APPENDIX A

BACKGROUND POLICY SUMMARY

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1. Existing Support AT Policies

The development and construction of active transportation infrastructure should be integrated with active transportation planning, design, promotion, outreach and monitoring strategies and practices in day-to-day decision making by the Counties' staff to establish a long-lasting shift towards more sustainable and active transportation.

Developing a comprehensive active transportation plan requires a collaborative and coordinated process that builds on what has been done previously within the Counties, the member municipalities, the surrounding municipalities, and the province. It also relies on strengthened partnerships with community members, businesses and key stakeholders. The experience and expertise of those who live, work and play throughout the United Counties of Leeds and Grenville area is founded on best practices and lessons learned of municipalities of similar scope and scale. A vital element of implementing a functional AT Plan is incorporating existing policy and creating new policy to shape an effective AT network. Existing policy will be used to guide recommendations in the Plan and to help identify where policy gaps exist.

All applicable existing policy at all levels of government listed below were reviewed to accurately shape the Plan to form implementable recommendations.

Province of Ontario	• Planning Act • Municipal Act (2001) • Highway Traffic Act • Minimum Maintenance Standards for Municipal Highways (2018) • Ontario Trails Strategy (2005) • Ontario Trails Act (2016) • Provincial Policy Statement Update (2020) • Ontario's Cycling Tourism Plan (2017) • Ontario Environment Plan (2018) • Ontario Public Health Standards: Chronic Disease Prevention Guidelines • #CycleON: Ontario's Cycling Strategy • Accessibility for Ontarians with Disabilities Act
The United Counties of Leeds and Grenville and Separated Municipalities (Brockville, Gananoque and Prescott)	• United Counties of Leeds and Grenville Official Plan (March 2021) • Leeds and Grenville Accessibility Policy (2017) • Leeds and Grenville Asset Management Plan (2018) • City of Brockville Official Plan (2012) • City of Brockville Active Transportation Plan (2019) • The Corporation of the Town of Gananoque Strategic Plan 2025 • Town of Prescott Strategic Plan (2020)
Neighbouring Counties (Lanark and Frontenac)	• Lanark County Sustainable Communities Official Plan (SCOP) • 2018-2020 Lanark County Economic Development Strategic Plan • Lanark County Roads Paved Shoulder Program • Trans Canada Trail Ontario Strategic Plan (2020-2030) • Frontenac County Active Transportation Plan • Waterfront Trail Design, Signage and Maintenance Guideline Update (2007)

1.1. Province of Ontario

Planning Act

The Planning Act defines the provincial and municipal roles in land use planning in Ontario, describes approaches for regulation and control of land use through zoning by-laws and minor variances, and provides foundational rules for resource management and preparation of future land development plans.

Relevance to Active Transportation

Section 2 of the Planning Act outlines the provincial interest that must be considered in any planning decision, including relevant active transportation policies, promotion of sustainable development that is pedestrian oriented and supports public transit.

Municipal Act (2001)

The Municipal Act gives municipalities flexibility when dealing with issues which influence municipal development. It recognizes that municipal governments are responsible and accountable when addressing matters within their jurisdictions.

Relevance to Active Transportation

The Municipal Act sets out policies pertaining to municipal jurisdiction over municipal roadways and the maintenance of those roadways which, in turn, has significant impact on the design and development of cycling facilities identified within the road right-of-way.

Highway Traffic Act

The Highway Traffic Act is a form of legislation that prescribes how vehicles may be used on roads within Ontario. It defines bicycle as a "vehicle" that can operate on public roadways with the same rights and responsibilities as a motorized vehicle; but is not permitted on controlled access freeways such as the 400 series highways or any roadway restricted for cycling by a municipal by-law.

Relevance to Active Transportation

The HTA contains several cycling related policies including bicycle lanes on municipal roadways, vehicles interacting with bicycles, and bicycles being overtaken. An amendment to the HTA was passed in 2015 – Making Ontario's Roads Safer Act (Bill 31) which provides further clarifications and regulations related to cycling and pedestrian activities to promote AT and improve safety for pedestrians and cyclists by:

- Requiring drivers to yield the whole roadway to pedestrians at school crossings and pedestrian crossovers.
- Allowing for new pedestrian crossing devices on low-speed and low-volume roads as requested by municipalities.
- Allowing cyclists to use the paved shoulders on unrestricted provincial highways to promote safer opportunities to cycle.
- Supporting cycling in urban areas by allowing municipalities to create contra-flow bicycle lanes to provide more direct routes for cyclists.
- Requiring all drivers to maintain one metre when passing cyclists.
- Increasing the fine range for convictions of dooring of cyclists from $60 - $500 to $300 - $1,000 and raising the demerit points from two to three.
- Increasing the maximum fine from $20 to a set fine amount that falls in the range of $60 to $500 for not using required bicycle lights and other reflectors/reflective material and permit the use of flashing red lights as a safety feature on bicycles.

Minimum Maintenance Standards for Municipal Highways (2018)

The Minimum Maintenance Standards for Municipal Highway (MMS) set out regulations pertaining to various elements of road repair and maintenance, such as road inspection frequency, weather monitoring, snow accumulation, and sidewalk trip ledges.

Relevance to Active Transportation

The MMS update rolled out in 2018 includes updated definitions of bicycle facilities and lanes, standards and regulations for addressing snow accumulation on bicycle lanes and clearance during extreme weather. While the number of hours in which a roadway and bicycle lane must be cleared are not the same, the clear prescription and inclusion of standards for cycling facility maintenance is considered as an advancement for cyclist safety on roadways.

Ontario Trails Strategy (2005)

The Ontario Trails Strategy is a long-term plan that establishes a Provincial direction to develop a healthier and more prosperous province through the planning, management, promotion and use of trails. The Strategy recommends that trail organizations develop common standards to guide the development and use of trails and establish more effective tools and better ways of distributing information to Ontarians.

Relevance to Active Transportation

The types of trails that the Strategy focuses on include non-motorized on and off-road trails located in urban, suburban, rural and remote settings that are used for recreation, active living, utilitarian and tourism purposes.

Ontario Trails Act (2016)

The Ontario Trails Act provides legislation to improve and sustain existing and future proposed urban, suburban and rural trails across Ontario. The Act sets out a vision for trails in Ontario as "a world-class system of diversified trails, planned and used in

an environmentally responsible manner that enhances the health and prosperity of all Ontarians".

Relevance to Active Transportation

The Act is intended to protect and enhance Ontario's extensive trail network that supports recreation, tourism and active transportation.

Provincial Policy Statement Update (2020)

The updated Provincial Policy Statement (PPS) sets out guidelines for sustainable development and the protection of resources of provincial interest that regulate land use planning and development within the Province of Ontario. Municipal Official Plans are identified as the most important vehicle for implementing the PPS.

Relevance to Active Transportation

The PPS promotes diversified transportation choices and encourages walking and cycling and other modes of travel. Densities for new housing, public streets and spaces must facilitate AT and promote it by minimizing the length and number of vehicle trips. The PPS also encourages the reuse of abandoned transportation corridors to maintain their integrity and continuous linear characteristics.

Ontario's Cycling Tourism Plan (2017)

The Ontario's Cycling Tourism Plan sets out to promote bicycle tourism in Ontario and establish bicycle friendly economy and business that enhance cycling tourism across the region. Its mission is to help Ontario emerge as a leader in the development of cycling tourism. It recognizes the role that cycling tourism plays in fostering a strong economy and its ability to attract visitors that stay longer and spend more within the province. It identifies key actions necessary to help achieve the goals of the plan and expand the impacts of cycling tourism across the region. These include identify, attract and support signature cycling tourism festivals and events through the Celebrate Ontario program and/or Sport Hosting program; make funding available through Tourism Development Fund to develop and enhance products and experiences that support cycling tourism; support ministry agencies and attractions to be bike-friendly and accessible by bike; collaborate with cycling organizations to promote cycling safety and bike-friendly activities.

It also identifies roles and partnerships to support walking and cycling as part of an active lifestyle and key goals of positioning Ontario as a premier destination for cycling tourism; creating healthy, active and economically prosperous communities; and working collaboratively to develop and promote cycling tourism products that will enable Ontario to meet or exceed global growth over the coming years.

Relevance to Active Transportation

Among the various actions prescribed in support of cycling tourism across Ontario, the Cycling Tourism Plan recommends additional funding be given to local tourism agencies, cycling trail organizations, festivals and other stakeholders tied to cycling promotion.

Trans Canada Trail Ontario Strategic Plan (2020-2030)

As the Trans Canada Trail Ontario (TCTO) organization's first Strategic Plan release, this 10-year Strategic Plan is consistent with the Trans Canada Trail (TCT) organization's strategies and is in response to the current and emerging needs of the trail communities, as well as future trail users. This Plan is TCTO's approach to be more involved and engaged with the local communities by providing programs and projects that will benefit society on a long-term basis. The Grand Vision of this Plan includes the following three major components:

- Guiding Principles called "The SHADE Experience" to direct TCTO's future initiatives. These principles will ensure a Safe, Sustainable, Healthy, Accessible, Diverse, Environmental, Economic and Educational Trail Experience in Ontario;
- Creation of a "Complete Land and Water Trail" route that will run through the province; and
- Establishment of "Legacy and Gateway Projects" to recognize, celebrate and promote the unique natural heritage, people and environment of Ontario.

Relevance to Active Transportation

A complete land trail will make year-round travel possible and people will be able to safely hike, snowshoe and cross-country ski on the Trans Canada Land Trail, subject to the conditions. The Trans Canada Trail's complete land section in Ontario will be used all year round more safely with a combination of walking, biking, cross-country skiing and snowshoeing.

TCTO will continue with the commitment of creating safe, sustainable and environmentally responsible recreational trails. In Eastern Ontario, where trail sections allow ATV use, TCTO will work with landowners and trail managers to build new trail sections that are separated from the ATV trail.

Ontario Environment Plan (2018)

The Ontario Environment Plan acknowledges the importance of protecting the environment and reducing greenhouse gas emissions and plans to balance the needs of improving economic prosperity for Ontarians and the needs of addressing climate actions. One of the key environmental challenges identified in the Plan is conserving land and greenspace, which speaks to the importance of preserving healthy natural areas and spaces for people to enjoy.

Relevance to Active Transportation

A key action identified in the Plan is to support the development of a trail system across the province and expanding access to park space. The growth and development of AT infrastructure can positively contribute to addressing this challenge. Another key action identified in the Plan is to establish a public education and awareness program to make people more aware of the environmental, financial and health impacts of their transportation choices. In addition to public transit, active transportation can be alternative modes that expand commuter choices, offer healthy and environmentally conscious ways of completing trips, and support multi-modal transportation.

Ontario Public Health Standards: Chronic Disease Prevention Guidelines

The Chronic Disease Prevention Guidelines released by the Province of Ontario recommend health promotion approaches and interventions to address risk factors and social determinants of health related to chronic diseases. It recognizes that built environment is one of the key environmental contributors to chronic disease and health, and notes that the design of the built form can affect physical and mental illness.

Relevance to Active Transportation

It advocates support for promoting more sustainable modes of transportation such as walking and cycling. The guidelines emphasize the importance of active transportation in community design to ensure healthier and more equitable outcomes for people of all ages and abilities; and reaffirm the need to collaborate with local health organizations to provide community supports that promote AT development and other related programs.

#CycleON: Ontario's Cycling Strategy

In August 2013, the Ontario Cycling Strategy - #CycleON was released by the MTO with a clear set of action plans. The strategy acknowledges the importance of developing cycling infrastructure to help reduce GHG emissions, ease gridlock, enhance the economy, increase tourism and increase quality of life for Ontario residents. The vision for 2033 is that "Cycling in Ontario is recognized, respected, and valued as a core mode of transportation that provides individuals and communities with health, economic, environmental, social and other benefits." The actions were defined under one of five strategic directions:

1. Design healthy, active and prosperous communities;
2. Improve cycling infrastructure;
3. Make highways and streets safer;
4. Promote cycling awareness and behavioural shifts; and
5. Increase cycling tourism opportunities.

These directions ensure that the action plan continues to advance cycling in Ontario. The Action Plan also guides efforts across governments, provincial policies and initiatives.

Relevance to Active Transportation

The #CycleON Action Plan 2.0 was released in 2018 as the five-year update. Action Plan 2.0 lays out a series of initiatives under the five strategic directions to be implemented between 2018 and 2023. Several actions call upon collaboration with municipalities:

- Identify opportunities to encourage safe cycling near and around schools
- Support and celebrate Bike Month to promote cycling at the local, community and provincial levels
- Support the development of municipal minimum maintenance standards for cycling infrastructure
- Make Ontario's roads safer by engaging road safety groups and community members across the province to work together to promote road and cycling safety

- Develop a comprehensive cycling education program that will provide program standards for cycling curriculum, instructional development and certification, and province-wide course delivery
- Develop tools to make it easier for cycling tourists, including route mapping and an enhanced cycling portal
- Improve wayfinding for cyclists

A key action to improve cycling infrastructure is to support municipal implementation of the Province-Wide Cycling Network, a long-term aspirational network that supports the vision of #CycleON. Existing and proposed on-road routes through the United Counties include the Waterfront Trail and proposed off-road routes include the Cataraqui Trail.

Accessibility for Ontarians with Disabilities Act

The Accessibility for Ontarians with Disabilities Act (AODA) was passed on June 13, 2005. The policy calls on the business community, public and not-for-profit sector and people with disabilities to develop, implement and enforce mandatory standards.

Relevance to Active Transportation

A revision and update of the Built Environment Standard was released in 2013. "The goal of the Accessibility Standards for the Built Environment is to remove barriers in public spaces and buildings. This will make it easier for all Ontarians – including people with disabilities, seniors and families – to access the places where they work, travel, shop and play." The standards for public spaces cover: Recreational Trails and Beach Access Routes, Outdoor Public Use Eating Areas, Outdoor Play Spaces, Exterior Paths of Travel, Accessible Parking and Obtaining Services.

Some highlights of the technical requirements for recreational trails under the regulation 80.8(1) include a minimum clear width of 1,000mm; a clear height that provides a minimum head room clearance of 2,100mm above the trail; a firm and stable surface type; edge protection where the trail is constructed adjacent to water or a drop-off, a clear opening of between 850mm and 1,000mm (even where the entrance includes a gate, bollard or other entrance design) and trail head signage that provides relevant accessibilities information (i.e. length of the trail, type of surface, average and minimum trail width).

1.2. The United Counties of Leeds and Grenville

United Counties of Leeds and Grenville Official Plan (March 2021)

The United Counties of Leeds and Grenville's Official Plan provides policy direction with consideration for growth management and land use planning to be adopted by the Counties' ten member Municipalities. The Plan's objectives related to transportation are to:

- Promote the establishment of a comprehensive and efficient transportation system to move people and goods to support the economic development objectives of the Counties;
- Support and encourage active transportation to contribute to the development of healthy, safe and complete communities and minimize automobile dependence;
- Optimize the use of existing infrastructure and public facilities prior to considering the development of new infrastructure; and
- Plan for and protect corridors and rights-of-way for infrastructure, including transportation and transit facilities to meet current and projected needs.

Relevance to Active Transportation

The Plan also includes policy supporting active transportation. The following are highlights from the Counties' AT policy:

- The Counties will consult and work cooperatively with the local municipalities to ensure that a future Counties-wide network is contiguous with local active transportation networks.
- The Counties and local municipalities will work towards providing safe bicycle and pedestrian paths, both along the roadway or separated from the roadway, on existing and proposed roads, on abandoned transportation corridors, on trail dedications or easements associated with rehabilitated mineral aggregate operations, and connecting parks and open spaces, as appropriate.
- The Counties and local municipalities will support the integration of bicycle path and walkway systems into the design of transportation facilities by including facilities such as sufficient and protected bicycle storage areas at places of employment and community infrastructure, facilities, and cultural and shopping locations, where appropriate.
- Safe and convenient pedestrian interfaces with roads will be encouraged wherever appropriate and practical.

- The Counties and local municipalities will support the interconnectivity of existing walking trails and bicycle paths and, where feasible and appropriate, provide continuous trail system linkages.
- The Counties and local municipalities will support to promote accessible and convenient trail systems.
- The implementation of trail systems will be feasible in terms of the costs and benefits associated with the route selection. Healthy lifestyles, sustainability, and the quality of neighbourhood character will be taken into consideration.
- The Counties, local municipalities and partners will pursue alternative funding from other levels of government and the private sector to implement active transportation and trail routes in the Counties; and have a lead role in public outreach and in promoting the benefits of active transportation.
- The Counties supports more efficient use of the road network to improve the active transportation network, transit system and influence the built environment form to effect change in transportation mode choice. A land use pattern, density and mix of uses will be promoted, thereby reducing the length and number of vehicle trips, complementing the increased level of active transportation.
- Local municipalities are encouraged through their Official Plans to require the dedication of lands for roads and active transportation, such as pedestrian and bicycle pathways, and public transit rights-of-way as a condition of subdivision and site plan approvals in accordance with the Planning Act.
- The Counties and local municipalities will support the use of inactive rail corridors for use as multi-use trails where feasible and appropriate.
- Existing County roads having substandard widths or engineering standards and when scheduled for reconstruction, may be reconstructed to currently accepted standards as determined by the Counties.

Leeds and Grenville Accessibility Policy (2017)

The Accessibility Policy was established to meet the requirement under the AODA. The Policy describes how the Counties are to provide all people, especially people with disabilities, the same opportunity to access goods, services, programs and facilities in a manner that respects their dignity and independence.

Relevance to Active Transportation

Municipalities are obligated to comply with specific accessibility standards in the areas (as related to active transportation) of transportation and design of public spaces.

The Policy requires that the Counties shall comply with all AODA Design of Public Spaces Standards when undertaking new construction and redevelopment of public spaces that are free from barriers and accessible to all persons in the following areas:

- Recreation trails and beach access routes;
- Outdoor public use eating areas;
- Outdoor play spaces;
- Exterior paths of travel;
- Accessible parking;
- Obtaining services; and
- Maintenance of accessible elements.

Leeds and Grenville Asset Management Plan (2018)

The Leeds and Grenville Asset Management Plan (2018) is intended to be a resource for the United Counties for decision-making processes with regards to the annual budgeting process and capital grant application process. It is a long-term plan for six categories of capital assets, among which Roads and Bridges/Culverts are included, and supplemented with a 10-year financing strategy and a 10-year financing plan. Overall, the Asset Management Plan provides an overview of the United Counties asset inventory for each category, including current level of service and performance, condition, approach for condition assessment, risk assessment, lifecycle activities, proposed level of services and financing strategy. The asset of Roads includes roads located across the Counties but does not include roads owned by the separated municipalities (i.e. Brockville, Gananoque and Prescott) or local municipal roads.

As part of the asset management strategy for roads, the maintenance activities include crack sealing, cold patching, repaving (minor), drainage improvements, shoulder rehabilitation and right-of-way vegetation clearing and brushing. The service life of surface treatment activities varies from 6 years to 20 years.

Relevance to Active Transportation

The Asset Management Plan identifies roads assigned with high importance include County Road 2, County Road 26, County Road 29, County Road 32, County Road 43, County Road 44. Bridges on high importance roads will be assigned the same importance rating. In 2020, Counties Council endorsed that paved shoulders be included on major county road projects after the findings of a Staff Report

recommended their implementation which will provide for continuous connected facilities between jurisdictions.

1.3. Separated Municipalities within Leeds and Grenville

City of Brockville - City of Brockville Official Plan (2012)

The Council of the City of Brockville held a special meeting in July 2021 for the purposes of discussing the revisions that may be required as part of an upcoming update to the City's Official Plan. The existing City of Brockville Official Plan (2012) outlines the City's goals, objectives, and policies primarily used to support growth, economic development, and building Brockville's future, which are subject to change once the Plan's update is approved.

The City's existing planning goals and objectives reflect the four themes identified in the Strategic Plan:

- A Sustainable, Healthy and Vital City;
- An Economically Strong and Diverse City;
- A High Quality of City Services and Amenities; and
- A Well-Planned and Responsive City.

Relevance to Active Transportation

The theme of A High Quality of City Services and Amenities sets out the following planning objectives that are related to active transportation:

- Provide a high level of transportation services throughout the City, including a multi-modal system that includes roads, transit service, rail service, and active transportation options such as cycling facilities and trails.
- Ensure appropriate access to, from, and within the City and those in the surrounding region, by all modes of transportation.
- Maintain and expand the multi-purpose trail system for cycling and walking to encourage transportation options beyond motorized vehicles.
- Improve opportunities for cycling throughout the City by establishing both an on-road and off-road cycling network.

The City supports the development, maintenance, and enhancement of a comprehensive pedestrian, cycling, and multi-use trail network and shared use of non-motorized trails and bicycle routes. It shall be the policy of the City that:

- The City shall work towards providing safe bicycle and pedestrian paths, both separated from the roadway, on existing and proposed roads, on abandoned rail corridors, and within parks and open spaces, as appropriate.
- The City shall consider adapting roads to provide safer travel for bicycles and pedestrians on road pathways, where feasible and appropriate.
- The City shall support the creation of the primary bicycle network as identified on Schedule 5.

City of Brockville – Active Transportation Plan (2019)

The City of Brockville Active Transportation Plan provides a comprehensive cycling network that consists of two route designations; spine and connector routes, and pedestrian improvements to make active transportation a more attractive and feasible option for daily use given the City's compact urban form.

The Plan recommends initiatives, improvements, and new infrastructure facilities in the City of Brockville to supplement the extensive existing network of pedestrian facilities and lack of a connected, low stress cycling network. The Plan also includes policy recommendations including revisions to current by-laws, as well as new City policies, such as lengthening crossing time at signalized crossings near schools, retirement communities, and hospitals, and lowering speed limits City-wide.

Relevance to Active Transportation

The City of Brockville's Active Transportation Network is composed of the Brock Trail, Cycling Network, and Pedestrian Network. The principles of the Active Transportation Network are to:

- Continue to invest in the Brock Trail
- Improve walkability on commercial corridors such as Parkedale Avenue
- Implement intersection and crossing improvements
- Focus on implementing improvements around schools
- Implement network in JG Broome Industrial Park
- Walking to transit
- East-west cycling connections
- Connections to adjacent communities
- Tourism

Policies that may have an influence or should be carried in parallel for the Counties' AT Plan include:

Recommended Revisions to the City of Brockville's Traffic By-Law

- 1.24 Motor vehicle definition
  - Likely includes removing motor assisted bicycles from the motor vehicle definition with the growing popularity of electric and electric assist bicycles and other micro mobility devices (ex. scooters). This is based on the Province of Ontario's definition review and how the City should adopt the province's definitions to align with other jurisdictions.
- 1.34 Sidewalk definition
  - Recognizing sidewalks and multi-use paths as different facilities.
- 9.2 Riding abreast on highway
  - Updated cycling guidance is considering in the design of the cycling facility that side-by-side riding should be feasible.
- 8.2 No skateboards or roller-skating allowed to enter roadways
  - These modes should be allowed to use roadways and define whether they can use cycling facilities to avoid confusion.
- 9.4 Bicycle parking
  - Amend by-law under subsection (a), which prohibits bicycle parking on a roadway, if the City decides to implement on-road bicycle parking corrals.

Town of Gananoque - Strategic Plan 2025

The Town of Gananoque's first Strategic Plan that was created in 2015 has evolved and was updated in 2020 to facilitate the allocation of resources and establishing municipal priorities over a five-year period. Seven Sector Areas were discussed during a facilitated public session between Council, community stakeholders and staff in 2020 and specific actions were identified to be undertaken to achieve the identified goals and objectives.

Relevance to Active Transportation

Within the Environment and Infrastructure Sector of the Strategic Plan, a strategic initiative is to recognize the global climate crisis and actively position Gananoque to address this reality. An action to be taken is to promote cycling and active transportation. Another strategic initiative is to enhance the connectivity of the Town with the action to create bicycle pathways when constructing or reconstructing roads and sidewalks.

Town of Prescott - Town of Prescott Strategic Plan (2020)

The renewed Town of Prescott Strategic Plan responds to comments from the broader community, and respects and acknowledges the work of previous Councils and the support of administration. The Strategic Plan, which supplements the revised Official Plan, establishes clear goals and enabling strategies to guide decision-making for the 2020-2023 period.

