustainable transportation plan for efficient developments.

The final document will include recommendations covering:

- Future Projects
- Municipal Standards
- Accessibility
- Policies and Programs
- Facilities
- Marketing and Education

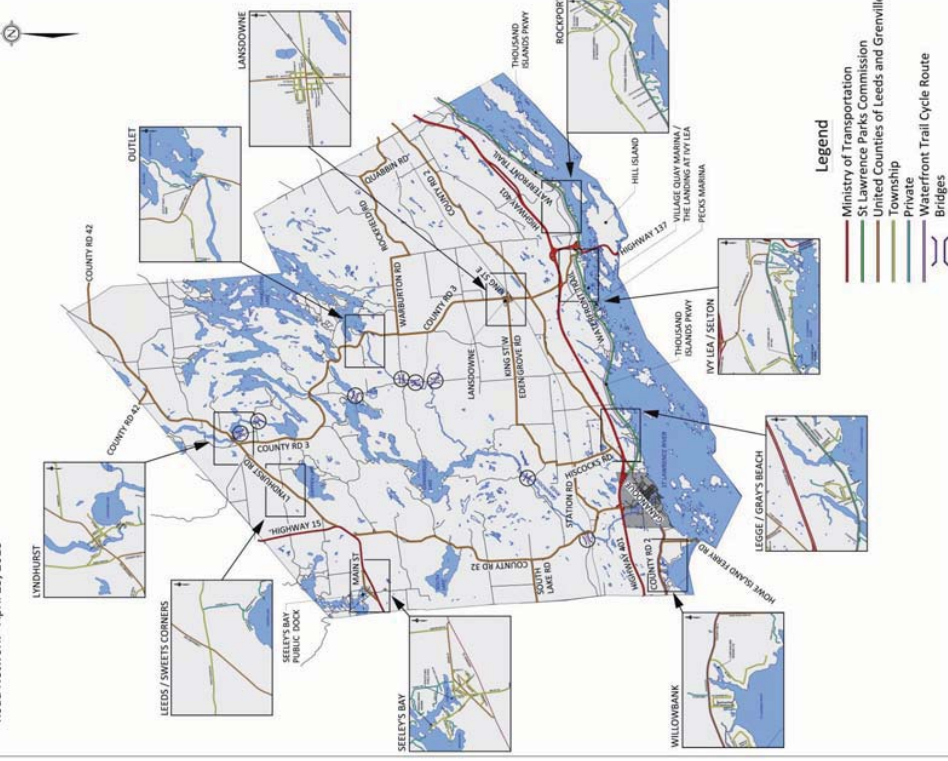


Local Issues

- Local vehicular and cycling routes on Township or County roads that may provide linkages to the Provincial network on the Thousand Islands Parkway or to tourist destinations at Charlestown Lake
- Cycling and pedestrian linkages to major commercial businesses
- Pedestrian connections (sidewalks and crossings) within settlement areas
- Paved shoulders on Township, County or MTO linkages
- Bridge projects based on structural needs
- Bridge cross section widenings for active transportation
- Safety improvements for substandard horizontal or vertical curves
- Safety of areas of tourist access to the 1000 Islands Cruises
- Safety improvements for major intersections (improved visibility or operation) such as the Lansdowne County Road intersection (King Street East and Prince Street)
- Paving or surface treatment of Township Roads based on traffic demand or active transportation needs
- Signage and wayfinding
- School crossing and community safety zones
- Use of new pedestrian crossover standards now approved for use in Ontario
- Canoe routes/boating facilities (an example would be Township boat ramps to access island properties being added or upgraded to include dockage)
- New road corridors

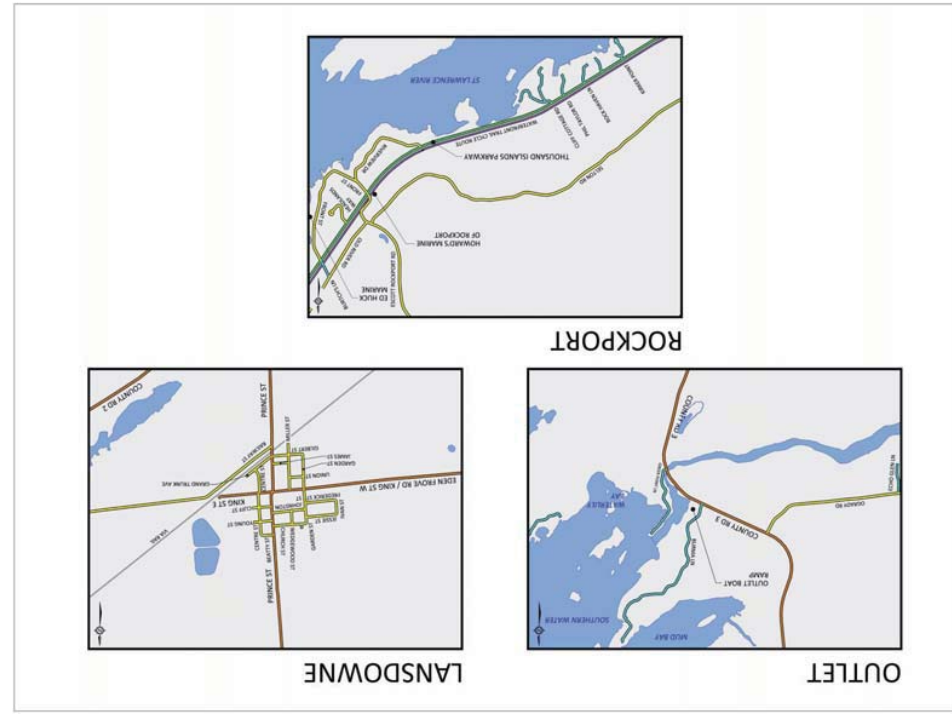
Road Network

Leeds and Thousand Islands TMP /ATP
Road Network - April 25, 2018

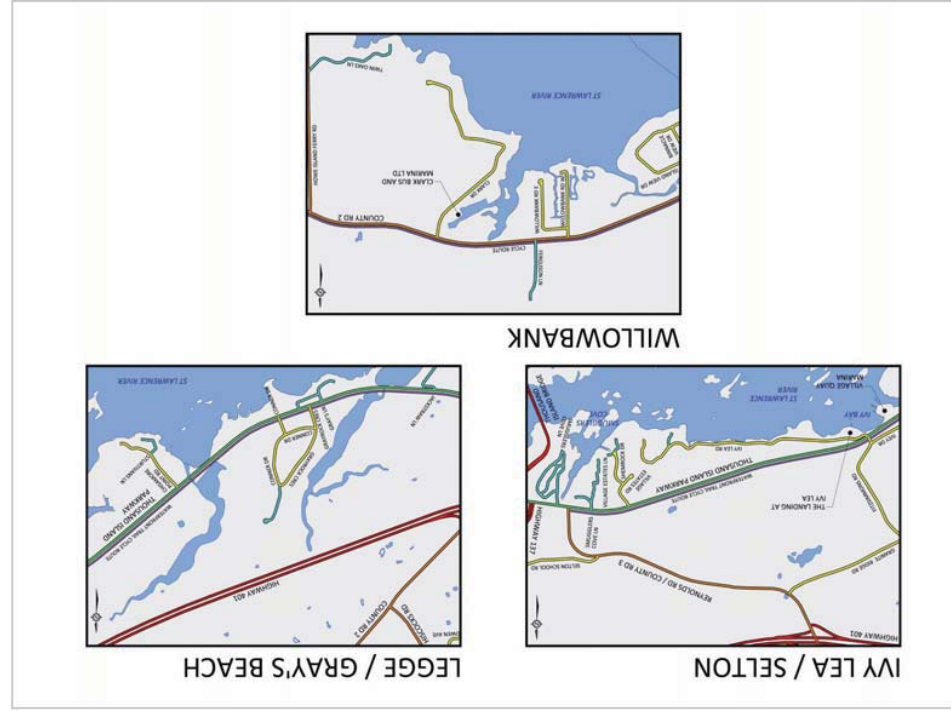




Road Network – Settlement Areas



Road Network – Settlement Areas



Road Network – Settlement Areas

Benefits of Promoting Active Transportation

Health

The World Health Organization has identified promotion of active modes of transportation, such as walking and cycling, to be one of the few policy decisions that has the potential to significantly reduce chronic diseases.

Economic

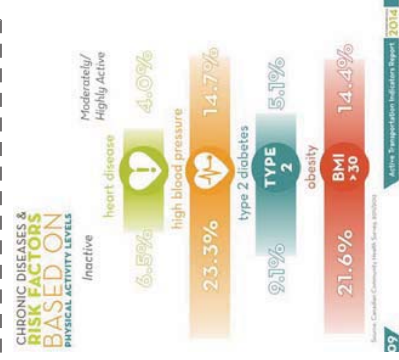
Surveys completed for Cycle Tourism Reports indicate that 40% to 60% of businesses in Prince Edward County, Essex County and Halton Region identified cyclists as either a "core" or "regular" part of their business.

Safety

Addressing safety concerns for pedestrians and cyclists by identifying infrastructure needs and priorities could lead to more active transportation users in the Township.

Environment

Significant environmental benefits can be achieved by reducing the need to rely on motorized transportation.



Who are we developing the plan for?

Transportation network:

- Tourists
- Local residents

Active Transportation:

- Pedestrians (including hikers)
 - All ages and abilities
 - Multiple trip purposes



• Cyclists:

Strong and Fearless



Enthusied and Confident



Interested but Concerned



• Others:

- Canoeists
- Mountain bikers
- Rollerbladers
- Skateboarders



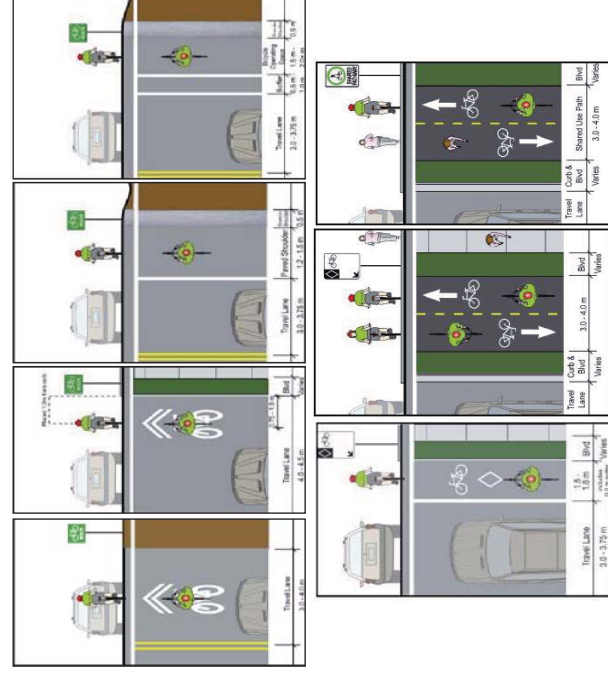
Types of Active Transportation Facilities

Pedestrians

- Sidewalks/ Multi-use Pathways/ Trails
- Crossings



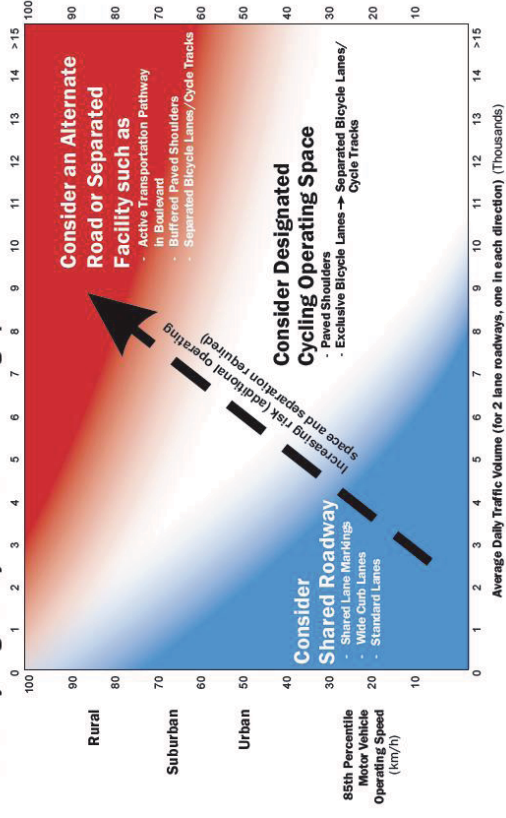
Cyclists



Source: MDM, 2013

Desirable Cycling Facility

Desirable Cycling Facility Pre-selection Nomograph



Shared Roadway



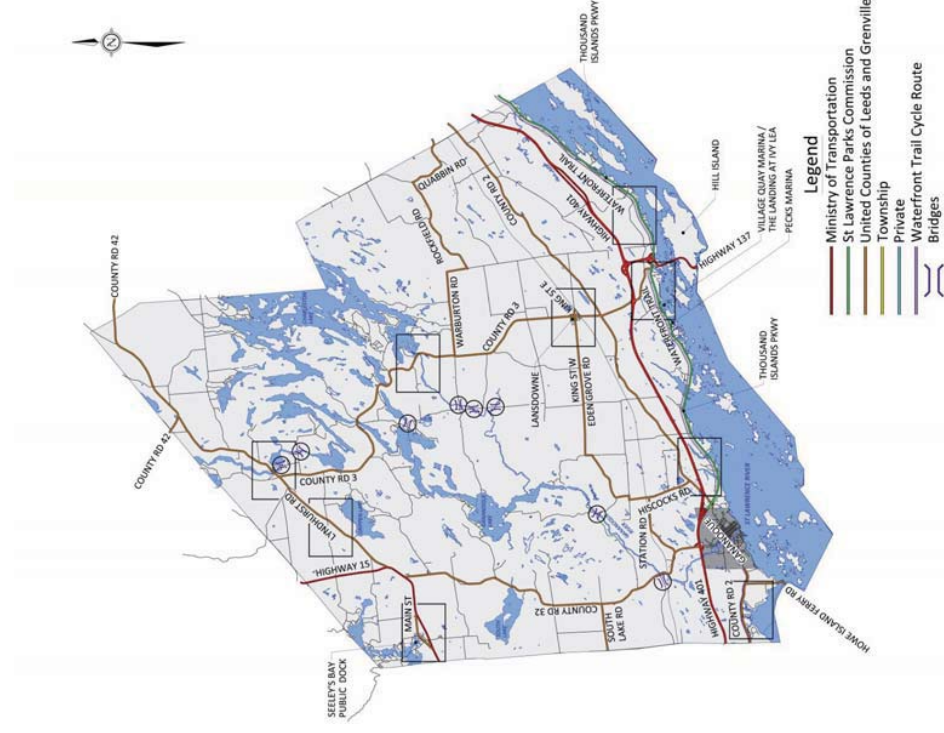
to



Multi-Use Pathway



Key Attractions / Destinations to be Serviced by Potential Active Transportation Linkages



Comment Sheets

The public is being asked to provide input on what elements should be included in the Township's future Transportation Master Plan / Active Transportation Plan (TMP/ATP). Your input into this study is valuable and appreciated. Please provide your comments on the project using the comment sheet (provided on the resource table).

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

TMP/ ATP Elements	Facilities	Roads	Bridges	Active Transportation (Walking, Cycling and Canoeing)	Marine (Docks)
Projects		←		What projects could be here?	→
Programs		←		What programs could be here?	→
Policies		←		What policies could be here?	→

12

Next Steps

Following this meeting we will:

- Review all comments – May 2018
- Complete technical investigations and inventories – Spring/Summer 2018
- Hold Public Information Centre No. 1 – June 2018
- Review Projects, Programs and Policies – Summer 2018
- Hold Public Information Centre No. 2 – Fall 2018
- TMP/ATP Report – Fall 2018

How can you remain involved in the Study?

- Request that your name/e-mail be added to the mailing list
- Provide a completed comment sheet
- Contact the City's representative or the consultant at any time

Any of our representatives that are present can assist you with the above activities.

Thank you for your participation in tonight's meeting.

Your input into this study is valuable and appreciated.

Please provide your completed comment form on or before

Thursday, May 10, 2018.

Personal Information contained on the comment form is collected pursuant to the Municipal Freedom of Information and Protection of Privacy Act and will be used for the purpose of responding to your request. Questions about this collection should be directed to the Township Project Manager.

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Appendix C

Post-meeting Correspondence



Township of Leeds and the Thousand Islands Community Café

Thursday, April 26, 2018

Transportation Master Plan / Active Transportation Plan

Thank you for attending tonight's public meeting. Please provide your comments on any of the material presented, including page 2 of this comment sheet to illustrate your thoughts on potential projects, programs and/or policies for the TMP/ATP.

Multiple horizontal lines for writing comments.

(Please turn over if additional space is required.)

Please complete your comment sheet this evening and place in the comment box provided OR send your completed comment sheet by **Thursday, May 10, 2018** to:

Steve Taylor, P.Eng.
BT Engineering Inc.
100 Craig Henry Drive, Suite 201
Ottawa, Ontario K2G 5W3
Tel: (613) 228-4813 Fax: 1 (613) 280-1305
steven.taylor@bteng.ca

Personal Information contained on this form is collected pursuant to the Municipal Freedom of Information and Protection of Privacy Act and will be used for the purpose of responding to your request. Questions about this collection should be directed to the Township Project Manager.

Name / Organization: [Redacted]
Address: [Redacted]
City / Town: [Redacted] Postal Code: [Redacted]
Email address: [Redacted]

Please check a box if you would like to be added to our mailing list to be informed of the publication of the EA. mailing address email

P2

Community Cafe
Thursday, April 26, 2018

Transportation Master Plan / Active Transportation Plan

Please mark in the table below what you think should be a project, program and/or policy.

There can be more than one check for each facility (column).

TMP/ ATP Elements \ Facilities	Roads	Bridges	Active Transportation (Walking, Cycling and Canoeing)	Marine (Docks)
Projects				
Programs				
Policies				

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

POLICY - COLLABORATE WITH ALL GOVERNMENTAL LEVELS OF GOVERNMENT WITHIN THE REGION

TO REALIZE A MUCH BROADER RESULT.



Township of Leeds and the Thousand Islands Community Café

Thursday, April 26, 2018

Transportation Master Plan / Active Transportation Plan

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Address

City / Town Postal Code

Email address

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Township of Leeds and the Thousand Islands Community Café

Thursday, April 26, 2018

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Township of Leeds and the Thousand Islands Community Café

Thursday, April 26, 2018

Transportation Master Plan / Active Transportation Plan

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Education programs for/about active transportation
↳ Also how to limit use of vehicles (use 1 instead of 2)

(Please turn over if additional space is required.)

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Name / Organization: [Redacted]
Address [Redacted]
City / Town [Redacted] Postal Code [Redacted]
Email address [Redacted]

Please check a box if you would like to be added to our mailing list to be informed of the publication of the EA. mailing address email

Sent: April 23, 2018 9:48 PM

To: [Redacted]

Subject: Transportation Master Plan - Community Cafe

I read the draft Transportation Master Plan Study Design Report on your website but, unfortunately, am unable to attend the Community Café schedule for this Thu 26th April. I have signed up to be provided updates as the study progresses.

My wife and I are cottage owners [Redacted] and are very interested in the expected issue of "Canoe routes/boating facilities (an example would be Township boat ramps to access island properties being added or upgraded to include dockage)" on page 4. This hit home as it is something we have desired for the years we have owned the cottage. Easier kayak access to the TIP paved path would be a huge benefit to the island cottagers. Personally, I am a runner and making it more accessible would get me out there more often that I presently do.

As important to islanders are dock facilities - especially for pontoon boats - the work horses of most islanders. This is the lifeline for getting people and supplies to the islands. Having abundant access to dockage where one could leave their boat while running errands, or while away for the week, would serve the tax-paying islanders well. The township definitely needs more dockage in the areas down river from Rockport.

Please consider this in your study.

[Redacted]



Transportation Master Plan / Active Transportation Plan

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure.

After you've had a chance to review the [Draft Study Design Report](#), please tell us what you think.

Guiding Definitions

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

Transportation is not available for youth or seniors to go to main towns or cities. Our seniors are moving out of rural area and villages. Our youth with no transportation can not go to after school activities or go to a job after school, weekends or for the summer.

There needs to be a bus even if it is just 2 or 3 times a day

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

There are not cycle lane/area paved an all our main roads. Just the Parkway
We need it if we want to consider it safe to use bikes. Especially for youth

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

there are no public ramp along the St Lawrence river with a dock. Need one to go park your trailer and car/truck. There are no public parking available



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Roads - please describe any projects, programs or policies you would like to see implemented.

This concerns both 'roads' and 'active transportation' - If a road has access to, or, is adjacent to, a 'bike path' pedestrians should be required to use this or be fined. Many times I've had to swerve for bicyclist that are traveling on the 'Thousand Island Parkway' rather than the newly paved bike path. I've heard that people walking in groups block the path, that is why they chose the roadway. Directional arrows painted on the path to indicate two way traffic that would allow bicyclist to pass, over take, walkers. Also signs on the roadway to impose fines for not using the bike path.

Bridges - please describe any projects, programs or policies you would like to see implemented.

A wider , maybe even paved, shoulder at both ends of the bridges along the 'Thousand Island Parkway' to accommodate tourists photographing and families with kids fishing. Stairs at either end to the lower abutment that has been extended out a little for fishing and viewing, photographing, on the St. Lawrence side. This would help keep the touring public away from delicate ecosystem areas.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

This concerns both 'roads' and 'active transportation' - If a road has access to, or, is adjacent to, a 'bike path' pedestrians should be required to use this or be fined. Many times I've had to swerve for bicyclist that are traveling on the 'Thousand Island Parkway' rather than the newly paved bike path. I've heard that people walking in groups block the path, that is why they chose the roadway. Directional arrows painted on the path to indicate two way traffic that would allow bicyclist to pass, over take, walkers. Also signs on the roadway to impose fines for not using the bike path.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



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Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

The top of King St at the stop sign needs to be shaved down along the stone wall so we can see around the corner.

PAVE the shoulders! We keep hearing about towns that have completed this and trails through their towns for bikes and pedestrians. Why are we not important enough?

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

Bicycling ways such as paved shoulders need to be extended to catch up with the needs of our people and tourism and events. We need a bike shop.

With the lose of the bank. a lot of people on minimal incomes who cannot afford to drive or pay taxis all the time will need an easy use commuter system to the other towns.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

The problem of giant docks {that pay taxes} go directly against the warm and fuzzy needs of the people who value the land with some natural character left intact.



Transportation Master Plan / Active Transportation Plan

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure.

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Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

subject: reduce speed limit from 80 km to 60 km
location: to include this span from before the bend at 948 County Road 2 East, Lansdowne straight through to the other side of Rapid Valley
reason: this is a EDR and when traffic is rerouted the intersection where County Rd 2 meets up with County Rd 3 at Rapid Valley, becomes congested.
By reducing the speed limit sooner will help the flow of the traffic at this intersection, give drivers more reactive time when congestion is building up, as well as, there are a number of residents on this straight who have children taking the school buses. When the traffic is rerouted it becomes even more dangerous for children waiting outside for the buses to be pick up for school and/or dropped off.

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

YES! Safety improvements for intersections (improved visibility or operation) such as the Lansdowne County Road intersection (Prince Street/ King Street West/ King Street East)

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



Transportation Master Plan / Active Transportation Plan

The Township of Leeds and the Thousand Islands has initiated a Study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation related infrastructure.

After you've had a chance to review the [Draft Study Design Report](#), please tell us what you think.

Guiding Definitions

Projects: A project would be a site specific physical change to a road, bridge, path, sidewalk, dock, etc.

Programs: A program would be a future initiative such as public education.

Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

Absolutely NO bicycles allowed at any time on the 1000 islands parkway. They have a bicycle path to use. It is to dangerous to be riding a bike on a highway where 80km is the limit. This is just common sense.

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

Absolutely NO bicycles allowed at any time on the 1000 islands parkway. They have a bicycle path to use. It is to dangerous to be riding a bike on a highway where 80km is the limit. This is just common sense.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



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Roads - please describe any projects, programs or policies you would like to see implemented.

Now that the bike path on the parkway has been rejuvenated and is safe/ in good condition I think there should be a no bikes on the parkway rule - since they have a great and safe bike path to use. I often see vehicles whizzing past bikes at high speed and Worry that something is going to happen one day..

Bridges - please describe any projects, programs or policies you would like to see implemented.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

There are very few / no locations to put a canoe in or kayak in the water. We live on such a beautiful river with very little access to it as residents. I would love to see canoe and kayak docks/ launch's along the parkway at Landon's bay, greys beach, mallorytown etc....

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



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Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

I would like to see a policy in effect that deals with large trucks being parked on roads in the settlement area. We have an issue in Lyndhurst that occurs every weekend when a large (53 ft) truck is parked on one of our residential streets. It is unsightly, creates traffic flow problems and considerable noise when it arrives and leaves.

I have heard this is a problem in Seeleys Bay as well as Lansdowne and was surprised to learn there was not currently any bylaw or policy in place to deal with this.

Bridges - please describe any projects, programs or policies you would like to see implemented.

The Lyndhurst Bridge is a lovely historic part of the community but since it doesn't have a safe walking or cycling area, it becomes a dangerous connection between one side of the village and the other.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

I would love to see safer walking and cycling paths along all of our roadways.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.



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Policies: A policy would be an approach that Council could consider for standards such as sidewalk width, accessibility, road surface, etc.

Roads - please describe any projects, programs or policies you would like to see implemented.

Safe cycling through the addition of a narrow paved strip on the right side of the white line.

Bridges - please describe any projects, programs or policies you would like to see implemented.

I would like to see consideration for the transportation of wildlife in this Master Plan; not necessarily as a main point of focus, but rather when a construction project presents an opportunity. The Township of Leeds and the Thousand Islands is a highly bio-diverse area in eastern Ontario and it would be logical to incorporate improvements for safe wildlife road crossings when bridge work is done to increase safety for human transportation.

Active Transportation (walking, cycling, canoeing) - please describe any projects, programs or policies you would like to see implemented.

Identification of streams that are suitable for canoeing / kayaking and safe access points.

Messaging to ensure people know how to reduce the risk of transferring invasive species when entering waterways.

Marine (docks) - please describe any projects, programs or policies you would like to see implemented.

A dock and improved access along a 1000 Islands Parkway rest-stop near Rockport?

Ministry of Transportation

Ministère des Transports

Planning and Design Section
1355 John Counter Boulevard
Postal Bag 4000
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Section de la planification et de la conception
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Tél: 1-800-267-0295
Télééc: 613 540-5106



January 9, 2019

Steve Taylor, EA Project Manager, BT Engineering Inc.
Via email

RE: Stakeholder Meeting Notes from September 25, 2018
Township of Leeds and 1000 Islands Transportation Master Plan/Active Transportation Plan

Dear Mr. Taylor,

Thank you for circulating the summary notes from the Stakeholder meeting on September 25, 2018 regarding the Township of Leeds and 1000 Islands Transportation Master Plan and Active Transportation Plan. I wanted to take the opportunity to provide some additional information and context to the comments in the minutes related to the Ministry of Transportation infrastructure.

Reynolds Road Structure over Highway 401 and Interchange:

The Reynolds Road structure is reaching the point in its lifecycle where it requires rehabilitation. The Ministry is in the process of detail design and preparing a contract package for rehabilitation of this structure. The design is underway now, the project notification is planned to be published in early January 2019. The targeted timeline for construction is in 2019 and 2020, but will depend on the completion of the design, environmental assessment process and obtaining funding. The rehabilitation scope will include replacement of the barrier walls on the structure which will not appropriately accommodate a separated multi-use pathway, but will increase the existing 767 mm paved shoulder on the bridge to a 1500 mm paved shoulder in both the northbound and southbound direction. Typically, the next opportunity to change the footprint of the structure and the interchange ramp configuration would be when the structure is replaced in approximately 20 to 30 years.