Relevance to Active Transportation

Within the Economic Development Pillar of the Strategic Plan, Regional Transportation Development is an objective to support residents and local businesses, with an increased focus on active transportation alternatives, as there are minimal transportation options to and from Prescott. A key activity to support active transportation is to develop an active transportation strategy for walking and cycling infrastructure.

Within the Infrastructure Pillar of the Strategic Plan, the provision of Recreation Facilities and Assets is an objective to enhance the social and physical well-being of residents of Prescott and the surrounding area. To further develop the existing number of recreational facilities and assets, a key activity is to invest in active transportation and wayfinding infrastructure to link recreational areas.

1.4. Neighbouring Counties

LANARK COUNTY

Lanark County Sustainable Communities Official Plan (SCOP)

The Lanark County Sustainable Communities Official Plan (adopted in 2012) combines an Integrated Community Sustainability Plan (ICSP) called Sustainable Lanark, with an Official Plan to emphasize local municipal land use priorities within a broader framework of county sustainability. The SCOP focuses on the integration of sustainable practices regardless of political boundaries and enables the implementation of land use policies.

Relevance to Active Transportation

The County of Lanark recognizes the importance of other infrastructure corridors, such as abandoned rail lines for use as trail or transit services, and seasonal corridors, such as those used by snowmobile / ATV clubs, the Trans-Canada Trail and County and local recreational trails. Infrastructure policies consider the on-going

development of multi-purpose recreational trails by the County and local municipalities.

Select themes outlined in the ICSP component of the Plan that support Sustainable Lanark's overall vision as they relate to active transportation are listed below:

Infrastructure and Quality of Life

- Lanark County is a popular cycling destination and continues to grow in popularity with the improvement of roads and trails. Active transportation is to be made a priority in all towns and villages by supporting the development of infrastructure to create walkable communities and provide safe routes for cycling.

Age-Friendly Communities

- Support efforts to provide recreation and leisure opportunities for residents of all ages that include senior citizens, young families, and youth.

Transportation

- Focus on building communities that reduce the need for personal vehicles and provide many options for mobility including environmentally friendly transportation alternatives through active transportation and various forms of public transportation.
- Encourage efforts to develop a transportation system that is affordable, multi-modal, accessible and interconnected. This includes improving the local road system.
- Develop an active transportation plan to focus both on safe pathways for cycling and walking in communities.

Healthy Communities

- Support efforts to increase physical activity by all residents by providing access to excellent programs and facilities and through efficient land use and development patterns.

Safety

- Reduce the risks associated with transportation by designing roads that are safe for all users, including cyclists and pedestrians, which also means being proactive in maintaining infrastructure.
- Pathways are to be accessible and designed for a range of mobility – from toddlers in strollers to motorized wheelchairs and scooters.

2018-2020 Lanark County Economic Development Strategic Plan

The Lanark County Economic Development Strategic Plan provides a framework to leverage future community economic development partnerships, programs, and services for Lanark County and its municipalities.

Relevance to Active Transportation

Of the 5 main themes identified for the action plans developed, investing in infrastructure can be directly related to active transportation. The action plans under the theme of investing in infrastructure include the following:

- Improve core connectivity broadband infrastructure (fixed and mobile) throughout the County
- Develop and promote public transportation system linkages (roads, trails, services) within the County, and to major centres including Ottawa, Kingston, and Brockville
- Improve and maintain roads and signage, including paved shoulders for cyclists
  - As part of a short-term action, road shoulders throughout the County are currently being paved
  - As part of longer-term action, the plan is to pave municipal roads/shoulders and have more way-finding signage

Lanark County Roads Paved Shoulder Program

There is no existing policy for paved shoulders within Lanark on County roads. Lanark County Council, however, has approved a 10 Year County Roads Paved Shoulder Program that aims to pave the shoulders of all County roads, as documented in the Public Works Committee of the Whole Meeting Minutes on December 4, 2013.

A Cost-Benefit Analysis of the County Roads Paved Shoulder Program was prepared by the Lanark County Public Works Committee and presented to Lanark County Council outlining the benefits of having paved shoulders. It was concluded that a 10 Year County Roads Paved Shoulder Program would reduce road maintenance costs, improve road safety, and promote active transportation.

A Paved Shoulder Program Progress Update was provided by the Public Works Committee on December 8, 2021, highlighting the following progress:

- 2021 – 50% of County Road Shoulders Paved
- 2022 – 55% of County Road Shoulders will be Paved

- 2025 – 68% of County Road Shoulders will be Paved
- 2030 – 88% of County Road Shoulders proposed to be Paved

Approximately 50% of County road shoulders are currently paved and the remainder of County road shoulders will be paved based on annual rehabilitation projects at an average of 22 km per year (4%). The 10 Year Plan has now become a 20 Year Plan since the main challenge is not sacrificing the quality and condition of the road network by choosing shoulder paving contracts over pavement preservation/road rehabilitation contracts.

Relevance to Active Transportation

Cycling facilities have been proposed on County roads and with the initiative in place for paved shoulders, the implementation of these facilities are just a matter of time.

As part of the Paved Shoulder Program, the paved shoulder width is dependent on the County road segment's Annual Average Daily Traffic (AADT) as listed below:

AADT	Total Pavement Width (m)	Lane Width (m)	Resulting Paved Shoulder Width (m)
0-999	8	3.25	0.75
1,000-2,999	9.5	3.3	1.45
3,000-4,999	10.4	3.5	1.7
> 5,000	11.6	3.75	2.05

Paved shoulder widths need to be a minimum of 1.5m to be considered as a cycling facility with 1.2m in constrained areas for user comfort and safety.

Ottawa Valley Recreation Trail Management Plan

The Ottawa Valley Recreation Trail (OVRT) is the former Canadian Pacific Rail bed approximately between Mattawa and Smiths Falls that is currently undergoing conversion to a multi-use trail. The OVRT is co-owned by the County of Renfrew, Township of Papineau-Cameron and Lanark County. The section through Lanark County ends in the Township of Montague, just north of the Town of Smiths Falls. A management plan initiated by the Ontario Trails Council was developed in 2017 to guide future development of the trail, define intended user groups, and establish trail maintenance standards. The boundaries of each agency's trail ownership were defined in the Management Plan, and each owner is responsible for the maintenance of their section of trail.

The goal of the OVRT is to provide a continuous corridor for all users, including nonmotorized and motorized off-road vehicles. Users permitted on all trail sections include hikers, cyclists, cross-country skiers and equestrians on all sections. Owners may restrict sections of the trail to off-road vehicles and snowmobiles but must provide properly maintained by-pass routes with signage for these users.

The Plan also includes recommendations for maintenance practices (e.g. trail clearance width and height, fencing, amenities, recommended responses to catastrophic weather events, etc.) and their frequency, which are the responsibility of the trail section owners.

FRONTENAC COUNTY

Frontenac County Active Transportation Plan (2019)

This Regional Active Transportation Plan includes recommendations for active transportation infrastructure projects and related education and encouragement programs in support of creation of a county-wide plan that offers a chance for coordination and listening across the Frontenac County. The Plan builds from the previous planning efforts, including the Age Friendly Community Action Plan (2017) and the County of Frontenac Official Plan (2016).

Relevance to Active Transportation

The Plan recommends connection to destinations outside of Frontenac County, specifically identifying improvement of active transportation connections to the Village of Westport potentially via Westport Road, Crow Lake Road, or Perth Road.

Waterfront Trail Design, Signage and Maintenance Guideline Update (2007)

The Design, Signage and Maintenance Guidelines were developed to assist in the construction of and providing signage for new Waterfront Trail sections, while managing existing sections. The 2007 update contains options and guidelines for on-road sections of the Great Lakes Waterfront Trail provided that much of the Trail follows on-road routes. In Frontenac County, the Waterfront Trail follows along County Road 2 between Kingston and west of Gananoque.

The purpose of these guidelines is to provide trail managers, planners, designers and associated bodies including local and regional municipalities, environmental

heritage/conservation authorities, trail organizations, landowners, related tourism industries/businesses, other partners and stakeholder groups with a document that will assist them with all aspects of implementing and maintaining the Waterfront Trail.

Relevance to Active Transportation

The following criteria, as related to active transportation, were developed to guide the planning and design of the general Trail alignment:

- Provide passage for pedestrians, cyclists, in-line skaters and other trail users along separate alignments where necessary;
- Ensure the safety of users, by minimizing conflicts with road and rail traffic, and by avoiding hazardous settings;
- Generally exclude motorized vehicular use, except for emergency and maintenance access or in areas where snowmobile use is acceptable to local communities;
- Accommodate all ages, abilities and fitness levels, with varying degrees of challenge and a range of trail experiences and settings; and
- Be useable in all seasons.

APPENDIX B

CONSULTATION ROUND 1 & 2 SUMMARY

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1. Round 1 Engagement

The United Counties of Leeds and Grenville is developing an Active Transportation Plan to expand access to walking, cycling and wheeling (i.e., non-motorized vehicles such as skateboarding and rollerblading) for residents of all ages and abilities. This plan builds on the Counties' existing network of physical infrastructure, as well as its network of social infrastructure to support active transportation, supported by partners such as the Leeds, Grenville and Lanark District Health Unit, St. Lawrence Parks Commission, Local Municipalities and more. Engaging with the existing community in Leeds and Grenville is a vital part of the development of the ATP, and the results of the first round of engagement are the focus of this Summary.

1.1. Engagement Objectives

This plan has been developed in accordance with the International Association of Public Participation (IAP2) process and practices, as illustrated in Figure 1. The IAP2 Process outlines the preparation, management, and evolution of engagement tactics based on a spectrum of involvement tailored to the wants and needs of the anticipated or desired audiences. There are five levels of commitment, which are known as the IAP2 Spectrum of Public Participation.

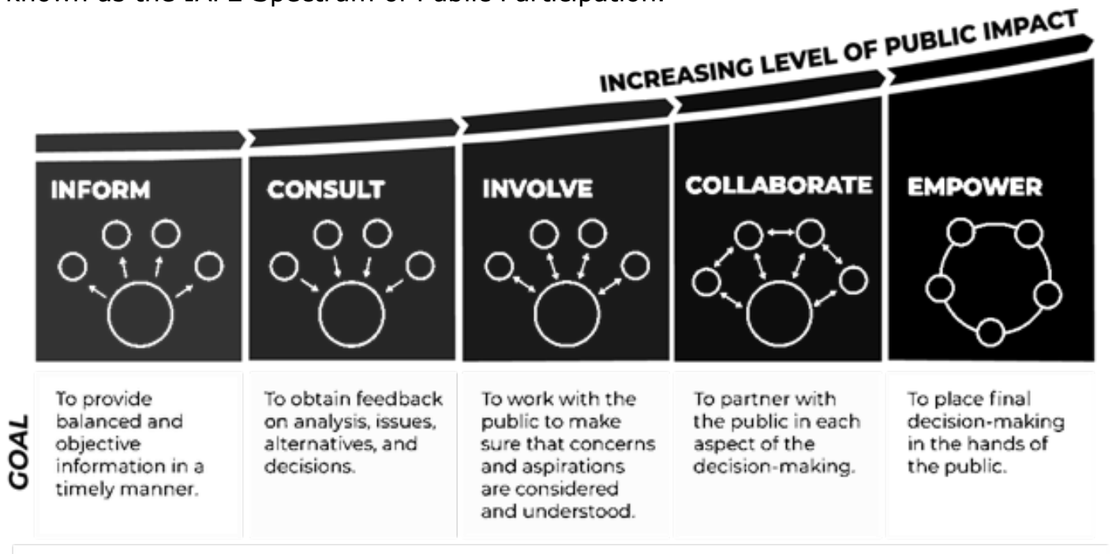


Figure B-1: IAP2 Spectrum of Audience Involvement

The amount of information sharing, gathering and integration increases as you "move up" the spectrum. The intent is to recognize that not all stakeholders will have the same level of involvement in the project or need the same amount of information to inform their involvement. The IAP2 approach emphasizes the importance of a consultation plan which is tailored to the understanding, commitment and contribution of each of the unique groups. By identifying the stakeholders early in the study process the project team will be able to anticipate, identify, plan for and communicate the expectations based on the intended audience.

For the Leeds and Grenville ATP, the project team identified five distinct audiences, and established their projected level of commitment to the project. That audience analysis is presented in Table B-1.

By identifying audiences early in the process and ensuring that engagement activities are held regularly and meet the needs of each audience, the community engagement approach is helping to ensure that the actions identified in the final ATP are appropriate, ambitious and community-supported, leading to a plan that is more likely to be implemented in a meaningful way as the Counties continues to develop its walking, cycling and wheeling networks.

Engagement Approach

Engagement is a major component of the United Counties of Leeds and Grenville Active Transportation Plan (ATP) project and has been divided into two rounds. Throughout the Summer of 2021, the project team worked closely with the United Counties of Leeds and Grenville to facilitate a number of engagement activities with key stakeholders and members of the public for the first round of engagement. These activities were completed to gain input on existing conditions; strengths and gaps in the current active transportation network and the Counties' efforts to support active transportation; and potential improvements and priorities for active transportation going forward. The following sections summarize the Round 1 engagement activities, the input that was received, common themes that emerged, and how the Project Team will use this information to guide the development of the ATP.

Table B-1: Overview and Analysis of Stakeholder Groups

Stakeholder	Description & Membership	Level Of Interest	Objectives	IAP2 Level Of Involvement
Core Project Team	Counties staff members who will be coordinating the implementation, monitoring and maintenance of the ATP. Their strong knowledge of the Counties, existing conditions and municipal processes will be vital to the success of the project.	High	- To provide the group with key background information on the project and updates on project status. - To gather input to inform key project milestones and on project deliverables. - To generate buy-in and confirmation from the committee on project deliverables and public facing information.	Inform, Consult, Involve & Collaborate
Stakeholders / Stakeholder Working Group	Representatives from groups who have interest in active transportation or who would have a role in supporting the Counties in future promotion and outreach initiatives. They have access to significant historical knowledge and local resources within the community and typically have a higher level of interest from a community perspective.	Medium to High	- To provide background information on the project and to demonstrate how input provided has been integrated into project outcomes. - To review and help confirm the overall vision and objectives for the ATP. - To identify future opportunities for collaboration as well as capacity to support education and outreach tactics for long-term culture change.	Inform, Consult, Involve & Collaborate
Local Municipal Representatives	Councillors and key Municipal Staff members from the local municipalities within the United Counties of Leeds and Grenville who have an interest in aligning the Counties' plans with their own active transportation plans where they exist, and with their tourism and development objectives. They have substantial knowledge of their local roads and trails networks, and will be important partners in implementing many of the recommendations from the Plan.	Medium to High	- To ensure that proposed recommendations align with existing municipal plans. - To provide background information on the project and to demonstrate how input provided has been integrated into project outcomes. - To review and help confirm the overall vision and objectives for the ATP. - To identify future opportunities for collaboration as well as capacity to support education and outreach tactics for long-term culture change.	Inform, Consult, Involve & Collaborate
Members of the Public	Residents include the people who live, work and play in Leeds and Grenville.	Low to High	- To provide background information on the project and to demonstrate how input provided has been integrated into project outcomes.	Inform & Consult

Stakeholder	Description & Membership	Level Of Interest	Objectives	IAP2 Level Of Involvement
			- To gather input on interests, needs and preferences within the community including opportunities, challenges and existing / potential routes.	
Counties Council	Councillors represent the opinions and interests of their constituents and typically have a greater appreciation for and understanding of the key issues of the Counties.	Medium to High	- To provide the group with key background information on the project and updates on project status. - To ensure that the project is in-line with overall objectives and strategic opinions of decision makers. - To generate buy-in and confirmation on project deliverables and public facing information.	Inform, Consult, & Empower

MUNICIPAL LISTENING SESSIONS

As part of developing the Active Transportation Plan (ATP), the Project Team held virtual discussions through Microsoft Teams or Zoom with representatives from the United Counties of Leeds and Grenville municipalities. Overall, seven (7) listening sessions were hosted with representatives from the following municipalities:

- Township of Augusta
- Township of Edwardsburgh/Cardinal
- Township of Front of Yonge
- Township of Leeds and the Thousand Islands
- Village of Merrickville-Wolford
- Municipality of North Grenville
- Township of Rideau Lakes

The listening sessions were held to provide municipal stakeholders with an overview of the ATP project and to identify their preferred level of engagement going forward. The stakeholders were also asked a series of questions that aimed to:

- Identify best practices and lessons learned related to education, outreach, implementation, and programming;
- Discuss opportunities for coordination and collaboration between their organizations and the County and to confirm level of commitment and capacity for support; and
- Obtain information on local stakeholders and interest groups for further consultation on the ATP.

The listening sessions helped to identify several key themes in terms of priorities and opportunities for improvement.

Stakeholders spoke candidly and were promised that all information gathered would remain confidential and anonymous, so to protect that confidentiality the names and organizations of stakeholders will not be discussed in this Summary.

STAKEHOLDER WORKING GROUP WORKSHOP # 1

The Project Team hosted a Stakeholder Workshop on August 11, 2021 with stakeholders from the Stakeholder Working Group, including representatives from various committees, organizations, agencies, Town departments and County-level organizations. The purpose of the workshop was to engage representatives from groups who have a role or strong interest in supporting active transportation within the Counties. Project-specific items presented and discussed at the workshop included:

- Presentation of the key elements of the plan, including timing for further involvement by interested stakeholders
- Identification of key destinations within the Counties
- Confirmation of existing facilities within the Counties
- Review of proposed route suggestions to connect residents to key destinations.

PUBLIC SURVEY

A public survey was posted online to provide members of the public an opportunity to provide feedback regarding active transportation in the United Counties of Leeds and Grenville. The survey focused on existing travel patterns and travel choices, potential enhancements to the County's existing active transportation network, and priority gaps and challenges regarding current conditions.

1.2. What Was Said

The following sections summarize the input that was received during the first Round of engagement.

MUNICIPAL LISTENING SESSIONS

During the listening sessions, stakeholders were asked the following questions:

1. What is your vision for the future of active transportation in the United Counties of Leeds and Grenville?
2. What destinations in your municipalities would you consider a priority for enhanced active transportation connectivity?
3. Thinking of the destinations above, what connections would you say need to be developed locally? Do you have any plans to develop those local connections in the near future?
4. What are the most important local active transportation routes in your municipality? Are there connections that are missing that should be prioritized as part of this plan (i.e., Counties controlled roads or facilities)?

5. What types of supports would you like to see offered by the United Counties to help develop new active transportation infrastructure in your municipality?
6. Are there any current programs in your municipality to educate residents about active transportation or to encourage active transportation use? Who is leading those programs?
7. What types of supports would you like to see offered by the United Counties to help deliver new active transportation programs in your municipalities?
8. Is there anything else you would like to add?

Many stakeholders noted the prominence of cycling tour groups that travel through the County every year and emphasized that improving safety on County and local roads for on-road cyclists should be a priority. **Providing more paved shoulders is a critical next step in supporting recreational cyclists**, while also providing facilities to accommodate people of all ages and abilities. One stakeholder also mentioned the importance of implementing interim solutions, such as sharrows or educational programming, while working towards developing more paved shoulders. **Improving connectivity is also important to many stakeholders, "both into our villages and between the communities of Leeds and Grenville"**, as one stakeholder mentioned. Another stakeholder noted that "agribusiness and agritourism should [be used] as tourism drivers" to attract visitors. It is also important to **provide education on the benefits of active transportation as well as how to use active transportation infrastructure safely (e.g., multi-use paths, paved shoulders, roundabouts, pedestrian crossings, etc.).**

The stakeholders listed a number of key destinations in their municipalities such as Village Pantry, Spencerville, Merrickville, Grenville Provincial Park, Waterfront Park, and Limerick Forest. Several stakeholders also highlighted the importance of prioritizing the various subdivisions/hamlets and waterways throughout the counties as well.

When asked what connections should/are being developed, the stakeholders noted the Rail Trail, Scotch Line Road, Hyndman Road, Highway 2 and 3 and many others. They also highlighted several specific County Roads such as County Road 2, 8, 15, 42, and 43. Providing active transportation connections to Smiths Falls, Easton Corners, the Parkway, and Seeley's Bay should be prioritized.

There was a large emphasis on the need to **improve County Roads as they serve as important** transportation **corridors between communities**. Important local roads include Kilmarnock Road, River Road, Burritt's Rapids, Heritage Drive, Rideau Ferry Road, and the Parkway, and trails like the Cat Trail and Limerick Forest.

When asked what types of supports they would like to see offered by the United Counties, several stakeholders noted that **improved signage and advertising would help to inform users about key** destinations **and active transportation opportunities**; one stakeholder specifically noted that "we could showcase the existing routes, villages, and other amenities" using not only paper materials, but also social media, digital maps, etc., to promote active transportation. Similarly, another stakeholder mentioned that "we need someone who can spend time plotting out routes on a map for cyclists and tourists". The Counties should use the ATP to "identify a minimum grid of priority routes", while working towards the long-term goal of paving shoulders on County Roads wherever possible. The Counties should also ensure a coordinated approach to improving active transportation and highlight potential regional connections. As one stakeholder mentioned, this includes ensuring there is **consistent messaging around active transportation promotion, education, and awareness.** Stakeholders also highlighted that **the Counties should provide funding to support infrastructure improvements and enhancements** where feasible.

Many of the municipalities do not have existing programs in place to educate residents about active transportation or encourage transportation use. However, some local Committees and organizations such as Trails Committees, Road Safety Committees and Health Units have developed programming and educational campaigns. One stakeholder mentioned that their "municipality is installing Cycling Stations in key destinations which include a bench, a repair stand, a garbage can, and a solar light". Another stakeholder noted that "there are some new policies in the Draft Official Plan that expand on the previous language around active transportation".

Stakeholders suggested a number of ways the Counties could support the delivery of future active transportation programming. One stakeholder suggested that the Counties could "transport bikes to key locations to help reduce barriers like cost and access to transportation for people". As mentioned, developing a map of cycling routes and increasing advertising about active transportation opportunities are important tools in encouraging more people to use active transportation. Other ideas included hiring a temporary full-time employee to focus on active transportation, implementing Share the Road signs in conjunction with paved shoulders, playing a key role in hosting and/or promoting events, and providing more clarity about roles and responsibilities for active transportation improvements.

The stakeholders were also asked if they had any additional comments. Many stakeholders made comments about **prioritizing and enhancing rail trails to provide community connections.** Another stakeholder emphasized that trail groups (and other committees) should be engaged in the ATP project going forward. Finally, another stakeholder encouraged the project team to "think four seasons with [the ATP], such as cross-country skiing and other four-season activities".

STAKEHOLDER WORKING GROUP WORKSHOP #1

The Project Team held a Workshop with stakeholders from the Stakeholder Working Group including Counties staff, Local municipal representatives, County-level partners and other key representatives. During the Workshop, the Project Team used an online whiteboard tool, Miro, to facilitate various activities and allow stakeholders to provide input and contribute to discussions surrounding the future of active transportation in Leeds and Grenville. An Example of the Workshop tool can be seen in Figure 2. The activities included:

Identification of key **destinations** – the Project Team presented maps of the Counties to the Workshop Attendees, and sought feedback on key destinations that are often accessed by people using active transportation. Some of the local destinations that were highlighted included:

- Local beaches, parks and recreation facilities
- Community Centres

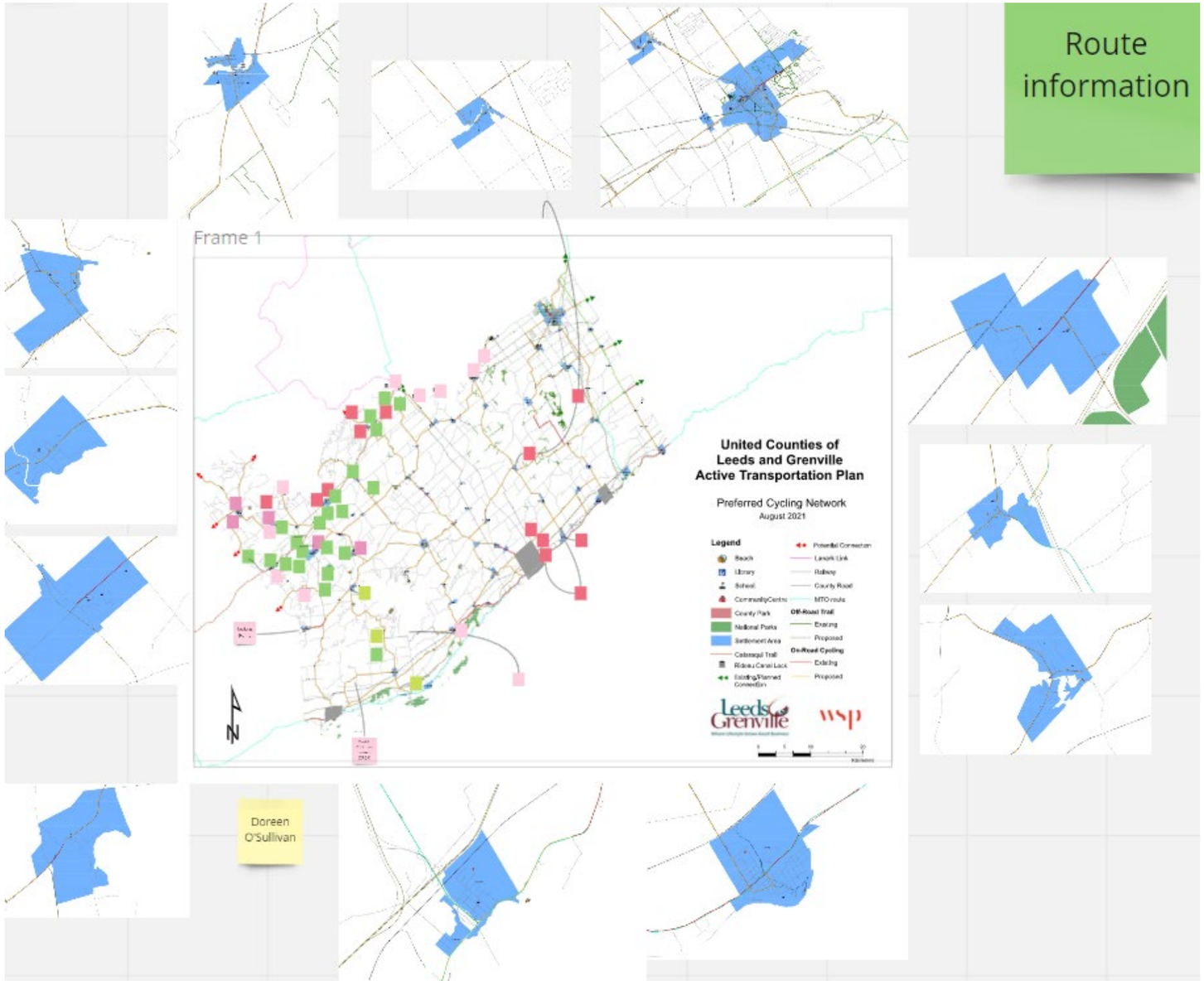


Figure B-2: A Section of the Candidate Routes and Potential Improvements Map with Post It Notes from Stakeholders

- Rideau Canal Lock stations
- Commercial and shopping destinations
- Trailheads and parking areas for popular trails, and
- Important connections to adjoining or separate municipalities within the Counties.

1. **Review of existing and proposed cycling routes** – During this activity, participants were asked to verify the existing conditions map that had been prepared by the project team. Attendees were then asked to comment on any missing connections or routes that should be added for consideration. Highlights of the discussion on this topic included:
   - Municipal roads like Bay Road, Old Kingston Road and Scenic Road were highlighted as potential alternative routes for cycling that provide good connectivity, which could be used as alternate routes until additional infrastructure can be added to the parallel County Roads.
   - Ensuring a consistent surface type and maintenance standards for the Cataraqui Trail would help to establish a "spine" for active transportation in the Counties.
   - Former Brockville-Westport railbed could be used as a connection into the Regional network
2. **Prioritization Criteria for cycling routes –** During this activity, the Project Team asked participants to identify what criteria would be most important to them in the development of a network of active transportation facilities within the Counties. Understanding that prioritization necessitates trade-offs, this exercise encouraged attendees to choose which aspects they felt should be given precedence when planning a network.

The priority criteria and descriptions participants were asked to rank for selecting cycling routes are provided in Table B-2.

Table B-2: Prioritization Criteria – Cycling Routes

	Criteria	Description
Desirable	Scenic & Attractive	Routes take advantage of scenic areas
	Comfortable & Safe	Reduces risk to users and provides comfortable facilities
	Conveniently Direct	Does not deviate between the origin and destination; route is fast for those who want to move quickly.
	Formalization	Formalizes well-used popular routes that lack of standard cycling facilities
	Topography	Route does not contain extended uphill or downhill segments at high grade
Connected	Urban Centres and Settlement Areas	Connects to major urban centres (e.g. Kemptville, Merrickville, Westport etc.) and other settlement areas
	Local Key Destinations	Provides connections to schools, community facilities, local commercial areas, neighbourhood parks and recreation facilities adjacent to County Roads
	Existing Network Facilities	Connects to existing and planned cycling facilities and trails such as Cataraqui Trail and Waterfront Trail
	Existing Natural Areas and Tourism Attractions	Connects to existing natural areas such as Limerick Park, Rideau River, St. Lawrence River and other provincial parks and encourages long-distance trips from other areas
	Services and Amenities	Provides amenities such as bicycle repair stations, benches, water fountains, washrooms etc.

Criteria		Description
Logical	Easy to Follow	Logical, well signed, and minimizes detour
	Minimize Major Barriers	Avoids crossing roads with heavy traffic, and / or provides safe crossings when necessary
	Consistent	Facility type and presence of dedicated or signed cycling infrastructure is consistent along route
Cost Effective	Capital Cost	Proposed routes are feasible, implementable and appropriate in scale for the Counties
	Sustainable	Locate, align, and design routes so they can be sustained over the long-term

Participants were asked to consider all criteria when providing their rankings. The following provides a summary of the participant's most preferred criteria for each category.

Desirable:

- Having comfortable and safe cycling routes and formalizing existing facilities (e.g. wider and paved shoulders) as well as preferably along scenic and attractive routes were identified by most participants as high priorities.
- There were few comments indicating the importance of conveniently direct cycling routes and topography consideration was not identified as a high priority.

Connected:

- Interconnection between villages and to adjacent municipalities (e.g. Smiths Falls, Brockville etc.), as well as connections to points of scenic/interest stops between major trails (e.g. Waterfront Trail and Cataraqui Trail) were ranked as one of the top priorities. Participants highlighted the importance of focusing on routes getting people to important amenities (e.g. work, grocery store, health care appointments, school, etc.) in urbanized areas.
- No distinct key destinations were identified as priority over others – commercial areas, employment, schools and natural areas were all ranked at the similar priority.

Logical:

- Consistent signage was identified as a top priority. Many participants expressed preference of providing cycling routes on unused rail corridor and non-road assets.
- Less priority was put on consistent facility type and crossing of major barriers.

Cost Effective

- High priority was given to cycling routes that could provide high quality assets to build capacity and reduce uses of motorized vehicles.

3. **Outreach Initiatives** – Finally, attendees were asked to share if they had come across any ideas to promote active transportation that they felt would be applicable to the Counties as the Plan moves forward. Some of the ideas shared include:
   - Provide bike racks in towns that are designed appropriately to lock bikes to them and accommodate various styles (e.g. fat bikes etc.).
   - Undertake a trail promotion program by partnering with adjacent municipalities (e.g. the program partnered with Gananoque and Front of Yonge).
   - Undertake a bicycle fair partnering with member municipalities.
   - Install public chargers for electric powered traveling tools (e.g. e-bikes, e-scooters, etc.) and organize program (e.g. a rent or 'try me' event) to help people understand e-bikes.
   - Promote the Bike Friendly Community program to engage both communities and the local businesses in making their locations bike friendly.
   - Engage students in schools and encourage students and their families to ride bikes.
   - Install solar phone chargers at different points along the route to make sure people can charge up their phone along the way.
   - Provide additional recreational activities and attractive destinations along the trails (e.g. a pump track, skate park, Geocaching, hiker/biker campsites etc.)

PUBLIC SURVEY

The online survey was available on the project website from July to August, 2021 and received 341 responses in total. Figure 3 summarizes the main input that was received through the survey.

1.3. What Was Heard

The Round 1 Public Engagement activities provided the Project Team with an excellent sense of existing conditions and potential opportunities for improving active transportation in Leeds and Grenville. Several key ideas and common themes emerged from these activities which be used to guide the development of the ATP and set priorities for the Counties. Some of the key ideas and themes that emerged are summarized in the next section.

Key Ideas

The key themes that emerged over the course of the listening sessions, workshop and survey are summarized below.

- Leeds and Grenville is more multi-modal than Statistics Canada Data indicates:
    - With a relatively large sample size, the public survey shows that many residents are walking, cycling or wheeling on a regular basis. With 55% of respondents walking 4 days a week or more and 21% of respondents cycling with the same frequency, the Counties appear to have significant potential to grow their active transportation network to meet the needs of the residents.
    - Most of the cycling taking place in the Counties is happening locally, with twice as many respondents indicating that they cycle in their local municipality than ride in the Counties.
- Implement paved shoulders wherever possible:
    - The Counties should fund paved shoulders on County Roads where possible to provide safe community connections for on-road cyclists. Interim solutions should also be developed to improve safety and comfort for cyclists in the meantime, such as providing signed routes along lower-volume municipal roads.
- Increase Connectivity:
    - Many stakeholders emphasized the need to improve connectivity both within and between municipalities. It is important to balance local and County road improvements in order to improve local and regional connections to key destinations. With that said, the stakeholders noted that County Roads are used by recreational cyclists more often than local roads and provide important connections for visitors and tourists. Many stakeholders also suggested investigating the feasibility of developing rail trails to provide community connections for active transportation users.
    - County Roads 2, 43 and 44 emerged as top priorities for improvement.

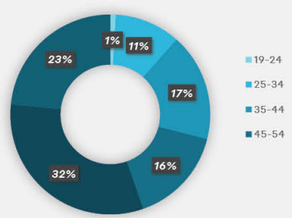
Figure B-3: Public Survey Results

Who are participating in the survey?

341 Respondents

- 79% Were residents of Leeds and Grenville
- 16% Live in one of the separate municipalities
- 43% Work or own a business in Leeds and Grenville or one of the separate municipalities

Age



How are people commuting in Leeds and Grenville?

Percentage of respondents using each mode regularly (4 days a week or more)

- Drive Alone 63%
- Walk 55%
- Bike 21%
- Carpool 18%
- Other 2%

Walking: ✓68% Feel very safe or somewhat safe; ✗32% Do not feel safe or have no opinion

Cycling: ✓41% Feel very safe or somewhat safe; ✗59% Do not feel safe or have no opinion

Why are people walking, cycling and wheeling in Leeds and Grenville?

Within their local municipality...

Fitness / Recreation	Running errands	Tourism	Getting to work
92%	29%	15%	11%

Within The Counties.....

Fitness / Recreation	Running errands	Tourism	Getting to work
85%	18%	26%	9%

Percentage of respondents cycling regularly (4 days a week or more)

- 41% in their local municipality
- 20% In the Counties

What are the main barriers?

Top 3 Barriers:

- Lack of sidewalks or trails
- Speed and noise of motor traffic
- Destinations are too far

Additional Barriers:

- Conditions of sidewalks / trails
- Not aware of good routes

Top 3 Improvements:

- More paved shoulders and trails
- A Connected County-Wide Network
- Better pavement conditions

Additional Priorities:

- Education for all users
- Connections to key destinations and surrounding regions

How far are people willing to travel?

WALKING

Work or School	11 minutes
Shops & Services	11 minutes
Local parks or trails	15 minutes
Entertainment or leisure	14 minutes

85% + Would walk to shops, parks or entertainment
75% would walk to work or school

CYCLING

Work or School	11 minutes
Shops & Services	12 minutes
Local parks or trails	15 minutes
Entertainment or leisure	14 minutes

80% + Would bike to shops, parks or entertainment
74% would bike to work or school

What kind of trails do people find comfortable using?

	WALKING	CYCLING
Woodchip Trails	99%	13%
Natural surface trails (dirt / gravel)	94%	29%
Physically separated space (sidewalks, bike lanes)	87%	81%
Asphalt Trails	74%	87%

In what scenario are people comfortable **riding a bike?**

Bikes and vehicles share the road (e.g. signed bike route)

10%

Cyclists have a dedicated space (paved shoulders)

60%

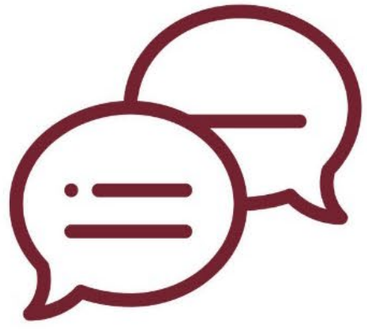
Cyclists are separated from vehicles (separated bike lanes)

71%

Off road multi-use trails

51%

What locations would people like to see improved?



- County Road 2
- County Road 43 and 44 in Kemptville
- Merrickville
- County Road 46
- North Augusta
- County Road 46
- County Road 15
- River Road
- Prescott to Kemptville Rail Bed
- Maitland
- Elgin
- County Road 3
- County Road 18
- North Grenville

What actions would people target for **investment?**

Top Priorities:

Pave County Road Shoulders

63%

Build more paved trails and multi-use paths

54%

Build more on-road separated cycling facilities

44%

Expand off-road cycling network

31%

Additional Priorities:

- Build more sidewalks on County Roads (20%)
- Provide more amenities (garbage cans, benches, repair stands etc) 20%
- Improve maintenance on existing facilities 19%
- Enhance intersections 18%
- Widen / upgrade existing trails 14%

What do people want to see the **Future of Active Transportation** look like in Leeds & Grenville?

- ✓ Potential for Growth
- ✓ Additional Cycling Infrastructure
- ✓ Separate Spaces for all users
- ✓ Safer for all users
- ✓ More people walking and cycling
- ✓ Enhanced connections between communities

- Provide improved signage and advertising to highlight active transportation opportunities:
  - Providing more informative signage and improving advertising about active transportation is an important step in informing residents and tourists about existing opportunities throughout the Counties. This could include providing more information about nearby amenities/tourist destinations and developing up-to-date route maps available to the public in digital and paper formats. In the future, advertising should also be used to promote programming initiatives to encourage more people to use active transportation. Public messaging should also be consistent from municipality to municipality.
- Provide support to municipalities for improving and encouraging active transportation:
  - The Counties should provide support to the municipalities through funding active transportation improvements and enhancements (e.g., funding for paved shoulders, sidewalk infrastructure improvements, and improved signage). The Counties should also play a key role in supporting active transportation programming and investigate the feasibility of hiring staff to oversee active transportation projects throughout the Counties. A key part in supporting active transportation is also educating the public on the benefits of active transportation, as well as how to properly use active transportation infrastructure (e.g., multi-use paths, paved shoulders, roundabouts, pedestrian crossings, etc.).
- Identify and leverage potential partnerships with local stakeholder groups:
  - There is a lack of existing active transportation programming in most municipalities, but several stakeholders mentioned Committees or organizations that are currently providing programming or that should be involved in the ATP process going forward. This is an excellent opportunity for the Counties to identify and leverage potential partnerships with various local stakeholders to improve and expand active transportation programming.
- The needs of people walking and people cycling are very different in Leeds and Grenville. For people walking, a sense of comfort increases on wood-chip and natural surface (dirt, gravel or limestone) trails since those trails are frequently removed from automobile traffic. For people on bikes, surface quality was a much more important consideration, so ensuring that new trails infrastructure satisfies both user groups will require trade-offs and a clear identification of the primary user group for each new piece of infrastructure.
- The main barriers to walking and cycling that were identified through the public survey were mostly infrastructure-related, as opposed to being related to environmental factors (distances, topography, weather). This is a significant opportunity for the Counties to improve the condition of active transportation infrastructure to enhance safety, comfort, and accessibility.
- Based on the amount of time people are willing to spend travelling, many destinations in Leeds and Grenville could be easily reached by walking or cycling if the appropriate infrastructure were in place.

1.4. What We Did

An important aspect of any project is the collection of feedback from key stakeholders to inform both the broad directions of the project and the specific elements of its implementation that will improve user experience. In the case of the Leeds and Grenville Active Transportation Plan, the collection of stakeholder and public input was used to inform several key aspects of the final plan. The feedback received so far has helped to:

- Prioritize the implementation of new infrastructure on County Roads 2, 43 and 44 to bring those routes up to an all ages and abilities standard. This includes improvements and upgrades along County Road 2 to increase the level of separation between motor vehicles and cyclists.
- Considerations for a municipal partnership fund to support the addition of in-boulevard active transportation infrastructure, including a cost-sharing program for proposed facilities on County roads.
- Considerations for additional staffing supports from the County to support additional programs to educate and encourage walking, cycling and wheeling within the Counties, including the provision of community rides and other programs.
- Additional destinations were added to project mapping, with additional considerations given to some of the regional trails systems within and beyond the Counties.
- Based on community comments, further consideration was given to the development of a Counties-wide wayfinding strategy.
- Based on the conversations with Counties Staff and key stakeholder and public input from the online survey, the ATP is being developed to meet the needs of the growing community of people in Leeds and Grenville who want to walk, bike

and wheel more often. Public support for these measures will be key to ensuring that they move forward in a timely and effective manner, and that they are sustainable in the long term.

1.5. Evaluation and Lessons Learned

Feedback for the consultations has generally been positive, including the use of tools like SurveyMonkey for the public survey and Miro for the Stakeholder Workshops. Miro provided most attendees with the opportunity to participate in an interactive setting without requiring in-person participation in compliance with COVID-19 public health measures.

Attendees of the Workshop were asked about how the workshop was delivered, and feedback was universally positive. In the future, the Counties may wish to allocate time for two separate workshop sessions – one during working hours to accommodate those who can include attendance as part of their daily responsibilities (e.g. Agency partners and those who work on active transportation issues as part of their paid roles) as well as one in the evening to accommodate those who want to support the ATP from a volunteer standpoint.

The public outreach for this project has been very strong, with a significant number of responses gathered, and a consensus that the survey met the needs of the community with regards to gathering input about priorities for the Counties' ATP. As the Counties continues to grow its community engagement practices, it may be prudent to consider an all-in-one engagement platform for future projects that can include ideation boards, mapping tools and budgeting tools to help assist in gathering feedback from the community.

1.6. Conclusions and Next Steps

Community Engagement for the Leeds and Grenville Active Transportation Plan is a vital component of the success of the Plan as it moves into the implementation phase. Based on the strong response rate and the support from both internal and external stakeholders for the types of projects and programs being recommended as part of this Plan, it is clear that the community has a strong interest in seeing this project succeed. As the project moves towards completion, Phase 2 Consultations will provide stakeholders and members of the public with the opportunity to comment on the priorities for the Counties' active transportation network, will further develop strategies to make education and encouragement efforts more widely accessible and will begin assigning roles and responsibilities to bring those projects to a reality.

2. Round 2 Engagement

The continual engagement with Active Transportation Stakeholders within the United Counties of Leeds and Grenville and members of the public is intended to expand on notable comments received during the first round of engagement and refine the proposed AT network and its implementation as additional input and information is made available. The results of the second round of engagement are the focus of the next sections.

2.1. Engagement Objectives

Engagement Approach

Throughout the Fall of 2021, the Project Team worked closely with the United Counties of Leeds and Grenville to facilitate several engagement activities with key stakeholders and members of the public for the second round of engagement. These activities were completed to gain input on the proposed AT network including the projects identified, project priority and facility type. These activities also introduced programming ideas that could raise awareness and promote active transportation to support the proposed facilities. The following sections summarize the Round 2 engagement activities, the input that was received, common themes that emerged, and how the Project Team will use this information to guide the development of the ATP.

IMPLEMENTATION WORKSHOPS

All stakeholders were invited to attend one of two Implementation Workshops held by the Project Team, where the same materials were presented. The Implementation Workshops were held virtually on Thursday October 7, 2021 from 1-3 pm and Wednesday October 13, 2021 from 2-4 pm. The results of the Implementation Workshops, along with best practices and lessons learned, will be used to develop the Outreach/Programming initiatives for the Active Transportation Plan.

The focus of the workshop was to:

- Identify existing capacity to deliver educational and encouragement programs within the Counties;
- Connect stakeholder agencies to each other who share similar goals and objectives relating to active transportation;
- Identify projects or initiatives that are already in place around the Counties that could be integrated into the Plan and further developed at a Counties level;

- Develop a prioritized list of new programs that could be deployed to support more active transportation within the Counties;
- Create workplans for those programs, including the assignment of roles and responsibilities, the identification of required resources and potential sources of funding or support; and
- Share back how previous feedback has been used to create the proposed network for active transportation within the Counties.

PUBLIC OPEN HOUSE

A Public Open House was held to ensure that the needs of residents and stakeholders are met while at the same time gathering local knowledge such that a strong understanding of the surrounding context is reflected in the Plan and its recommendations. The Public Open House was held virtually on Thursday October 28, 2021 from 7:00-8:30 pm. The Project Team presented an update on the project process and asked for comments on the proposed network and prioritized projects. The Outreach/Programming initiatives developed from the Implementation Workshops were included in the information presented at the Public Open House so as to hear from the public on which initiatives would have the highest priority for them when it comes to recommendations and implementation.

The Public Open House included:

- A presentation by WSP, to provide an overview on the project process, summarize the results of the public survey carried out during Round 1 engagement and discuss how projects were identified and prioritized;
- An interactive tool, Miro, was used to provide the opportunity to comment on the proposed cycling routes, facility types for the cycling network and project priorities; and
- A Question and Answer period with staff from the United Counties and members of the WSP Project Team.

2.2. What Was Said

The following section summarizes the input that was received during Round 2 of engagement.

IMPLEMENTATION WORKSHOPS

During the Implementation Workshops, stakeholders were asked to provide comments on the following AT network maps:

1. Existing Network
2. Proposed Network
3. Proposed Network – Priority
4. Proposed Network – Facilities

The following provides a summary of the map comments received:

Existing Network

- Key destinations recommended for inclusion are:
  - Recreation facility in Domvillle
  - Recreation facility in Algonquin
  - Community Hall and recreation facility in North Augusta
  - Township Office, Community Hall, and recreation facility in Maynard

Proposed Network – Priority

- County Road 27 south-west of Lyn to the railroad tracks in Yonge Mills is to be rehabilitated in 2022 and will include paved shoulders.
- A tourism priority is to connect the Waterfront Trail (adjacent to Thousand Islands Parkway) to the Cataraqui Trail / Rideau Heritage Route.
- Consider County Road 18 from Prescott as high priority.
- Verify that the existing paved shoulders on County Road 2 between Brockville and Maitland meets the needs for cyclists.
- Consider proposed route along the St. Lawrence River (i.e. County Road 2), which coincides with an MTO cycling route, to be identified as the Great Lakes Waterfront Trail.
- Aquaworld is a rural destination zone in the Township of Augusta.
- The Maitland Tower is a registered Living Community Challenge project (a framework for master planning, design, and construction). There are opportunities to tie in AT facilities.
- County Road 1 is a great connection point to Murphys Point Provincial Park and the Town of Perth.
- There is a planned tourism trail in North Grenville that includes being able to pick your own flowers, a vineyard winery, a lavender farm, two animal tourism destinations, a pumpkin patch, and much more. It would be great if the development of this trail could happen sooner.
- There is a new Highway 401 interchange / LCV interchange EA study occurring near County Road 15 that runs through the Township of Augusta.
- Desire to add a connection on County Road 9.