Highway 15 intersections at Seeley's Bay:

The ministry continues to monitor these intersections for safety and operations, at this point there are no plans to change the illumination or add additional turning lanes. We would like to discuss further to better understand the concerns at these intersections.

1000 Islands Parkway/Waterfront Trail improvements:

The ministry has a design underway for improvements to the connection and parking area at the Gananoque carpool lot to provide a washroom and potable water connection for cyclists and

other users of the Waterfront Trail. The Town of Gananoque has been consulted on this improvement as it requires a connection to the town water main. The timing for the work will depend on the availability of funding and the completion of design and approvals.

Additionally the Ministry has been working with the St. Lawrence Parks Commission to improve the connection of the waterfront trail at the east end of the parkway, improvements discussed at that end of the trail include parking, washroom, and improving the sight distance and visibility of the crossing location to connect the separated trail along the parkway with the extension along Butternut Bay Road. The timing for this work will also depend on the availability of funding and the completion of design and approvals.

The Ministry of Transportation is interested in the development of the Leeds and the 1000 Islands Transportation Master Plan and Active Transportation Plan; we are interested in working with the Township to provide connectivity for Active Transportation.

If you have any questions or comments on the information provided please contact either Stephen Kapusta, Corridor Planner, or Melissa Buelow, Area Manager Highway Engineering at the Ministry of Transportation.

Sincerely,

Melissa Buelow, P. Eng.
Area Manager Highway Engineering

Cc: Stephen Kapusta, MTO Corridor Planner
Kim Goodman, Township of Leeds and the 1000 Islands
Jennifer Tarini, St. Lawrence Parks Commission
Dan Brandao, MTO Project Engineer (Reynolds Road Rehabilitation)
Ryan Vandenberg, MTO Project Manager (Waterfront Trail Improvements)



TRANSPORTATION MASTER PLAN /
ACTIVE TRANSPORTATION PLAN

Appendix C
Road Design Standards

The Township of Leeds and the Thousand Islands Transportation Master Plan/ Active Transportation Plan Road Design Standards

FINAL



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July 14, 2019

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1.0 INTRODUCTION

This report provides a basis of the roadway design standards proposed for use in the Township of Leeds and the Thousand Islands (TLTI). The development of these roadway engineering design standards has involved a review of the best practices of Canadian road authorities (Transportation Association of Canada) and current facilities in Canada. These standards should be considered as a desirable baseline, and depending on property and cost constraints, should be exceeded whenever possible. Design consistency for geometric elements of the roadway design will provide improved safety and familiarity for drivers.

Within the Township, the single greatest issue for the long term durability of the road network is drainage. In constrained road right-of-way's, ditches may not exist, or where they do exist, may not have an elevation below the granular layers of the pavement structure to create an outlet to ensure free drainage. When designing new or rehabilitated sections of road within the Township, designers are encouraged to apply all design standards and acquire property where required to achieve effective road drainage. This will ensure long term durability of the roadway and reduce operational and maintenance costs.

2.0 DESIGN SPEED

When designing a roadway, a primary objective is to satisfy the demands for service in the safest and most economical manner with particular attention given to vehicular speed. The operating speed of a vehicle depends on the driver's desired speed of travel, vehicle limitations and four other general conditions. These conditions are: speed limitations whether legal or due to control devices; climate conditions; presence of other vehicles on the roadway; and the physical characteristics of the roadway and its adjacent land use. Design speed is a function of this last condition (physical characteristics of the roadway).

Determining a design speed is the first step in geometric design. The design speed should be determined considering factors such as topography, adjacent land use and type of roadway i.e. classification of the roadway considering adjacent land uses. Once selected, all geometric design elements of the roadway should reflect the design speed to obtain a balanced and consistent design. Features governed by design speed include but are not limited to horizontal and vertical curvature, lane and shoulder widths, superelevation and sight distance.

Since all geometric design elements are interrelated through design speed, it is important to maintain consistency when designing/redesigning roadway design elements. Based on the design speed, minimum standard values are specified for geometric elements. Values above the minimum standard are normally recommended wherever terrain and economic limitations are not governing factors.

Many factors influence and constrain the selection of design speed for a given roadway facility classification. These factors include traffic conditions (volumes, composition and trip length), terrain characteristics, population density, adjacent land development, and adjacent environmental conditions as well as aesthetics and economics. Design speed should reflect the speed a driver is likely to expect on

the roadway. Design speed should desirably be 10-20 km/h greater than the posted speed. **Table 1** to **Table 4** lists the minimum standards for the geometric design elements associated with design speed. Choosing a posted and design speed should also consider the use of the roadway for pedestrians and cyclists.

Design Speed (km/h)	Minimum ^a Curve Radius (m)	Minimum Stopping Sight Distance (m)	Minimum ^b Crest Curve Parameter K (m)	Minimum ^c Sag Curve Parameter K (m)	Minimum ^d Sag Curve Parameter in Illuminated Areas K (m)	Minimum ^e Stopping Sight Distance for Trucks (m)
40	55	50	4	9	4	60 - 70
50	90	65	7	13	5	85 - 110
60	130	85	11	18	8	105 – 130
70	190	105	17	23	12	135 – 180
80	250	135	26	30	15	155 – 210
90	340	160	39	38	20	190 – 265
100	440	185	52	45	25	235 – 330
110	600	220	74	55	25	260 – 360
120	750	250	95	63	30	N.A

- a) Minimum Curve Radius based on maximum superelevation of 0.06 m/m
- b) Minimum Curve Parameter based on stopping sight distance
- c) Minimum Curve Parameter based on stopping sight distance
- d) Based on comfort criteria – use in illuminated areas only when stopping sight distance requirements are met.
- e) Stopping Sight Distance for trucks with conventional braking systems

Design Year Traffic (No. of vehicles)		Design Speed (km/h)	Curves			Max. Grade (%)	Width (m)	
AADT	DHV		Min. Hor. R (m)	Min. K-Crest	Vert. K-Sag		Lane	Shoulder
4000 & Up	600 & Up	120	750	95	63	3	3.6	3.00
		110	600	74	55	3	3.6	2.50 (a)
		100	440	52	45	3-5	3.6	2.50 (a)
		90	340	39	38	4-5	3.50 (a)	2.50
		80	250	26	30	4-5	3.50	2.50
3000 to 4000	450 to 600	110	600	74	55	3	3.6	2.50 (a)
		100	440	52	45	3-5	3.50 (a)	2.50
		90	340	39	38	4-5	3.50 (a)	2.50
		80	250	26	30	4-5	3.50	2.50
		70	190	17	23	6	3.25	2.0
2000 to 3000	300 to 450	110	600	74	55	3	3.6	2.50
		100	440	52	45	3-5	3.50 (b)	2.50

Design Year Traffic (No. of vehicles)		Design Speed (km/h)	Curves			Max. Grade (%)	Width (m)	
AADT	DHV		Min. Hor. R (m)	Min. K-Crest	Vert. K-Sag		Lane	Shoulder
		90	340	39	38	4-5	3.50	2.00 (b)
		80	250	26	30	4-5	3.25	2.00
		70	190	17	23	6	3.25	2.00
1000 to 2000	150 to 300	110	600	74	55	3	3.50 (c)	2.50
		100	440	52	45	3-5	3.50	2.00 (c)
		90	340	39	38	4-5	3.25	2.00
		80	250	26	30	4-5	3.25	2.00
		70	190	17	23	6	3.00	1.00
400 to 1000	60 to 150	60	130	52	18	6	3.00	1.00
		100	440	52	45	3-5	3.50	1.00
		90	340	39	38	4-5	3.25	1.00
		80	250	26	30	4-5	3.25	1.00
		70	190	17	23	6	3.00	1.00
Less than 400	Less than 60	60	130	11	18	6	3.00	1.00
		80	250	26	30	4-5	3.25 (e)	1.00d
		70	190	17	23	6	3.00	1.00d
		50	90	7	13	7	2.75	1.00d

Four lanes are to be considered where there is a measurable capacity deficiency with only two lanes.

- (a) if number of trucks \geq 10%, increase by one increment
- (b) if number of trucks \geq 15%, increase by one increment
- (c) if number of trucks \geq 25%, increase by one increment

Lane width increment: 0.1-0.25 m Shoulder width increment: 0.25 m

- (d) 0.5 m shoulder will be permitted where there is no foreseeable possibility of the road being paved within a 20-year period (Note: 1.0 m shoulder must be used where guard rail installed)
- (e) A 3.0 m lane width may be acceptable where type size and volume of trucks are not significant

Design Year Traffic (No. of vehicles)		Design Speed (km/h)	No. of Lanes	Lane Width (m)	Parking Lane Width (m)	Bicycle Lane Width (m) ^b	Minimum Curb to Curb Distance (m)	Maximum Grade (%)
AADT	DHV							
6000 and Up	600 and up	80	4	3.5-3.6		2.5	14.0	5
		60-70	4	3.5		1.5 ^b	14.0	5-6
3000 to 6000	300 to 600	60-70	4 ^a	3.5		1.5 ^b	14.0	5-6
		80	2	3.5-3.6	2.5-3.0	1.5 ^b	10	5
2000 to 3000	200 to 300	60-70	2	3.5	2.5-3.0	1.5 ^b	10	5-6
		80	2	3.5	2.5-3.0	1.5 ^b	9.5	5-6

Table 3: Preliminary Geometric Design Standards for Undivided Urban Roadways (TAC, 2017)

Design Year Traffic (No. of vehicles)		Design Speed (km/h)	No. of Lanes	Lane Width (m)	Parking Lane Width (m)	Bicycle Lane Width (m) ^b	Minimum Curb to Curb Distance (m)	Maximum Grade (%)
AADT	DHV							
		50	2	3.0	2.5-3.0	1.5 ^b	9	6-8
1000 to 2000	100 to 200	60-70	2	3.25	2.5-3.0	1.5 ^b	9.5	5-6
		50	2	3.0	2.5-3.0	1.5 ^b	9	6-8
less than 1000	less than 100	40-50	2	2.75-3.0	2.5-3.0	1.5 ^b	8.5	6-8

- a) Four lanes are appropriate in the upper limit of this traffic range where there is a measurable capacity deficiency with only two lanes.
- b) Where vehicle speed <70 km/h

Table 4: Preliminary Geometric Design Standards for Divided Urban Roadways (TAC, 2017)

Design Year Traffic		Design Speed (km/h)	No. of Lanes	Lane Width (m)	Parking Lane Width (m)	Median Width (m)	Bicycle Lane Width (m) ^b	Minimum Curb to Curb Distance (m)	Maximum Grade (%)
AADT	DHV								
10,000 and up	1000 and up	80	4	3.5-3.6		1.8-5.0	2.5	14.0	3
		60-70	4	3.5		1.8-5.0	1.5 ^b	14.0	3
6000 - 10,000	600- 1000	80	4	3.5-3.6		1.8-5.0	2.5	14.0	3
		60-70	4	3.5		1.8-5.0	1.5 ^b	14.0	3
3000 to 6000*	300 to 600	60-70	4 ^a	3.5		1.8-5.0	1.5 ^b	14.0	3
		80	4	3.5-3.6	2.5-3.0	1.8-5.0	1.5 ^b	14.0	3
		60-70	4	3.5	2.5-3.0	1.8-5.0	1.5 ^b	14.0	3

- a) Four lanes are appropriate in the upper limit of this traffic range where there is a measurable capacity deficiency with only two lanes.
- b) Where vehicle speed <70km/h

3.0 DESIGN HOUR VOLUME

Many traffic analysis methods use peak hour traffic volumes to represent the critical period for operations on the road facility. However, the peak hour volume is not consistent from day-to-day or even season-to-season.

For rural roadways, a wide variation in peak hour volume can be observed. For these facilities, high volumes typically occur on a few selected weekends through the year. This is because the traffic stream consists of only a small number of daily/frequent road users and major traffic spikes are the result of seasonal recreational activities.

Urban roadways have lower variations in peak hour traffic values. This is because the majority of road users are daily commuters; therefore the road facility is regularly operating under similar traffic demands throughout the year. Additionally, urban routes are generally filled to capacity during peak hours and variation in peak hour volumes is therefore limited.

The design hour volume should be selected in consultation with the Township. The objective should be to achieve an acceptable level of service (LOS) in the future design year with a design hour volume reflecting the 30th busiest hour of a year, where feasible. For design purposes on Township roads, it can be assumed that the peak hour reflects 10% of the daily volume (AADT) on the roadway.

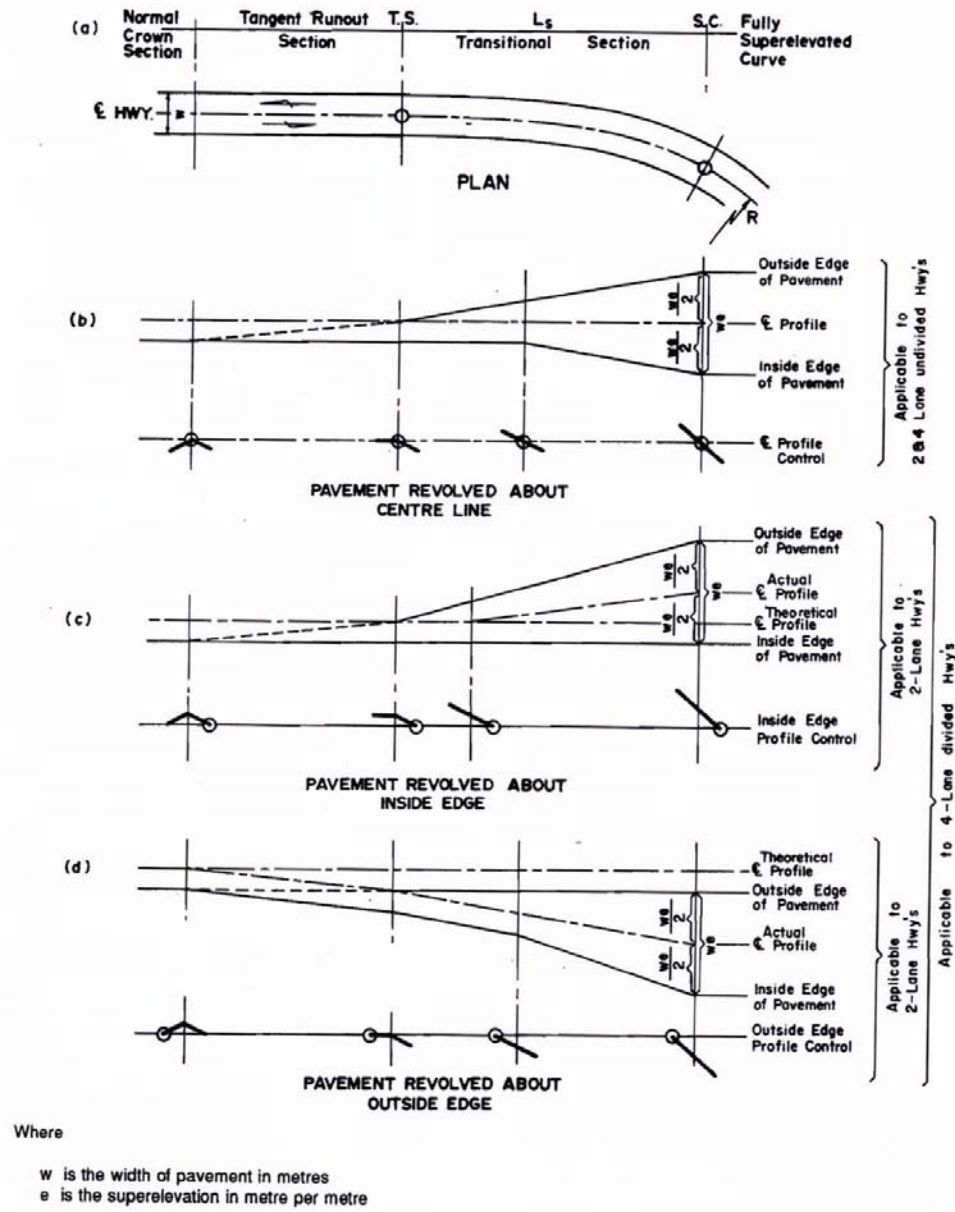
4.0 HORIZONTAL CURVATURE

4.1 Horizontal Curves

The purpose of a horizontal curve is to change the travel direction of a road while maintaining safety and comfort on the roadway. A circular curve is chosen rather than any other type of curve for convenience and ease of driver operation as well as for consistency and simplicity in design. Design factors that affect the safety of a circular curve include superelevation (e - %), superelevation rate (m/m) and radius (R - m). See **Table 1: Alignment Standards** for minimum values of the aforementioned criteria based on design speed.

4.2 Superelevation

Many factors must be considered when determining the maximum superelevation of a roadway. Specific climate conditions, terrain, type of roadside development (rural/urban) and maintenance all play a role in the determination of maximum superelevation. A maximum superelevation rate of 6% is recommended in rural areas and 4% in urban areas. Superelevation is developed on spiral curves when tangents are to be linked to circular curves. The typical development of superelevation from a tangent to a curve is shown in **Figure 1**.



Where
w is the width of pavement in metres
e is the superelevation in metre per metre

Figure 1: Typical Superelevation Development for Spiral Curve (TAC, 2017)

Table 5: Superelevation and Minimum Spiral Parameter for $e_{max} = 6\%$ (TAC, 2017)

Design Speed (km/h)	40		50		60		70		80		90		100		110		120		130		
	e	A	e	A	e	A	e	A	e	A	e	A	e	A	e	A	e	A	e	A	
Radius (m)																					
7000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	RC	RC	RC	RC
5000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC
4000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC
3000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC
2000	NC	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
1500	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
1200	NC	NC	NC	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
1000	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
900	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
800	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
700	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
600	NC	NC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
500	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC	RC
400	0.023	90	0.027	100	0.031	110	0.035	120	0.039	130	0.043	140	0.047	150	0.051	160	0.055	170	0.059	180	0.063
350	0.025	90	0.029	100	0.033	110	0.037	120	0.041	130	0.045	140	0.049	150	0.053	160	0.057	170	0.061	180	0.065
300	0.028	80	0.032	90	0.036	100	0.040	110	0.044	120	0.048	130	0.052	140	0.056	150	0.060	160	0.064	170	0.068
250	0.031	75	0.035	85	0.039	95	0.043	105	0.047	115	0.051	125	0.055	135	0.059	145	0.063	155	0.067	165	0.071
220	0.034	70	0.038	80	0.042	90	0.046	100	0.050	110	0.054	120	0.058	130	0.062	140	0.066	150	0.070	160	0.074
200	0.036	70	0.040	80	0.044	90	0.048	100	0.052	110	0.056	120	0.060	130	0.064	140	0.068	150	0.072	160	0.076
180	0.038	60	0.042	70	0.046	80	0.050	90	0.054	100	0.058	110	0.062	120	0.066	130	0.070	140	0.074	150	0.078
160	0.040	60	0.044	70	0.048	80	0.052	90	0.056	100	0.060	110	0.064	120	0.068	130	0.072	140	0.076	150	0.080
140	0.043	60	0.047	70	0.051	80	0.055	90	0.059	100	0.063	110	0.067	120	0.071	130	0.075	140	0.079	150	0.083
120	0.046	60	0.050	70	0.054	80	0.058	90	0.062	100	0.066	110	0.070	120	0.074	130	0.078	140	0.082	150	0.086
100	0.049	50	0.053	60	0.057	70	0.061	80	0.065	90	0.069	100	0.073	110	0.077	120	0.081	130	0.085	140	0.089
90	0.051	50	0.055	60	0.059	70	0.063	80	0.067	90	0.071	100	0.075	110	0.079	120	0.083	130	0.087	140	0.091
80	0.054	50	0.058	60	0.062	70	0.066	80	0.070	90	0.074	100	0.078	110	0.082	120	0.086	130	0.090	140	0.094
70	0.056	50	0.060	60	0.064	70	0.068	80	0.072	90	0.076	100	0.080	110	0.084	120	0.088	130	0.092	140	0.096
60	0.059	50	0.063	60	0.067	70	0.071	80	0.075	90	0.079	100	0.083	110	0.087	120	0.091	130	0.095	140	0.099
	0.059	50	0.060	60	0.061	70	0.062	80	0.063	90	0.064	100	0.065	110	0.066	120	0.067	130	0.068	140	0.069

- Notes:
- e is superelevation
 - A is spiral parameter in metres
 - NC is normal cross section
 - RC is remove adverse crown and superelevate at normal rate
 - Spiral length, $L = A^2 / \text{Radius}$
 - Spiral parameters are minimum and higher values may be used
 - For 6 lane pavement: above the dashed line use 4 lane values, below the dashed line, use 4 lane values x 1.15.
 - A divided road having a median less than 3.0 m wide may be treated as a single pavement.

$e_{max} = 0.06$

5.0 VERTICAL ALIGNMENT

The main purpose of a vertical curve is to provide a smooth and gradual transition between various vertical alignment grades. Parabolas are used when designing vertical crest and sag curves. Crest curves generally link two tangent sections where the grade transitions from positive to negative, positive to a lesser positive, or negative to a steeper negative (**Figure 2**). Sag curves occur where a negative grade is followed by a positive grade, a negative is followed by a lesser negative, or a positive is followed by a steeper positive (**Figure 3**). The use of parabolic curves for vertical curvature design allows consistent sight distance to be maintained due to the fact that it is constant on crest vertical curves. A second advantage of the parabolic curve is that its calculation is much simpler than any other types of curves (including circular). The most significant design parameters for vertical curves include sight distance, curve parameter and maximum grade (see **Table 1** for minimum alignment values given design speed).

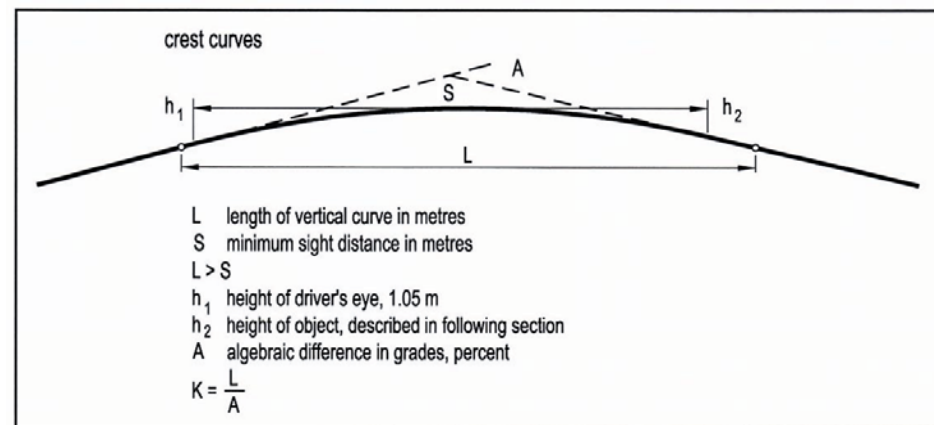


Figure 2: Sight Distance on Crest Vertical Curve (TAC, 2017)

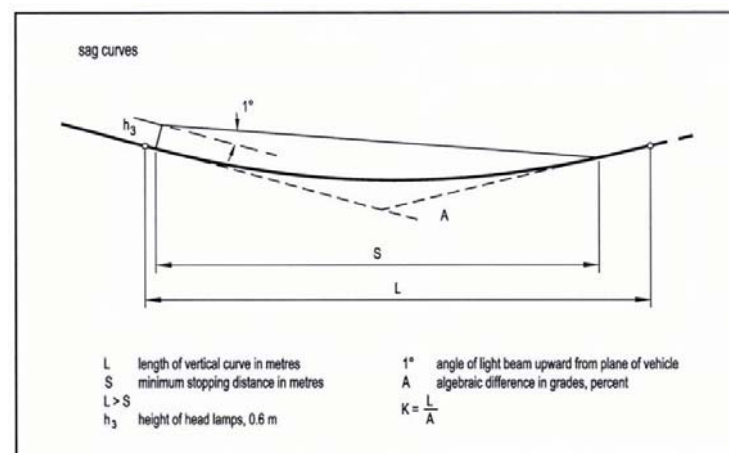


Figure 3: Stopping Sight Distance on Sag Vertical Curve (TAC, 2017)

6.0 MAXIMUM GRADE

The steepness of a gradient on a tangent is expressed as a percentage which represents the number of vertical metres travelled (rise or fall) over a horizontal distance of 100 m. This percentage is known as the grade; positives are termed upgrades and negatives as downgrades. The maximum grade for a specific segment of road will depend on a number of considerations including road classification, traffic operation, terrain, costs, property and environmental implications. When considering grade on a segment of road it is desirable to use values lower than the values provided in the geometric design tables. There may also be scenarios where one must use values exceeding the maximum recommended design grade. This should be done very rarely and with rigorous assessment of the resulting safety of the roadway. Refer to **Table 2** to **Table 4** for the Maximum Grade design guide.

7.0 LANE WIDTH

Lane width and road conditions play a large part in roadway safety. The capacity of a roadway is a function of the width of a lane. Generally, the width of a travel lane can vary from 2.7 m to 3.6 m. Variables affecting the determination of a roadway lane width include anticipated design speed, design volume and design vehicles. On high-speed, high-volume roadways, 3.6 m lane widths are most predominantly used. These wider lanes provide desirable clearances between larger commercial vehicles travelling in opposite directions on two-lane, two-way rural roadways, particularly when high volumes and high percentages of commercial and large vehicles are projected. The function of a roadway lane is to accommodate vehicles (up to 2.8 m), accommodate wheel tracking and provide lateral space from hazards (curbs, opposing vehicles etc.). Refer to **Table 2** to **Table 4** for the Lane Width design guide.

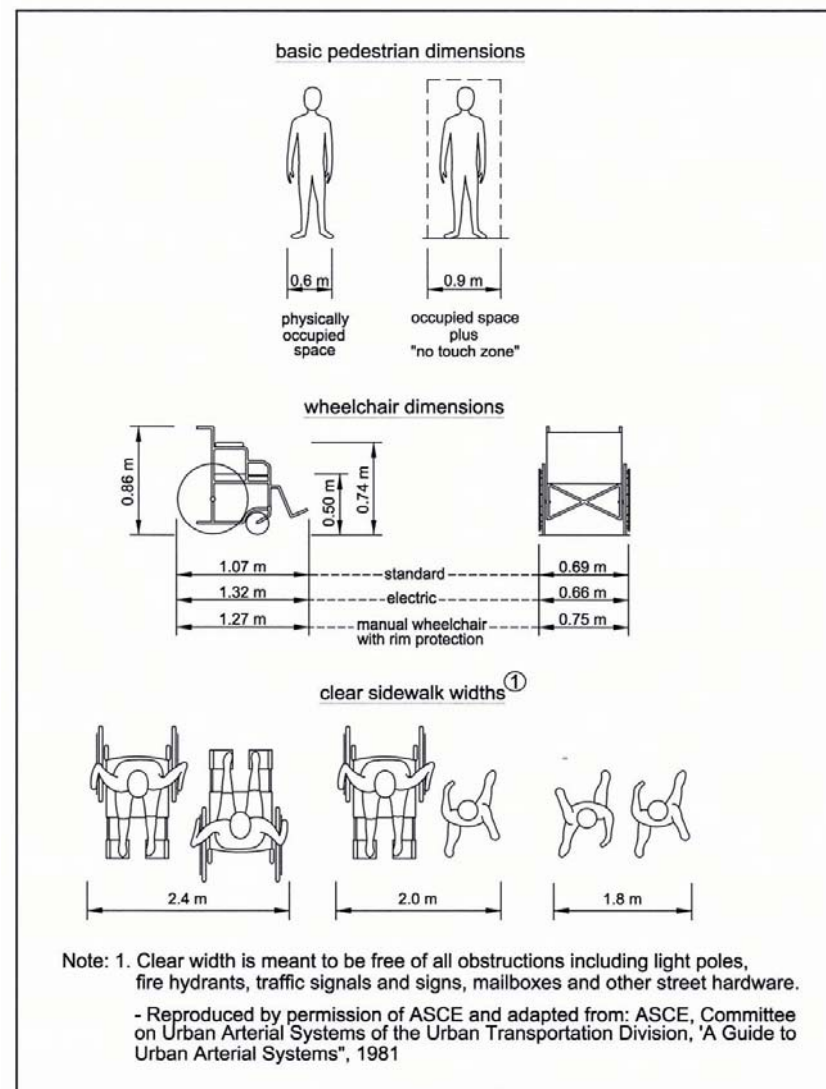
8.0 SHOULDER WIDTH

The shoulder of a roadway is the section adjacent to the traffic lanes. Its main purpose is to provide a recovery area for errant vehicles, refuge for stopped or disabled vehicles, provide ease of travel for emergency vehicles when there is heavy traffic, accommodate cyclists and pedestrians when no other facilities are available, and provide lateral support for the roadway structure. Shoulders may also be used for bus bays to allow busses to stop while not disturbing the flow of traffic in adjacent lanes. Where partially paved shoulders are to be provided, a width of 0.5 m closest to the adjacent travel lane will be hard surfaced while the remaining shoulder area will be gravel where identified on a cycling route. Refer to **Table 2** for the Shoulder Width design guide.

9.0 BOULEVARDS AND SIDEWALK WIDTH

The area located between the roadway and the sidewalk is known as the boulevard. The main purpose of this roadway feature is to serve as a safety separation for utility lines, traffic signs, light posts and various other design elements. The width of a boulevard is dependent on the road classification. Arterials roads have a 3.0 m sidewalk width standard; collectors shall have a standard width of 2.0 m and local street a minimum of 1.0 m width. The minimum width for a sidewalk is 1.5 m. Sidewalks should be provided where there is any form of pedestrian traffic. The minimum sidewalk width shall be

widened by an additional 0.5 m if the sidewalk is placed directly against the curb. This additional width is to give pedestrians safe clearance from traffic and opening car doors. Sidewalks offering access to hospitals and nursing homes should have a minimum width of 2.0 m to accommodate persons in wheelchairs. Commercial areas or areas with higher pedestrian volumes are to have a minimum sidewalk width of 2.4 m. Sidewalks adjacent to a bus bay have a typical width of 3.0 m to allow pedestrians to pass freely while also accommodating waiting passengers. Lateral sidewalk clearance is also applicable for cases where the pathway is adjacent to retaining walls, fences or other similar facilities. Slope of sidewalk is 2%. Refer to **Figure 4** for typical requirements and dimensions.



Source: Sept 1999 Edition of the TAC manual (Geometric Design Guide for Canadian Roads - Chapter 2.2
-Cross Section Elements - Figure 2.2.6.3

Figure 4: Sidewalk Requirements and Typical Dimensions

10.0 CYCLE LANE AND MULTIUSE PATHWAY WIDTH

Lane-marked cycle lanes are usually accommodated along the shoulder of the roadway travelling in the same direction as the adjacent vehicular traffic. The lane marking's main purpose is to provide refuge for cyclists travelling along the roadway and to alert drivers as to where potential cyclists may be situated. For road facilities with a design speed of less than 70 km/h, a 1.2–1.5 m cycle lane width is recommended. For a design speed higher than 70 km/h, a cycle lane width/paved shoulder of 2.5–3.0 m is recommended (see **Table 3** and **Table 4**). A Multi-use Pathway (MUP) has a minimum standard width of 3.0 m for a two-direction pathway.

11.0 RIGHT-OF-WAY WIDTH

The right-of-way (ROW) is the area of property established to accommodate a road as well as its associated features and elements. The ROW can be established as the width required to contain all the various components of the roadway facility added together. This includes roadway width, median, sidewalks, boulevards, detaching cut/fill slopes and all landscaping elements. The ROW may also vary along a stretch of road depending on the number of lanes, grading, clear zone and drainage (ditches/canals); **Figure 5** and **Figure 6** illustrate examples of possible ROW compositions.

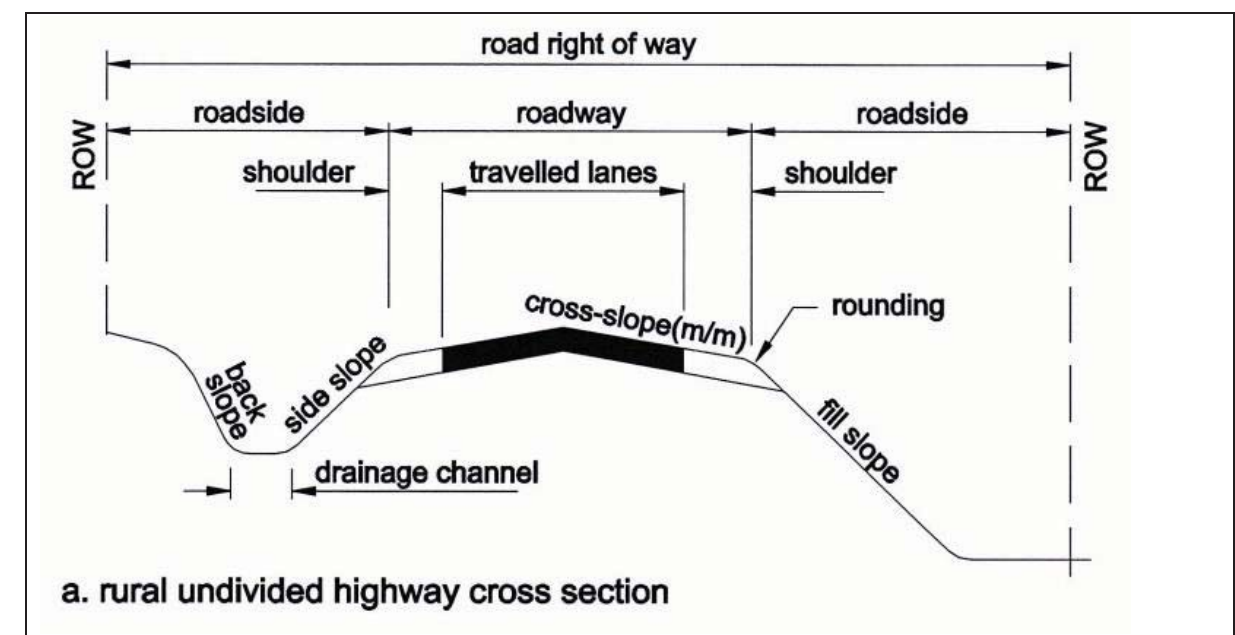


Figure 5: Rural Roadway Cross Section Elements (TAC, 2017)

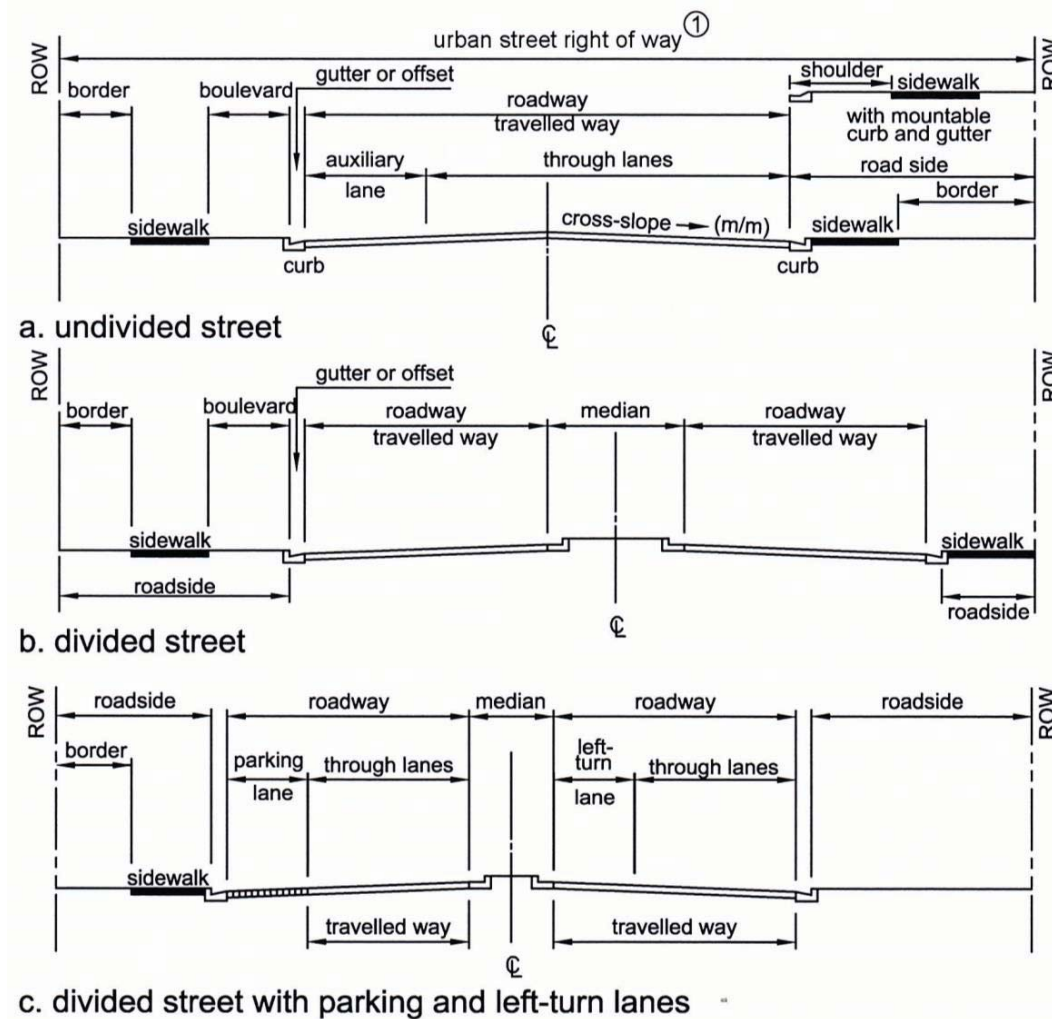


Figure 6: Urban Roadway Cross Section Elements (TAC, 2017)

12.0 CLEAR ZONE

The term “clear zone” is used to designate the unobstructed, traversable area provided beyond the edge of the travelled way for the recovery of errant vehicles. This zone includes shoulders, bicycle lanes, and auxiliary lanes unless the auxiliary lane functions as a through lane. The main purpose of the clear zone is to provide contingency recovery area to reduce the potential for collisions with obstructions inside or outside the ROW. All clear zone design for Roadways should follow the 2017 TAC Guide represented in **Table 6** and **Figure 7: Clear Zone Distance Curves**.

Design Speed	Design ADT	Fill Slopes			Cut Slopes		
		1:6 or Flatter	1:5 to 1:4	1:3 or larger	1:3 or larger	1:5 to 1:4	1:6 or Flatter
60 km/h or less	Under 750	2.0 - 3.0	2.0 - 3.0	b	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
	750 - 1500	3.0 - 3.5	3.5 - 4.5	b	3.0 - 3.5	3.0 - 3.5	3.0 - 3.5
	1500 - 6000	3.5 - 4.5	4.5 - 5.0	b	3.5 - 4.5	3.5 - 4.5	3.5 - 4.5
	Over 6000	4.5 - 5.0	5.0 - 5.5	b	4.5 - 5.0	4.5 - 5.0	4.5 - 5.0
70 - 80 km/h	Under 750	3.0 - 3.5	3.5 - 4.5	b	2.5 - 3.0	2.5 - 3.0	3.0 - 3.5
	750 - 1500	4.5 - 5.0	5.0 - 6.0	b	3.0 - 3.5	3.5 - 4.5	4.5 - 5.0
	1500 - 6000	5.0 - 5.5	6.0 - 8.0	b	3.5 - 4.5	4.5 - 5.0	5.0 - 5.5
90 km/h	Under 750	3.5 - 4.5	4.5 - 5.5	b	2.5 - 3.0	3.0 - 3.5	3.0 - 3.5
	750 - 1500	5.0 - 5.5	6.0 - 7.5	b	3.0 - 3.5	4.5 - 5.0	5.0 - 5.5
	1500 - 6000	6.0 - 6.5	7.5 - 9.0	b	4.5 - 5.0	5.0 - 5.5	6.0 - 6.5
	Over 6000	6.5 - 7.5	8.0 - 10.0 ^a	b	5.0 - 5.5	6.0 - 6.5	6.5 - 7.5
100 km/h	Under 750	5.0 - 5.5	6.0 - 7.5	b	3.0 - 3.5	3.5 - 4.5	4.5 - 5.0
	750 - 1500	6.0 - 7.5	8.0 - 10.0 ^a	b	3.5 - 4.5	5.0 - 5.5	6.0 - 6.5
	1500 - 6000	8.0 - 9.0	10.0 - 12.0 ^a	b	4.5 - 5.5	5.5 - 6.5	7.5 - 8.0
	Over 6000	9.0 - 10.0 [*]	11.0 - 13.5 ^a	b	6.0 - 6.5	7.5 - 8.0	8.0 - 8.5
110 km/h	Under 750	5.5 - 6.0	6.0 - 8.0	b	3.0 - 3.5	4.5 - 5.0	4.5 - 5.0
	750 - 1500	7.5 - 8.0	8.5 - 11.0 ^a	b	3.5 - 5.0	5.5 - 6.0	6.0 - 6.5
	1500 - 6000	8.5 - 10.0 [*]	10.5 - 13.0 ^a	b	5.0 - 6.0	6.5 - 7.5	8.0 - 8.5
	Over 6000	9.0 - 10.5 [*]	11.5 - 14.0 ^a	b	6.5 - 7.5	8.0 - 9.0	8.5 - 9.0

- a) Where a site specific investigation indicates a high probability of continuing accidents, or such occurrences are indicated by accident history, the designer may provide clear zone distances greater than 9 m as indicated. Clear zones may be limited to 9 m for practicality and to provide a consistent roadway template if previous experiences with similar projects or designs indicated satisfactory performance.
- b) Since recovery is less likely on the unshielded, traversable 1:3 slopes, fixed objects should not be present in the vicinity of the toe of these slopes. Recovery of high-speed vehicles that encroach beyond the edge of the shoulder may be expected to occur beyond the toe of slope. Determination of the width of the recovery area at the toe of slope should take into consideration right-of-way availability, environmental factors, economic concerns, safety needs and accident histories. Also the distance between the edge of the travel lane and the beginning of the 1:3 slopes should influence the recovery area provided at the toe slope.

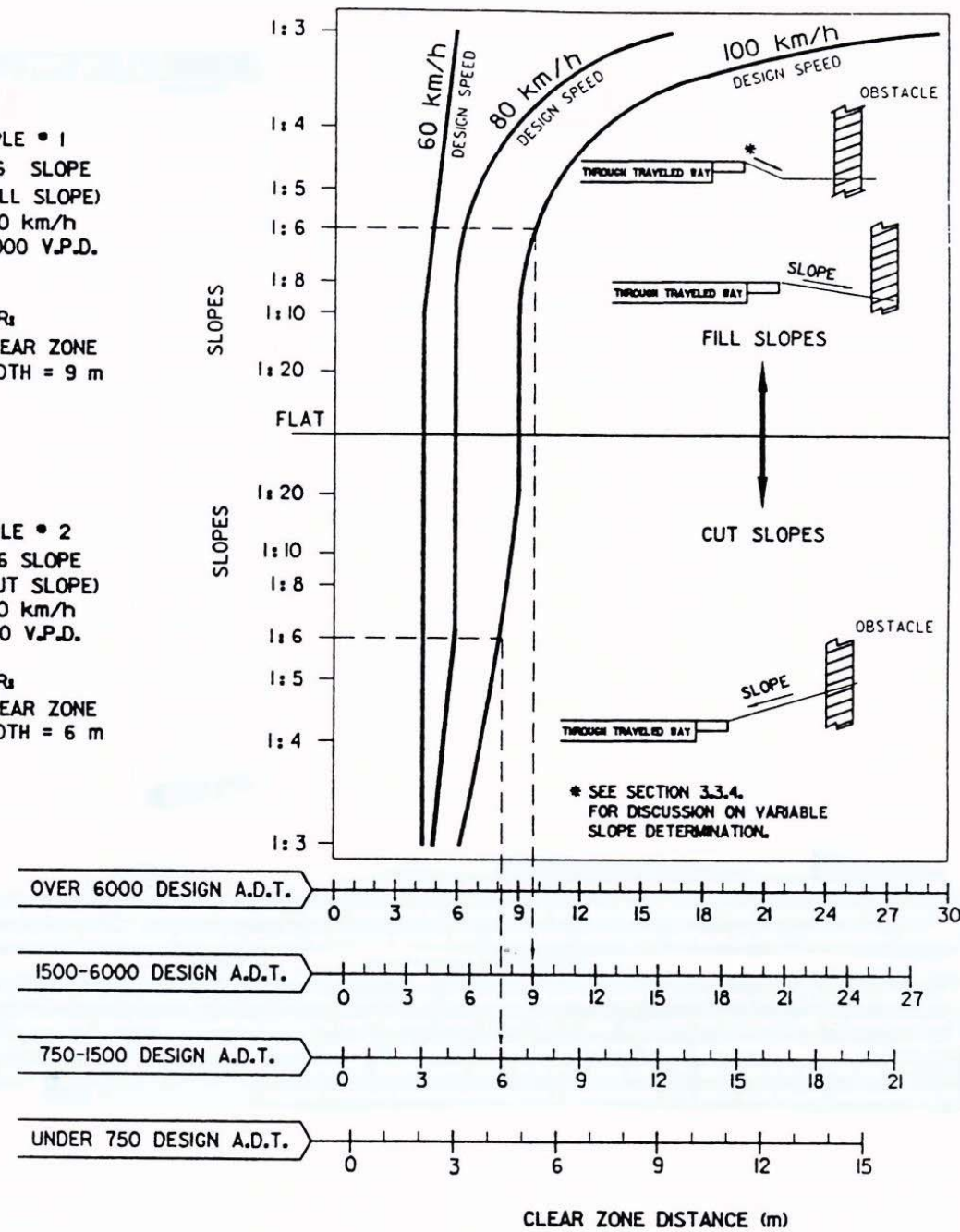


Figure 7: Clear Zone Distance Curves (TAC 2017)

13.0 MAXIMUM DESIGN VEHICLE

13.1 Size (Dimensions)

The Design Vehicle used when determining aspects such as horizontal wheel tracking of heavy trucks is crucial to the usability of the facility. The choice of Design Vehicle governs several geometric factors including minimum turning path as well as lane width. It is therefore vital to accommodate all vehicle types which are predicted to use the future roadway. A CL-625-ONT Truck is used as the design vehicle. For vehicle loading see **Section 13.2**.

13.2 Loads

The Canadian Highway Bridge Design Code (2014) identifies the maximum vehicle design load as CL-625-ONT in Ontario. This vehicle design load uses the CL-W truck as illustrated below. Live Loadings on roadways, bridges, culverts or other incidental structures shall consist of standard trucks or lane loads that are equivalent to truck trains, as described in the Canadian Highway Bridge Design Code, and as illustrated in **Figure 8** to **Figure 10**. The class of loading shall be CL-625-ONT loading. Important allowances shall be applied to allow for dynamic, vibratory and impact effects where required. Other forces such as longitudinal forces, centrifugal forces and other relevant applicable forces shall be accounted for. Any bridge design parameter not covered in this Guide will follow the Canadian Highway Bridge Design Code.

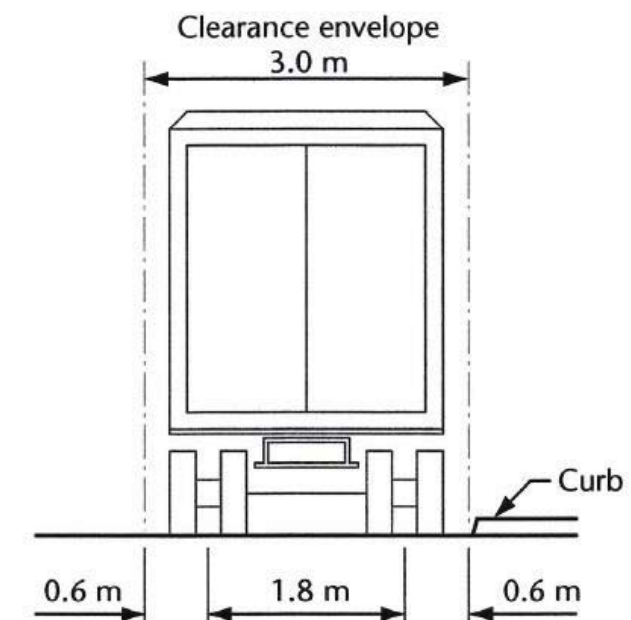


Figure 8: CL-625-ONT Truck Width (CSA, 2014)

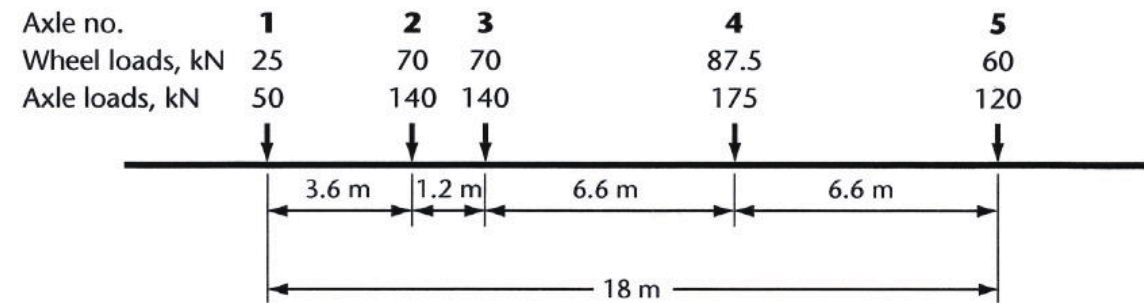


Figure 9: CL-625-ONT Truck (CSA, 2014)

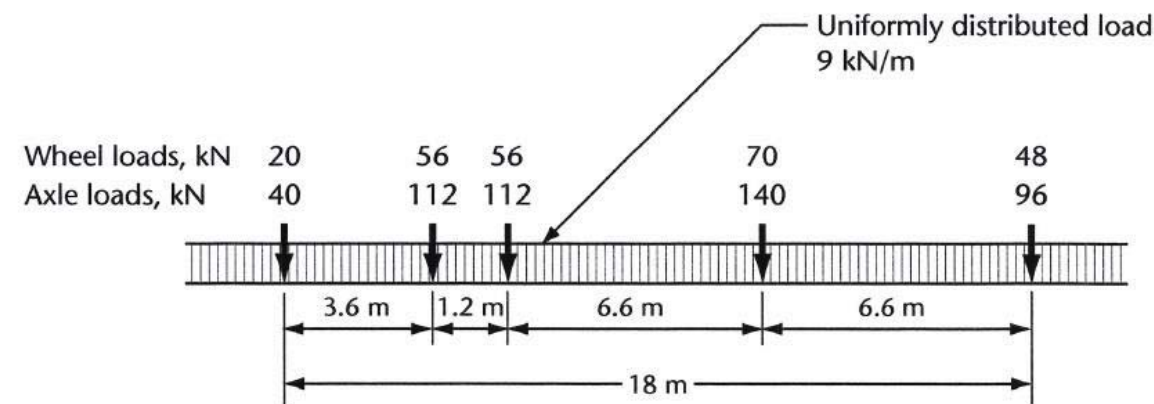


Figure 10: CL-625-ONT Lane Load (CSA, 2014)

14.0 HYDROLOGY DESIGN CRITERIA

14.1 Design Flow and Flood Criteria

The design flow and flood criteria parameters are the hydrologic basis for all surface drainage standards and dictate the size of minor and major drainage systems, including pipes and surface flow. The design flow recommendations for minor and major roadway drainage systems can be found in **Table 7** and **Table 8**.

Functional Road Classifications	Drainage System Type	Design Flow
Arterial (Rural), Collector (Urban and Rural)	Minor System	10-Year
	Major System	100-Year
Local Road (Urban and Rural)	Minor System	5-Year
	Major System	100-Year
Depressed Roadways	Minor System	25-Year
	Major System	100-Year

Road Classification ¹	Bridges and Culverts		Storm Drainage System		Stream Channels
	Total span ² up to 6.0 m	Total span ² over 6.0 m	Minor System ³	Major System ³	
Urban Arterial	50 year	100 year	10 year	Regional Flood	10 year ⁴
Rural, Arterial, Collector Road	25 year	50 year	2 to 5 year	Regional Flood	2 to 5 year ⁴
Local Road	10 year	25 year	2 year	Regional Flood	2 year ⁴
Depressed Roadways	-	-	10 to 25 year	-	-

- (1) Road Classifications are defined as follows: Arterial Road – a road primarily for through traffic; Collector Road – a road on which traffic movement and access to property have similar importance; Local Road – a road primarily for access to property. If the road classification is likely to be upgraded, the return period shall be that for the future classification.
- (2) For the purpose of selecting design flood criteria, total span is defined as the sum of the individual clear span or diameters, measured parallel to the centerline of the roadway in the case of a bridge, and perpendicular to the longitudinal axis in the case of a culvert.
- (3) The minor system of a storm drainage system comprises the road gutters, inlets, storm sewers and minor ditches. The major system is the route followed by runoff waters when the capacity of the minor system is exceeded, and generally includes roadways and major channels.
- (4) If a stream diversion or stream channelization will alter the storage or discharge characteristics of a channel or floodplain, the channel may be designed for the return period given by the table, but the combined channel and floodplain shall accommodate a 25-year flood.

14.2 Freeboard and Clearance

The freeboard and clearance for standard road classifications shall be measured as follows: desirable freeboard is measured vertically from the energy grade line elevation for the design flow to the edge of the travelled lane. Minimum freeboard is measured vertically from the high water level for the design flow to the edge of the travelled lane (**Figure 11**). Clearance is measured vertically from the high water level for the design flow to the lowest point on the soffit.

The desirable design freeboard for roadways adjacent to watercourses is 1.0 m (see **Figure 11**). At structures, the minimum clearance depends on roadway function and vulnerability (see **Table 9** for minimum clearance design standards).

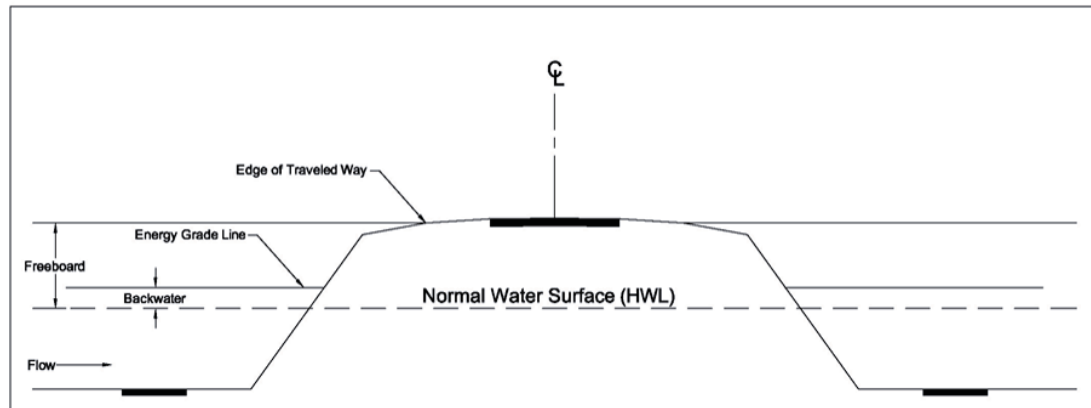


Figure 11: Minimum Freeboard Standard Dimensions (CSA, 2014))

Road Function	Vulnerability	Clearance (m)
Collector and Arterial	High	≥ 1.0
	Low	≥ 1.0
Local	High	≥ 0.3
	Low	≥ 0.0

Note:

Any roadway design parameters not covered in this Roadway Design Standards Report will follow the Transportation Association of Canada Geometric Design Guide for Canadian Roads 2017 Edition.