Stakeholders were also asked to identify their high value priorities based on a selection of programming ideas for community initiatives, as shown in Figure B-4. Participants organized the selection of programming ideas according to the following categories:

1. Continue – Community initiatives that are already happening
2. Start – Community initiatives that should be undertaken right away
3. Plan – Community initiatives that should be considered once the "Start" category of initiatives is completed
4. Not a Priority – Community initiatives that may have been tried before or do not align with the context or community goals

The following provides a summary of the participants' prioritization of programming ideas:

Continue

- Open Streets events – these current events in Kemptville can serve as a strong model for other municipalities

Start

- Bike Month
- Weekly Slow Rolls to showcase local destinations
- Bike Rodeos in Schools and at Special Events
- Create an Active Transportation Advisory Committee to establish priorities, bridge gaps in knowledge and facilitate implementation
- Equity seeking initiatives (programs targeted towards underrepresented communities within the Counties)
- Bike loan service (i.e. provide from local institutions, dual as a entry level cyclist service and tourism opportunity)
- Host a community cycling challenge that incents people to log cycling kilometers in exchange for a potential prize
- Wayfinding system (cycling/hiking time maps at key travel destinations)
- 1m Safe Passing Public Awareness Campaign

Additional comments that were made to support the programming ideas within the "Start" category include:

- The City of Kingston annually has Bike Week and commuter challenge during the first week of June. There is the potential to coordinate Bike Month with the timing of this existing initiative through partnering on events in the future.
- An app or forum (ex. Facebook page) could be used to generate ideas about routes to support a wayfinding system.
- The Health Unit should serve as a member of a potential Active Transportation Advisory Committee. They have a large social media following and can help spread news.
- Guided Frontenac Arch Biosphere Region tours to showcase natural heritage in the area as part of Weekly Slow Rolls.
- Host Bike Month events
    - The Health Unit should be present at future Bike Month events (ex. dedicated booth, etc.).
    - Potential bike lights awareness campaigns and giveaways.
- Biosphere Trails Council is looking at trail use etiquette that can supplement the establishment of an Active Transportation Advisory Committee.
- The City of Kingston is looking to promote a 1m Safe Passing Public Awareness Campaign.
- The Frontenac Arch Biosphere Network could help with the development of a wayfinding system by leveraging their existing map.
- The Township of Rideau Lakes can help with wayfinding in their area.
- Have cycling skills workshops for students.
- Lock stations can serve as a special event location.
- The E-bike loan service could potentially be hosted through existing lending libraries (ex. Augusta).
- North Grenville is looking to collaborate with its neighbours within the Counties to develop bike routes.
- Consider inter-regional wayfinding by working with neighbouring counties.
    - There is the potential for the City of Kingston to work on inter-regional wayfinding through a partnership.
- Parks Canada could include cycling/trail connections in promotional initiatives.

Plan

- Winter Wheels Program
- Bike Valet at Community Events
- Cycling skills training – train the trainer funding stream
- Earn a Bike Bicycle Repair Program in partnership with local high schools

- Increase participation in Active School Program
- Lunch and Learn Active Transportation Sessions at workplaces
- Monitoring and reporting scheme (i.e. trail counters at key locations, biannual monitoring report)
- Bike equipment giveaways from local institutions (i.e. lights, bells, water bottles from trail facilities, local libraries/offices)
- Bicycle Fairs in partnership with local municipalities

Additional comments that were made to support the programming ideas within the "Plan" category include:

- Parks Canada will be looking at services/amenities/facilities that could benefit cyclists, hikers, and paddlers. This could include directional signage/info kiosks, bike repair stations, showers, wifi, etc.

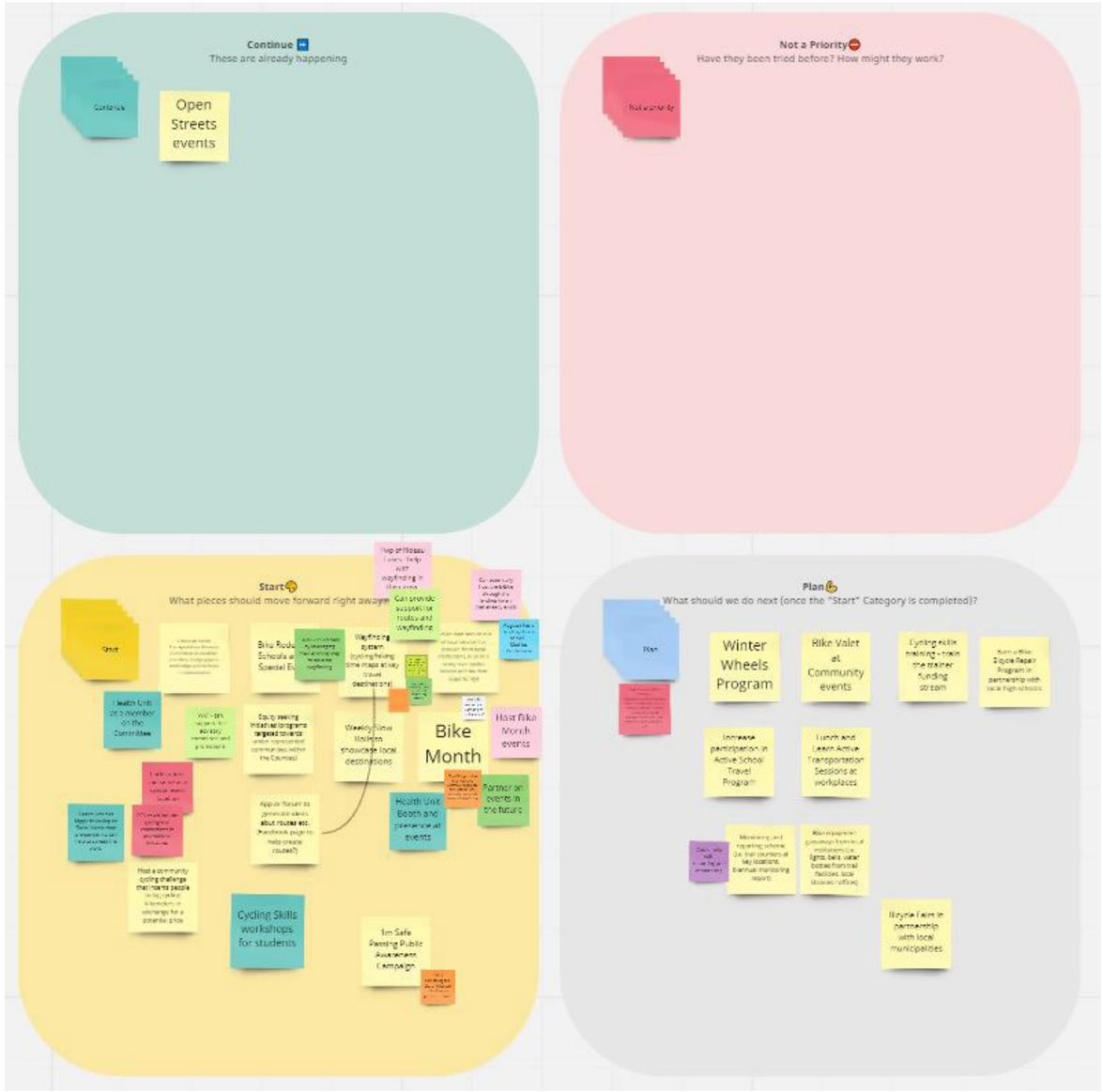


Figure B-4: High Value Priorities of Implementation Workshop Participants for Select Programming Ideas

PUBLIC OPEN HOUSE

The Project Team held a virtual Public Open House where stakeholders and members of the public were invited to provide comments on the AT network maps for the United Counties of Leeds and Grenville and on how programming ideas should be prioritized. During the Public Open House, the Project Team used Miro, an online whiteboard tool, to facilitate activities and allow participants to collaboratively provide input and contribute to discussions surrounding the future of active transportation in the United Counties. The activities included:

1. **Active Transportation network map mark-up –** the Project Team presented maps of the United Counties to the Public Open House attendees, and sought feedback on the proposed AT network facilities throughout the United Counties and more specifically within the member municipalities as related to County Roads. Comments received on the proposed network through member municipalities have been summarized below:

   Merrickville-Wolford

   - It would be great to see the direct connections between the hamlets as a high priority for proposed paved shoulders.

   North Grenville

   - It would be great to see the Scotch Line Road road allowance be developed into a multi-use path or other separated active transportation infrastructure to connect Kemptville and Merrickville through Limerick Forest.
   - Limerick Forest is a County Forest; how can these off-road facilities tie into the network. And are there other off-road trails under the Counties' jurisdiction?
   - Extend existing multi-use path in Kemptville along County Road 44 be extended from Settlers Trail to Equinelle Drive or River Road?

   Elizabethtown-Kitley

   - Include Hallecks Road (N-S section). Many residents of the County Road 2 and Hallecks Road / Fulford Point Road / Eleanor Fulford Crescent area between Lily Bay and the Highway 401 overpass use Hallecks Road as a walking route and a cycling route for exercise and for access. Hallecks Road also provides access to the conservation area in Lyn (the "Lyn pit").
   - The proposed routes along Lyn Road and Yonge Mills Road are a significant distance away when wanting to use active transportation within the area of Hallecks Road / Fulford Point Road / Eleanor Fulford Crescent area.
   - Hallecks Road (N-S) will be rehabilitated once the Hallecks Road overpass at Highway 401 has been replaced in 2023. If this road is not designated as an active transportation route, concern that it will be many years before improvements for cyclists and pedestrians will be realized.

The following is a summary of the general comments received regarding the overall AT network map of the United Counties of Leeds and Grenville:

- Has consideration been given to developing the rail trail that runs from Ottawa to the St. Lawrence River at Prescott?
- Many projects are proposed. What is the timeline for undertaking the proposed facilities and programming initiatives and how many projects will be funded each year?
- Is a crossing of Highway 15 planned? The intersection is currently unsignalized, MTO may need to be consulted.
- Brock Trail in Brockville needs better signage.
- Informational/tourism signs on the Thousand Islands Parkway would be a great addition for educational purposes, such as displaying travel distances, despite the parkway being relatively easy to navigate.
- At the intersection of King Street and Rivers Road, just east of St. Lawrence Park in Brockville where the bike lane ends, if a cyclist needs to continue along King Street, there is a very abrupt termination of the bike lane. Better signage and road markings are needed here.
- Would like paving of recently developed wide shoulders on County Road 3 and County Road 5, and for project to have higher priority than medium/low.
- It is noted that Centennial Road becomes part of the City of Brockville. Improvements to the municipal road are required to bring that road up to the standard (paved shoulders, signage, etc.) so as to have a seamless transition at the boundary.

- Within Brockville (grey shaded area), nothing is proposed to get across Brockville's north end (east-west direction), such as Centennial Road, Old Red Road, and Laurier Boulevard, nor a north-south route to cross over Highway 401 to get to the north-west part of the City. This is a necessity for active transportation in the area as there is currently no safe route.
- County Road 2 running westbound from Brockville between Lyn Road to the western entrance of McDonald Road is very dangerous for cyclists and pedestrians. This should be a priority. The existing MUP ends too early and abruptly, especially for drivers and cyclists who are not familiar with the road. The MUP needs to extend as far as the west entrance to McDonald Road. Ideally, the maintenance strip should be replaced with a level, paved shoulder.
- Many vehicles exceed the speed limit all along County Road 2 between the Highway 401 exit and Brockville city limits.
- There is no safe way to cross King Street at the St. Lawrence Park main parking lot and there is no sidewalk on the south side of King Street from the parking lot to get to the pedestrian crossover.

2. **Programming initiatives prioritization** – the second activity involved participants providing feedback on programming initiatives to support active transportation through a voting exercise. Participants were able to identify their high priority, medium priority, and low priority programming ideas by copying and pasting a selection of colored dots and dragging them to their correct location within the chart that was presented. There was a total of 19 programming ideas to prioritize, as shown in Table 3, and the priority votes indicate the voting frequency for each priority level. To identify an overall score of each individual programming idea, each priority vote was assigned a point weighting as follows:
    - High priority – 2 points
    - Medium priority – 1 point
    - Low priority – 0 points

Table B-3: Programming Ideas – Prioritization

Programming Ideas		Priority Vote			
		High	Medium	Low	Score
1	Wayfinding system (cycling/hiking time maps at key travel destinations)	5	1	0	**11**
2	Create an Active Transportation Advisory Committee to establish priorities, bridge gaps in knowledge and facilitate implementation	3	0	0	**6**
3	Open Street events	3	1	1	**7**
4	1m Safe Passing Public Awareness Campaign	2	2	0	**6**
5	Host a community cycling challenge that incents people to log cycling kilometers in exchange for a potential prize	1	3	1	**5**
6	Earn a Bike Bicycle Repair Program in partnership with local high schools	1	2	1	**4**
7	Monitoring and reporting scheme (i.e. trail counters at key locations, biannual monitoring report)	2	1	1	**5**
8	Equity seeking initiatives (programs targeted towards under-represented communities within the Counties)	2	1	1	**5**

Programming Ideas		Priority Vote			
		High	Medium	Low	Score
9	Increase participation in Active School Travel Program	4	0	0	**8**
10	Cycling skills training – train the trainer funding stream	0	1	2	**1**
11	E-bike loan service out of local service (i.e. provide from local institutions, dual as a entry level cyclist service and tourism opportunity)	2	1	1	**5**
12	Bike equipment giveaways from local institutions (i.e. lights, bells, water bottles from trail facilities, local libraries/offices)	0	3	0	**3**
13	Bike Rodeos in Schools and at Special Events	0	2	1	**2**
14	Weekly Slow Rolls to showcase local destinations	3	1	0	**7**
15	Winter Wheels Program	0	2	2	**2**
16	Lunch and Learn Active Transportation Sessions at workplaces	0	1	2	**1**
17	Bike Valet at Community Events	1	4	0	**6**
18	Bike/trail hub stations	2	3	0	**7**
	Formalize and expand the number of designated "bike/trail hubs" at key locations (i.e. bike repair stands, shelters, benches, bike parking – prioritize at key travel destinations)				
19	Bike Month	0	2	1	**2**

The top scoring programming initiatives were:

- Wayfinding system
- Increase participation in Active School Travel Program
- Open Streets events
- Weekly Slow Rolls to showcase local destinations
- Bike/trail hub stations

The following is a summary of the general comments received regarding programming initiatives in the United Counties of Leeds and Grenville:

- A new advisory committee, the Thousand Islands Parkway Trail Advisory Committee (TIPTAC), has been formed for the St. Lawrence Parks Commission regarding year-round multi-use of the Thousand Islands Parkway (TIP) trail. An important aspect of the TIP is that cyclists need to ride along Brockmere Cliff Drive and County Road 2 in order to access the trail westward from Brockville, and other County Roads from areas north of the TIP. Signage along the TIP is inconsistent, as is placement of stop signs on the Counties' roads and local roads.
- A Bike Valet should be an easy priority to implement and could be made mandatory in the permit process for an event, even just for local sidewalk sales as an example.
- For events that result in road closures, alternate bike routes that include signage should be planned for.

2.3. What Was Heard

The Round 2 Public Engagement activities provided the Project Team with additional information and context on refinements to be carried out on the AT network in areas such as coordination with upcoming road rehabilitation / construction projects, missing links/suggested connection points, and other key destinations for consideration in the United Counties.

Key ideas and common themes emerged from these activities which will be used to guide the development of the ATP and set priorities for the Plan.

Key Ideas – AT Network

- Add in and consider off-road trail connections
- County Road 2 and connection to Thousand Islands Parkway Trail a big priority
- Coordination with MTO required for crossings of Highway 401
- A number of suggested links to be reconsidered as missing links/connections.

Key Ideas – Programming

- Wayfinding and signage a high priority
- Partnerships with the large number of agencies, member municipalities, United Counties and area Municipalities is required for consistent messaging and programming outreach
- Community events that highlight active transportation options and educate on safety initiatives a high priority.

2.4. What We Did

The feedback received on the proposed network, project facility types and priorities during the Implementation Workshops and Public Open House as part of the Phase 2 Consultations were used to refine the AT network and prioritized projects list and develop the implementation plan through a phased approach taking into consideration the capital works programming plan.

The input received on the programming initiatives was utilized in the development of Chapter 4 Outreach in establishing the priority initiatives and implementation program.

APPENDIX C

DESIGN GUIDE

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1. References

The principal source of design guidance for cycling facilities in Ontario is *Ontario Traffic Manual (OTM) Book 18: Cycling Facilities*. This document provides general guidance on facility types, selection, design considerations, intersection treatments, maintenance, and unique considerations such as bicycle parking. OTM Book 18 was most recently updated in October 2021 and can be downloaded from the MTO library here: https://www.library.mto.gov.on.ca/SydneyPLUS/Sydney/Portal/default.aspx?component=AAAAIY&record=9c49ce44-e3b2-4389-91cd-5e9b67aad03d

There are many additional sources of design guidance available for use, including:

- TAC Geometric Design Guide for Canadian Roads (2017), Chapter 5: Bicycles: https://www.tac-atc.ca/en/publications/ptm-geodes5-e
- MTO Bikeway Design Manual (2014): https://www.library.mto.gov.on.ca/SydneyPLUS/Sydney/Portal/default.aspx?component=AAAAIY&record=2123efe9-b107-4fcc-9d3b-1bde607bdf7b
- FHWA Small Town and Rural Design Guide: Facilities for Walking and Biking (2017): https://ruraldesignguide.com/

2. Design Considerations for UCLG Context

The United County of Leeds and Grenville is largely a collection of small towns, villages, hamlets and rural areas, with different design needs and considerations from more urban municipalities. Some key considerations include:

- Generally stable or slowly developing built-up areas
- Very short trips within towns and villages and generally longer distances between built-up areas
- A high proportion of roads with a rural cross section and ditches

This section provides high-level guidance for the most typical or suitable facilities for use in the UCLG context.

For roads in areas with limited current or planned development such as farmland and forest, as well as low-density residential areas in villages, the facility selection within this Plan has been based on OTM Book 18 facility selection process for Rural Context. In village and town centres with mixed uses, closely spaced driveways, on-street parking and pedestrian activity, the facility selection guidance for Suburban/Urban environments was used. The selection nomograph tools from OTM Book 18 are shown in Figure D-1.

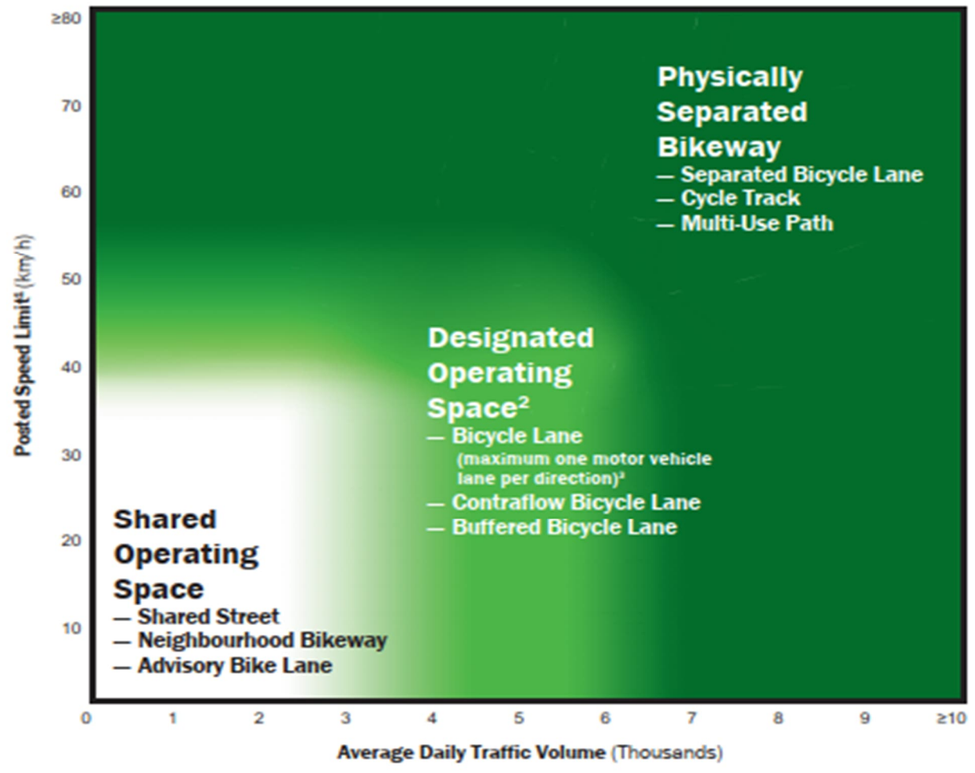


Figure D-1: Desirable Cycling Facility Pre-Selection Nomograph – Urban / Suburban Context, source OTM Book 18

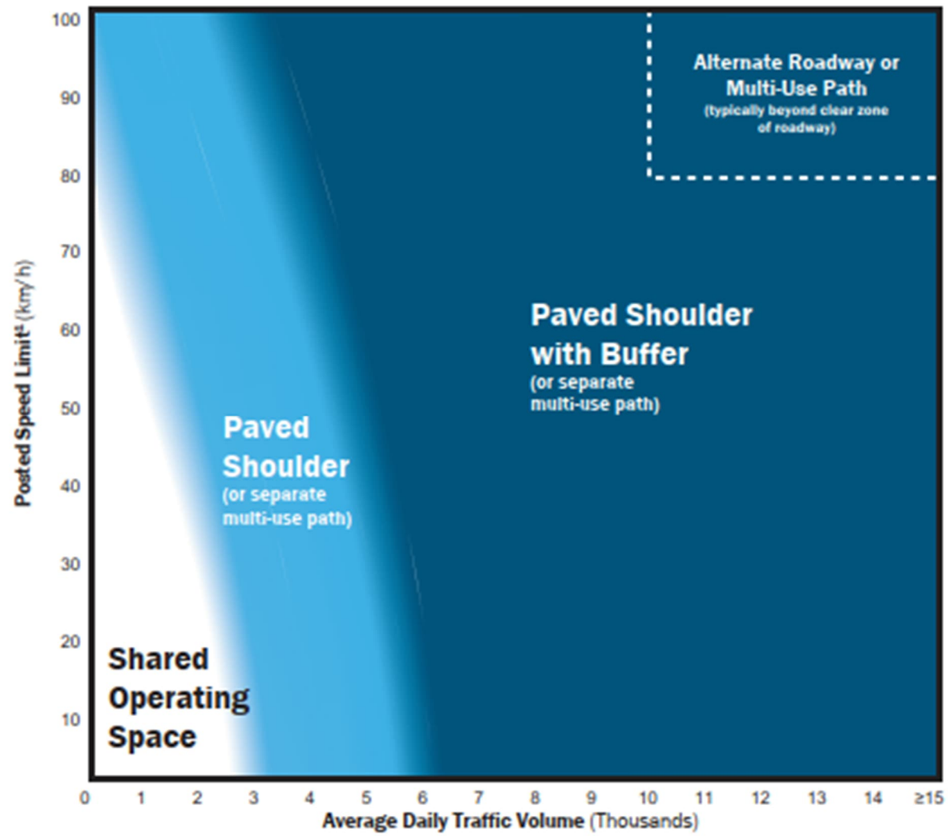


Figure D-2: Desirable Cycling Facility Pre-Selection Nomograph – Rural Context, source OTM Book 18

2.1. Paved Shoulders

As stated in OTM Book 18, a paved shoulder is a portion of a roadway that is contiguous with the travelled way and provides lateral support for the pavement structure. It accommodates stopped and emergency motor vehicles, pedestrians and people riding bikes. It is often used by cyclists for travel since it provides them with an area for riding that is adjacent to but separate from the motor travel portion of the roadway. Cyclists must travel in the same direction as the motor vehicle traffic.

In addition, paved shoulders are generally recognized as a safety improvement for motor vehicles and reduce the potential for run-off-road collisions. A 2013 study of rural collector roads in the US found that the upgrading of narrow, unpaved shoulders to wide paved shoulders resulted in a 42% decrease in crashes[1].

Paved shoulders are generally seen as a cost-effective retrofit solution on roadways with ditches and can be paired with reconstruction projects.

OTM Book 18, Section 4.5.4 includes two types of paved shoulders:

- Basic paved shoulder: 1.5-2.0m wide (minimum 1.2m), separated from vehicle travel lanes by a painted white line
- Buffered paved shoulder: with the above shoulder width plus a 0.5-1.0m painted buffer, which could contain rumble strips as a deterrent to motorists

For buffered paved shoulders, physical separation measures may be placed in the buffer, such as flex posts (see Section 2.4). These require consultation with road maintenance staff, as they may impact winter maintenance operations. Alternatively, physical separation measures may be removed during the winter months and reinstated prior to summer, a practice employed by the City of Ottawa.