14.3 Drainage Ditches

The design parameters of drainage ditches shall be based on the MTO Drainage Management Manual. **Figure 12** shows the minimum design standards for a minor ditch drainage system.

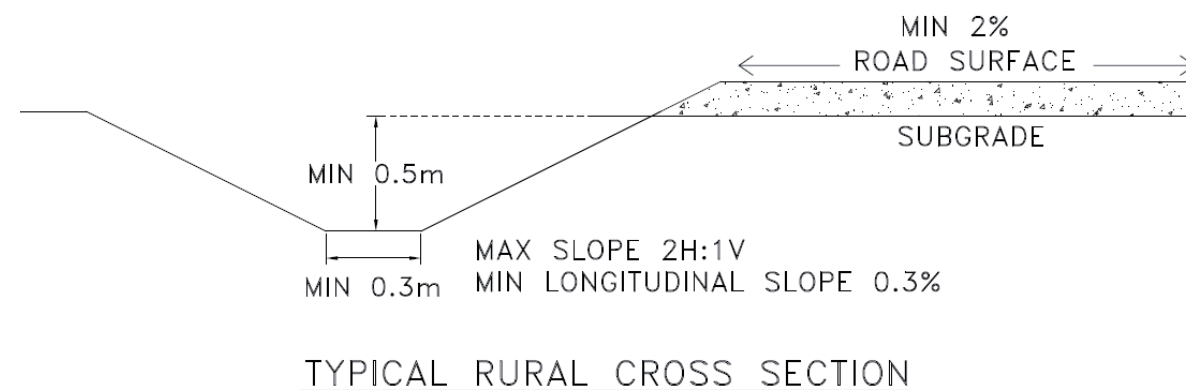


Figure 12: Ditch Cross Section

15.0 SURFACE TYPE STANDARDS

The surface type for rural roads shall be based on the AADT at the time of construction as shown in **Table 10**.

AADT at Time of Construction	Surface Types
0 – 400	Gravel
400 – 1000	Surface Treatment (single or double lift dependent on lower or upper range of traffic and presence of trucks)
1000 - 2000	For Lower Volumes in Range 40 mm of Hot Mix
	For Higher Volumes in Range 50 mm of Hot Mix
Above 2000	90 mm to 130 mm of Hot Mix

- The grade upon which the surface type is to be applied is assumed to be structurally adequate.
- Apply prime and double surface 0.25 m wider than lane width (e.g. for 3.0 m lane width, apply 3.25 m wide)

16.0 HERITAGE BYWAYS

All Heritage Byways within the Township will not be required to be up graded to these road design standards. These Heritage Byways are historic roads used through the Township and include Old River Road. This road will accept a low design speed and associated geometric elements. The focus of the conservation plan is to improve drainage and visibility.

17.0 CONCLUSION

This Roadway Design Standards report provides geometric guidelines for the construction of new roadway facilities in the Township of Leeds and the Thousand Islands. These roadway design standards are based on those of the Transportation Association of Canada (TAC). The specified minimum standards should desirably be exceeded whenever possible, taking into consideration both cost and property constraints. Pavement design should be based on site-specific geotechnical conditions and input from a pavement design report reflecting the specific underlying soils in the Township.

References:

- A Policy on Geometric Design of Highways and Streets 2011 6th edition, American Association of State Highway and Transportation Officials.
- Geometric Design Guide for Canadian Roads 2017 Edition, Transportation Association of Canada.
- Geometric Design Standards for Ontario Highways 1985, Ministry of Transportation. Revised 2002.
- Drainage Management Manual 1997, Ministry of Transportation Ontario, Chapter 4
- Canadian Highway Bridge Design Code 2014, CSA Group

GLOSSARY OF TERMS

Acceleration lane	An auxiliary lane to enable a vehicle entering a roadway to increase speed to merge with through traffic as applied at channelized intersections, or as speed change lane at interchanges.
Access control	Synonymous with control of access.
Adverse crown	A section with the cross-slope removed to a zero slope. This change in cross-slope is accomplished over the tangent run-out.
Assumed speed	The assumed speed for calculating minimum stopping sight distance is based on the 85 th percentile wet weather speeds as derived from a ministry study.
Assured passing opportunity	A condition in which a vehicle can safely pass another without restriction either by visibility or opposing traffic.
Average daily traffic (ADT)	The total volume of traffic during a given time period (in whole days) greater than one day and less than one year divided by the number of days in that time period.
Average annual daily traffic (AADT)	The average 24 hour, two-way traffic for the period January 1 st to December 31 st .
Auxiliary lane	A lane in addition to, and placed adjacent to, a through lane intended for a specific manoeuvre such as turning, merging, diverging, weaving, and for slow vehicles, but not parking.
Back slope	Where the roadway is in cut, the slope between the drainage channel and the natural ground is referred to as back slope.
Bikeway	A part of the right-of-way set aside for the preferential treatment of bicycle traffic, and made up of one or more bicycle lanes.
Boulevard	A reserve which separates the roadway and sidewalk. It provides some protection to the pedestrian and can accommodate street accessories such as traffic signs and fire hydrants. It is a suitable location for underground utilities and may be used for illumination poles.
Brake reaction time	The time that elapses from the instant the driver decides to take remedial action, to the instant that remedial action begins (contacts brake pedal).
Braking distance	The distance travelled from the instant that the braking begins to the instant the vehicle comes to a stop.
Broken back curve	An arrangement of curves in which a short tangent separates two curves in the same direction.
Bullnose	Location where edge of roadway and edge of ramp meet each other. Bullnose may include or exclude curb and gutter.
Channelization	The separation of traffic flow into positive paths, by means of traffic markings and islands.
Collector lanes	Those lanes of an express/collector system separated from express lanes by an outer separation.
Crest vertical curve	A vertical curve having a convex shape in profile viewed from above.
Cross section	The transverse profile of a road.
Cross fall (cross slope)	The average grade between edges of a cross section element.

Crosswalk	Any part of a roadway specifically intended for pedestrian crossing, and indicated so by signs, lines or other markings.
Crown	The highest break point of the surface of a roadway in cross section.
Cul-de-sac	A road that is open only at one end.
Curb and gutter	Curb and gutter is placed adjacent to an outside lane or shoulder and is intended to control and conduct storm-water and also provides delineation for traffic. In some instances, curb is introduced without a gutter.
Curve to spiral (CS)	The point of alignment change from circular curve to spiral curve, in the direction of stationing.
Curvilinear alignment	An alignment in which the majority of its length is circular and spiral curve.
Cut	A roadway located below natural ground elevation is said to be in cut.
Cut side slope	Where the roadway is in cut, the slope between the roadway and drainage channel is referred to as a cut side slope.
Deceleration lane	An auxiliary lane enables a vehicle exiting from a roadway to reduce speed after it has left the through traffic lanes as applied at channelized intersections, or at speed change lanes at interchanges.
Decision sight distance	The distance required for a driver to detect an information source or hazard which is difficult to perceive in a roadway environment that might be visually cluttered, recognize the hazard or its potential threat, select appropriate action, and complete the manoeuvre safely and efficiently.
Deflection angle	The angle between a line and the projection of the preceding line.
Design speed	A speed selected for the purposes of design and correlation of the geometric features of a road. It is a measure of the quality of design offered by the road. It is the highest continuous speed at which individual vehicles can travel with safety on a road when weather conditions are favourable and traffic density is so low that the safe speed is determined by the geometric features of the road.
Design hour volume (DHV)	Traffic volume used for design.
Drainage channel	A drainage channel is placed adjacent to an outside lane or shoulder and is intended to control and conduct storm water runoff. A shallow drainage channel is sometimes referred to as a swale.
Entrance	The general area where turning roadway traffic enters the main roadway.
Exit	The general area where turning roadway traffic departs from the main roadway.
Express/collector system	A freeway having an arrangement of four roadways adjacent to each other in which two roadways carry traffic in one direction and two in the other.
Express lanes	The inner lanes of an express collector system separated by a median.
Expressway	A divided arterial road for through traffic with full or partial control of access and with some interchanges.
Fill	A roadway located above the natural ground elevation is said to be in fill.
Fill side slope	Where the roadway is in fill, the slope between the roadway and the

	natural ground is referred to as the fill side slope (or as the fill slope).
Flexible barrier	A form of longitudinal barrier that is intended to redirect an errant vehicle by rail tension, usually through a system of cables installed in tension.
Four-lane road	A road that provides two through lanes of traffic in each direction.
Freeway	A fully controlled access road limited to through traffic, with access through interchanges.
Friction factor	The coefficient of friction between tire and roadway, measured either longitudinally or laterally.
Frontage road	A road contiguous to a through road designed to intercept, collect and distribute traffic desiring to cross, enter or leave the through road and to provide access to property.
Geometric design	The selected visible dimensions of the elements of a road.
Gore area	The area between the edge of roadway, edge of ramp, and bullnose.
Gradient (Grade)	The rate of rise or fall with respect to the horizontal distance; usually expressed as a percentage.
Gravel road	A road that has a driving surface consisting of granular material.
Guiderail (Guardrail)	A longitudinal barrier of the general form (concrete, IBC barrier, steel beam, or posts and rail).
Gutter	A paced shallow waterway provided for carrying surface drainage.
Hazard	Any obstacle or other feature such as an embankment, or a body of water of depth greater than 1 m which, without protection, is likely to cause significant injury to the occupants of a vehicle encountering it.
Highway	Synonymous with through road.
Horizontal alignment	The configuration of a road or roadway as seen in plan, consisting of tangents, lengths or circular curve, and lengths of spiral or transition curves.
Horizontal curve	A circular curve in plan to provide for change of direction.
Independent alignment	A divided highway in which each roadway is designed independently both in horizontal and vertical alignments, to take advantage of topographical features.
Interchange	A grade-separated intersection with one or more turning roadways for travel between the grade-separated through roads.
Intersection (At-grade)	The general area where two or more roads join or cross, within which are included the roadway and roadside facilities for traffic movements.
Island	A defined area between traffic lanes for control of vehicle movements or for pedestrian refuge and the location of traffic control devices.
Lane (Traffic lane)	A part of the travelled way intended for the movement of a single line of vehicles.
Local road	A road intended to provide access to developed properties only.
Longitudinal barrier	A barrier placed adjacent to a roadway, intended to contain a vehicle leaving the normal travel path, by re-directing it.
Low volume road	A road with average daily traffic of 200 vehicles per day or less, and whose service functions are oriented toward rural road systems, roads to or within isolated communities, recreation roads and resource development roads.
Median	The area that laterally separates traffic lanes carrying traffic in

	opposite directions. A median is described as flush, raised or depressed, referring to the general elevation of the median in relation to the adjacent edges of traffic lanes. The terms wide and narrow are often used to distinguish different types of median. A wide median generally refers to depressed medians sufficiently wide to drain the road base and sub-base into a median drainage channel. Flush and raised medians are usually narrow medians.
Median barrier	A longitudinal barrier placed in the median to prevent a vehicle from crossing the median and encountering oncoming traffic or to protect a vehicle from a fixed object in the median.
Minimum passing sight distance	The least visible distance required by a driver in order to make a passing manoeuvre safely, based on a given set of circumstances
Minimum stopping sight distance	The least stopping sight distance required by a driver to come to a stop under prevailing vehicle, pavement and climatic conditions.
Multi-lane roads	Road having more than two through lanes of traffic in each direction. In the Traffic and Capacity chapter Multilane refers to four lanes or more.
Obstacle	Any fixed object which is likely to cause significant injury to occupants of a vehicle encountering it.
One-lane one-way road	A road with one lane that carries traffic in one direction.
Outer separation	A reserve on freeways (including shoulders) between lanes carrying traffic in the same direction.
Overpass	A grade separation in which the subject road passes over an intersecting road or railway.
Passing opportunity sight distance	The distance ahead that must be visible to a driver to initiate a passing manoeuvre safely
Passing sight distance	The distance ahead visible to the driver available to complete a passing manoeuvre.
Perception time	The time that elapses from the instant that a driver observes an object for which it is necessary to stop, until the instant that the driver decides to take remedial action.
Ramp	A turning roadway to permit the movement of traffic from one roadway to another.
Reverse curve	Two curves, curving in opposite directions from a common point.
Right-of-way	The area of land acquired for or devoted to the provision of a road.
Rigid barrier	A form of longitudinal barrier that is intended to redirect an errant vehicle with minimum deflection in the barrier system, usually consisting of a continuous concrete mass.
Road	The entire right-of-way comprising a common or public thoroughfare, including a roadway, street, bridge and any other incidental structure.
Roadside barrier	A longitudinal barrier placed adjacent to the right or left edge of a roadway, to prevent a vehicle leaving the roadway from encountering a hazard.
Roadway	That part of the road that is improved, designed or ordinarily used for the passage of vehicular traffic, inclusive of the shoulder.
Rounding	Width between edge of shoulder and cut or fill slope.
Rotary	A channelized intersection in which traffic moves counter clockwise

	around a centre island of sufficient size to induce weaving movements instead of direct crossings, sometimes referred to as a traffic circle.
Run-out length	The distance parallel to the roadway, measured from the object to the point of vehicle encroachment. This distance varies with design speed and traffic volume.
Safety zone	An area officially established within a roadway for the exclusive use of pedestrians, protected or indicated so as to be plainly visible.
Sag vertical curve	A vertical curve having a concave shape in profile viewed from above.
Semi-rigid barrier	A form of longitudinal barrier that is intended to redirect an errant vehicle by a system of steel beam attached to adjacent posts.
Service road	Same as frontage road but not necessarily contiguous with the through road.
Shoulder	Areas of pavement, gravel or hard surface placed adjacent to through or auxiliary lanes. They are intended for emergency stopping and travel by emergency vehicles only. They also provide structural support for the pavement.
Sidewalk	A travelled way intended for pedestrian use, following an alignment generally parallel to that of the adjacent roadway.
Sight distance (at intersections)	The distance along intersecting roads (resulting in a sight triangle) providing a sight line to approaching vehicles. The intersection sight distance is adequate when a driver has an unobstructed view of the entire intersection and sufficient lengths of the intersecting roadway to avoid collision.
Simple open throat intersection	A simple or unchannelized intersection where an additional area of pavement may be provided for the turning of large vehicles.
Speed change lane	A deceleration or acceleration lane.
Spiral parameter (A)	"A" designates the sharpness of the spiral. It is a measure of the flatness of the spiral; the larger the parameter, the flatter the spiral.
Spiral to curve (SC)	The point of change from spiral curve to circular curve, in the direction of stationing.
Spiral to tangent (ST)	The point of change from spiral curve to tangent, in the direction of stationing.
Stopping distance	The distance travelled by a vehicle from the instant the driver decides to take remedial action, to the instant the vehicle begins to come into view (total perception reaction and braking distances).
Stop block	Pavement marking to indicate where vehicles are required to stop for a traffic control device.
Summer average daily traffic (SADT)	The average 24-hour, two-way traffic for the period July 1 st to August 31 st including weekends.
Superelevation	The gradient measured at right angles to the centre line across the roadway on a curve, from the inside to the outside edge.
Swale	A shallow drainage channel.
Tangent to spiral (TS)	The point of alignment change from tangent to spiral curve, in the direction of stationing.
Tangent run-out	The length of road needed to accomplish the change in cross slope from a normal cross-section to a section with the adverse crown removed.

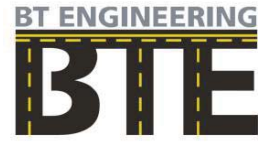
Through lane	A lane intended for through traffic movement.
Traffic barrier/Barrier	Traffic barriers are placed adjacent to a roadway to protect traffic from hazardous objects either fixed or moving (other traffic). Barriers placed in a median are referred to as median barriers and may be placed in flush, raised or depressed medians.
Transition (spiral) curve	A curve whose radius continuously changes.
Travelled way	That part of a roadway intended for vehicular use excluding shoulders. It may have a variety of surfaces but is most commonly hard surfaced with asphalt or concrete or gravel surfaced.
Turning roadway	A separate roadway or ramp to accommodate turning traffic at the intersection of interchange of two roads.
Two-lane road	A road that provides for one lane of through traffic in each direction.
Underpass	A grade separation in which the subject road passes under a highway or railway.
Vertical alignment	The configuration of a road or roadway as seen in longitudinal section, consisting of tangents and parabolic curves.
Vertical curvature (K)	The horizontal distance along a parabolic curve required to effect a one percent change in gradient.
Vertical curve	A parabolic curve on the longitudinal profile or in a vertical plane of a road to provide for a change of gradient.
Warrant	A criterion that identifies a potential need or the justification for an addition to the roadway such as traffic signals, traffic barrier, truck climbing lanes, passing lanes, left turn lanes etc.
Weaving section	A section of roadway between an entrance and an exit, such that the frequency of lane changing exceeds that for open roadway condition.



TRANSPORTATION MASTER PLAN /
ACTIVE TRANSPORTATION PLAN

Appendix D

Programs and Policies Technical Memorandum



100 Craig Henry Drive, Suite 201
Ottawa, Ontario, K2G 5W3

MEMORANDUM

TO: File **DATE:** July 14, 2019
FROM: BT Engineering Inc. **PROJECT #:** BTE 18-002
PROJECT: Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan (TMP / ATP)
SUBJECT: Preliminary Programs and Policies

1. INTRODUCTION

The Township of Leeds and the Thousand Islands is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to continue to plan for efficient development. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County, Township and municipal planning and transportation related needs. The Policies and Programs proposed within the TMP / ATP to help fulfil this vision are summarized as follows:

Policies are principles and/or guidelines designed to be used by Township improve existing roadway facilities, provide a guideline for future roadway improvements and to influence greater adoption of active transportation. Proposed policies have been divided into the following categories:

1. Planning;
2. Design and Construction; and
3. Financing.

Programs are further plans of action that could involve the Township, and/or partnerships with other organizations (such as the Community and Primary Health Care Transportation Program, 1000 Islands Helping Hands or school programs, etc.) designed to increase Active Transportation and mobility throughout Township of Leeds and the Thousand Islands. *Programs* have been divided into the following categories:

1. General;
2. Safety and Education; and
3. Promotion / Marketing / Encouragement / Tourism.



2. PRELIMINARY POLICIES

ID	Description of Comment Received	Comments
Planning Policies		
PP8	Transportation policy to encourage active transportation to schools, libraries etc.	Carried forward
PP17	Transportation standards to define the obligations for passing (add a policy for ATV/vehicles/cycling passing).	Carried forward
PP18	Support from the Township for clubs to self-police (such as trail cameras to take pictures of infractions).	Not carried forward
PP28	Promote age friendly policies to improve mobility for the growing portion of the population dealing with reduced mobility, i.e. improve sidewalks, Uber assist, and private businesses and organizations providing assistance to seniors for transportation shuttle type services.	Carried forward
PP50	Use of community safety zones with signage and speed reductions in local communities.	Carried forward
Design and Construction		
PP13	Create accessible ramps at sidewalks to meet current accessibility standards.	Carried forward
PP14	Provide tactile plates at intersections on sidewalks for accessibility.	Carried forward
PP19	Collaboration between the Township and County for policies such as paved shoulders on County Roads.	Carried forward
PP22	Paved shoulder policy.	See PP19
PP30	Restrict trucks parking on the road in settlement areas, such as in Lyndhurst where every weekend a 53 ft truck is parked on residential streets, in Seeley's Bay and Lansdowne.	Not carried forward
Financing		
PP48	Create funding to create trails.	Not carried forward

3. PRELIMINARY PROGRAMS

ID	Description of Comment Received	Comments
General		
PP7	Roadkill program to find hot spots for animal crossings.	Not carried forward
PP11	Encourage active transportation and reduce vehicle use.	Carried forward
PP15	Create a Cycling Plan to create friendly designated areas/routes within the Township.	Carried forward
PP20	Encourage programs for sharing cycling equipment such as bikes, backpacks, etc.	Not carried forward

PP21	Create a paddling route network including negotiated ROW for portages.	Carried forward
PP27	Partnering services with the Casino and Gananoque / Kingston / Brockville to shuttle people from those cities to destinations in the entire Township rather than just the casino.	Carried forward
PP37	There should be monitoring of boat slips to ensure short term usage.	Carried forward
PP38	Consider leasing out facilities such as the Rockport boat ramp to private sector	Not carried forward
PP40	Provide cleaning of existing facilities: washrooms and kayak / canoe stations that are available.	Carried forward
PP41	Seeley's Bay and Area Residents' Association has worked to get the porta-potties installed.	Information
PP47	Support long term objective for the development of nodes at approximately 20 km intervals to provide food and accommodation, such as the Furnace Falls B&B (similar to El Camino Santiago Trail in Spain).	Carried forward
Safety and Education		
PP3	Education program to promote safe cycling.	Carried forward
PP5	Partnership with groups for Road Safety Challenge to find funding.	Carried forward
PP6	Create education package to describe new provincial pedestrian crossovers.	Carried forward
PP9	Walking to School Bus Program (let students off at the Fire Hall in Lansdowne and provide supervised walks home).	Carried forward
PP10	Walk-to-School Weeks during the fall and spring months.	Carried forward
	Encourage MTO to build a carpool lot at Reynold's Road to assist in providing alternatives to single occupant vehicle trips and reducing vehicle emissions in the Township.	Carried forward
	Create a carpool lot(s) within the Township to reduce vehicle emissions in the Township.	Carried forward
PP16	Create an education programs for ATV usage within the Township. (It is not clear if ATVs are to use the shoulder or the roadway or how to pass cyclists on the road with vehicles in the lane as well.)	Carried forward
PP25	Public transportation program for youth/seniors to go to main towns/cities for trips such as getting to/from jobs, shopping, after-school activities (see PP-28).	Not carried forward
PP34	Provide on-line guidelines to promote appropriate rules of the road for cycling routes, educating users on how to properly use pathways (i.e. walk and bike on the right except to pass).	Carried forward
Promotion / Marketing / Encouragement / Tourism		
PP1	Advertisements in magazines to bring tourists.	Carried forward

PP23	Support shuttle bus programs for canoe/kayakers and seniors to travel throughout the Township or bring tourists from Brockville / Kingston. One example is Innisfil Transit: a transit system was too expensive for Innisfil so they partnered with Uber as an on-demand, shared transportation option provided through Uber and subsidized by the Town. See PP28 to support local existing businesses and organizations.	Carried forward
PP24	Establish a public transportation program for those who can't afford a vehicle or don't want one.	See PP28
PP26	Shuttle people to the northern settlements. Cruises could shuttle people to markets within the Township.	Not carried forward
PP32	Reduce the risk of transferring invasive species when entering waterways by educating people with improved messaging of the danger using the Township website, expanded signage and the provision of facilities for washing boats.	Carried forward
PP33	Identify businesses along cycle routes for eco-tourism partnerships (providing bike racks, services, repair stations, supplies, secured bike storage, bed and breakfast, bike locker, Parks Canada oTENTik).	Carried forward
PP36	Support Bridge Authority to create a cycling plan for bike transport from NY State across International Bridges (pedestrian / bike shuttle) during summer.	Carried forward
PP39	Township to provide funding for ecotourism such as support friends of "Rockport Customs House".	Carried forward
PP42	Partnership with Gananoque and the Frontenac Arch Biosphere to promote eco-tourism along the Bateau Channel. This could include canoe / kayak rentals, parking and docking facilities within the Bateau Channel Municipal Park.	Carried forward
PP43	Promote the Township for tourists travelling along the Rideau Canal and Highway 15 as they pass Seeley's Bay to support restaurants and other area businesses.	Carried forward
PP46	Create a program to connect businesses – local experiences with eco-tourism opportunities.	Carried forward
PP48	Establish funding for the development of trails.	Carried forward
PP49	Create a Canoe Route Plan in the TMP for posting on the Township website.	Carried forward



Appendix E

Projects Technical Memorandum

MEMORANDUM

TO: File	DATE: July 14, 2019
FROM: BT Engineering Inc.	PROJECT #: 18-002
PROJECT: Township of Leeds and the Thousand Islands Transportation Master Plan / Active Transportation Plan	
SUBJECT: Potential Projects	

1. Introduction

The Township of Leeds and the Thousand Islands (Township) is seeing significant growth in an aging population as well as experiencing an annual influx of seasonal residents and tourists. A comprehensive and sustainable transportation plan is essential for the municipality to continue to plan for efficient development. The coordination of land use planning, transportation system planning and transportation infrastructure investment is required to address Provincial, County and municipal planning and transportation related needs.

The Township currently does not have a Transportation Master Plan / Active Transportation Plan (TMP/ATP). This study will provide recommendations to the Township to prioritize the implementation of transportation and active transportation related infrastructure within the current planning horizon.

This memo describes issues that potential projects to be included in the TMP/ATP might address. Four categories of projects will be reviewed: road (such as intersections and road alignment); marine (such as boat storage facilities, and new docks); active transportation (such as pedestrian facilities and new cycling routes); and bridges (owned by the Township).

2. Road Projects

The road network in any given area is the most important infrastructure in terms of transportation. The road network provides a facility for cars, bike and other vehicles to travel from one location to another. As cars are the most common mode of transportations of people and goods, it is important that the road network be in good working order.

This study collected comments on the road network from the public through Public Information Centres (PICs), an online survey and a Community Café. After collecting comments, a list of concerns / deficiencies on Township roads was compiled from which potential road projects can be developed – see **Table 1**. This list is not all inclusive but rather is the basis for potential projects for further review by the Township in establishing a five (5) year capital program.

The road network in the Township encompasses roads owned and maintained by several different jurisdictions including: the Ministry of Transportation of Ontario, the United Counties of Leeds and Grenville, St. Lawrence Parks Commission, Parks Canada and the Township. This study included public consultation and comments on roads not under the jurisdiction of the Township and these comments are listed in **Table 2**.

Table 1: Potential Road Projects

ID	Settlement	Road Name	Issue Description	Jurisdiction	Carried forward	Comments
R1	General	Black Rapids Road	North of Sand Bay Road (total reconstruction including horizontal and vertical curve flattening from Sand Bay Road to CR 3). Areas of localized constraints such as heritage barn should include closed drainage system.	Township	Y	Reconstruction
R2	General	Sand Bay Road	Flooding is an issue.	Township	Y	Reconstruction
R3	General	Russell Road	Poor condition with no base.	Township	Y	Reconstruction
R4	General	Quabbin Hill Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R5	General	Sandy Bay Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R6	General	Ferguson Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R7	General	Long Point Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R8	General	Russell Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R9	General	Dean's Lane	Has a constant issue with the culvert.	Township	Y	Maintenance
R10	Lansdowne	King Street	On the east side of King Street the street is steep.	Township	Y	Maintenance
R11	Lansdowne	King Street / Prince Street	Pedestrian safety issue at the intersection (visibility and curb heights).	Township	Y	Reconstruction
R12	Haskins Point	Haskins Point Road	Haskins Point Road is a narrow access to Parks Canada.	Township	Y	Maintenance
R13	General	Kidd Road North	Kidd Road North is used as a shortcut and there is a bridge and approaches - large holes.	Township	Y	Maintenance
R14	General	Lyndhurst Road	Skew angle of Sweets Corners / Lyndhurst intersection (poor visibility).	Township	Y	Maintenance
R15	General	Old Briar Hill Road	The sight visibility at Old Briar Hill Road - Check improving sight triangle on east side.	Township	Y	Maintenance
R16	General	Dulcemaine Road	Visibility off Dulcemaine Road for southbound drivers on County Road (CR) 3.	Township	Y	Maintenance
R17	General	Russell Road	Surface treatment of riding surface.	Township	Y	Maintenance

Table 1: Potential Road Projects

ID	Settlement	Road Name	Issue Description	Jurisdiction	Carried forward	Comments
R18	General	Red Horse Lake Road / Jones Street	Improve sight visibility.	Township	Y	Maintenance
R19	General	Lower Oak Leaf Road	Road bend between 354 and 353 Lower Oak Leaf Road has little shoulder and it is dangerous to go off the pavement into the deep ditches with no guard rails.	Township	Y	Maintenance
R20	General	Lower Oak Leaf Road	Lower speed limit on Lower Oak Leaf Road (from 80 km/h to 60 km/h). The narrow twisting road without shoulders is a hazard.	Township	Y	Maintenance
R21	General	Lower Oak Leaf Road	Lines are very faded on Lower Oak Leaf Road and it is hard to see the lanes.	Township	Y	Maintenance
R22	General	Russell Road	Must be reconstructed.	Township	Y	Maintenance
R23	General	Big Hill Road	Improve lighting on Big Hill Road.	Township	Y	Maintenance
R24	General	Village Estates Lane	Concern for localized drainage issue at the south end of 58 Village Estates Lane. The existing culvert is too low and the overland flow is directed to their lot. Consider creating a ditch around the turning basin to be directed to the river.	Township	Y	Maintenance
R25	Seeley's Bay	Ellisville Road	Poor surface and poor drainage typically have flat grades because of topography.	Township	Y	Maintenance
R26	Rockport	1000 Islands Parkway	Reduce speeds on the 1000 Islands Parkway by introducing a roundabout at Rockport.	St. Lawrence Parks Commission	N	
R27	Township	Haig Road/Kyes Road	Consider community safety zones within the Township	Township	Y	

Table 2: Roads outside of Scope / Jurisdiction

ID	Settlement	Road Name	Issue Description	Jurisdiction	Carried Forward	Comments
R'1	General	CR 3	Animal crossings and roadkill issues - outlet and Killenbeck Lake.	County	N	
R'2	Seeley's Bay	Highway 15	Entrances from Highway 15 should be considered for safety improvement because of the traffic growth and travel speeds on Highway 15. There is a need to slow the speed of the traffic to permit safe access to the settlement area.	MTO	Y	
R'3	Seeley's Bay	Highway 15	There is nothing south of Morton to slow down Highway 15 traffic (lighting is not adequate for the turn lanes).	MTO	N	
R'4	Seeley's Bay	Highway 15	It can be difficult entering the settlement area from Highway 15. The skew of the intersections with County Road 47 creates hazards.	MTO	N	
R'5	Lansdowne	CR 3	The intersection in Lansdowne is the greatest safety concern.	County	Y	See R7
R'6	Lansdowne	CR 3	There is an issue with hydro poles on CR 3 (within road surface) and can these be removed and sidewalks widened?	County	Y	See sidewalk policy
R'7	Lansdowne	CR 3	It would be desirable to rehabilitate the street and maintain the building frontage on CR 3 in Lansdowne. These buildings are examples of old buildings in that block that reflect the original character of the Village.	County	Y	
R'8	Lansdowne	CR 2	Reduce the speed from 80 km/h to 60 km/h before the bend at 948 CR 2 East straight through to the other side of Rapid Valley. This is an EDR and when traffic is rerouted the intersection where CR2 meets CR3 at Rapid Valley becomes congested. It becomes dangerous for drivers as well as children waiting for a bus/dropped off the bus.	County	N	
R'9	General	CR 2 / Prince Street	Intersection of CR 2 and Prince Street at Rapid Valley has high speed collisions	County	N	
R'10	General	CR 2 / CR 3	The EDR creates a large safety concern.	County / MTO	N	
R'11	General	CR 3 to Lyndhurst Road	Vegetation blocks visibility.	County	Y	Maintenance

Table 2: Roads outside of Scope / Jurisdiction

ID	Settlement	Road Name	Issue Description	Jurisdiction	Carried Forward	Comments
R'12	General	Highway 401 / Reynolds Road Interchange	Reynolds Road Overpass over Highway 401 is narrow with poor surface condition within the interchange.	MTO	Y	For future rehab
R'13	General	Highway 401 / Reynolds Road Interchange	Poor visibility at Reynolds Road intersection.	MTO	Y	For future rehab
R'14	General	Highway 401 WB Entrance from Parkway	Entrance to Highway 401 on east side of Gananoque is unconventional and considered less safe.	MTO	N	
R'15	General	Highway 401 WB Entrance from Parkway	The Highway 401 interchanges must be improved - there is so much truck traffic with EDR events.	MTO	N	
R'16	General	Highway 15	Provide more caution beacons on Highway 15.	MTO	Y	For MTO review
R'17	General	CR 32	Poor surface and poor drainage typically have flat grades because of topography.	County	Y	Maintenance
R'18	Rockport	1000 Islands Parkway	Reduce speeds on the 1000 Islands Parkway by introducing a roundabout at Rockport.	SLPC	N	
R'19	Hill Island	Highway 137/Skydeck Road	Install street lights	MTO	N	

3. Marine Projects

Marine transportation encompasses all transportation and transportation facilities associated with water. This includes boating infrastructure, policies surrounding boat usage, and marine services available. Marine transportation in the Township is vibrant as it is located on the St. Lawrence Seaway, Rideau Canal and is a part of the famous Thousand Islands region. The Thousand Islands region is home to many marine tourist destinations, boat tours, marinas, cottages and private boat owners. This study collected comments from the public through: PICs, an online survey and a Community Café. The list of potential marine projects is in **Table 3**.

Table 3: Potential Marine Projects

ID	Township	Project Description	Jurisdiction	Carried forward	Comments
M1	General	Create new water access: 1. Rockport boat launch and public dock (St. Lawrence River) 2. Bateau Channel township park boat launch and public dock (St. Lawrence River) 3. Kerry Point Road boat launch and public dock (St. Lawrence River) 4. Sand Bay Road (Gananoque River) 5. Larose Bay Road (Charleston Lake)	Township	Y	
M2	Rockport	Create a boat trailer parking area in Rockport (north of Thousand Islands Parkway).	Township	Y	
M3	General	There should be parking for all areas.	Township	Y	See M1
M4	General	There should be boat slips provided throughout the Township.	Township	Y	See M1
M5	General	Provide Wi-Fi for tourists at Seeley's Bay to check in and pay fee online.	Township	N	
M6	General	Provide a public toilet at both Rockport and Ivy Lea.	Township	Y	
M7	General	Add signage on Canal (for boat traffic) of all available services available in Seeley's Bay.	Township	Y	
M8	General	The plan could encourage other private marinas in the Township.	Township	Y	See M7
M9	General	Promote canoe trips including route from Morton and Rideau Canal portage access.	Township	Y	See PP49
M10	General	Add Blue Mountain Trail to Canoe Trail to promote access to Charleston Lake.	Township	Y	
M11	General	Support more boat traffic.	Township	N	
M12	General	Rock Dunder is a 15 minute walk from the Rideau Canal (200 ft lookout).	Other	N	Outside of Township
M13	General	Thanksgiving Monday parking (150 cars) to Blue Mountain (9 km return trip).	Township	N	See AT 15
M14	General	Fund repairs to the Rockport dock.	Township	Y	See AT 15
M15	General	Initiate an EA for consideration on east and west side of river to create a portage around the Gananoque river dam at Marble Rock Road. Consider acquisition of residential property on Old Mill Road for west side portage.	Township	Y	
M16	General	Kayak docks/launching stations along the parkway at Landon's Bay, Greys Beach and Mallorytown.	SLPC	Y	
M17	General	Identification of streams that are suitable for canoeing/kayaking and safe access points.	Township	Y	
M18	Landon's Bay	Initiate an EA for a boat launch at the Halstead's Bay/Landon's Bay lookout along the 1000 Islands Parkway.	Township	Y	

4. Active Transportation Projects

Active transportation is any form of human-powered transportation. It is any trip made for the purpose of reaching a destination actively. Active transportation modes are fundamental elements of more sustainable urban transportation systems. They are the least polluting, most equitable, and most affordable modes of transportation. Active transportation also supports important health and fitness objectives, and promotes social interaction within communities.

Types of facilities for cyclists include:

- Shared roadways
- Fully paved shoulders
- Bike lanes
- Multi-use paths (MUPs)

Type of facilities for pedestrians includes:

- Sidewalks
- Fully paved shoulders
- MUPs
- Road crossings

Other facilities for active transportation include:

- Scenic lookouts/dwelling areas that overlook areas of natural beauty
- Benches, rest areas, for pedestrians and cyclists
- Visible and secure bicycle parking and
- Vehicle parking at MUP access locations, washrooms, waste receptacles, lake and river paddling accesses and conservation areas.

Potential active transportation projects are described in **Table 4**.

Table 4: Potential Active Transportation Projects

ID	Settlement	Road Name	Project Description	Jurisdiction	Carried forward	Comments
AT1	General	County Roads	Paved Shoulders on County roads (CR 2, Highway 32, CR 3, Thousand Islands Parkway to Charleston Lake Park specifically).	County	Y	
AT2	Haskins Point	Haskins Point Road	Widen Haskins Point Road for pedestrians and cyclists.	Township	Y	
AT3	General	St. Lawrence Parkway	Initiate EA to consider MUP or paved shoulders from Waterfront Trail to Lansdowne.	Township / County	Y	
AT4	General	Reynolds Road	Widen Reynolds Road Bridge to make safe for pedestrians and cyclists.	County	Y	See AT39 below
AT5	General	Lyndhurst Road	Provide safe connection to Charleston Lake Park, provide signage and share the road signs to get to Charleston Lake Park. Provide paved shoulder from Lansdowne to Lyndhurst for cycling route. Sign and coordinate use of Charleston Lake Provincial Park public facilities/washrooms on cycling routes.	County	Y	
AT6	General	Waterfront Trail	Provide washrooms and rest stops along the Waterfront Trail, and/or signage for public washrooms.	St. Lawrence Parks Commission	Y	
AT7	Lansdowne	Frederick Street	Add sidewalk on Frederick Street.	Township	Y	See Township Roadway Design Standards
AT8	General	N / A	Staged replacement of municipal sidewalks to current accessibility standards and condition.	Township / County	Y	See Township Roadway Design Standards
AT9	General	N / A	Create local designated bike routes on Township roads that may include: shared lanes, sharrows, share the road signs.	Township	Y	See Proposed AT network
AT10	General	N / A	At walking/cycling paths provide public porto-potties/washrooms along: Thousand Islands Parkway, in Charleston Lake Provincial Park, Lansdowne, Lyndhurst, Rockport, Ivy Lea and Seeley's Bay.	Township / St. Lawrence Parks Commission	Y	
AT11	General	N / A	Provide rest stops (picnic, benches) at key lookouts or scenic signed areas such as Marble Rock Road Storyboard.	Township	Y	
AT12	General	N / A	Coordinate facilities with vehicle pit stops/commercial businesses.	Township	Y	
AT13	General	N / A	Provide water stops for long distance cyclists and identify sources of drinking water.	Township	Y	

Table 4: Potential Active Transportation Projects

ID	Settlement	Road Name	Project Description	Jurisdiction	Carried forward	Comments
AT14	General	N / A	Improve curb design. Hard curbs are bad for cyclists as they can't maneuver away from trucks or vehicles quickly. Consider mountable curbs in settlement areas.	Township	Y	See Township Roadway Design Standards
AT15	General	N / A	Provide parking facilities at head of cycling route/walking trail such as Blue Mountain Walking Trail.	Township	Y	
AT16	General	N / A	When repaving roadways – consider cyclist hazards such as manhole cover depth from repaving is too low for cyclists who can't see them. Dangerous for cyclists.	Township	Y	See Township Roadway Design Standards
AT17	General	N / A	Provide bike racks at destinations or support businesses who will store bikes so cyclists don't have to remove their packs from their bikes. Issue of stolen packs/bikes.	Township	Y	See policies/programs
AT18	General	N / A	Create circular cycling routes rather than to/from routes on the same road.	Township	Y	See AT9
AT19	General	N / A	Create paving standard using smaller granular for surface treatment to accommodate cyclists.	Township	Y	See Township Roadway Design Standards
AT20	General	N / A	Provide signage for "Share the Road."	Township	Y	See AT9
AT21	Waterfront Trail (1,000 Island Pkwy)	N / A	Improve signage at locations where roadways cross the Waterfront Trail to improve safety for cyclists who are often travelling quickly and visibility is poor. The signage improvements could include the placement of bicycle crossing ahead signs on the crossing roads or stop signs on the Waterfront trail.	Township	Y	Stop signs are already in place on the waterfront Trail at most locations
AT23	General	N / A	Where vehicle traffic is encouraged to travel straight through a town/village, provide "Peoplescapes" or "Streetscapes" (i.e. spaces for pedestrians and protected cycling paths with dedicated routes for pedestrians as potential traffic calming measures, street markets, and multipurpose space).	Township	N	
AT24	Lansdowne	County Road 3	Replace Lansdowne CR 3 west sidewalk with 1.8 m sidewalk (with hydro poles within sidewalk space).	County	Y	

Table 4: Potential Active Transportation Projects

ID	Settlement	Road Name	Project Description	Jurisdiction	Carried forward	Comments
AT25	General	N / A	Provide multi-use paths within settlements including: Rockport, Lansdowne (King Street W and E), Lyndhurst (see AT37), and Seeley's Bay (Haskins Point Road).	Township	Y	
AT26	General	County Road 34	Provide bike facilities on King Street West in Lansdowne.	County	Y	See AT9
AT27	General	N / A	Improve surface quality, sidewalk skew angle, pedestrian arm and crossing experience/width for Lansdowne railway crossing.		Y	
AT28		County Road 3	Extend Lansdowne west sidewalk from CN Rail to south businesses/end of village.	County	Y	
AT33	General	N / A	Direction arrows on pathways to indicate two-way traffic to allow cyclists to pass groups of people "hogging" the pathway.	Township / St. Lawrence Parks Commission	Y	
AT35	General	N / A	Safer walking and cycling paths throughout the Township.	Township	Y	
AT37	General	N / A	Create a MUP path corridor connecting the Waterfront Trail to Lansdowne parallel to CR 3.	Township	Y	See AT3
AT38	General	Reynolds Road	Request MTO construct a cycling / MUP widened structure at Highway 401 at Reynolds Road as a part of replacement structure.	County / MTO	Y	
AT39	General	County Road 3	Provide amenities along CR 3 corridor for cyclists (CR 2, Lansdowne, Outlet, and Lyndhurst) i.e. bike rack, bench, repair area	County	Y	See AT9 above
AT40	Lyndhurst	N / A	Initiate EA for Lyndhurst Bridge active transportation crossing.	Township	Y	
AT41	General	N / A	Add physical cycling route boards on cycling system to illustrate routes, destinations and "You are Here".	Township	Y	
AT42	Rockport	Front Street 1,000 Island Parkway respectively	Provide signed pedestrian crossovers for tourist traffic at Rockport.	Township	Y	
AT43	Blue Mountain	N/A	Purchase private lands/easement to create Blue Mountain Trail on public lands.	Private	N	
AT44	General	N/A	Staged replacement of municipal sidewalks to current accessibility standards and condition.		Y	

Table 4: Potential Active Transportation Projects

ID	Settlement	Road Name	Project Description	Jurisdiction	Carried forward	Comments
AT45	Seeley's Bay	Bay Street	Add missing link in sidewalk from Seeley's Bay Retirement home to Seeley's bay Public Dock.	Township	Y	
AT46	Seeley's Bay	Bay Street	Add sidewalk from Perry's Place Bar and Grill to Bay Street across the park.	Township	N	For further review by Township
AT47	Lansdowne	N / A	Create MUP from Lansdowne to Waterfront Trail.	Township	Y	
AT48	Ivy Lea	Village Estates Road	Extend Ivy Lea sidewalk to the Village Estates Road	Township	Y	
AT49	Gananoque	Waterfront Trail	Provide curb breaks at Waterfront Trail termination in Gananoque	St. Lawrence Parks Commission	N	



5. Bridge Improvement Projects

Having effective and safe bridges is imperative to a successful and sustainable transportation network. The current road network of the Township of Leeds and the Thousand Islands encompasses sixteen (16) bridges / culverts and two (2) inactive heritage bridges.

Through public consultation and preliminary research, a plan has been developed to improve the facilities available in the Township of Leeds and the Thousand Islands.

A list of potential bridge projects is in **Table 5**.



Table 5: Potential Bridge Projects

ID	Jurisdiction	Road	Project Description	Bridge Name
N / A	County	Lyndhurst Rd	Safe walking / cycling access	Lyndhurst Road Bridge
N / A	County	Lyndhurst Rd	EA for Lyndhurst Bridge	Lyndhurst Road Bridge
N / A	Unknown	Unknown	Reintroduce bridge to Tar Island	Tar Island Bridge
LTI-1	Township	Russel Road	Maintain channel annually to ensure clearance under and around the bridge. Monitor reported approx. 70 mm mid-span deflection of girders. Future grade raise of approach road and lift of girder bridge	Russel Road Bridge
LTI-1	Township	Black Raids Road	Replace decking and ballast walls within approx. 2 years (~2020)	Black Rapids Road Bridge
LTI-1	Township	Jonas Street	Patch, waterproof and pave bridge deck, Replace approach guide rail, Extend deck drains to prevent damage to soffit, and General maintenance repairs, All within 2 years (2020)	Mountain Street Bridge on Jonas Street
LTI-1	Township	Red Horse Lake Road	Inspect and assess substructure condition annually and after a storm event, Long Range replacement project to consider a route to improve safety and the road geometry	Covey Bridge on Red Horse Road
LTI-1	Township	Maple Grove Road	Carry out an underwater (barrel) inspection in 5 years (2023)	Maple Grove Road Pipe Arc
LTI-1	Township	Marble Rock Road	Undertake repairs in approx. 2 years (2020)	Marble Rock Bridge
LTI-1	Township	Sand Bay Road	Carry out an underwater or boat inspection within 4 years (2022) Replace approach guide rail in 2 years (2020)	Wiltse Concrete Bridge
LTI-1	Township	Russell Road	Carry out detailed deck condition survey underwater and above water of the deteriorated substructures, and overall assessment, leading to major rehabilitation in 1 year (2019) or replacement in 5 years (2023)	Wiltse Creek Double Lane Bridge
LTI-1	Township	Pelow Road	Make final overall assessment and replace within 1 year (2018/19)	Pelow Road Bridge
LTI-1	Township	Kidd Road North	Replace barrier system within 2 years (2019)	Kidd Road North (South Bridge)
LTI-1	Township	Kidd Road North	Replace Bridge within 5 years (2023) Monitor rotation of abutment walls until bridge is replaced	Kidd Road North (North Bridge)
LTI-1	Township	Union Road	Replace Bridge within 10 years (2028) or earlier; monitor annually	Union Road Culvert
LTI-1	Township	Mountain Street	Replace Bridge (widened to 2 lanes) within 1-2 years (2018 - 2020)	Mountain Street Bridge
LTI-1	Township	Escott and	Carry out necessary misc. repairs, including extension of deck drains, concrete repairs if	Escott and Rockport Road

Table 5: Potential Bridge Projects

ID		Jurisdiction	Road	Project Description	Bridge Name
			Rockport Road	not yet done, in (2018 - 2019)	Culvert
LTI-1	Township	La Rue Mills Road	La Rue Mills Road	Install a guide rail system (2019 – 2020), and perform regular maintenance, including repaving as needed	La Rue Mills Road Culvert
LTI-1	Unknown	Heritage River Road	Heritage River Road	Repairs to masonry abutments needed to maintain historic value	Heritage River Road Former Bridge



Appendix F

Bridges Technical Memorandum



100 Craig Henry Drive, Suite 201
Ottawa, Ontario, K2G 5W3

MEMORANDUM

TO: File
FROM: L. M. Bacquie, P. Eng.
cc: S. Taylor, P. Eng.
DATE: December 14, 2018
PROJECT #: BTE 18-002
PROJECT: Township of Leeds and the Thousand Islands Transportation Master Plan
SUBJECT: Proposed Bridge/Structure Future Repair, Rehabilitation, Replacement Projects, for a Planning Horizon of up to 25 Years

Background

The Township of Leeds and the Thousand Islands has retained BT Engineering Inc. (BTE) to undertake a study for a Transportation Master Plan/Active Transportation Plan (TMP/ATP) and provide recommendations in order that the Township may prioritize the implementation of the related infrastructure projects within a minimum 25-year planning horizon, and beyond. This memorandum addresses the identification of potential problems and opportunities regarding bridges and structures within the Township. It also makes recommendations for future projects, where required, for their repair, rehabilitation or necessary replacement. The requirements for these and any other required new structures will depend on the overall Transportation Plan.

Reference is made to the 2017 Bridge & Large Culvert Biennial Inspections carried out by Keystone Bridge Management Corp. on behalf of the Township, as well as to the previous Road Management Study which was undertaken by Greer Galloway in 2006/2007. The 2017 inspections note the existence of sixteen (16) structures within the Township, ten (10) of which were considered to be bridges and six (6) to be culverts. In the earlier 2006/2007 Road Management Study, eight (8) structures were visually inspected, seven (7) of which were identified as bridges and one (1) as a culvert. The 2017 report reflects the current details of the existing structures and their condition, and is therefore used as the basis for the analysis and recommendations in this memorandum.

Locations of the structures within the Township are shown in **Figure 1: Map Showing Locations of Bridges and Culverts**.

Associated Road Improvements

Establishing bridge priorities involves a need to also consider the road improvements and design standards for both roads and bridges to be carried forward in the Transportation Plan. Road improvement needs may require an increase in the current bridge cross section for lane and shoulder widths for future bridge projects,

as well as elevate the road profile at crossings in low wet areas, in order to improve the road performance. The Transportation Plan will recommend clear zone protection for roadside hazards, and thus will lead to recommendations for guiderail protection on the approaches to structures.

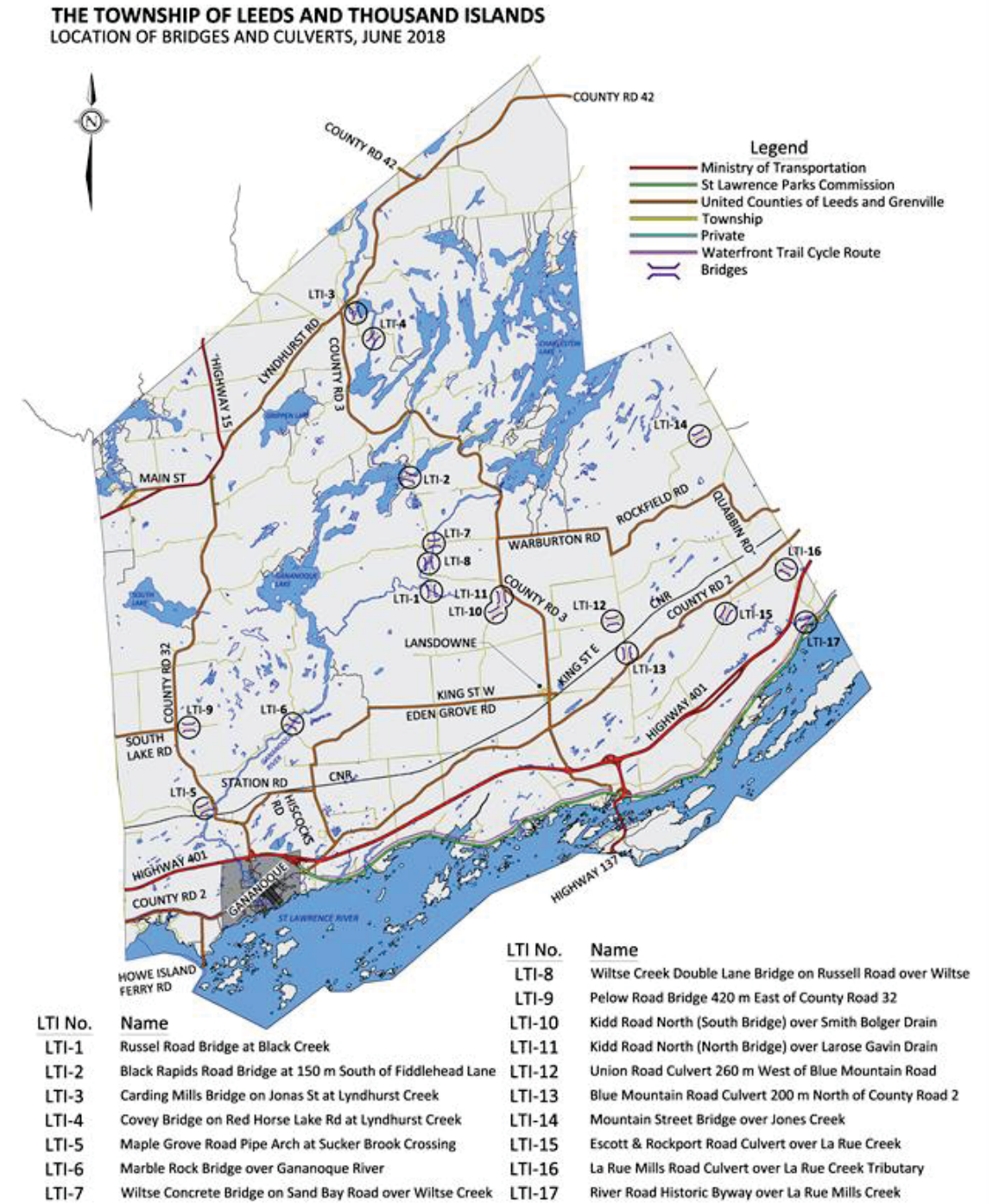


Figure 1: Map Showing Locations of Bridges and Culverts

The Structures

A description and current condition for the structures is provided as follows, including recommendations for minor repairs, rehabilitation, total replacement, or no action at this time. The location, description and other data for each structure are generally accepted as previously described in the 2017 report. The illustrative images provided below are taken, for the most part, from the “2017 Bridge & Large Culvert Biennial Inspections” report prepared by Keystone Bridge Management Corp. for the Township of Leeds and Thousand Islands.

Structure ID: LTI-1 Russell Road Bridge at Black Creek (N44.443296; W-76.079481)

This is a 20 m long and 11 m wide single-span slab and steel girder bridge supported on rubber bearings atop of reinforced concrete abutments. It was built in 2008. The existing structure currently is in generally good condition. However, certain item(s) of some concern, and necessary remedial action, have been identified. As a result of flooding in 2017, the water level rose to above the bottom of the flange on both approaches, apparently resulting from a lack of adequate freeboard. This is likely to be a continuing problem, so that the channel will need to be maintained on a regular basis. There is a noticeable deflection of some 70 mm at the mid-span of the girders. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.