To maximize their benefit to active users, paved shoulders should remain as continuous as possible. They should be carried through intersections and across structures.

Figure D-3: Examples of a rural paved shoulder

[1] http://www.cmfclearinghouse.org/study_detail.cfm?stid=340

Figure D-4: Paved shoulder extended over a bridge in Ottawa, ON

Practitioners should refer to OTM Book 18 for detailed geometric considerations for paved shoulders.

Designing a Paved Shoulder for Use by Pedestrians and Cyclists

On roadways where paved shoulders are provided and no sidewalks are present, paved shoulders become the de facto roadway location for pedestrians to travel.

If the design intent is for a shoulder to be used by pedestrians as well as cyclists, the facility design should meet the *Accessibility for Ontarians with Disabilities Act* (AODA) requirements for an exterior path of travel:

- Minimum clear width of 1.5 metres
- Firm, stable, slip-resistant surface
- Graded at a maximum 5% running slope, or no more than the slope of the roadway if greater than 5%

Especially on high-speed roadways, pedestrians benefit significantly from the addition of a buffer from traffic. Supportive pavement markings and signage may be considered, such as the WC-7 Pedestrians Ahead sign (see Figure D-5) or adding pedestrian stencil pavement markings (see Figure D-6).

Figure D-5: A buffered paved shoulder on a residential street in Ottawa intended for use by pedestrians and cyclists

Figure D-6: A paved shoulder designated for pedestrians and cyclists in Gatineau, Quebec

Paved Shoulder Transitions at Pinch Points

When retrofitting existing roadways to add paved shoulders, it is common to encounter “pinch points”, where existing structures or other constraints limit the ability to continue shoulders for a short distance.

- If allowable based on local design guidance, consider reducing the vehicle lane widths to minimums through the constrained area if doing so provides enough width to continue a shoulder.
- Where the above is not possible, guidance should be used to transition cyclists into mixed traffic, consistent with OTM Book 18, Figure 6.62, shown in Figure D-7 below. Sharrows may be placed in the roadway for the length of the pinch point as a reminder to motorists to be aware of cyclists.
- In the case that the structure has a sidewalk on one or both sides, cyclists may choose to dismount and cross the structure as pedestrians.
- When reconstruction works or major repairs happen on structures at pinch points, UCLG should seek to eliminate the pinch point by providing more width.

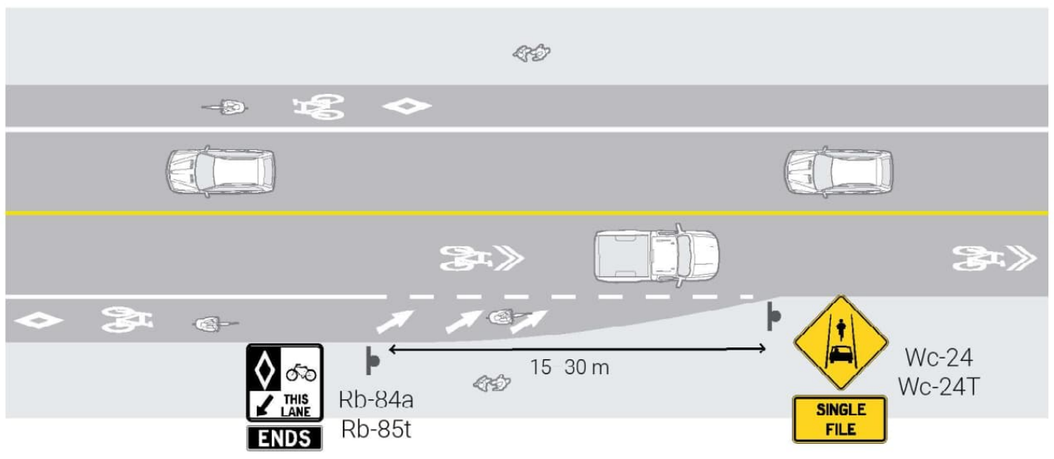


Figure 6.62 – Facility Discontinued Mid-block

Figure D-7: Guidance for transitioning a cycling facility into mixed traffic, from OTM Book 18

[2] Based on TAC Geometric Design Guide

2.2. Converting a Maintenance Strip to a Shared Walking/Cycling Facility

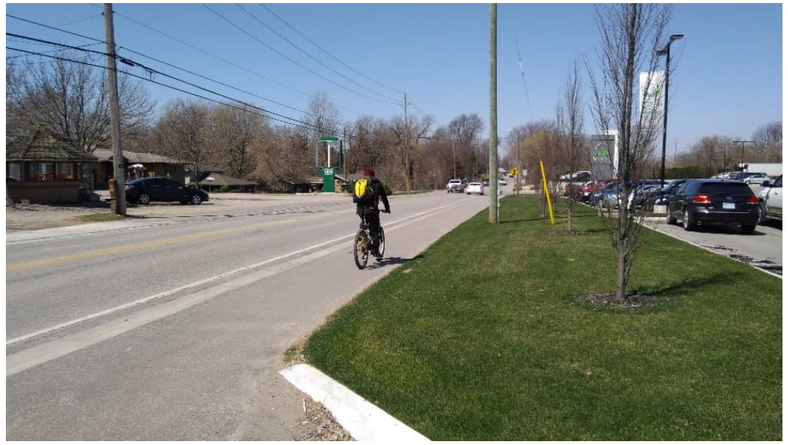


Figure D-8: A maintenance strip repurposed as a shared walking and cycling facility in Essex County, ON

A common roadway configuration in built-up areas is an asphalt maintenance strip separated from the roadway by a mountable curb. Though not always designed to be used by active travel users, these are commonly used for this purpose as they provide separation from motor vehicle traffic.

During retrofit and reconstruction projects, it may be possible to design these as active travel facilities:

- Ensure that AODA requirements for an exterior path of travel are met, as mentioned above.
- While 1.5m is the minimum width for an exterior path of travel, the expected volume of cyclists and pedestrians should be considered when selecting the desired width. The minimum operating envelope width for a pedestrian and cyclist are 0.75m and 1.2m respectively[2], so a facility width of at least 1.95m allows a cyclist to pass a pedestrian without entering the roadway.

- Where a shared walking/cycling facility is provided on both sides of the road, it is recommended that shared walking/cycling facilities be designated as one-way for bikes and two-way for pedestrians.
- While a mountable curb provides more flexibility for cyclists to enter and exit the maintenance strip, this curb type may also lead to motorists using the strip as on-street parking in high-demand areas. In this case, a barrier curb may be preferred.

Within the Plan there are a number of areas through villages and hamlets where converting an existing maintenance strip to a shared walking/cycling facility is proposed. Before implementing these changes, the proposal should be reviewed with road operations staff to identify how and the feasibility of maintaining the facility in the winter.

2.3. Community Safety Zones

While higher speeds directly increase the severity of all crash types, they are especially impactful on pedestrian and cyclist safety. For example, when a vehicle strikes a pedestrian the probability of death is very low at impact speeds up to 30km/h. At impact speeds above 40km/h, the probability of death increases significantly[3].

A Community Safety Zone is a designated area where fines for infractions like speeding are significantly increased. Under section 214.1 of the Highway Traffic Act, "The Council of a municipality may by by-law designate a part of a highway under its jurisdiction as a Community Safety Zone if, in the Council's opinion, public safety is of special concern on that part of a highway."

Given the potential for speeding to significantly increase the risk of injury, Community Safety Zones may be applied as a tool for improving safety, especially in built-up areas where higher rates of pedestrians and cyclists are present.

[3] TAC Geometric Design Guide, Section 6.2.5 Speed and Volume Management

2.4. When to Use Delineator Posts

Figure D-9: Delineator posts separating a multi-use pathway from traffic in the village of Kars in Ottawa

Delineator posts, also known as “flexible bollards” or “flex posts” are flexible plastic cones fixed to the roadway and can be found in a range of colours. Their applications include:

- Providing continuous physical separation for an active transportation facility and preventing encroachment from motorists for parking.
- Adding inexpensive traffic calming measures like curb extensions.

While delineator posts are impact resistant, they will be destroyed if impacted repeatedly by vehicles. To mitigate damage, consider the following measures:

- When used as separation for an active transportation facility, posts should be discontinued across driveways, with some buffer in both directions, especially where larger truck traffic is present. A horizontal offset from both travel lanes and the AT facility is generally recommended to reduce risk of users impacting the posts.
- Consultation with road operations is recommended to minimize risk of damage. Typically, delineator posts are removed and reinstalled seasonally to minimize conflicts with winter maintenance.
- Any plan to incorporate delineator posts should include some operational budget for ongoing replacement. Damaged posts may create a tripping hazard and should be regularly inspected and replaced as needed.

Additional guidance on the use of delineator posts, as well as other separation treatments, can be found in OTM Book 18, Section 4.3.1 Separation Techniques.

3. Trail Design Considerations

Figure D-10: A stone dust trail in Ottawa, ON

3.1. Rest Areas

Seating provides the opportunity to pause along the active transportation network at points of interest or just to rest. Young children, older adults and those with disabilities will need to rest more frequently than others.

The AODA defines a rest area as “a dedicated level area that is intended for public use to allow persons to stop or sit”, and states that obligated organizations shall consult on the design and placement of rest areas along exterior paths of travel, including along recreational trails.

Figure D-11: A bench located along a trail in Kingston, ON

Benches are the most common form of seating, but walls of appropriate height and width, large flat boulders, and sawn logs are some alternatives depending on the network setting and context. Where seating/rest areas are planned, the design should consider a 1m wide level area with a curb or other appropriate wheel stop for mobility-assisted devices. Staging areas, trail nodes and heavily used active transportation networks typically require a higher density of seating opportunities.

For heavily used networks it is reasonable to provide some form of seating at approximately 500m intervals.

Other features that could be located at rest areas include bicycle parking, water fill-up stations, bike repair stations, charging stations, waste receptacles and washrooms depending on budget. Level of service and what amenities are needed at a 'Rest Area' can be determined based on the estimated visit frequency of users, potential needs of various types of users and available existing amenities in the vicinity area. Leveraging existing key destinations with established public amenities such as libraries, parks and recreation centers help with cost effective implementation.

Figure D-12: A public toolbox/repair station in Westport at the Visitor Welcome Centre

3.2. Trail Crossings

Figure D-13: An example of a trail crossing a roadway in the village of Osgoode, Ottawa

While trails provide a comfortable user experience, often through scenic landscapes and natural areas, most eventually must cross roadways. In these cases, a design feature will be needed to guide users from one part of the trail to another. By implementing crossings and structures that reflect the design of the trail, a greater sense of connectivity can be achieved. The implementation of these types can be costly. Where possible, the Active Transportation network should make use of existing bridges, vehicular bridges and abandoned railway bridges.

At roadway crossing locations, there should be a distinct or clearly delineated access point where pedestrian, cyclist and vehicle traffic are managed. Trail crossings or terminus points should be designed to clearly articulate the way in which users are meant to cross the roadway or how they should transition to the next portion of the trail.

The following are some of the basic elements which should be considered when a trail approaches or crosses a major or minor roadway.

- Creating and maintaining an open sight triangle at the crossing point to allow trail users to see approaching vehicles and for trail users to be seen by drivers in approaching vehicles

- Access barriers on the trail which serve to:
  - Prevent unauthorized users from entering the trail, and
  - Act as a visual cue to trail users that they are approaching an intersection with the road.
  - Due care should be taken to ensure that access barriers do not create a hazard for trail users or impede access for some users. A minimum of 1.8m operating envelope should be provided for cyclists between hard objects and facility edges. Refer to OTM Book 18, Section 7.3.3 Vehicular Access Management for further guidance.
- Advance warning signage:
  - Along the roadway in advance of the crossing point to alert motorists to the upcoming crossing (e.g. the WC-15 Pedestrian and Bicycle Trail Crossing Ahead sign with the WC-44T supplementary tab).

Figure D-14: WC-44T – Supplementary Tab

Figure D-15: WC-15 Pedestrian and Bicycle Crossing

  - Along the trail to alert users of the upcoming roadway crossing.
- Aligning the crossing point to achieve as close to possible a perpendicular crossing of the roadway to minimize the time that users are in the traveled portion of the roadway.
- Where the intersecting roadway has curbs, provide curb ramps on both sides of the road to allow users to enter and cross the roadway efficiently and quickly. Tactile warning surface indicators are also required to identify the hazard to people with reduced vision.
- Pavement markings where appropriate:
  - To delineate a crossing only where there is some form of vehicle control in place (e.g. stop sign, or traffic signal or pedestrian crossover).
  - Should not be used at uncontrolled trail intersections with roads (i.e. free flowing vehicular traffic that is not controlled by a stop sign or traffic signal). Trail users are required to stop and wait for a gap in traffic at uncontrolled intersections. Pavement markings at uncontrolled crossings may give trail users the false sense that they have the right-of-way over motor vehicles, which is contrary to the Highway Traffic Act.
- Consider use of a centre median to split the crossing into two stages for trail users, reducing the level of effort and time required to cross the roadway. Medians may also serve as a traffic calming measure for motorists in advance of the crossings.

In some locations signage on the trail may not be enough to encourage trail users to stop before crossing the road. Under these circumstances, or in situations where the sight lines for motorists are reduced and/or where there is a tendency for motorists to travel faster than desirable, the addition of other elements into the trail crossing may be necessary. Changing the trail alignment may help to get trail users to slow and stop prior to crossing. Changes to the streetscape may also provide a visual cue and traffic calming effect for vehicles.

Figure D-16: Traffic calming measures in advance of pedestrian crosswalk on Bedford Street, Westport

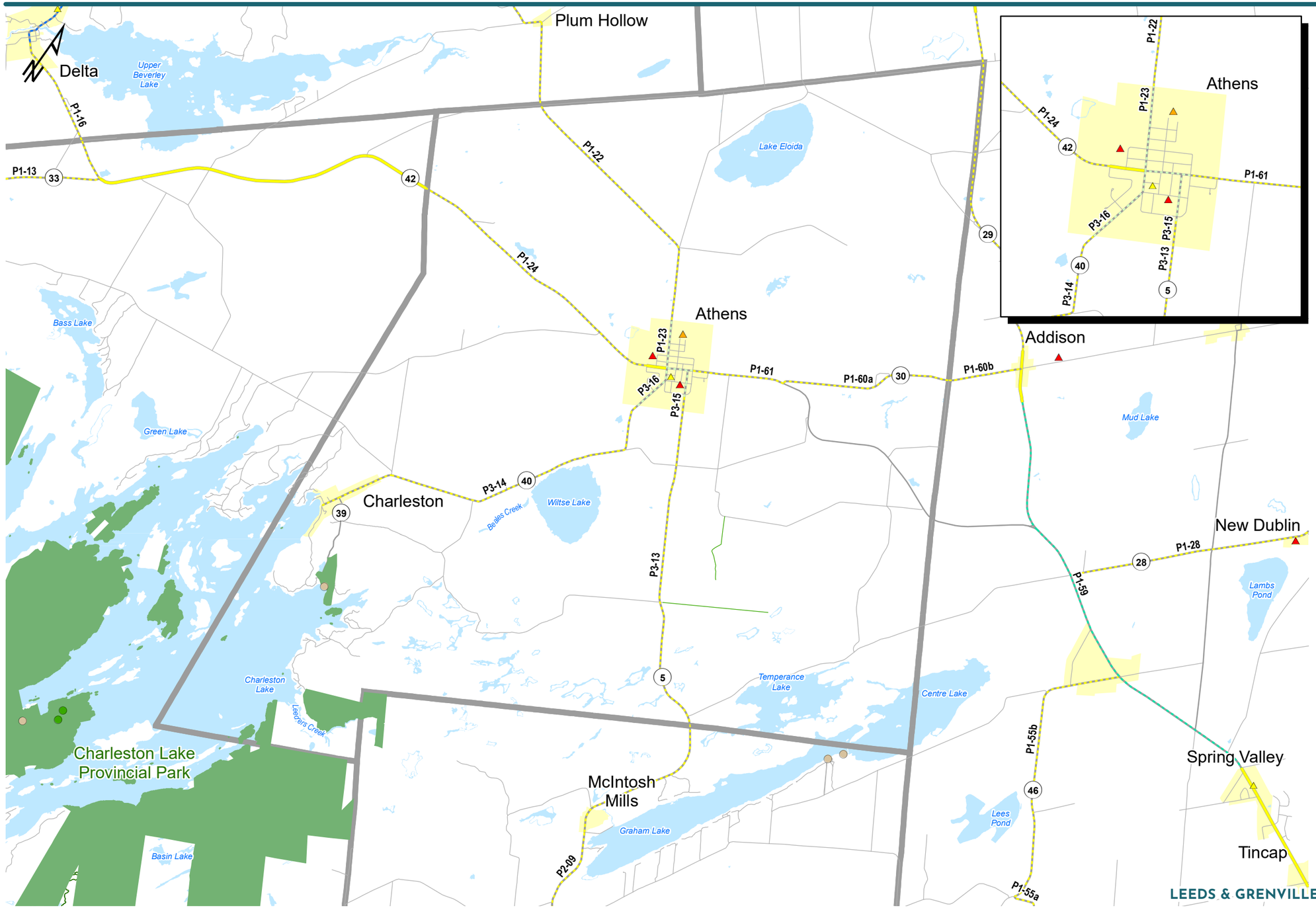
Sources for supplementary guidance for trail crossings include:

- OTM Book 18, Section 6.8 Roadway Crossing Treatments
- Toronto Multi-Use Trail Design Guidelines, Section 5 Trail Crossings

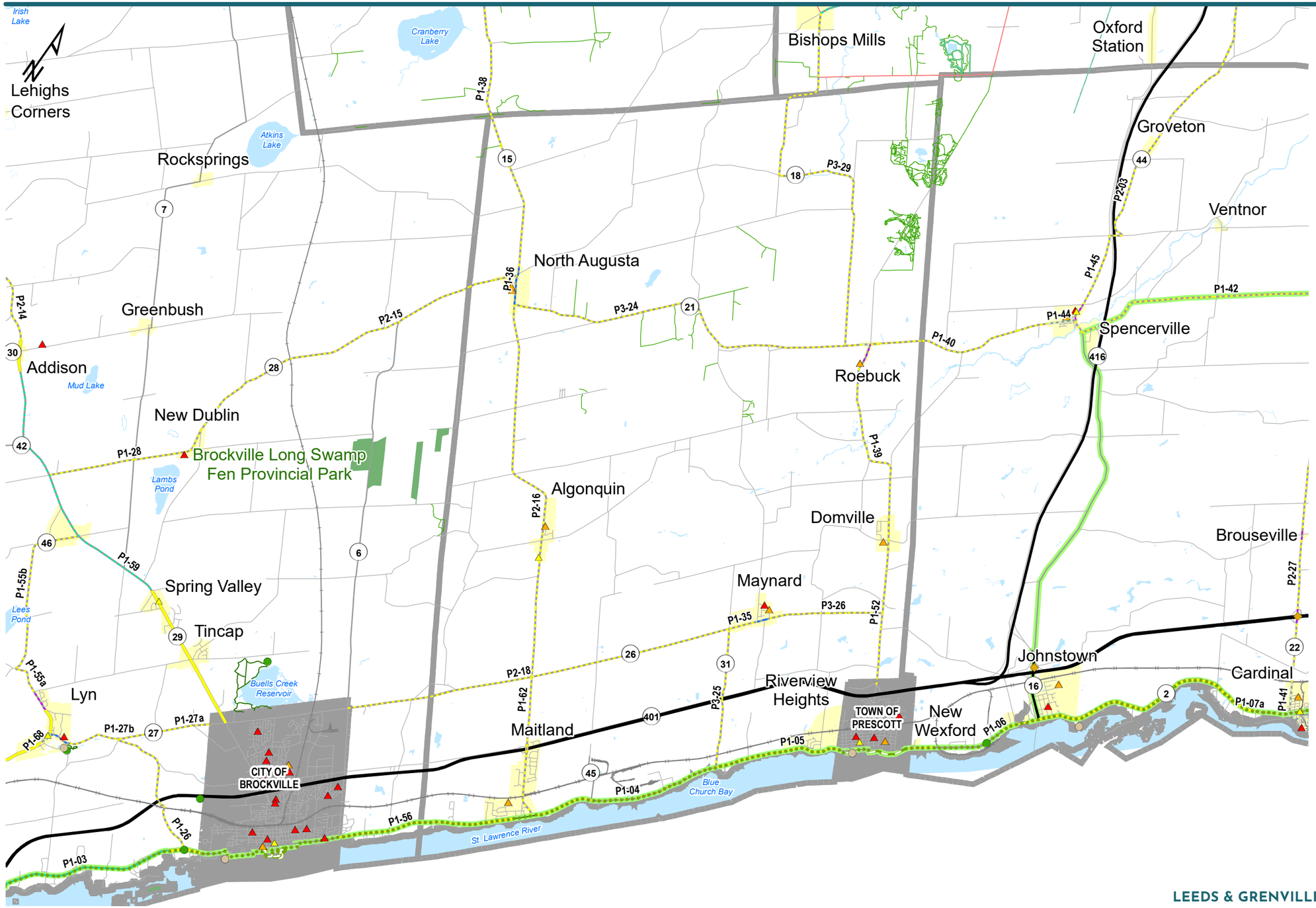
APPENDIX D

MEMBER MUNICIPALITIES PROPOSED NETWORK FACILITIES MAPS

Proposed Network Facilities - Athens



Proposed Network Facilities - Augusta



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Facilities - Existing

- Existing Paved Shoulder

UCLG Facilities - Proposed

- Proposed Bike Lane
- Proposed Unidirectional MUP
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space
- Proposed Key Crossings

Routes by Partner Municipalities

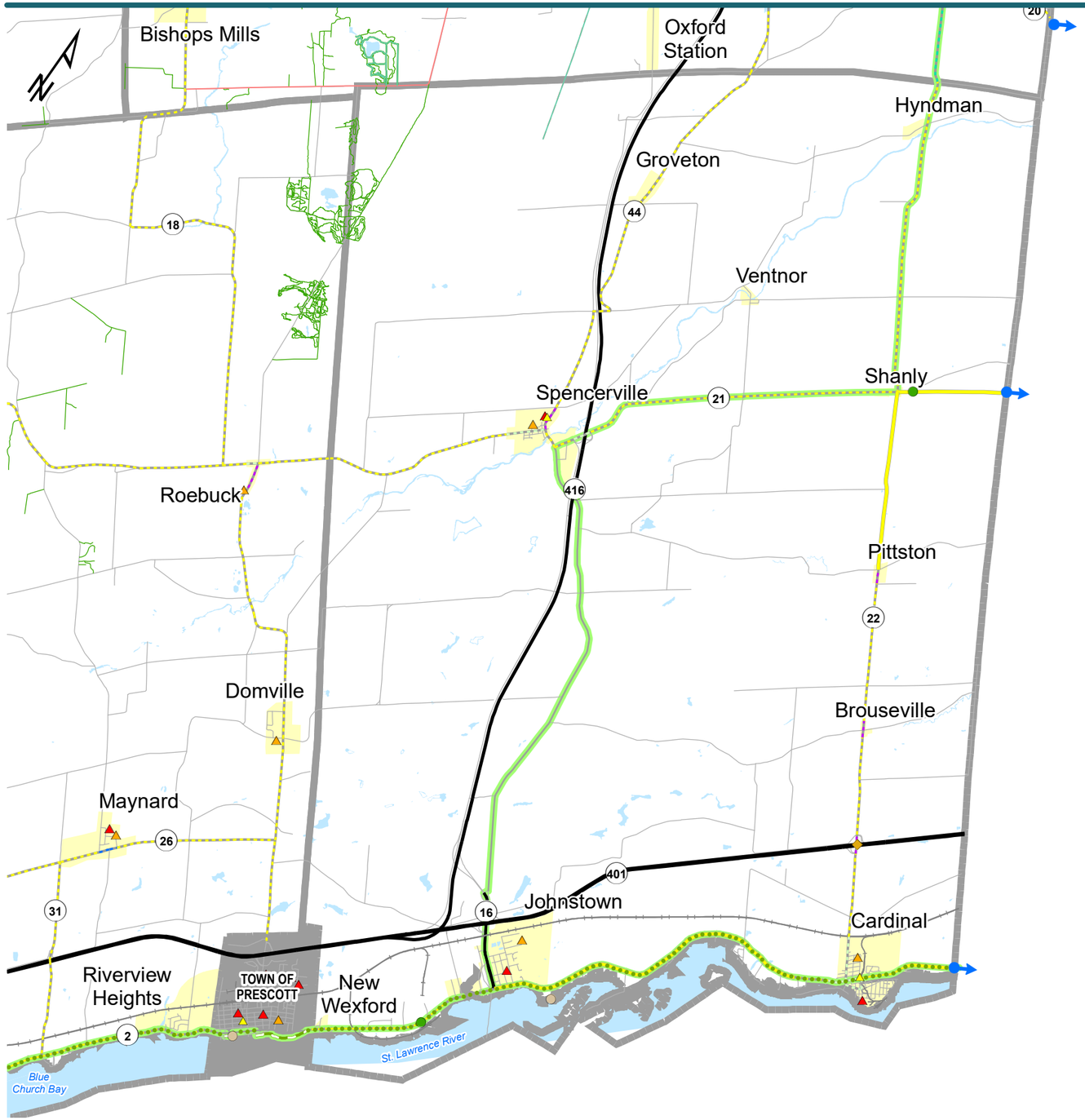
- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