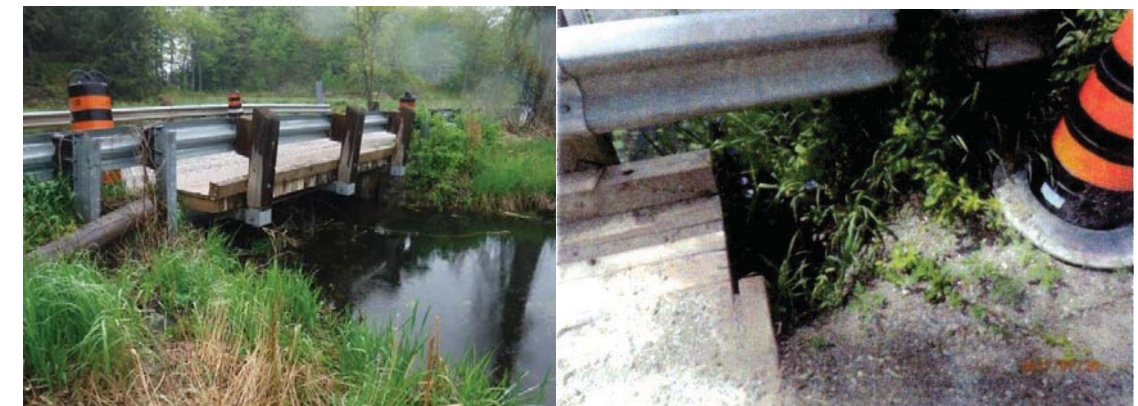


LTI-1 Debris caught up at east girder LTI-1 West elevation LTI-1 Sag in west exterior girder

Structure ID: LTI-2 Black Rapids Road Bridge at 150 m South of Fiddlehead Lane (N44.485297; W-76.091770)

This bridge was also built in 2008, replacing a deck of wooden planks and steel girders which was assessed in 2007 as needing urgent replacement. With a single span of 4.9 m and a width of 6.0 m, the new bridge also consists of a timber deck on steel girders. The ballast walls and both curbs are also comprised of timbers. Although the existing bridge appears to be in generally good condition, various items have been identified in **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**, such as washout at 4 bridge corners, major decay of the deck running boards adjacent to the curbs, etc., and this bridge is recommended for early replacement for the following reasons:

- It is a single lane bridge with an AADT greater than 50 vehicles per day, and is deficient for roadway width according to proposed Municipal standards;
- Road reconstruction is recommended to raise the roadway 1 m and flatten the vertical curve to the north as part of road reconstruction. This road reconstruction is a priority in the TMP.



LTI-2 Elevation LTI-2 Washout

Structure ID: LTI-3 Carding Mills Bridge on Jonas Street at Lyndhurst Creek (N44.546123; W-76.120244)

This is a 14 m (nominal) single-span variable-depth deck cast-in-place reinforced concrete rigid frame bridge, with a width of 8.78 m. The overall deck surface area is 14.8 m x 9.2 m and was deemed to be unprotected in 2017. It was built in 1980 over Lyndhurst Creek and is located 1 km north of Red Horse Lake Road. The 2017 Bridge Inspection Report states that the bridge substructure is in good condition, and recommends that the bridge deck should be patched, waterproofed and paved, that the approach guide rail be replaced, and the deck drains extended, all within 3 years. The estimated remaining service life of this structure is expected to be 50 to 60 years. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.

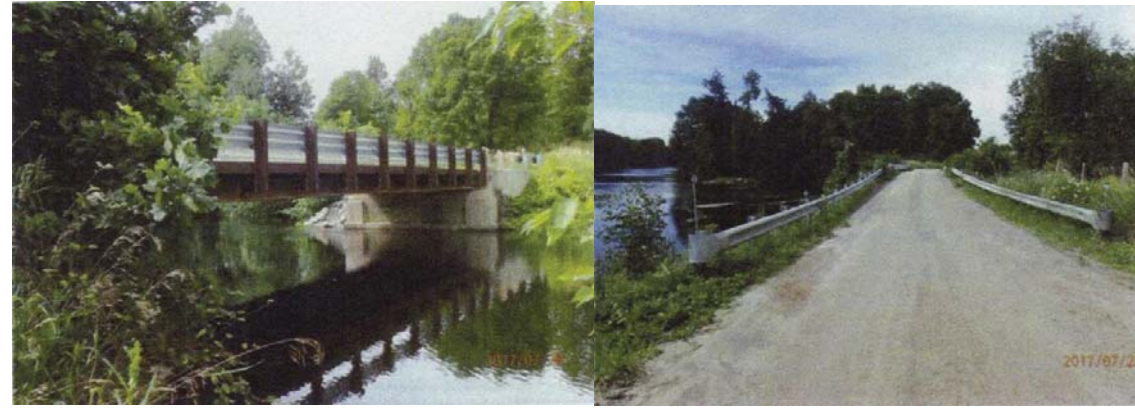


LTI-3 Elevation LTI-3 Bridge Deck

Structure ID: LTI-4 Covey Bridge on Red Horse Lake Road at Lyndhurst Creek (N44.536403; W-76.111124)

The Covey Bridge, located some 300 m east of Estate Road on Red Horse Lake Road, was built in 2014, the new superstructure replacing an old pony truss bridge. The “original” abutments were considered to be in generally good enough condition to be repaired and slightly modified for the support of the 2014 replacement superstructure. Currently, older areas of the abutments are scaled, cracked and leaching, with some honeycombing on the east wall. There is some disintegration at the base of the west wall and footing. Concrete wing walls poured on top of gabion baskets are considered to be a possible future problem if the gabions lose stone material. The Covey Bridge is 19.3 m long and 4.5 m wide. It is described as a steel girder

pre-fabricated bridge deck, with a timber decking, and with no drainage system on the deck. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**, which identifies the long range replacement considering realignment of the road to improve safety.



LTI-4 Elevation

LTI-4 Bridge Deck

Structure ID: LTI-5 Maple Grove Road Pipe Arch at Sucker Brook Crossing (N44.362763; W-76.191791)

This soil-steel structure located on Maple Grove Road some 500 m west of County Road 32 was built in 1998. The CSPA has a span of 4.9 m, is 15.4 m long and has a height of approximately 4.3 m. Structures in excess of 3.0 m in span are currently considered to be bridges rather than culverts and should be designed and maintained in accordance with the requirements of the latest edition of the Canadian Highway Bridge Design Code (CHBDC). The CSPA is considered to be in good condition. However, as recommended in the 2017 Biennial Inspection, it is important that an underwater inspection be carried out in the near future, perhaps during the 2019 Inspection. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-5 Downstream Elevation

Structure ID: LTI-6 Marble Rock Bridge over Gananoque River (N44.393615; W-76.150288)

The Marble Rock Bridge over the Gananoque River is located on Marble Rock Road east of Gananoque Road. It was constructed in 1980. It has a reinforced concrete deck resting on five (5) steel girders, spanning 31 m and having an overall width of 8.4 m. The reinforced concrete abutment walls show minor rust staining, minor

delamination and spalling. The overall condition of the bridge is good. The action required includes repairs indicated in **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-6 Elevation

LTI-6 Bridge Deck

Structure ID: LTI-7 Wiltse Concrete Bridge on Sand Bay Road over Wiltse Creek (N44.393615; W-76.150288)

This continuous 2-span cast-in-place reinforced concrete structure, rigidly connected to the center support wall, is estimated to have been constructed in 1980. It is located some 450 m east of Sand Bay Road and Russel Road. Each span is approximately 6.7 m long and the bridge has an overall width of 6.7 m. The bridge is considered to be in generally good condition with a remaining service life in excess of 50 years. However, it was recommended that a boat or underwater inspection of the interior of the structure be undertaken within 5 years in order to confirm its condition and need for any repairs, and subsequently, every few inspection cycles. When the guiderail reaches the end of its service life the buried termination treatments should be updated to the standard of the day. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



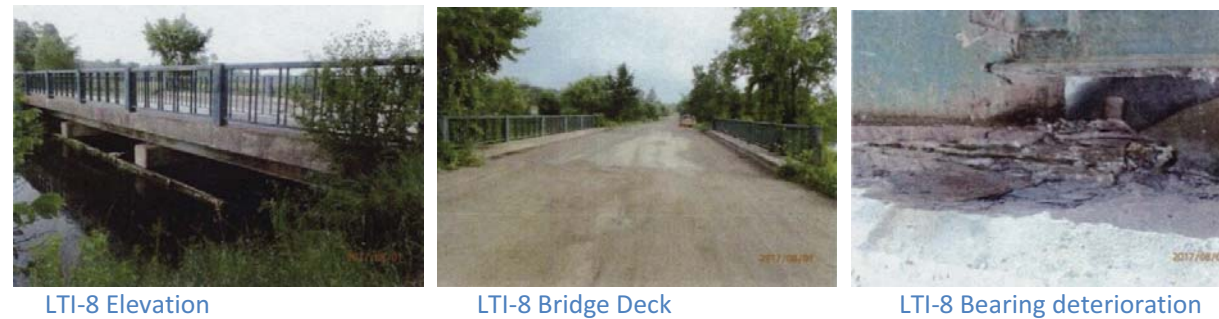
LTI-7 Elevation

LTI-7 Bridge Deck

Structure ID: LTI-8 Wiltse Creek "Double Lane" Bridge on Russell Road (N44.453713; W-76.081044)

The Wiltse Creek "Double Lane" Bridge is a 3-span steel girder bridge with a reinforced concrete deck slab. The deck area is asphalt paved but exhibits potholes. This bridge is located on Russell Road north of Dulcemaine

Road and was built in 1960. The three equal spans total 18 m in length (total length of deck surface is 18.76 m) and the overall width of the deck is 10.4 m. The existing bridge railing is an earlier pedestrian type and sits on concrete safety curbs. The superstructure is supported on reinforced concrete abutments and pier bents composed of reinforced concrete pier caps and steel piles. This bridge is approaching 60 years in age and requires assessment in many areas, including a detailed deck condition survey, and underwater and above water investigation of the deteriorated substructures, which will likely lead to major rehabilitation or possible replacement. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



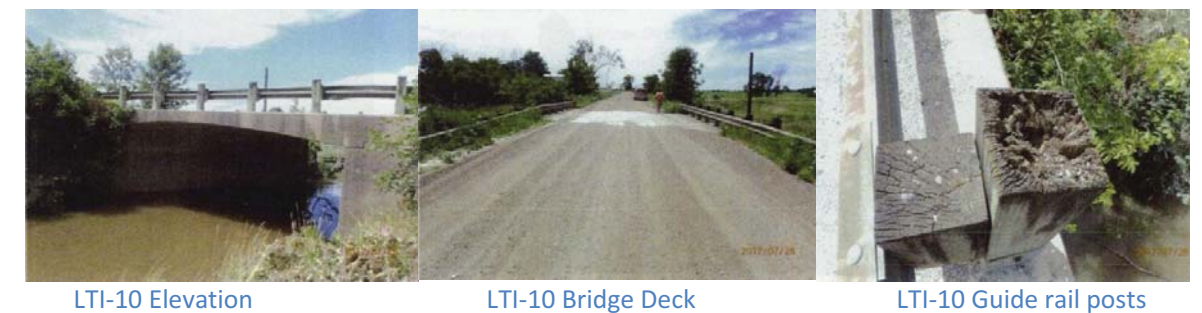
Structure ID: LTI-9 Pelow Road Bridge, 420 m East of County Road 32 (N44.391474; W-76.206537)

This structure is estimated to have been constructed in 1900, but may have been constructed as early as 1880. The Pelow Road Bridge is 3.4 m long and has a width of 6.1 m. It has been described as being in an uncertain structural condition and as being functionally obsolete. Its remaining service life is considered to be near zero years. The existing bridge deck is reportedly comprised of railroad rails encased in concrete and cannot be structurally assessed, even visually. From what is visible, there seems to be evidence of major steel corrosion and slab rust. The stone masonry abutments, although of some historic interest, display major cracking. Several stones are displaced at the base of both walls, with undermining occurring at the southeast corner. The wingwalls show major mortar loss of mortar, are partly displaced and so are not considered effective in retaining the raised road grade. It is understood that **this bridge will be replaced in 2018**. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



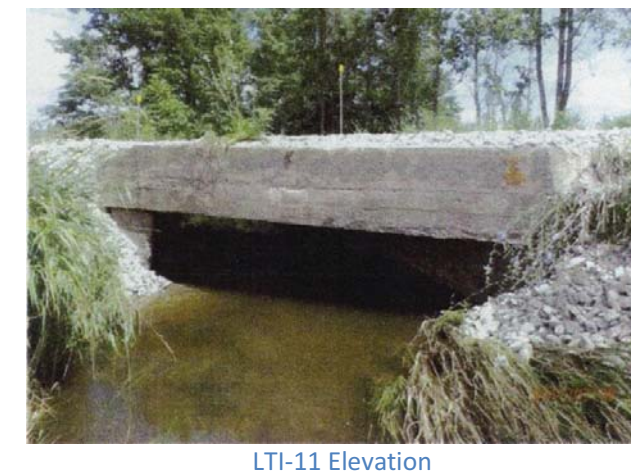
Structure ID: LTI-10 Kidd Road North (South Bridge) over Smith Bolger Drain (N44.436107; W-76.045391)

This is a variable-depth cast-in-place reinforced concrete rigid frame bridge estimated to have been built in 1980. It is located on Kidd Road North, 2.4 km north of Fairfax Road. As is usually the case with this type of structure, it was assessed as being in very good condition. Its estimated remaining service life is considered to be in excess of 60 years. One exception is the damaged condition of the barrier system and the decay evident in all posts, recommended for early replacement, including new termination treatments and considering the clear zone requirements. The bridge has an overall length of 10.7 m and width of 10.1 m. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



Structure ID: LTI-11 Kidd Road North (North Bridge) over Larose Gavin Drain (N44.442664; W-76.043382)

The North Bridge on Kidd Road North is a solid slab reinforced concrete structure, 3 m long and 8 m wide. It was built around 1940 and crosses the Larose Gavin Drain. The structure is considered to be at the end of its service life and has been recommended for early (within 5 years) replacement. The deficiencies include insufficient deck width for road traffic. The abutments exhibit severe deterioration; the abutment walls are separating from the roof slab and appear to be rotating. There is evidence of moderate embankment erosion. The structure replacement is recommended to include approximately 200 m of road reconstruction, raising the existing roadway profile between 1.0 m and 2.0 m, which will allow the use of a pipe as a replacement type structure. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



Structure ID: LTI-12 Union Road Culvert, 260 m West of Blue Mountain Road (N44.433423; W-75.983712)

This reinforced concrete slab-on-wall culvert, built around 1950, has a span of 1.5 m and length of 7.2 m. It displays a wide settlement crack through the walls and soffit. A replacement of this culvert has been recommended for implementation within the next 10 years. However, if road improvements are planned for the near future, structure replacement would take place earlier and would result in an increased culvert barrel length. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-12 Elevation

Structure ID: LTI-13 Blue Mountain Road Culvert, 200 m north of County Road 2 (N44.418529; W-75.977796)

This 3 m wide, 15 m long, single-span culvert was constructed in 2015. It has precast block retaining/wing-walls at all four corners of the structure. However, the west embankment has been partially washed out due to high water level and should be replaced with stone rip-rap as recommended. Over 1.0 m of water was reportedly observed to be flowing well at low velocity through the structure in 2017. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.

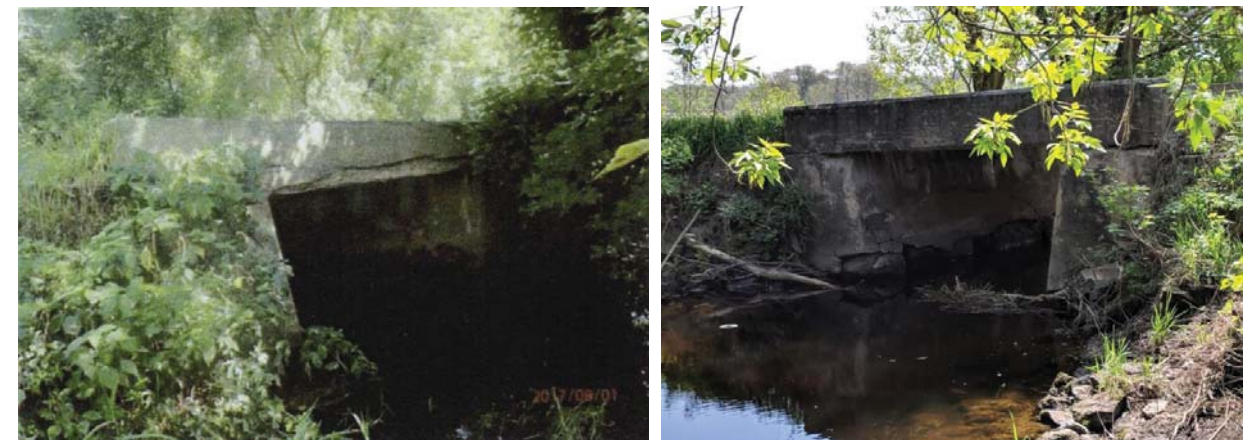


LTI-13 Elevation

LTI-13 Bridge Deck

Structure ID: LTI-14 Mountain Street Bridge over Jones Creek (N44.502296; W-75.941405)

This single-lane structure is estimated to have been constructed in 1900 and is considered to be at the end of its service life. It is therefore recommended for early (within the next 2 years) replacement. It has a clear span of 3.4 m, overall length of 5.7 m, and overall width of 5.6 m. This structure was recommended last year for posting as a narrow bridge, with delineators installed at its 4 corners. Deterioration of the bridge includes extensive leaching, cracks and scaling in the soffit, and holes in the soffit from timbers in the deck allowing granular material to spill through. Fresh gravel was near to top of curbs. The concrete in the base of abutments, which consist of mass concrete on stacked armour stone, has disintegrated exposing the underlying stone. The wingwalls have areas of disintegration, especially at the south east corner, with some erosion occurring at the ends of the wingwalls. It is understood that **this bridge will be replaced in 2018**. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-14 Elevation 1

LTI-14 Elevation 2

Structure ID: LTI-15 Escott & Rockport Road Culvert over La Rue Creek (N44.434351; W-75.929038)

The Escott & Rockport Road Culvert, located 1.7 km south of County Road 2, is a cast-in-place single-span reinforced concrete open-footing rigid frame structure that was built around 1960. It is 10.7 m long, 6.1 m wide, and has a height of about 2.4 m. Because of its span length, in excess of 3 m, it is considered to be a bridge and not a culvert, for design and rehabilitation purposes. In spite of its age, this structure was stated in the 2017 Inspections Report to be in very good condition. A new steel beam guiderail has been added. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-15 Elevation

LTI-15 Soffit

Structure ID: LTI-16 La Rue Mills Road Culvert over La Rue Creek Tributary (N44.453270; W-75.896700)

The La Rue Mills Road Culvert is a reinforced concrete rigid frame box culvert constructed in 2016. It has a clear span of 3 m, a length of 18 m and height of 2 m. It crosses the La Rue Creek Tributary and is located about 1.10 km south of County Road 2. Four (4) retaining walls at the corners consist of 2-high precast blocks, each 0.9 m x 0.6 m x 2.7 m in dimensions. This culvert is in good condition. The only requirement in the near future is installation of a guide rail system. Refer to **Table 1: Recommended 25-Year Rehabilitation/Replacement Plan**.



LTI-16 Elevation

Structure ID: LTI-17 River Road Historic Byway over La Rue Mills Creek (N44.433611; W-75.883888)

The remains of this historic bridge, which was likely built prior to 1800, are depicted in the following photos. This structure is considered to have historic value, and as such is recommended for heritage preservation as a site along the 1000 Islands Parkway. Current repairs will include repairs to, and protection of, the stone abutments. This bridge is a historic landmark with a lookout and a storyboard along the 1000 Islands Parkway multi-use path.



LTI-17 Early Photo of Crossing

LTI-17 View of Existing Masonry Abutments

Hydrologic/Hydraulic Discussion

All future bridge or culvert replacements should be investigated for hydrology and hydraulic waterway opening size using current hydrologic storm intensities duration frequency (IDF) curves for the local area.

Environmental Considerations

All future bridge replacements should satisfy the Ontario Class EA for Municipal Road Projects, including regulatory requirements from DFO, Transport Canada, MTCS, MNRF and CRCA.

Table 1: Recommended 25-Year Rehabilitation/Replacement Plan				
Structure ID	Location*	Year of Construction and Existing Condition	Necessary Work and Year	Remarks
LTI-1 Russel Road Bridge	2.6 km north of Fairfax Road	2008 Generally Good, except: • apparent inadequate freeboard and flooding • noticeable deflection of girders	<ul style="list-style-type: none"> Maintain channel annually to ensure clearance under and around the bridge. Monitor reported approx. 70mm mid-span deflection of girders. Future grade raise of approach road and lift of girder bridge 	
LTI-2 Black Rapids Road Bridge	150 m south of Fiddlehead Lane	2008 Generally Good, except: • washout at 4 bridge corners • decay of deck running boards • deck ends steel posts unstable	<ul style="list-style-type: none"> Replace decking and ballast walls within approx. 2 years (~2020) Widen approaches adjacent to abutment walls to eliminate future washouts at 4 corners of bridge 	
LTI-3 Carding Mills Bridge on Jonas Street	1 km north of Red Horse Lake Road	2008 Generally Good, except: • delamination and moderate scaling on unprotected deck top, • leaching on west fascia and centre construction joint soffit, • decay of guide rail posts	<ul style="list-style-type: none"> Patch, waterproof and pave bridge deck, Replace approach guide rail, Extend deck drains to prevent damage to soffit, and General maintenance repairs, All within 2 years (2020) 	
LTI-4 Covey Bridge on Red Horse Lake Road	300 m east of Estate Road	2014 Superstructure Good, except: • Lack of proper deck drainage may create future problems • Substructure Fair, due to: • scaling, cracking and leaching, • Disintegration at the base of the west wall and footing	<ul style="list-style-type: none"> Inspect and assess substructure condition annually and after a storm event Long range replacement project to consider a route to improve safety and the road geometry 	

Table 1: Recommended 25-Year Rehabilitation/Replacement Plan				
Structure ID	Location*	Year of Construction and Existing Condition	Necessary Work and Year	Remarks
LTI- 5 Maple Grove Road Pipe Arch	500m West of County Road 32	1998 Generally Good • There seems to be evidence of overtopping at the north end of the structure	<ul style="list-style-type: none"> Carry out an underwater (barrel) inspection in 5 years (2023) 	
LTI-6 Marble Rock Bridge on Marble Rock Road	East of Gananoque Road	1980 Generally Good, except • minor rust staining, delamination, spalling at abutment wall and stem, including at west abutment.	<ul style="list-style-type: none"> Undertake repairs in approx. 2 years (2020) 	
LTI-7 Wiltse Concrete Bridge on Sand Bay Road	450 m east of Sand Bay Road and Russel Road	1980 Generally Good, except • approach guide rail timber posts show extensive decay • flex beam is (collision) damaged	Carry out an underwater or boat inspection within 4 years (2022) <ul style="list-style-type: none"> Replace approach guide rail in 2 years (2020) 	
LTI-8 Wiltse Creek "Double Lane" Bridge on Russel Road	North of Dulcemaine Road	1960 Questionable Condition, requiring structural assessment	Carry out: <ul style="list-style-type: none"> detailed deck condition survey underwater and above water inspection of the deteriorated substructures overall assessment, leading to major rehabilitation in 1 year (2019) or replacement in 5 years (2023) 	
LTI-9 Pelow Road Bridge on Pelow Road	420m east of County Road 32	1900 or Earlier Poor and possibly failing, with close to zero years remaining service life	Make final overall assessment and replace within 1 year (2018/19). <ul style="list-style-type: none"> This bridge is planned for replacement in 2018. 	

Table 1: Recommended 25-Year Rehabilitation/Replacement Plan

Structure ID	Location*	Year of Construction and Existing Condition	Necessary Work and Year	Remarks
LTI-10 Kidd Road North (South Bridge) over Smith Bolger Drain	2.4 km north of Fairfax Road	1980 Very Good , except • condition of barrier system	• replace barrier system within 2 years (2019)	
LTI-11 Kidd Road North (North Bridge)	450 m south of Outlet Road	Circa 1940 Poor to Very Poor, with close to zero years remaining service life; • insufficient deck width, • abutments severely deteriorated, rotating, • embankment erosion	Replace Bridge within 5 years (2023) or earlier. Install a barrier system. Monitor rotation of abutment walls until bridge is replaced.	
LTI-12 Union Road Culvert	260 w West of Blue Mountain Road	Circa 1950 Poor , nearing end of service life; • displays a wide settlement crack through walls and soffit	Replace Bridge within 10 years (2028) or earlier; • monitor annually • install a barrier system	
LTI-13 Blue Mountain Road Culvert	200m North of County Road 2	2015 Very Good; except as noted under Necessary Work and Year column.	• Replace washed-out areas of embankment with stone rip-rap; • Install barrier system	
LTI-14 Mountain Street Bridge over Jones Creek	1.4 km west of Townline Bridge	Circa 1900 Very Poor; • both superstructure, substructures and wingwalls are severely deteriorated, • erosion at ends of wingwalls	Replace Bridge (widened to 2 lanes) within 1 year (2018 - 2019) • This bridge is planned for replacement in 2018.	
LTI-15 Escott & Rockport Road Culvert crossing LaRue Creek	1.7 km south of County Road 2	Circa 1960 Very Good; • minor miscellaneous repairs required	Carry out necessary misc. repairs, including extension of deck drains, concrete repairs, if not yet done, and install barrier system in (2018/2019)	

Table 1: Recommended 25-Year Rehabilitation/Replacement Plan

Structure ID	Location*	Year of Construction and Existing Condition	Necessary Work and Year	Remarks
LTI-16 La Rue Mills Road Culvert crossing La Rue Creek Tributary	1.0 km south of County Road 2	2016 Good; • guide rail system required	Install a guide rail system (2019 – 2020) , and perform regular maintenance, including repaving as needed.	
LTI-17 River Road Historic Byway over La Rue Mills Creek	350 m west of La Rue Mills Road	Circa 1800	Repairs to Masonry abutments needed to maintain historic value	Liaison with property owners, St. Lawrence Parks Commission, MTCS

Table Notes:

- * For coordinates of structure location and name of crossing see description of individual bridges and culverts above.
- The construction year of some of the individual structures listed in the Table is an estimated date.
- Estimated replacement value, if provided, assumes no change in deck area, except where changed from single lane to two (2) lanes and indicated in above Table.
- Future changes to the existing roadway network (widening of roadways, provision of adequate shoulders, railing, etc.) may significantly affect costs.



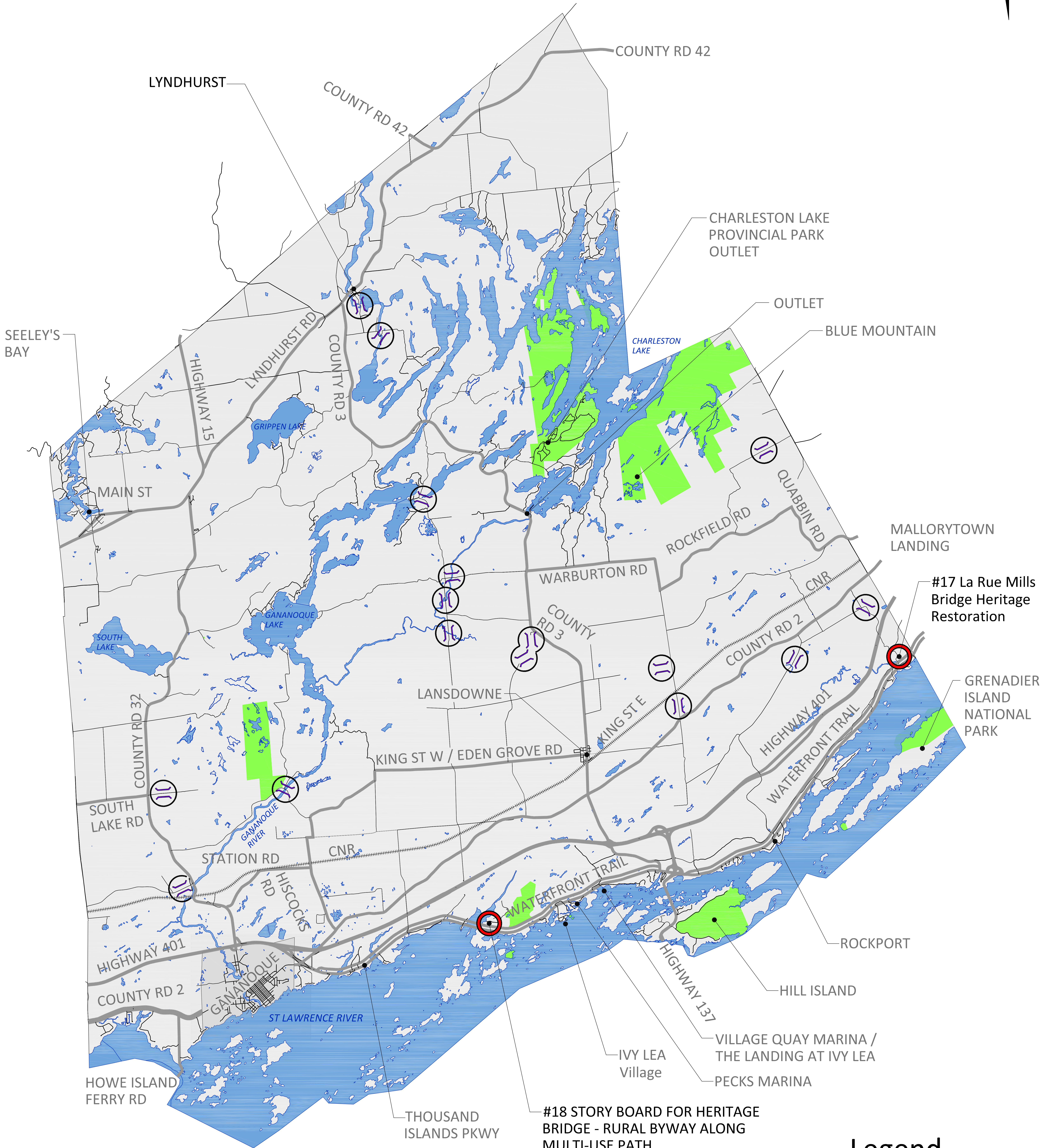
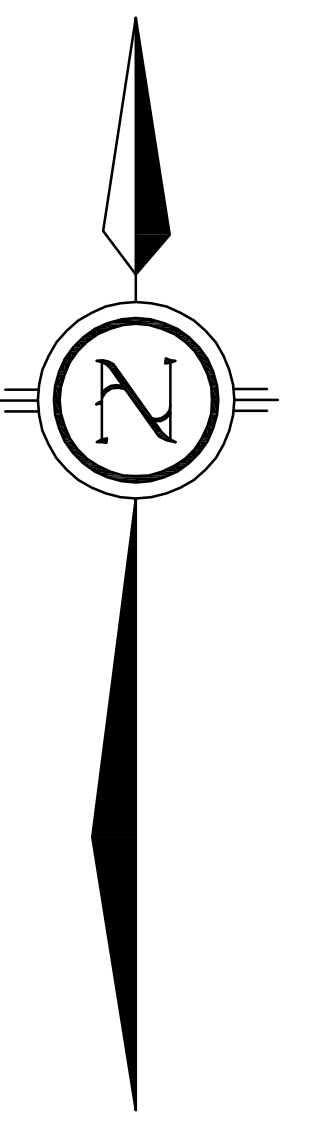
TRANSPORTATION MASTER PLAN /
ACTIVE TRANSPORTATION PLAN

Appendix G Schedules

Schedule 09

Township of Leeds and the Thousand Islands

Preliminary Bridge Projects

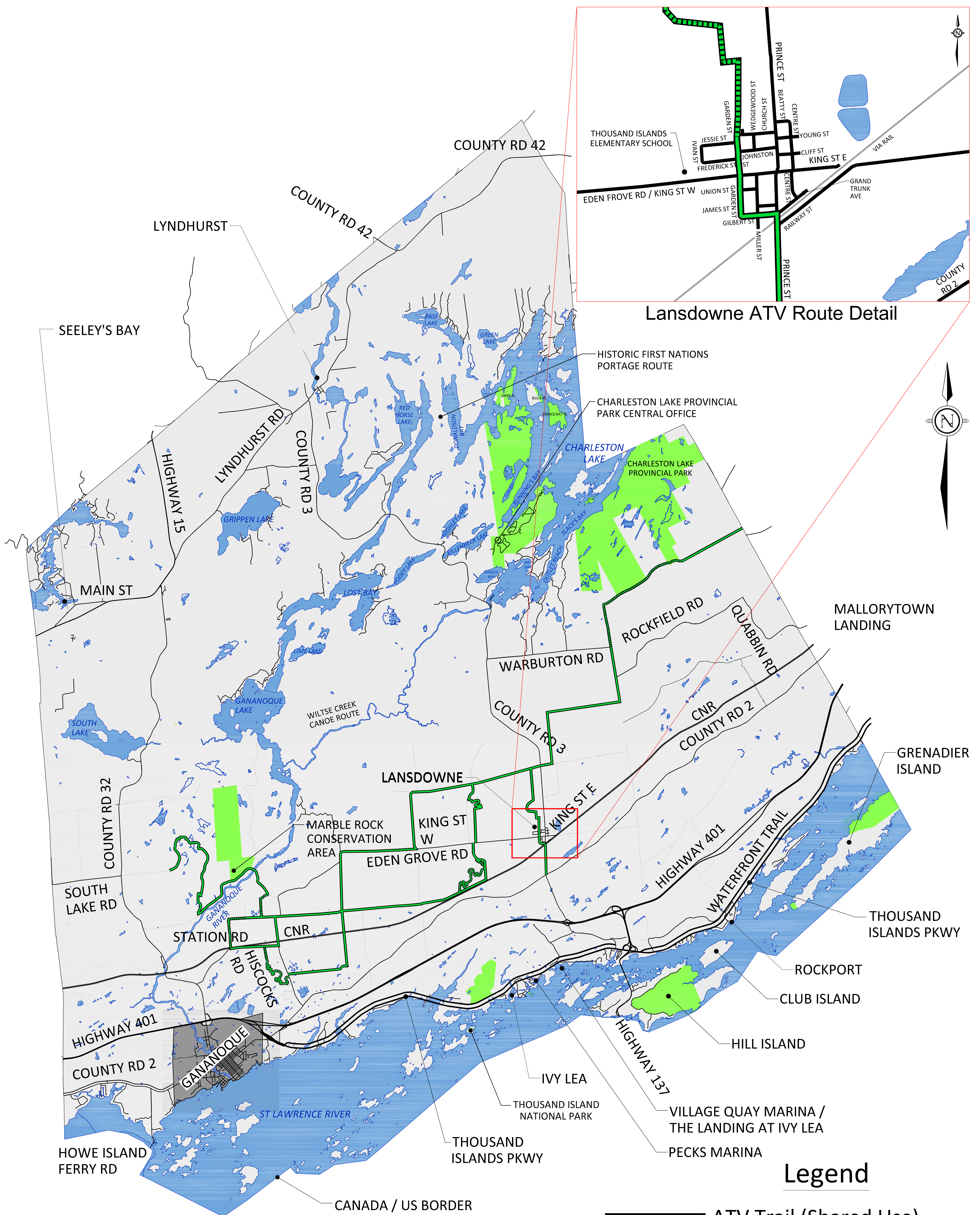


Legend

- Preliminary Bridge Projects
- ⌘ Bridge Locations

Schedule 08

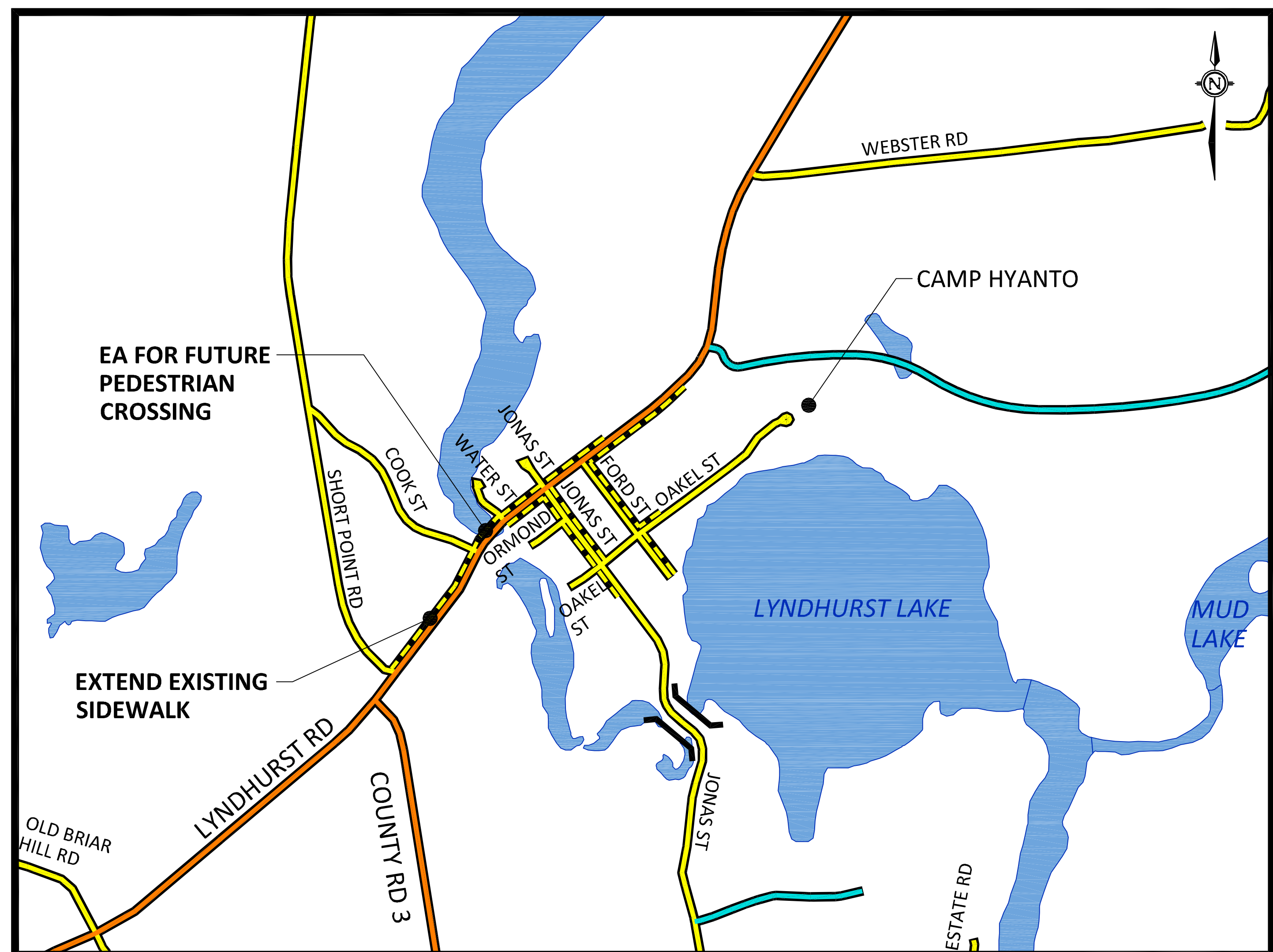
Township of Leeds and the Thousand Islands Preliminary All Terrain Vehicles Network



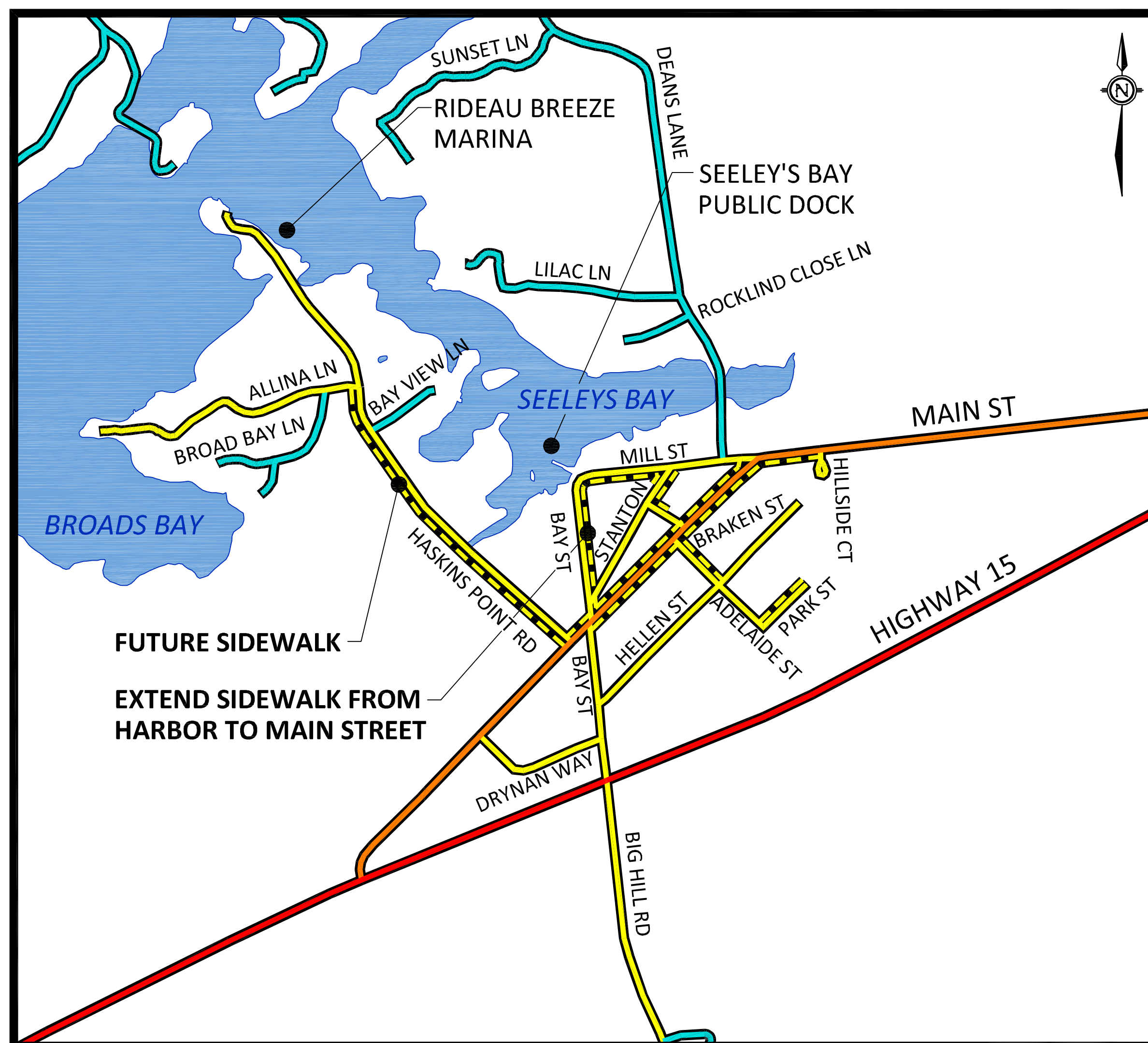
Schedule 07

Township of Leeds and the Thousand Islands Preliminary Sidewalk Network

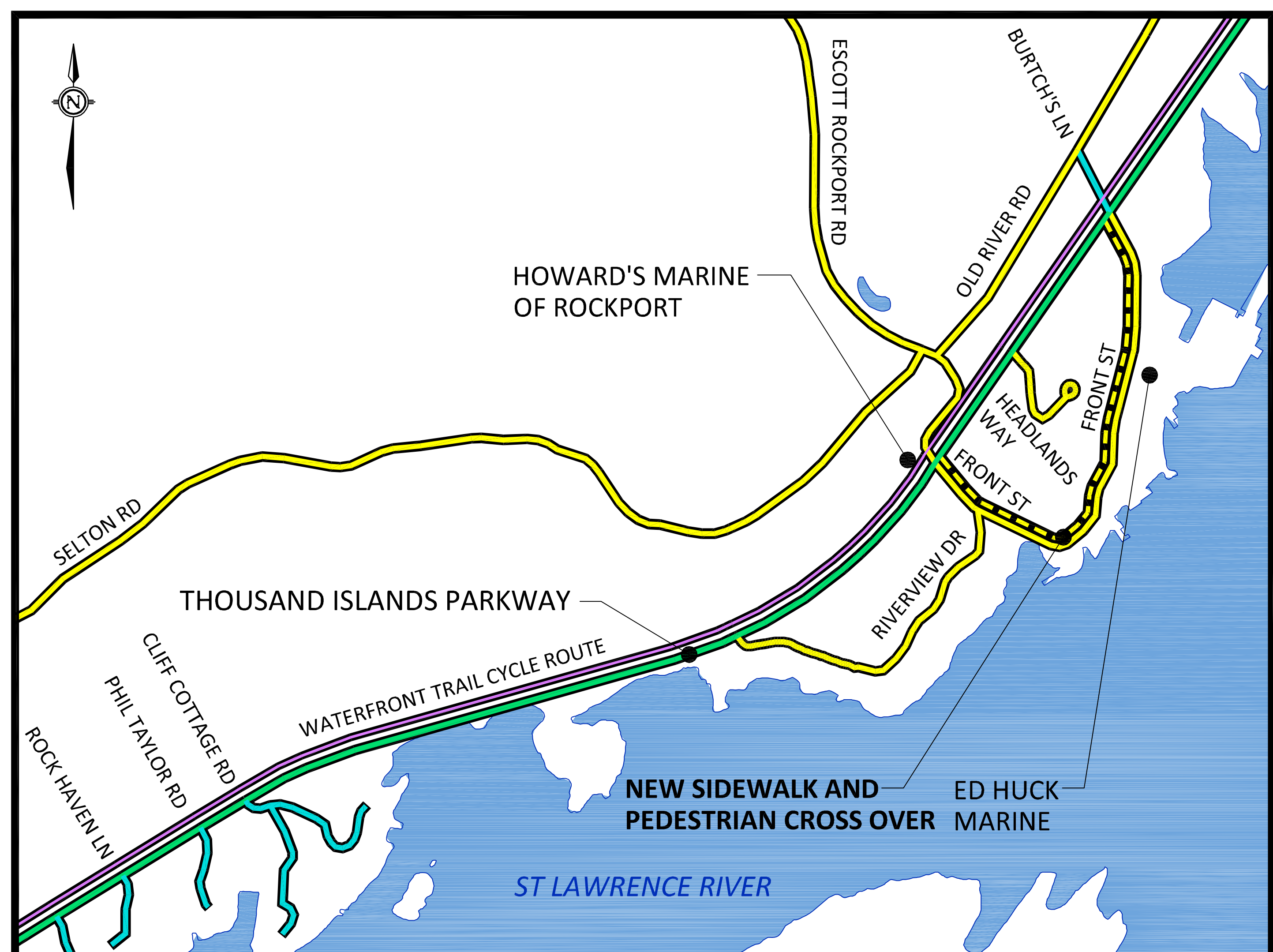
LYNDHURST



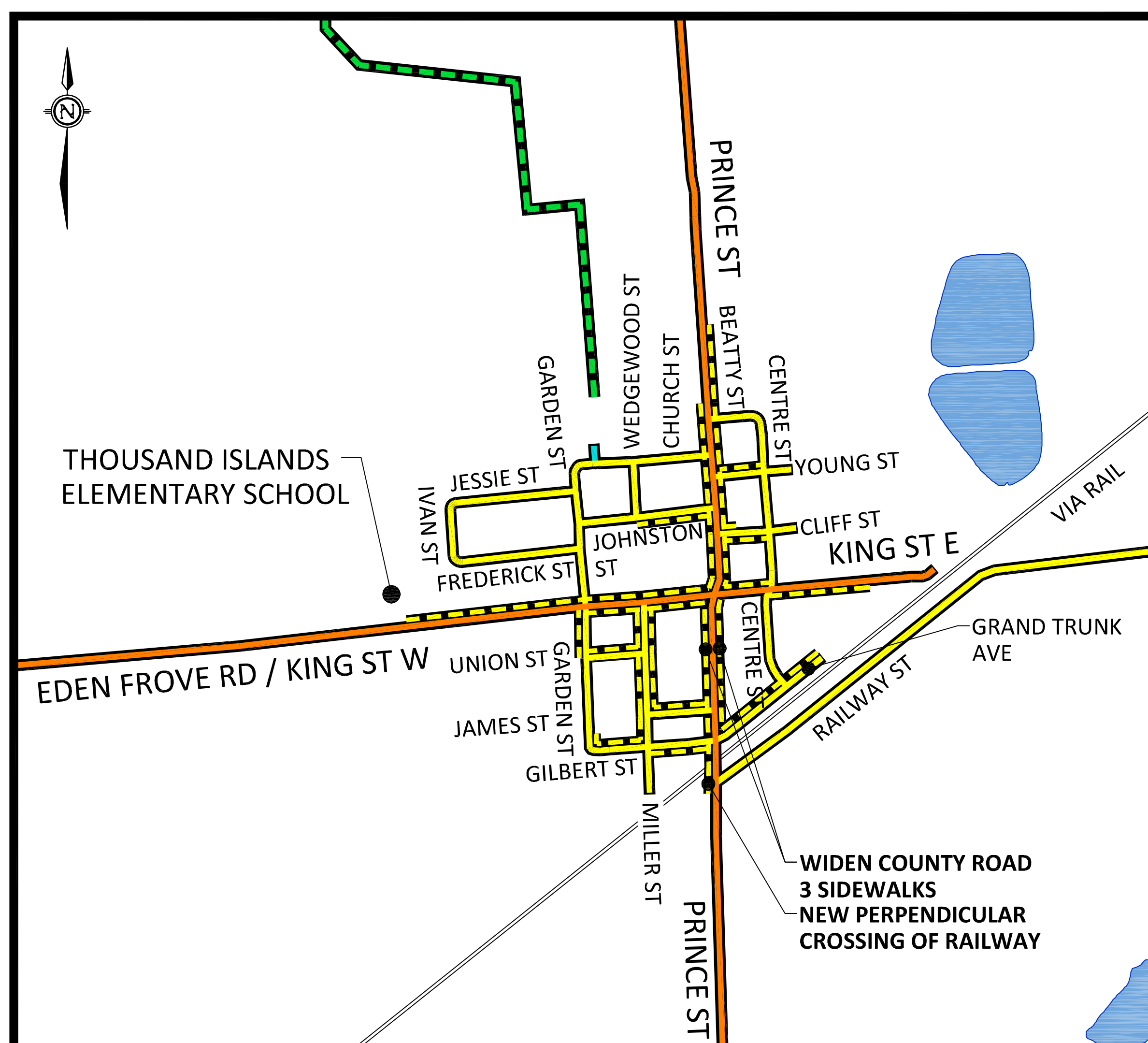
SEELEY'S BAY



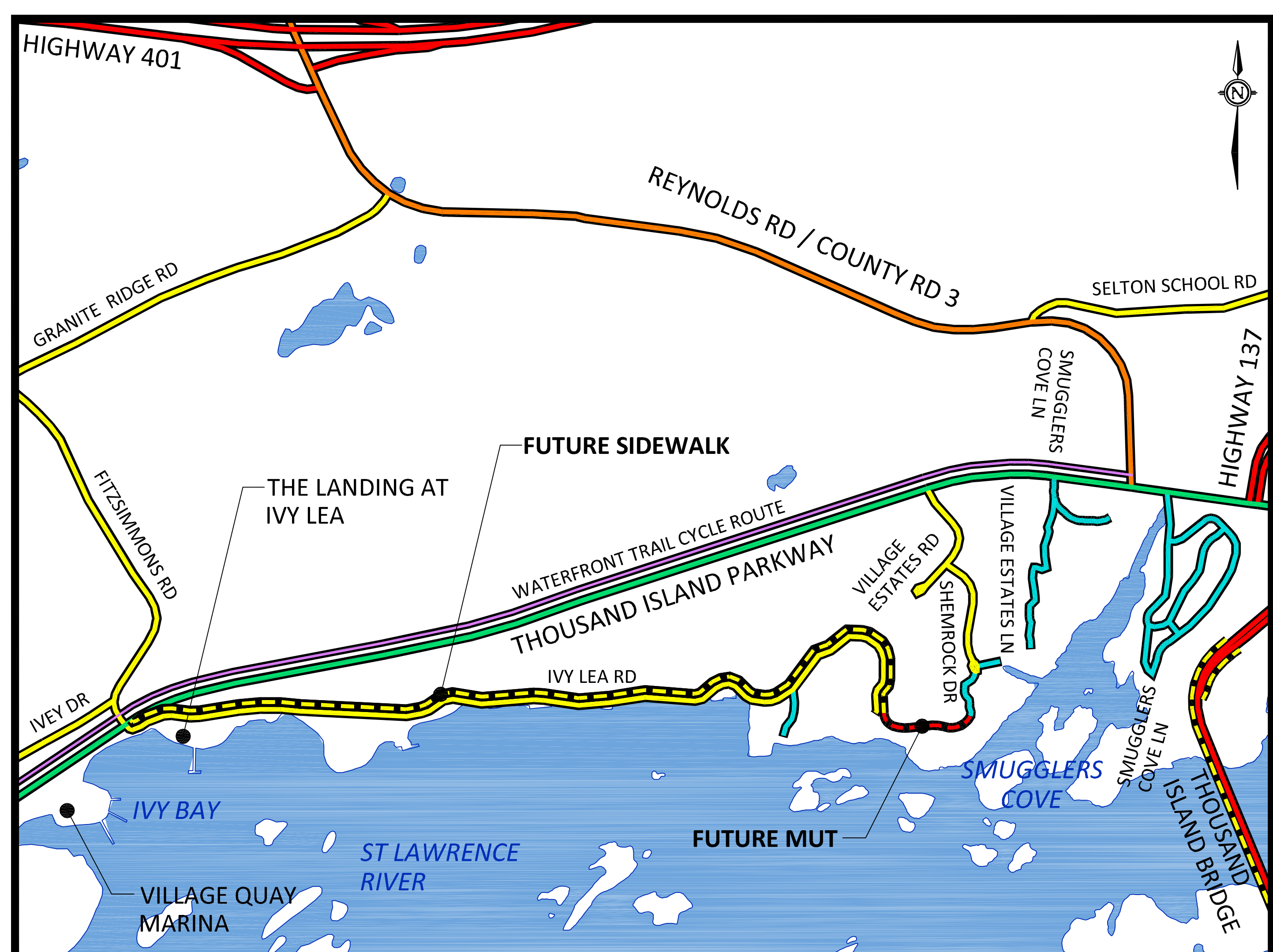
ROCKPORT













LANSDOWNE



IVY LEA / SELTON

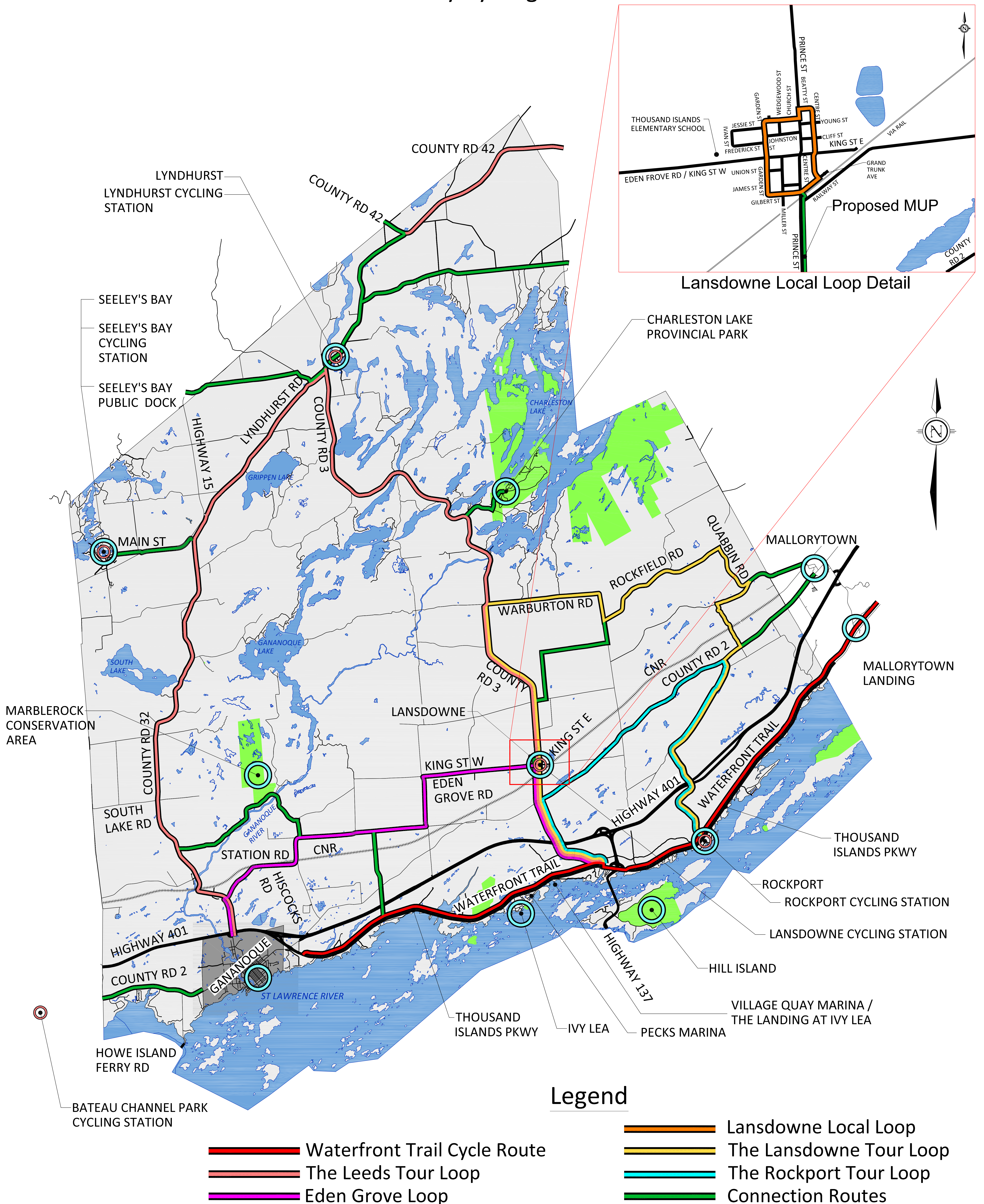


Legend

-  Ministry of Transportation
-  St Lawrence Parks Commission
-  United Counties of Leeds and Grenville
-  Township
-  Private
-  Sidewalk
-  Multi Use Trail (MUT)
-  Waterfront Trail Cycle Route
-  Off-road ATV Trails
-  Bridges