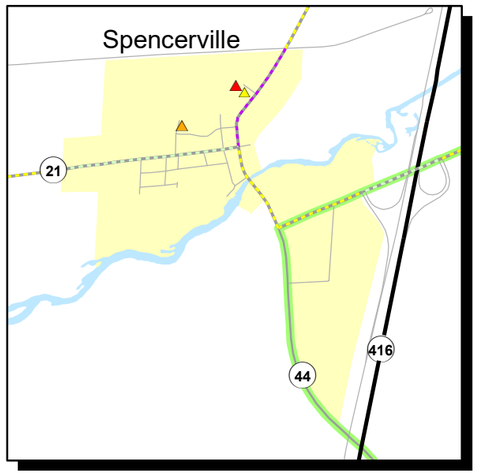
Existing and Planned Routes by Others

- Great Lakes Waterfront Trail On-Road
- Great Lakes Waterfront Trail Off-Road
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

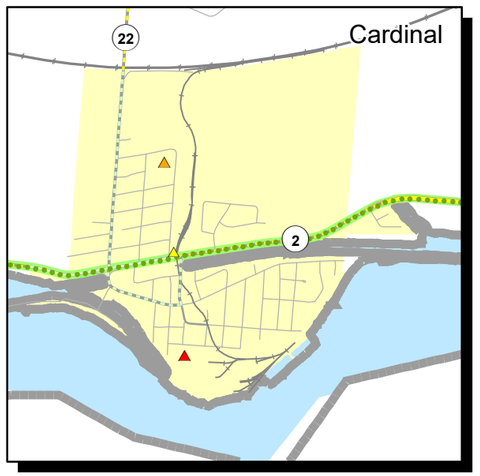
0 1 2 3 4
Kilometres

Proposed Network Facilities - Edwardsburgh Cardinal





UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Facilities - Existing

- Existing Paved Shoulder

UCLG Facilities - Proposed

- Proposed Bike Lane
- Proposed Unidirectional MUP
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space
- Proposed Key Crossings

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Existing and Planned Routes by Others

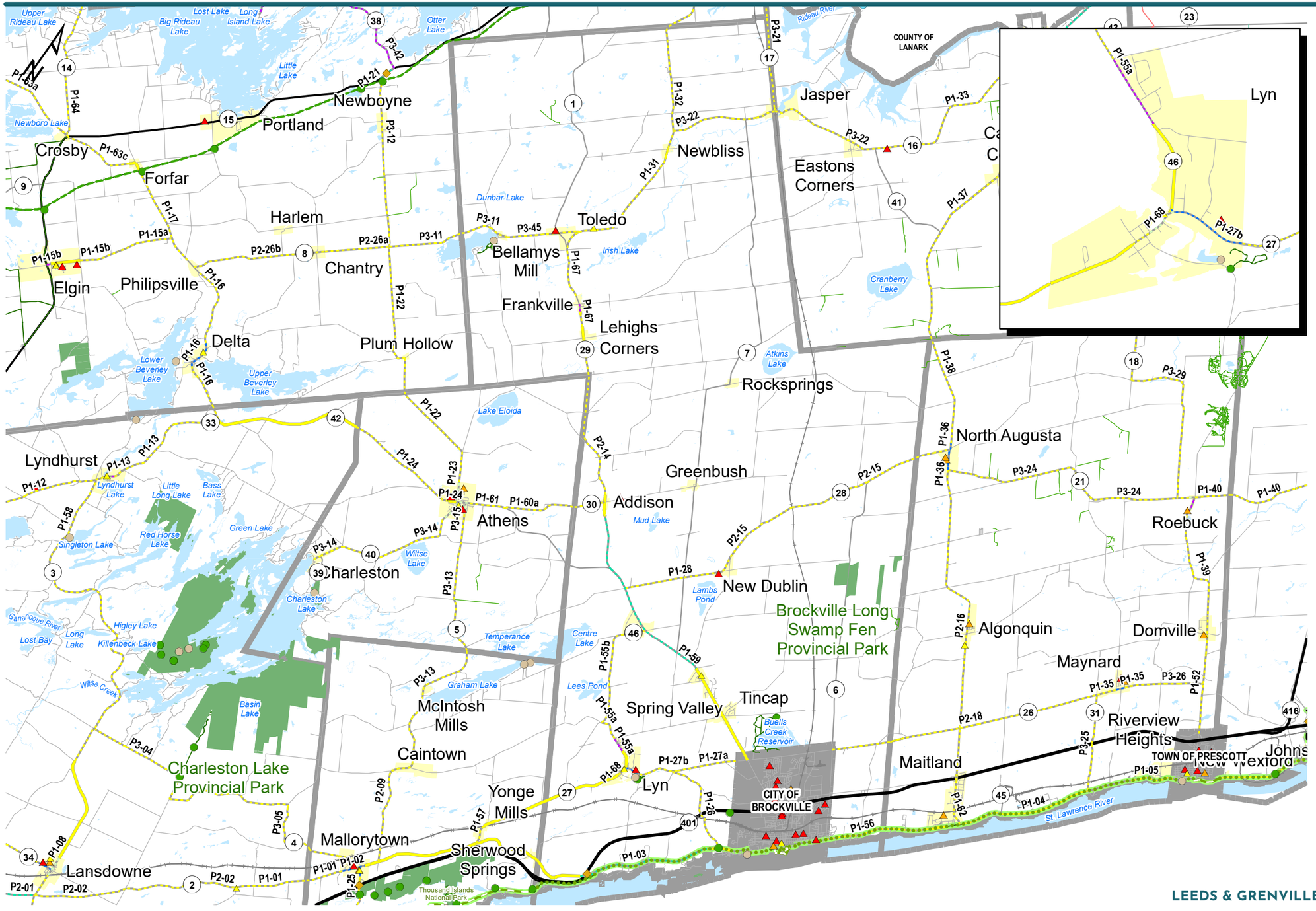
- Great Lakes Waterfront Trail On-Road
- Great Lakes Waterfront Trail Off-Road
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

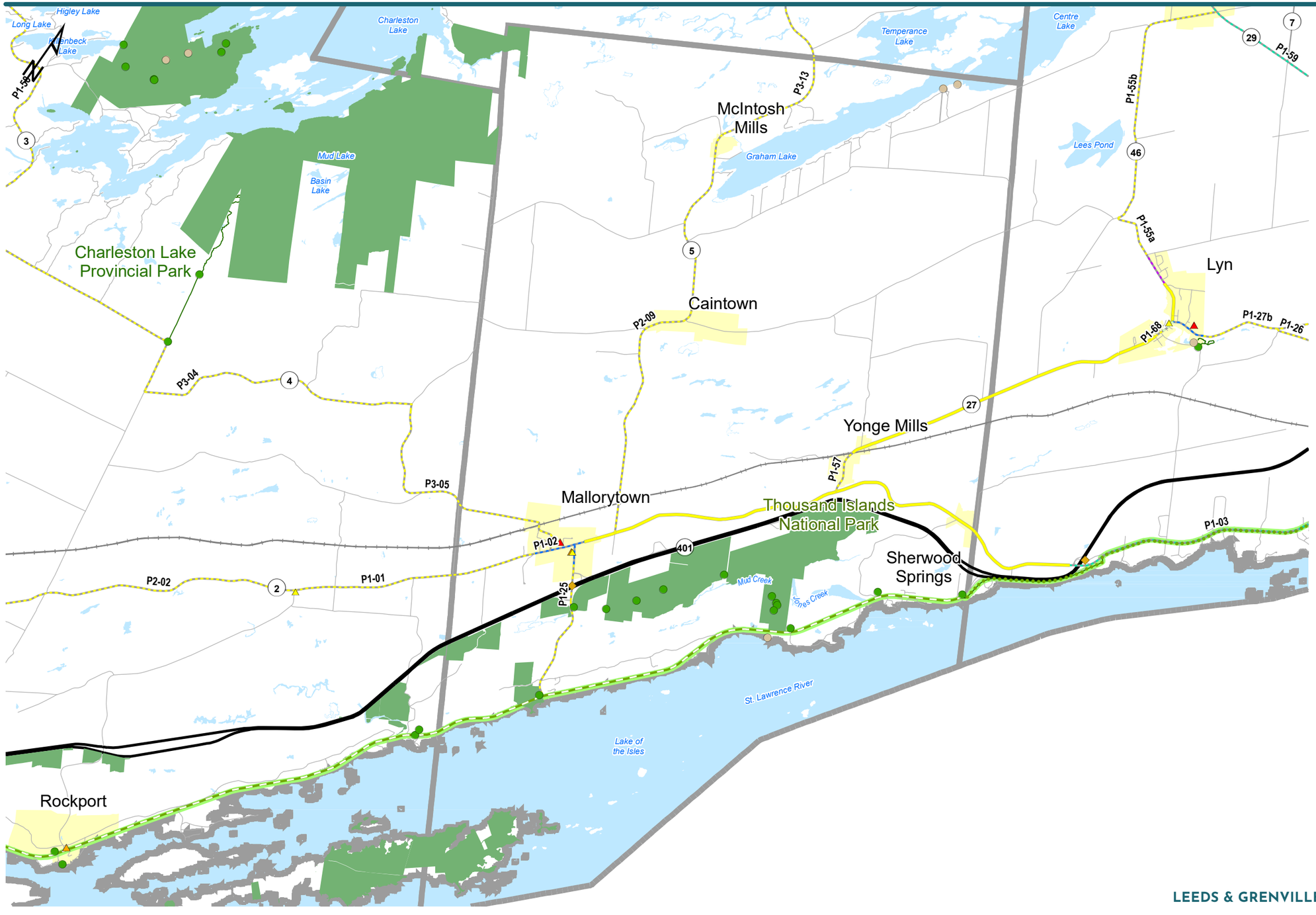
- Existing/Planned

0 1 2 3 4
Kilometres

Proposed Network Facilities - Elizabethtown-Kitley



Proposed Network Facilities - Front of Yonge



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Facilities - Existing

- Existing Paved Shoulder

UCLG Facilities - Proposed

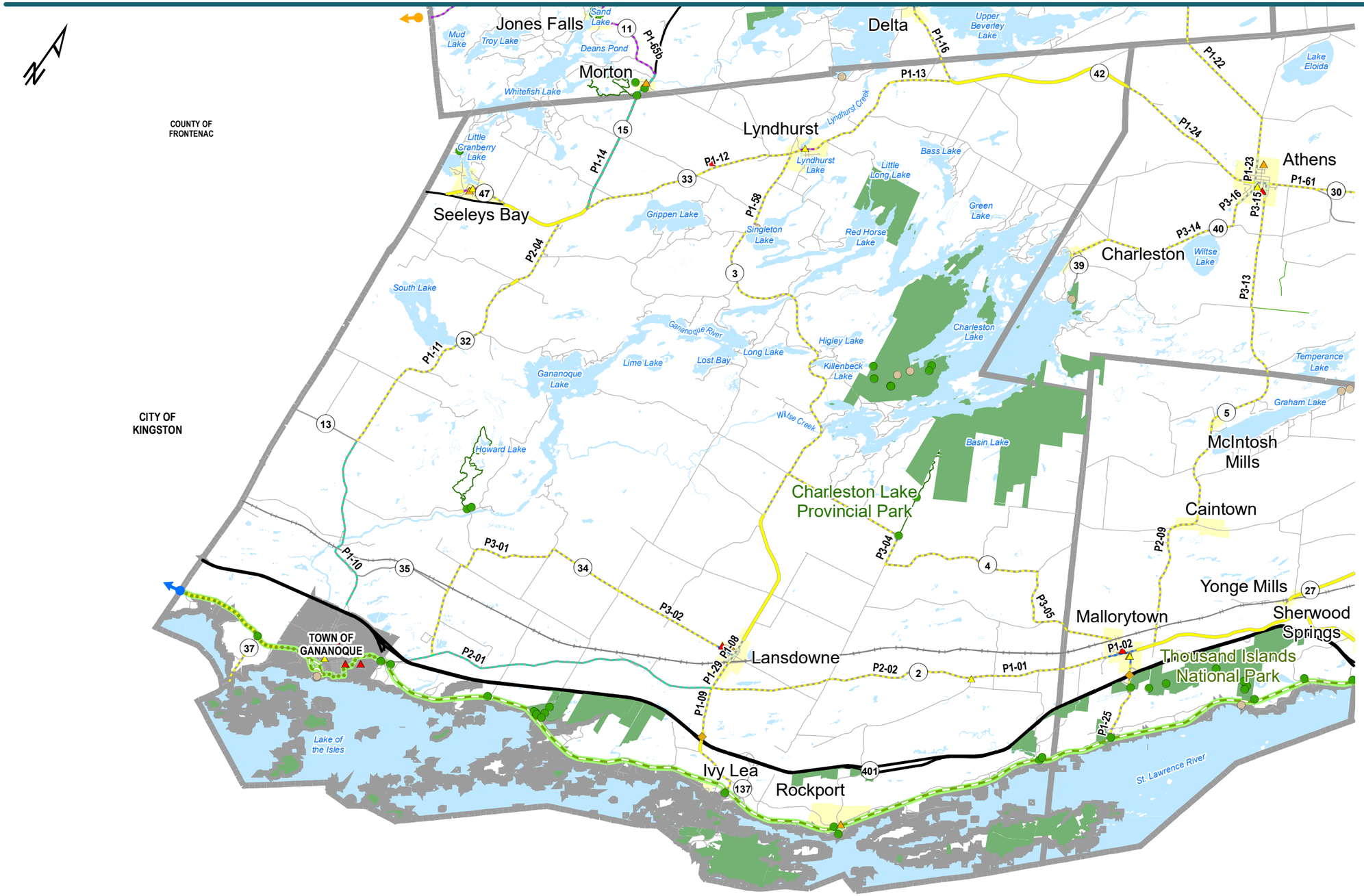
- Proposed Bike Lane
- Proposed Unidirectional MUP
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space
- Proposed Key Crossings

Existing and Planned Routes by Others

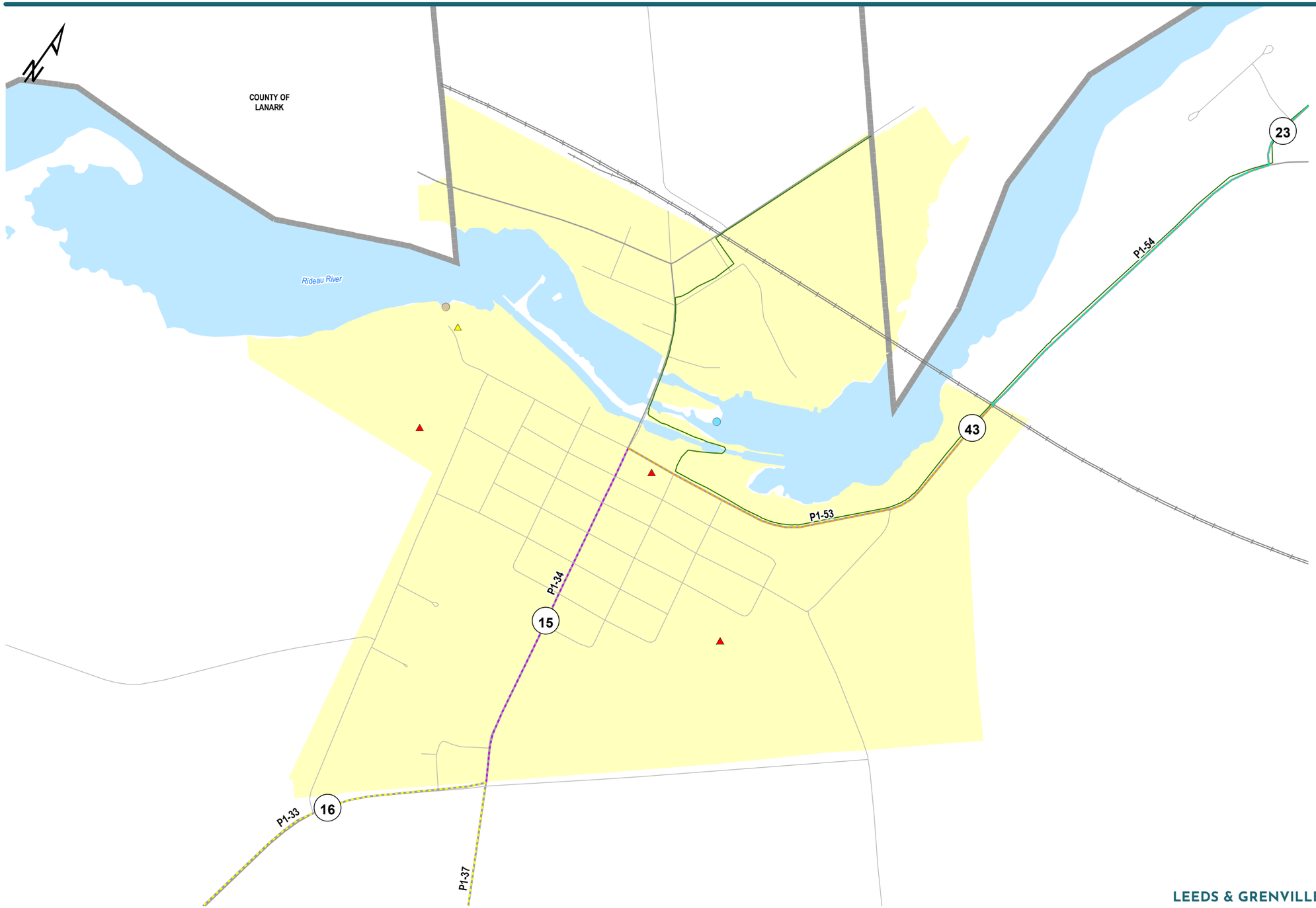
- Great Lakes Waterfront Trail On-Road
- Great Lakes Waterfront Trail Off-Road
- MTO Cycling Route
- Ontario Trail Network

0 1 2 3 4
Kilometres

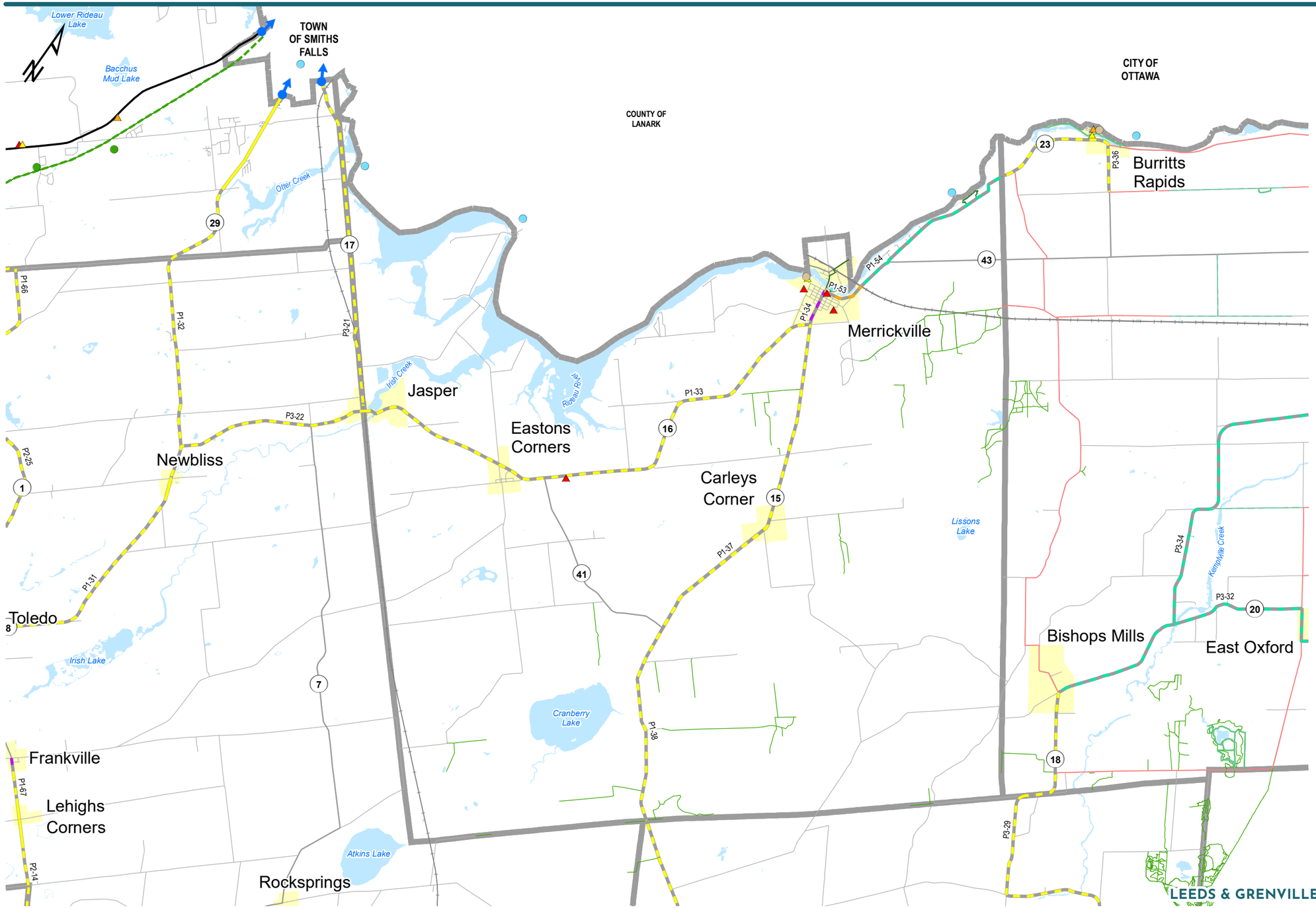
Proposed Network Facilities - Leeds and the Thousand Islands



Proposed Network Facilities - Merrickville



Proposed Network Facilities - Merrickville-Wolford



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Lockstation

UCLG Facilities - Existing

- Existing Paved Shoulder

UCLG Facilities - Proposed

- Proposed Buffered Bike Lane
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Existing and Planned Routes by Others

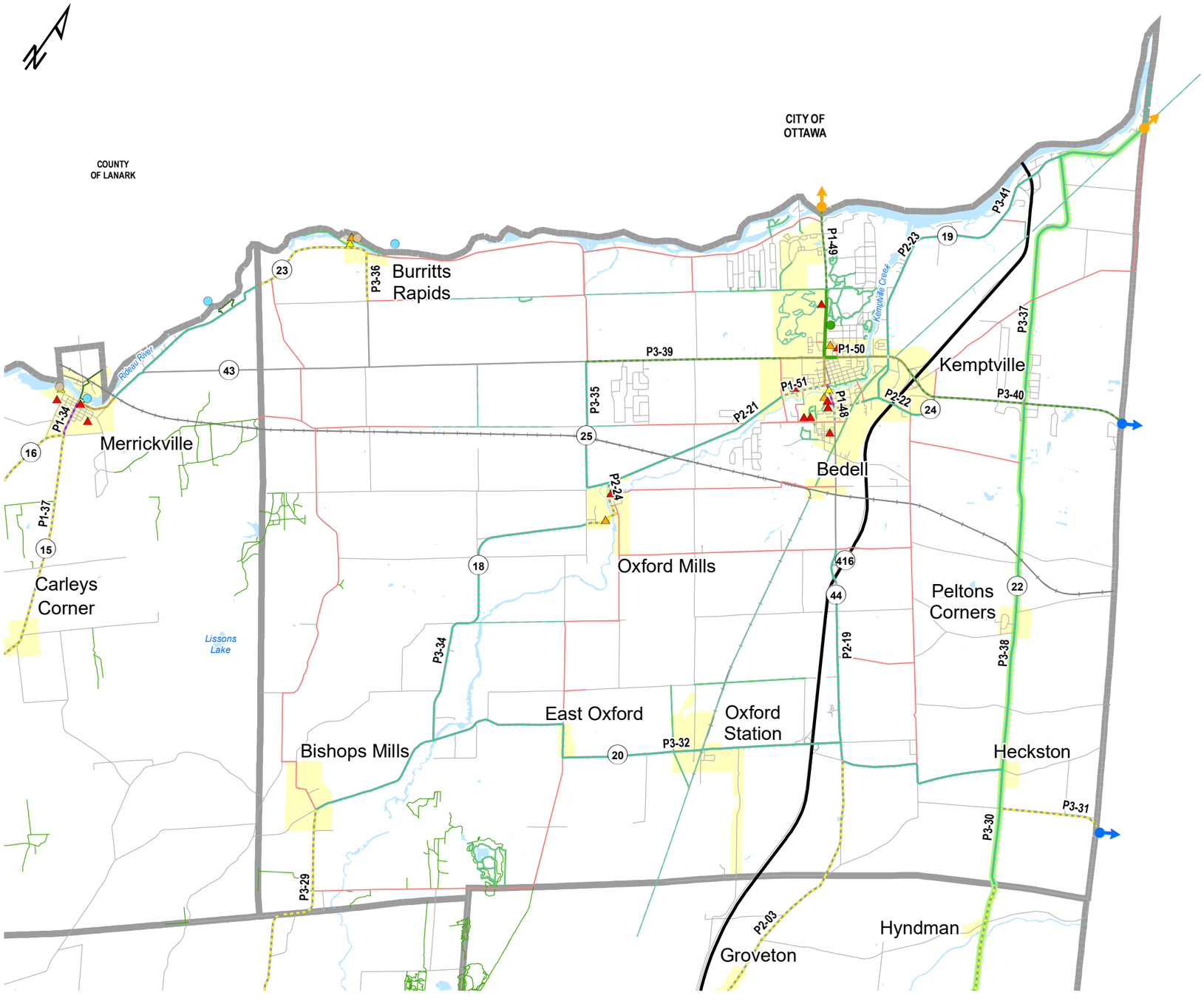
- Cataraqui Trail
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

- Existing/Planned

0 1 2 3 4
Kilometres

Proposed Network Facilities - North Grenville



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Lockstation
- Trailheads

UCLG Facilities - Existing

- Existing MUP

UCLG Facilities - Proposed

- Proposed Bike Lane
- Proposed Buffered Bike Lane
- MUP
- Proposed Cycletrack
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Existing and Planned Routes by Others

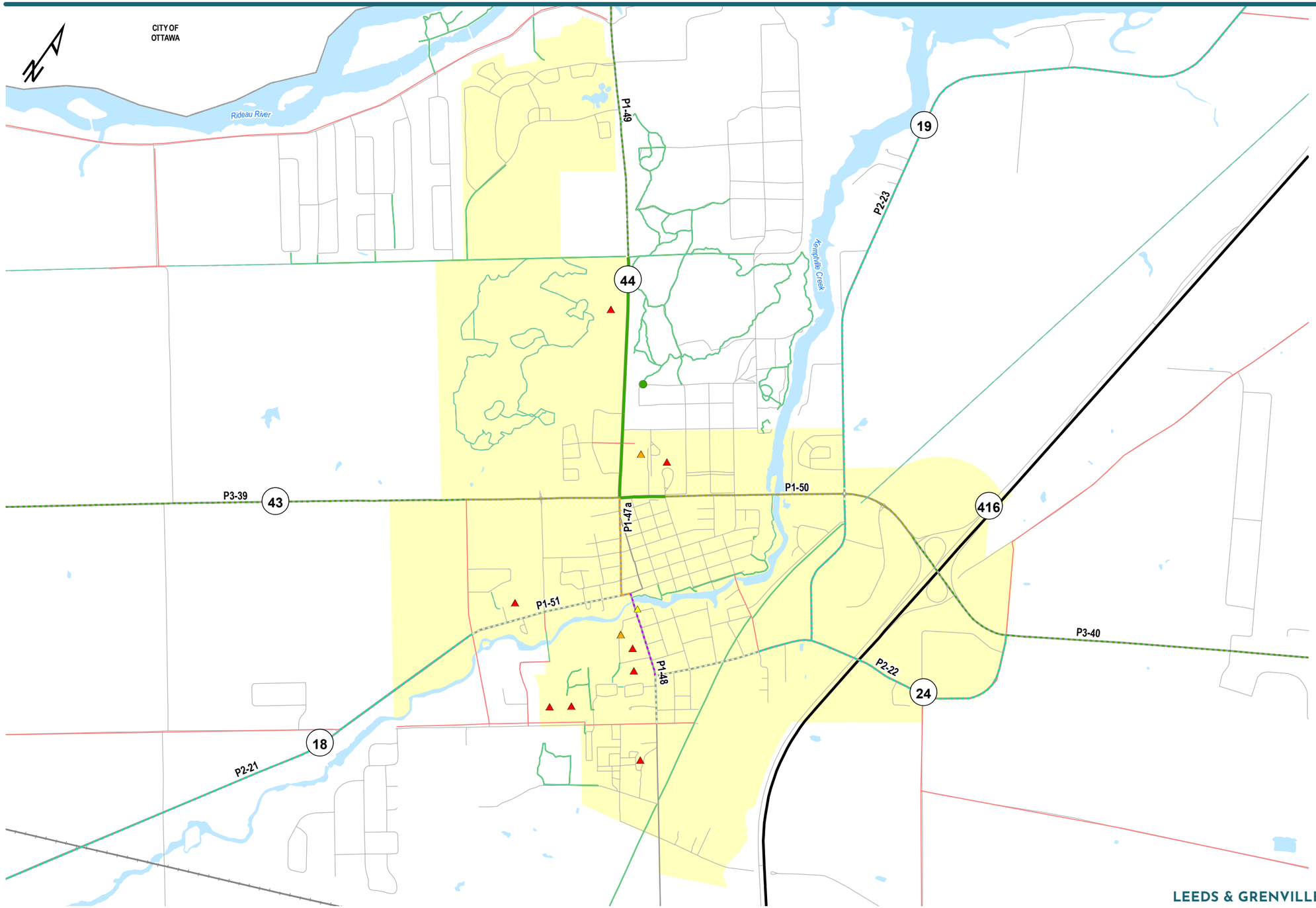
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

- Existing/Planned
- Potential

0 1 2 3 4
Kilometres

Proposed Network Facilities - Kemptville



Legend

- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Facilities - Existing

- Existing MUP

UCLG Facilities - Proposed

- Proposed Bike Lane
- Proposed Buffered Bike Lane
- MUP
- Proposed Cycletrack
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Proposed Network Facilities - Rideau Lakes

Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Lockstation
- Trailheads

UCLG Facilities - Existing

- Existing Paved Shoulder

UCLG Facilities - Proposed

- Proposed Bike Lane
- Proposed Buffered Bike Lane
- Proposed Unidirectional MUP
- Proposed Paved Shoulder
- Proposed Paved Shoulder with Buffer
- Proposed Shared Operating Space

Existing and Planned Routes by Others

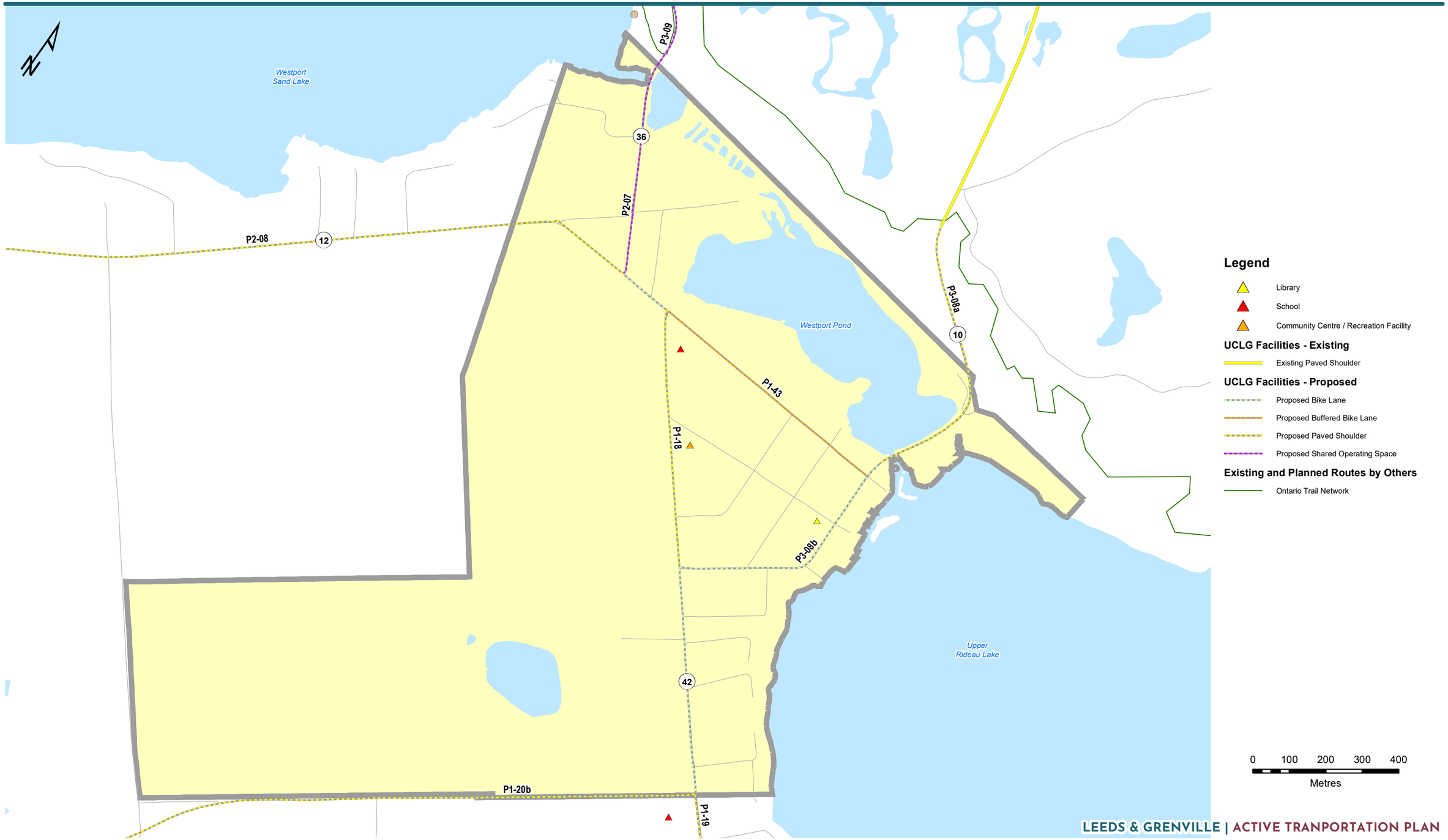
- Cataraqui Trail
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

- Existing/Planned
- Potential

0 2 4 6 8
Kilometres

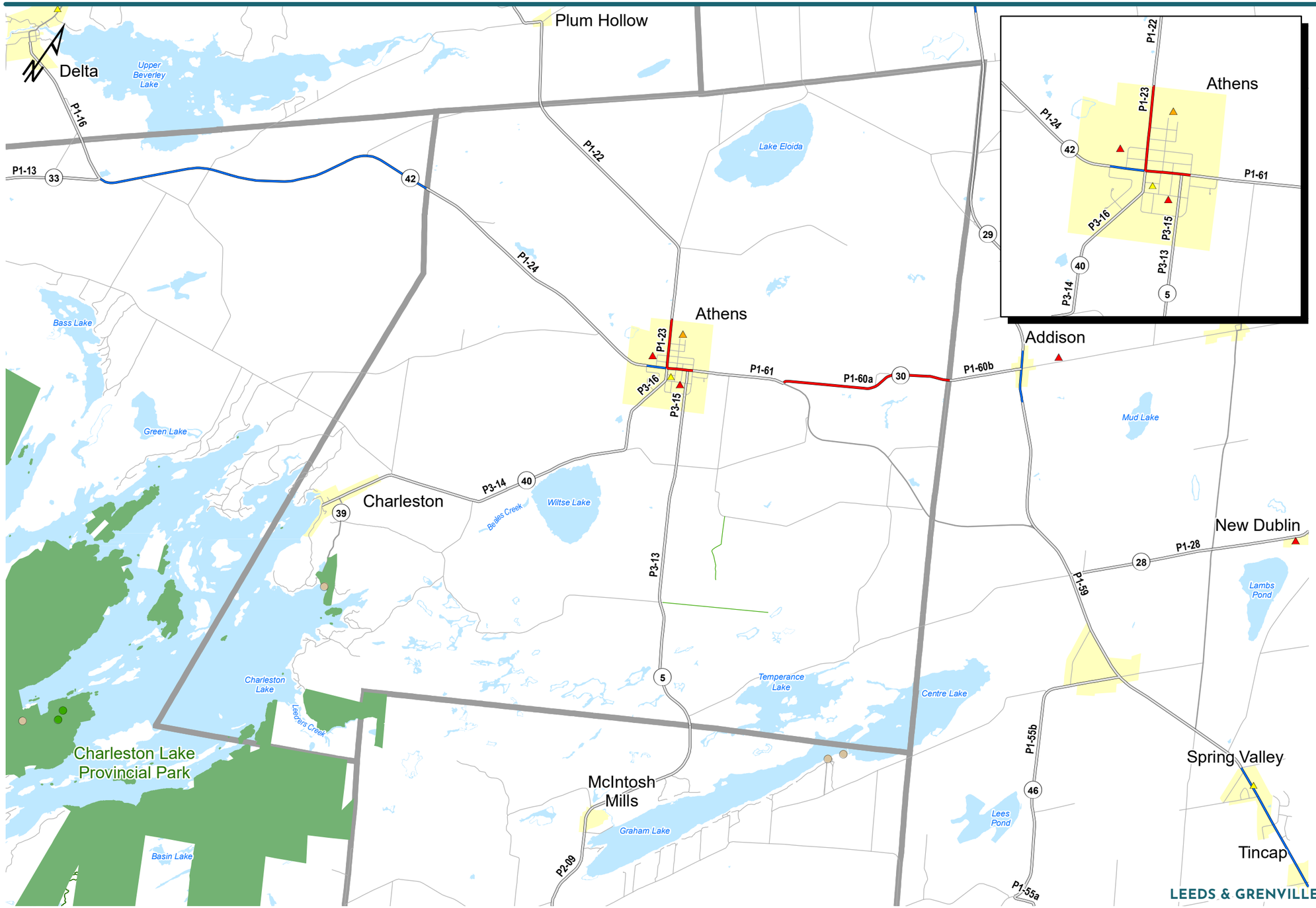
Proposed Network Facilities - Westport



APPENDIX E

MEMBER MUNICIPALITIES PROJECT PHASING MAPS

Proposed Network Phasing - Athens



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Routes - Existing

- Existing Facility

UCLG Network - Phase

- 1 (0-5 Years)
- 3 (10 + Years)

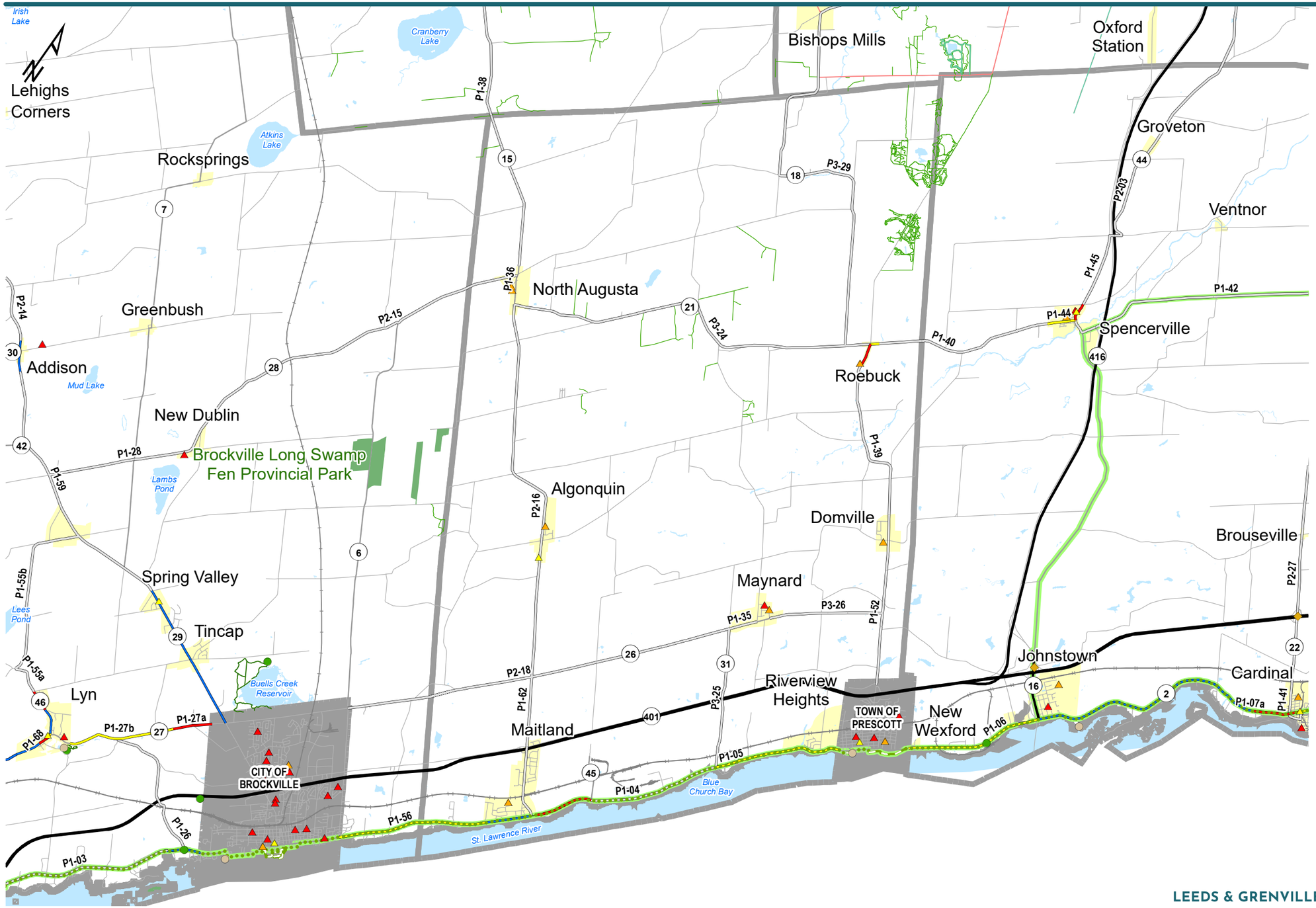
Existing and Planned Routes by Others

- Ontario Trail Network
- Limerick Trails

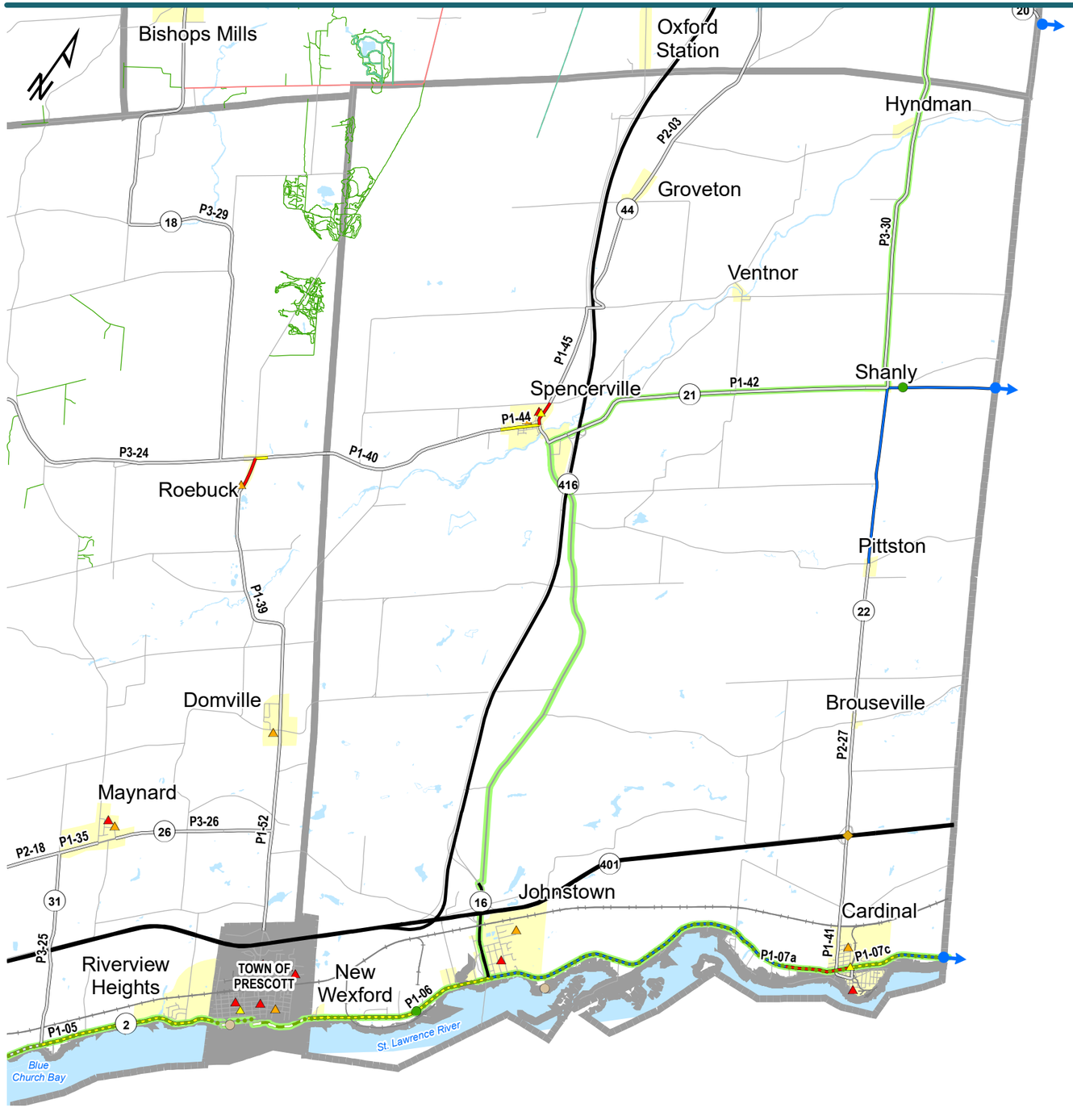
0 750 1,500 2,250 3,000

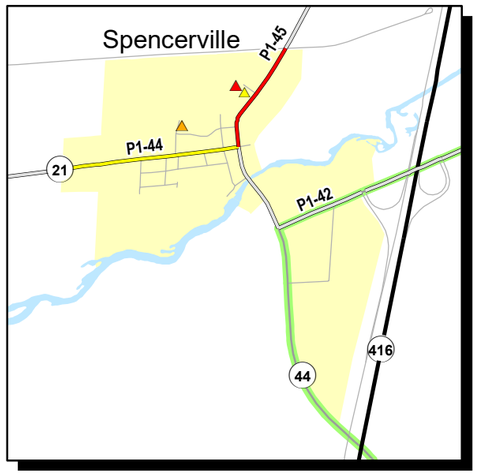
Metres

Proposed Network Phasing - Augusta



Proposed Network Phasing - Edwardsburgh Cardinal





UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY

Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Routes - Existing

- Existing Facility

UCLG Network - Phase

- 1 (0-5 Years)
- 2 (6-10 Years)
- 3 (10 + Years)
- Proposed Key Crossings

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Existing and Planned Routes by Others