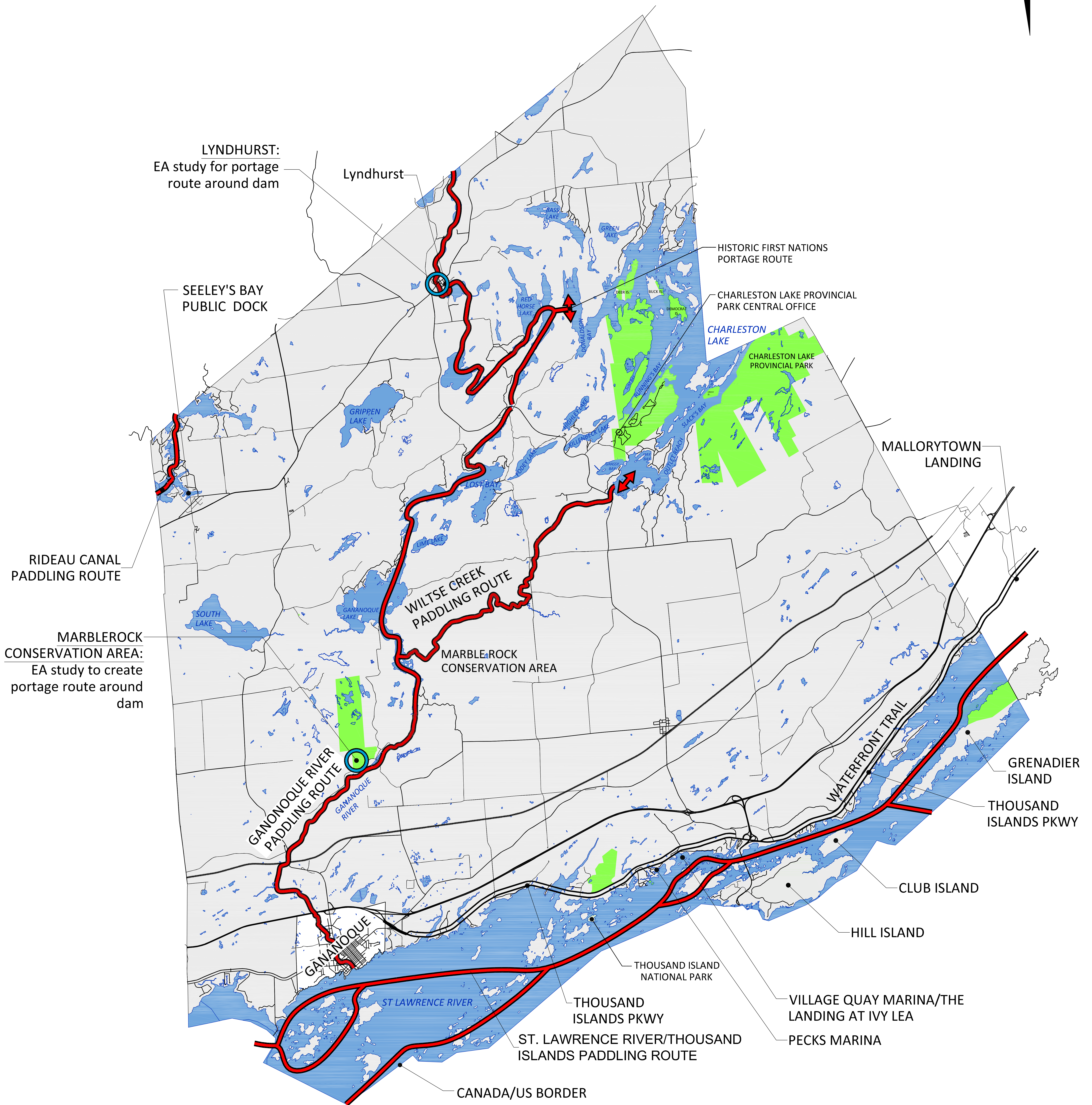
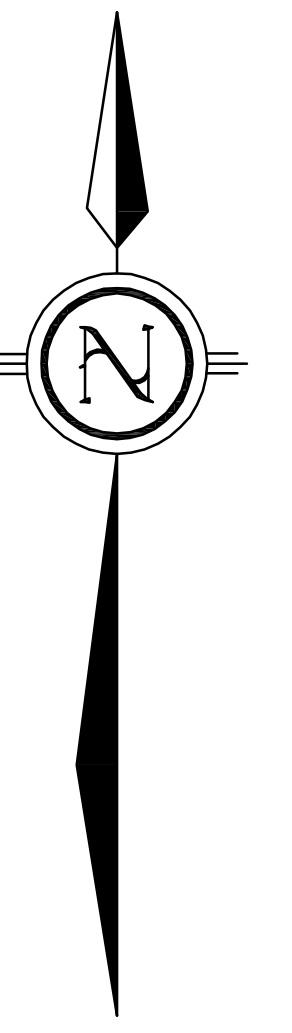
Schedule 06

Township of Leeds and the Thousand Islands Preliminary Cycling Network

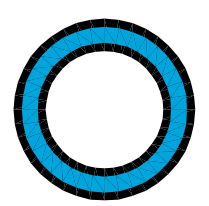





Schedule 05

Township of Leeds and the Thousand Islands Preliminary Paddling Network



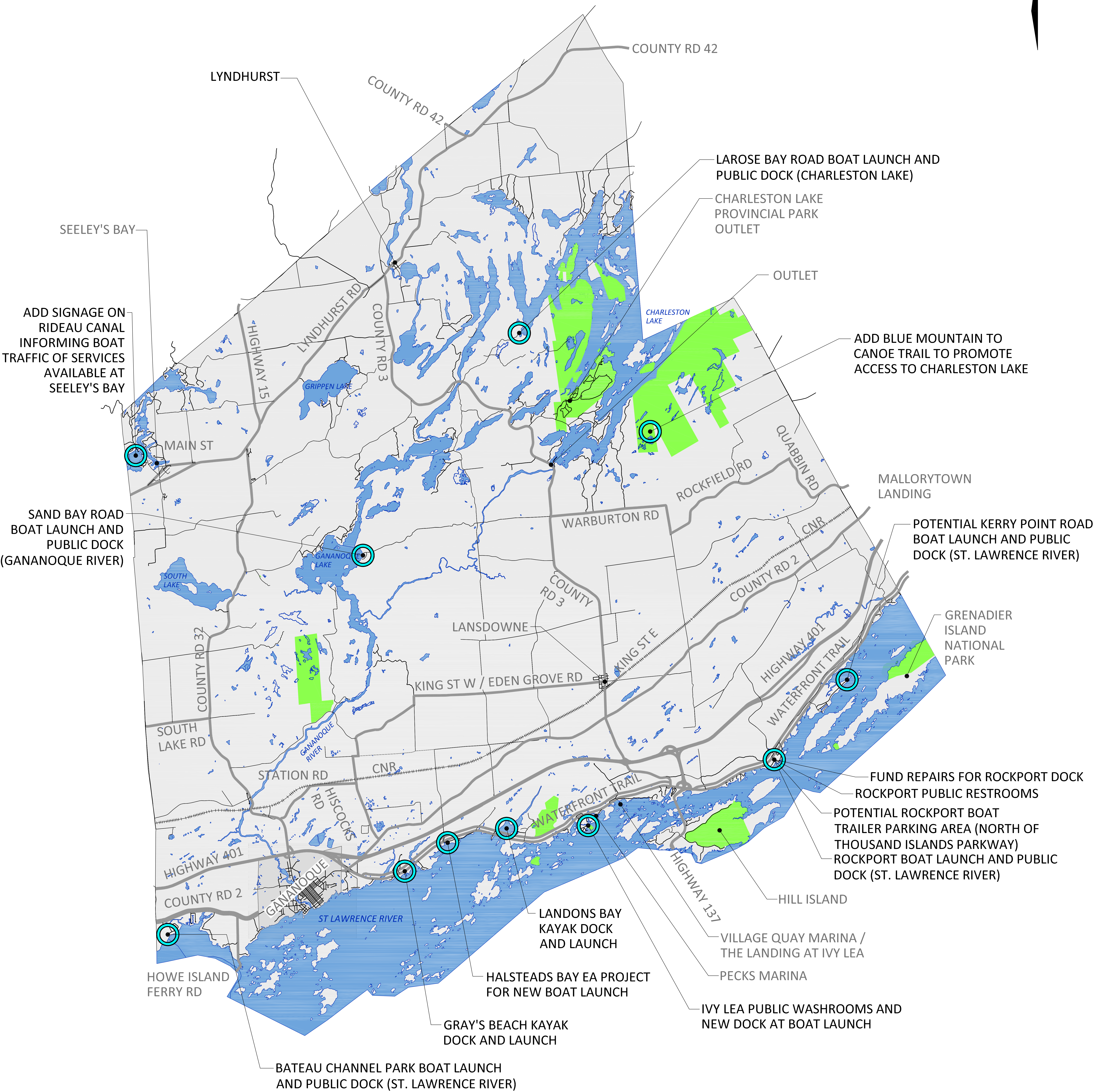
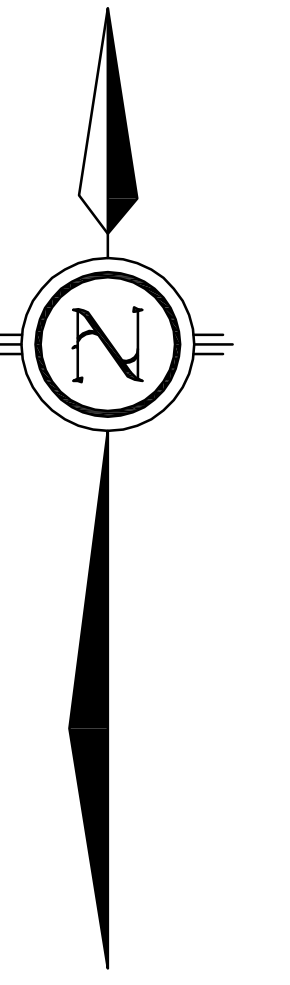
Legend

-  Preliminary Paddling Network Projects
-  Paddling Route
-  Park/Conservation Land
-  Waterways

Schedule 04

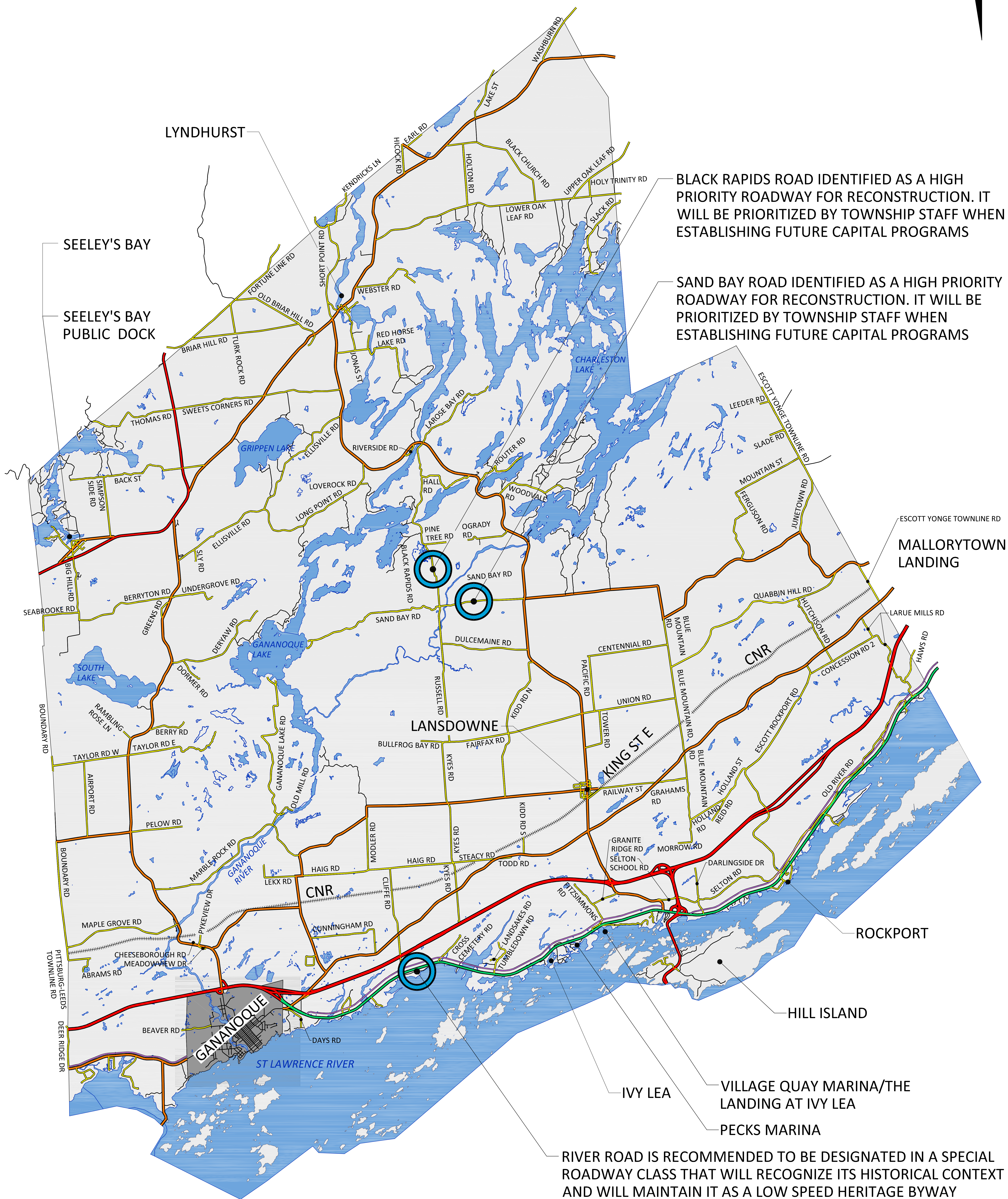
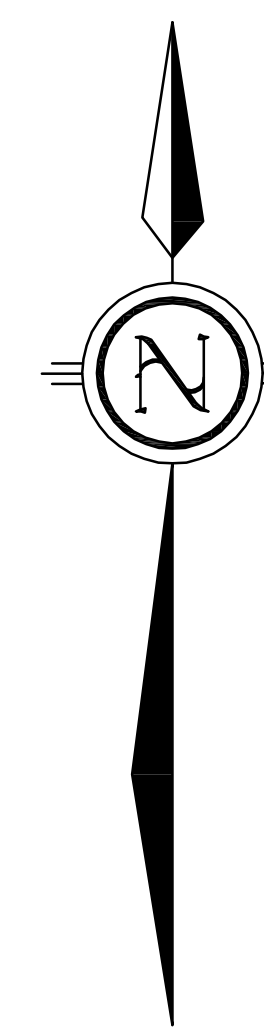
Township of Leeds and the Thousand Islands

Preliminary Marine Projects



Schedule 03

Township of Leeds and the Thousand Islands Preliminary Road Projects

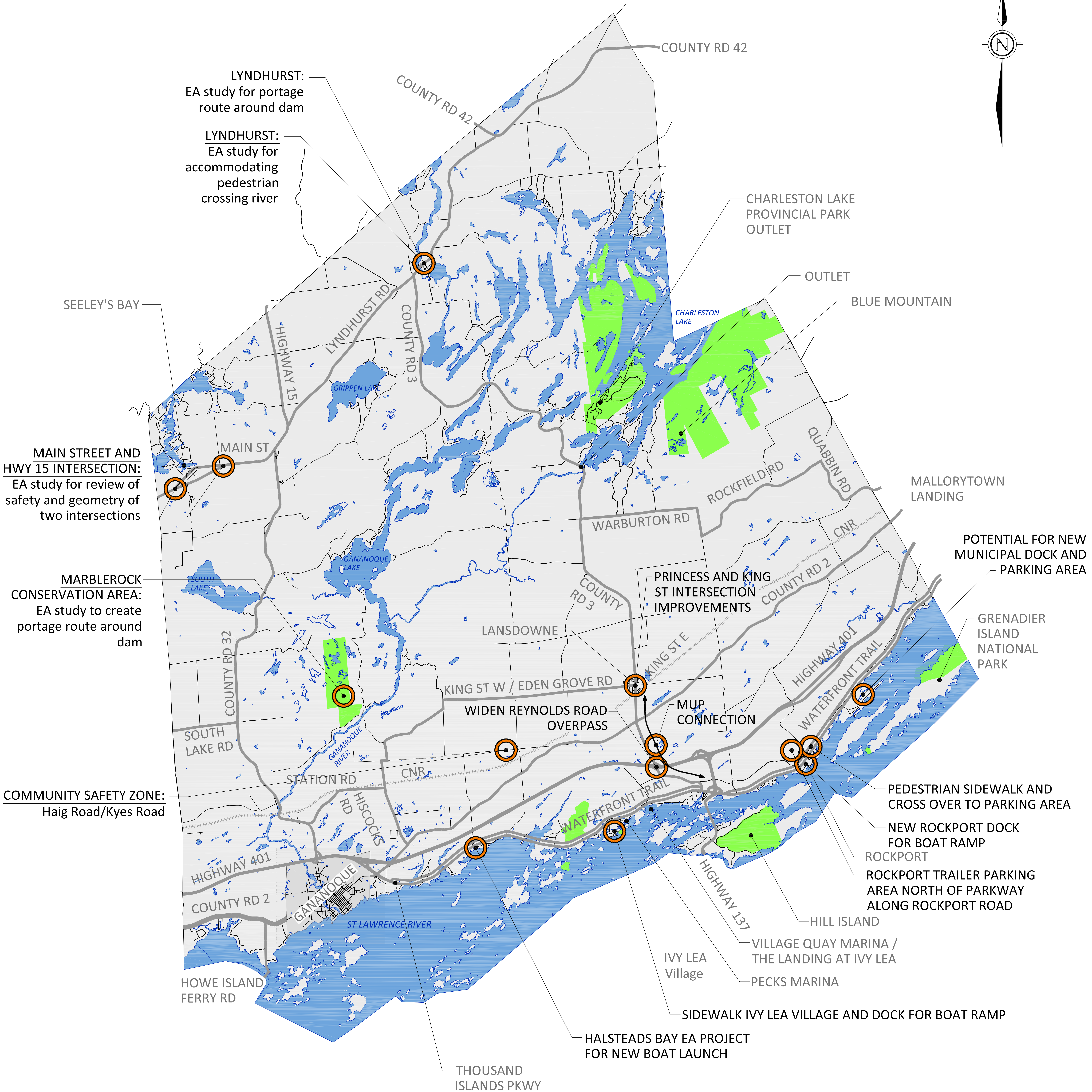
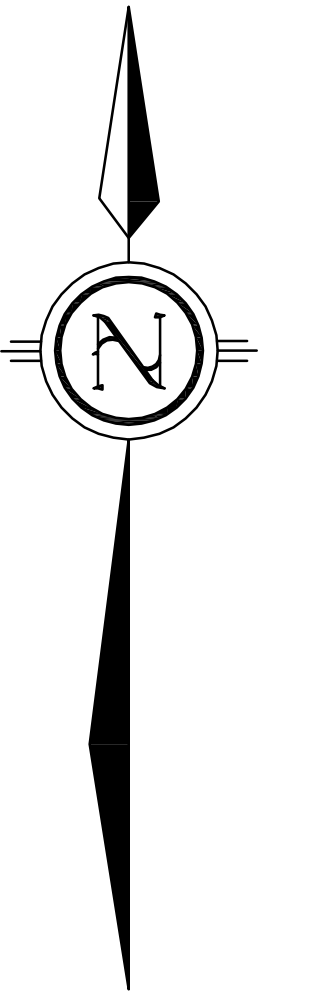


Legend

- | | | | |
|--|--|--|------------------------------|
| | Ministry of Transportation | | Township |
| | St Lawrence Parks Commission | | Private |
| | United Counties of Leeds and Grenville | | Waterfront Trail Cycle Route |
| | | | Preliminary Road Projects |

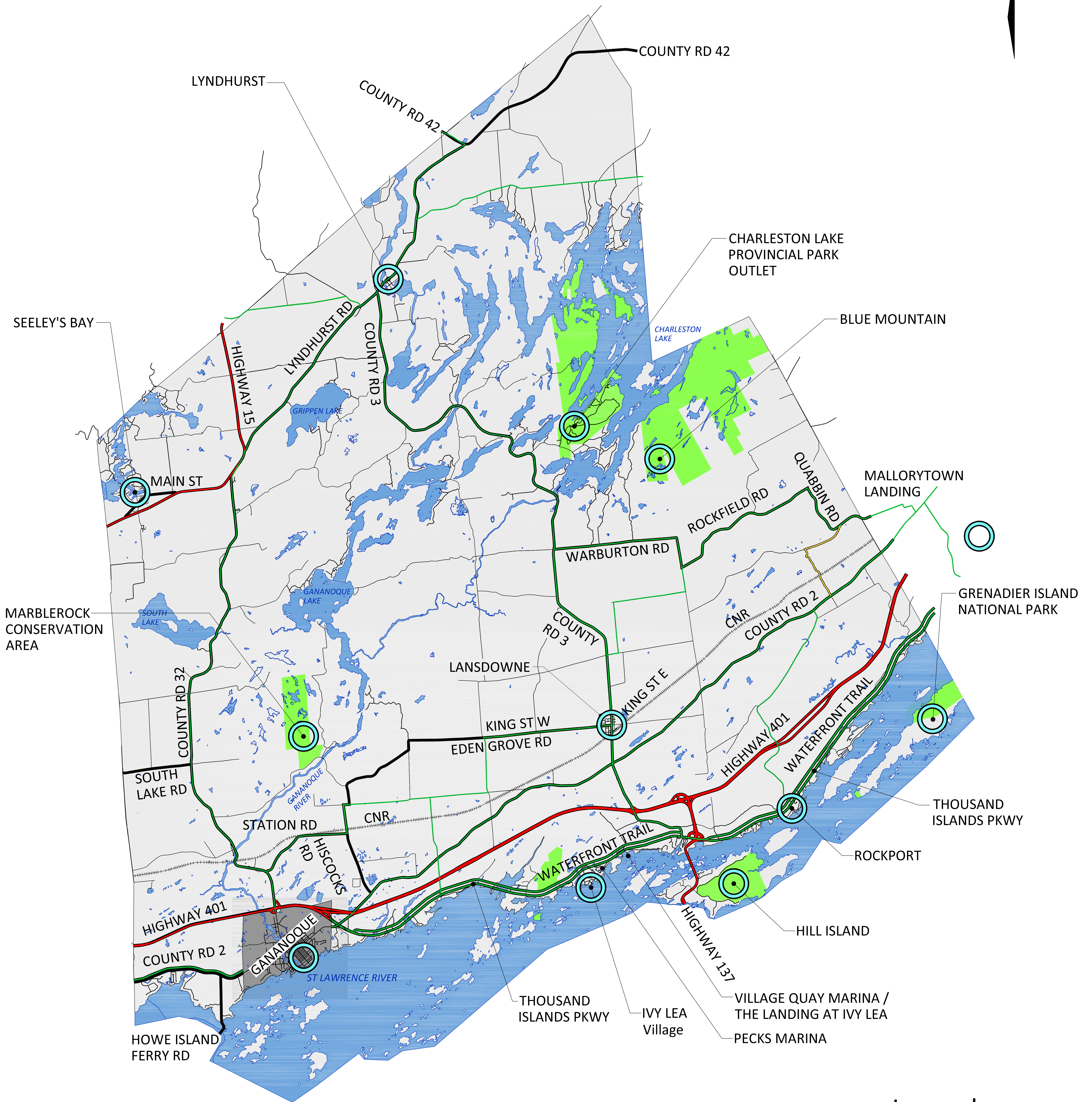
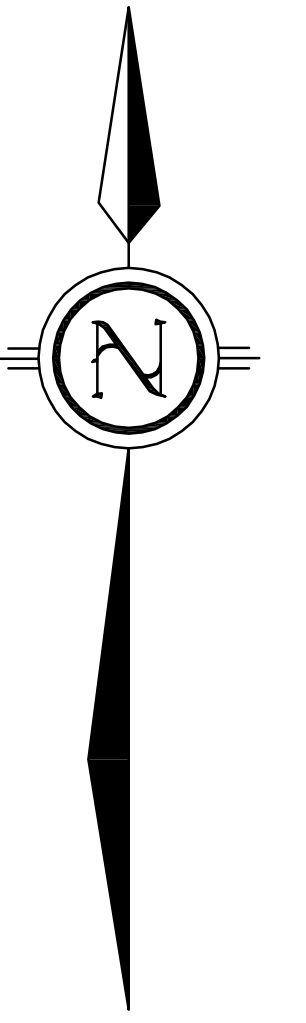
Schedule 02

Township of Leeds and the Thousand Islands Preliminary New Projects



Schedule 01

Township of Leeds and the Thousand Islands Key Attractions/Destinations



Legend

- Ministry of Transportation
- Road Network
- Paved Shoulder/Bike Lanes
- Gravel Bike Route
- Key Attractions/Destinations