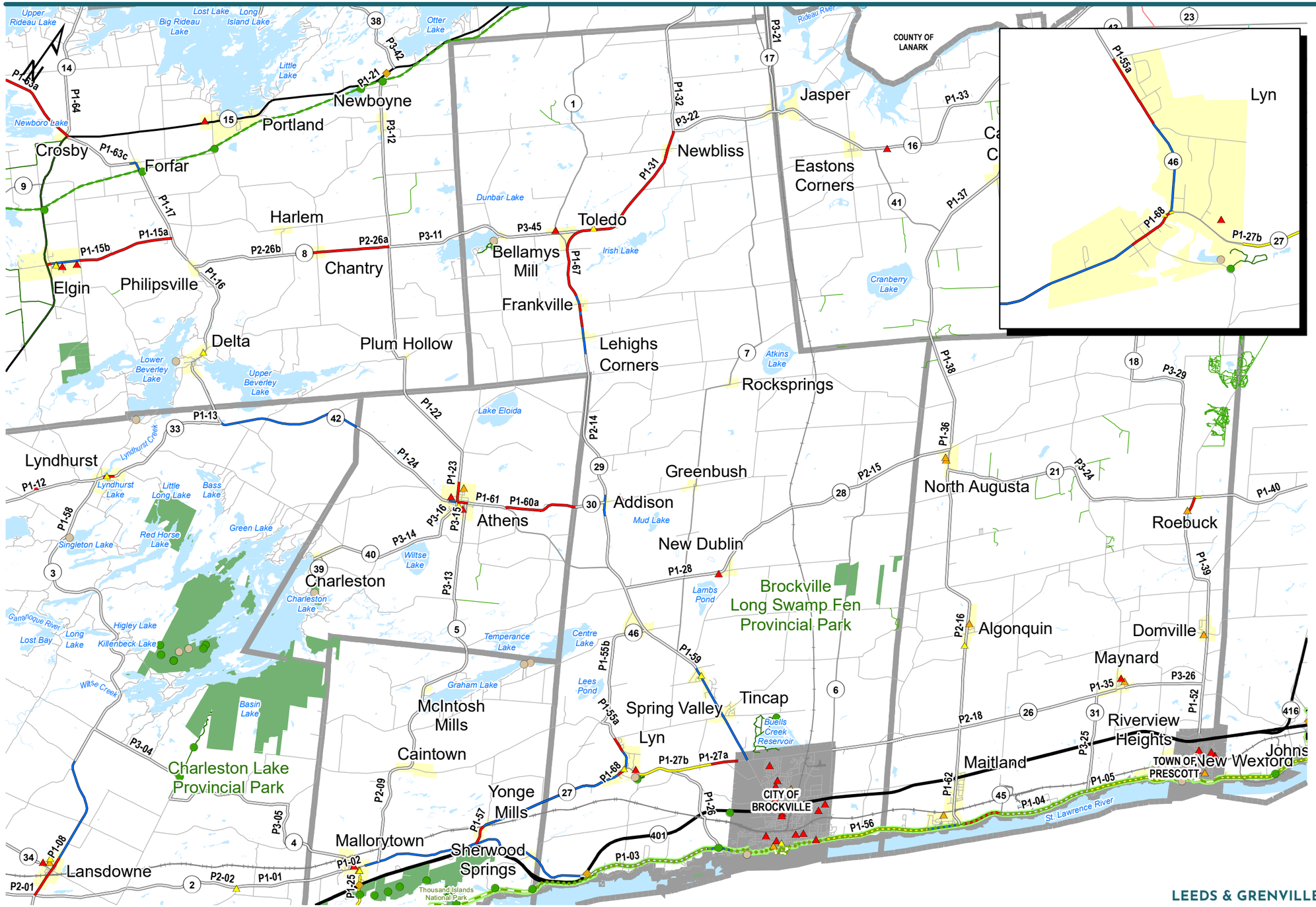
- Great Lakes Waterfront Trail On-Road
- Great Lakes Waterfront Trail Off-Road
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

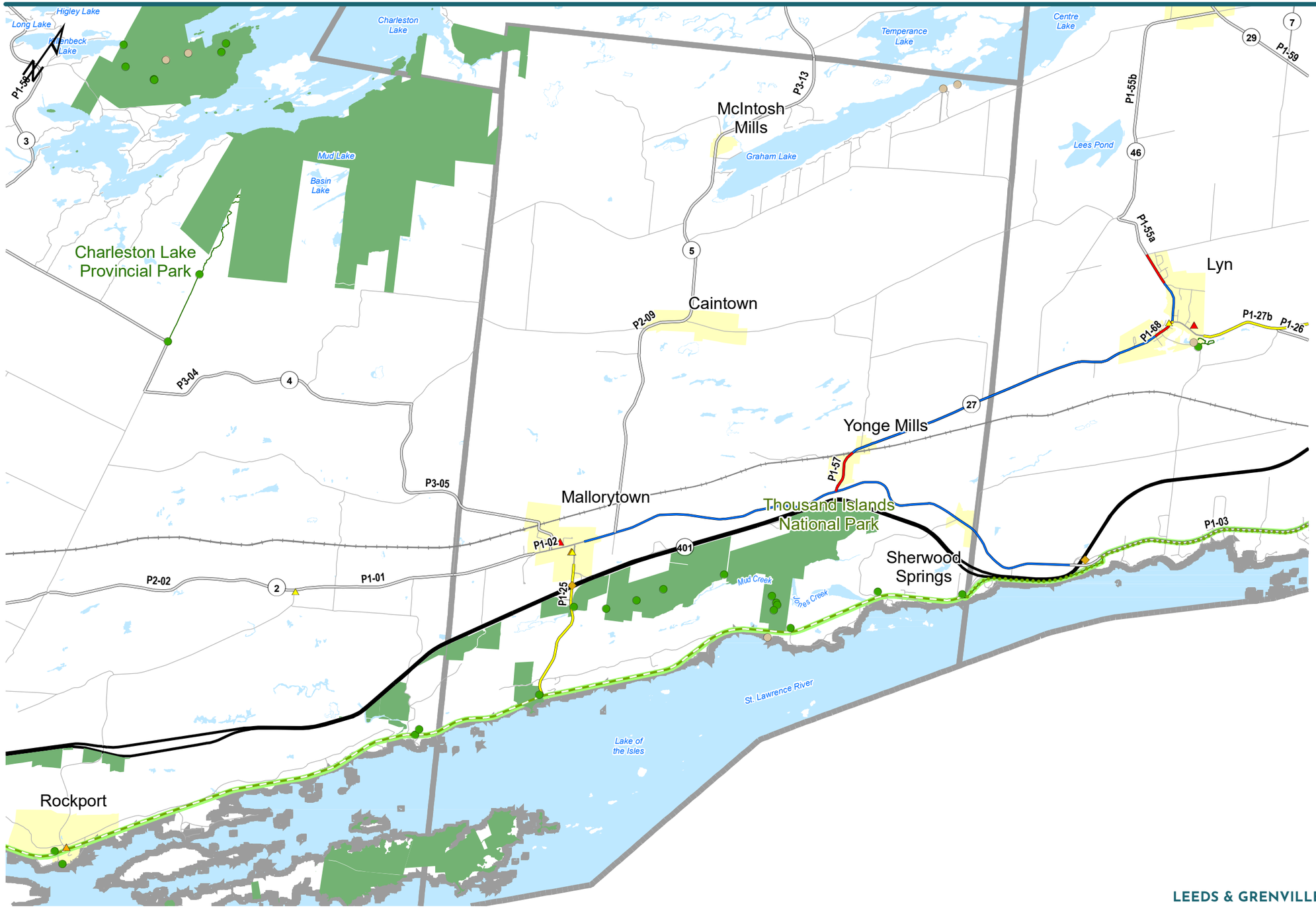
- Existing/Planned

0 1 2 3 4
Kilometres

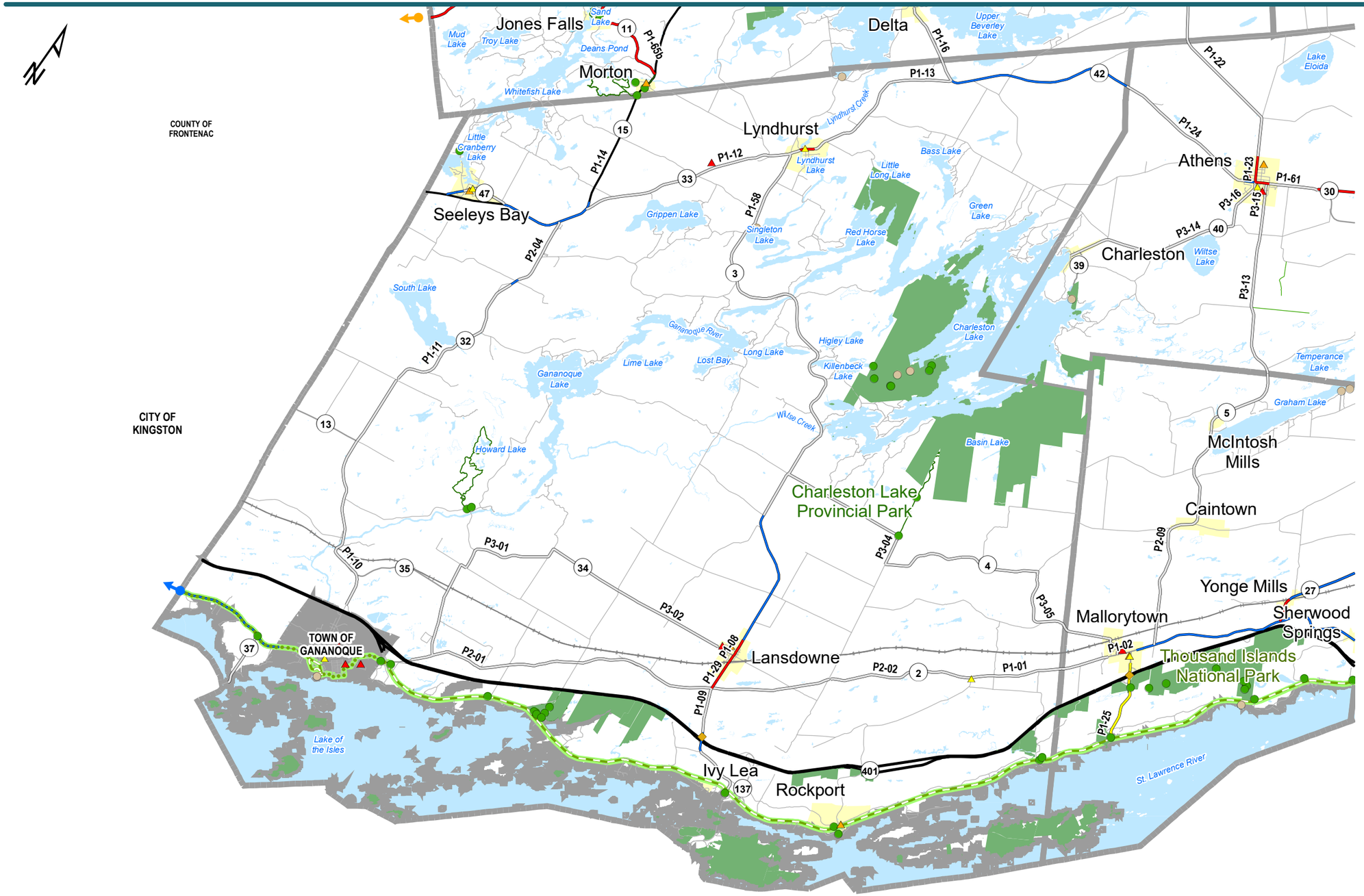
Proposed Network Phasing - Elizabethtown-Kitley



Proposed Network Phasing - Front of Yonge



Proposed Network Phasing - Leeds and the Thousand Islands



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Trailheads

UCLG Routes - Existing

- Existing Facility

UCLG Network - Phase

- 1 (0-5 Years)
- 2 (6-10 Years)
- 3 (10 + Years)
- Proposed Key Crossings

Existing and Planned Routes by Others

- Great Lakes Waterfront Trail On-Road
- Great Lakes Waterfront Trail Off-Road
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

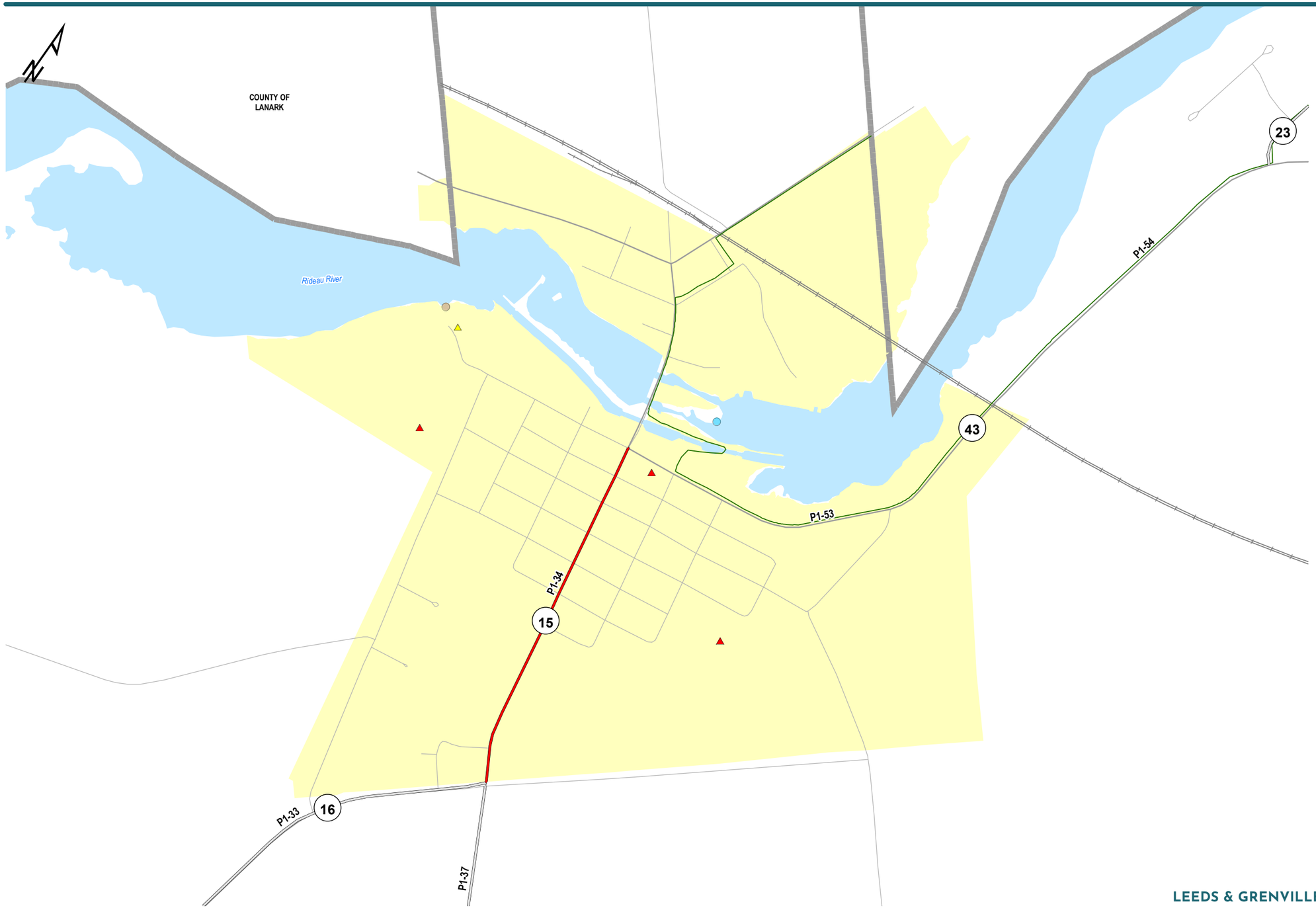
Connections Outside UCLG

- Existing/Planned
- Potential

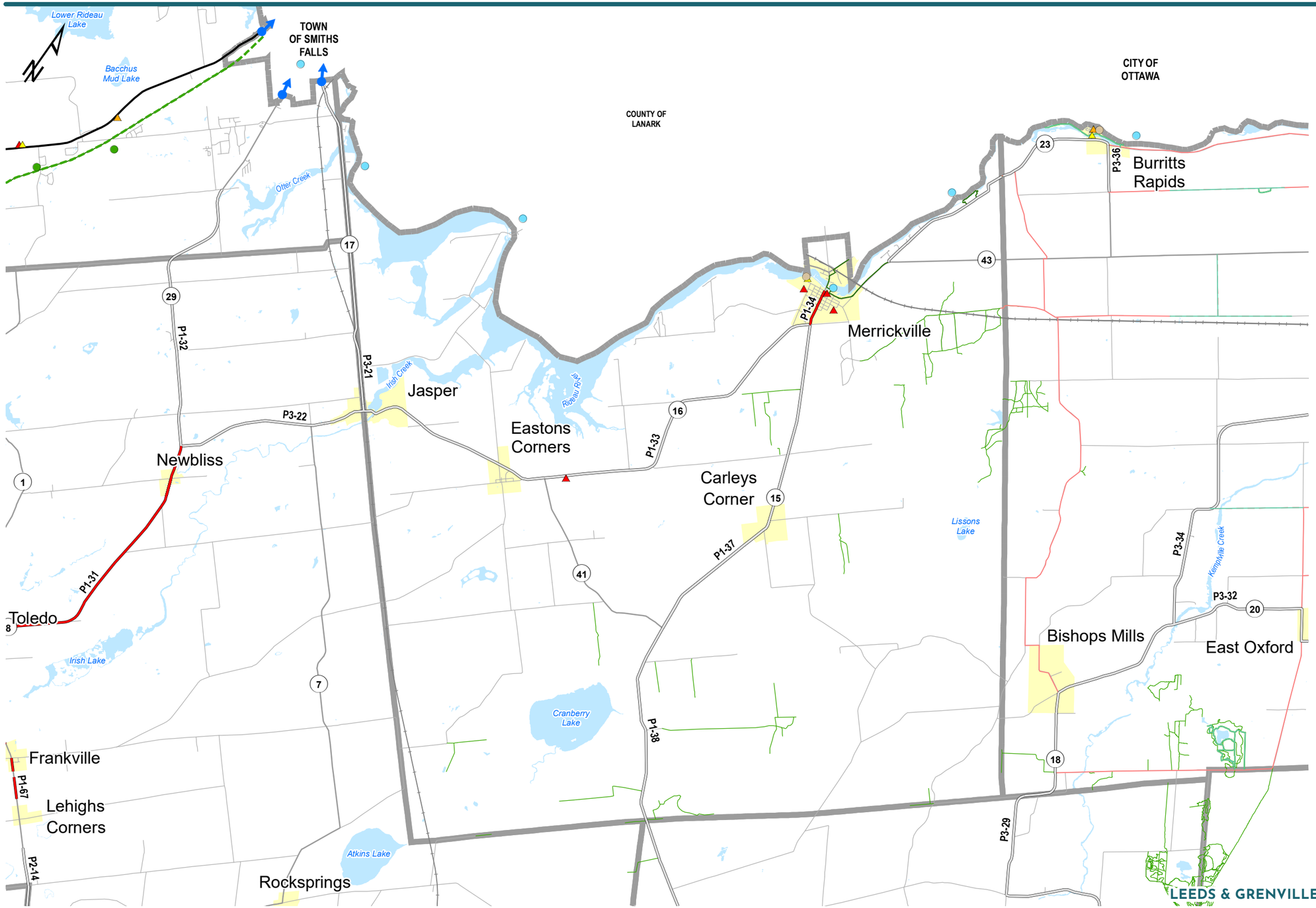
0 1.5 3 4.5 6

Kilometres

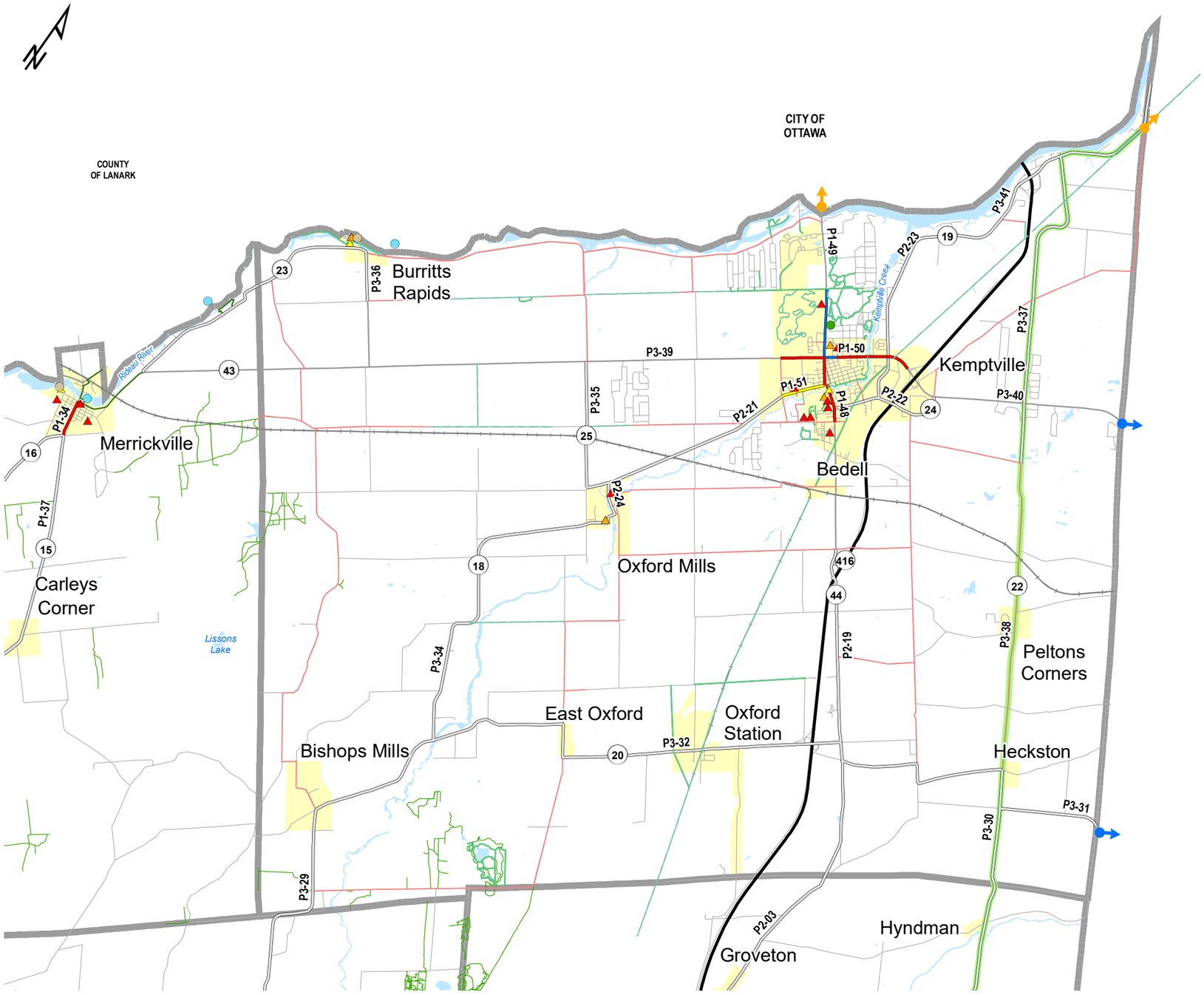
Proposed Network Phasing - Merrickville



Proposed Network Phasing - Merrickville-Wolford



Proposed Network Phasing - North Grenville



Legend

- Beach
- Library
- School
- Community Centre / Recreation Facility
- Lockstation
- Trailheads

UCLG Routes - Existing

- Existing Facility

UCLG Network - Phase

- 1 (0-5 Years)
- 2 (6-10 Years)
- 3 (10 + Years)

Routes by Partner Municipalities

- Proposed On-Road Facilities
- Proposed Off-Road Trails
- Existing Trails

Existing and Planned Routes by Others

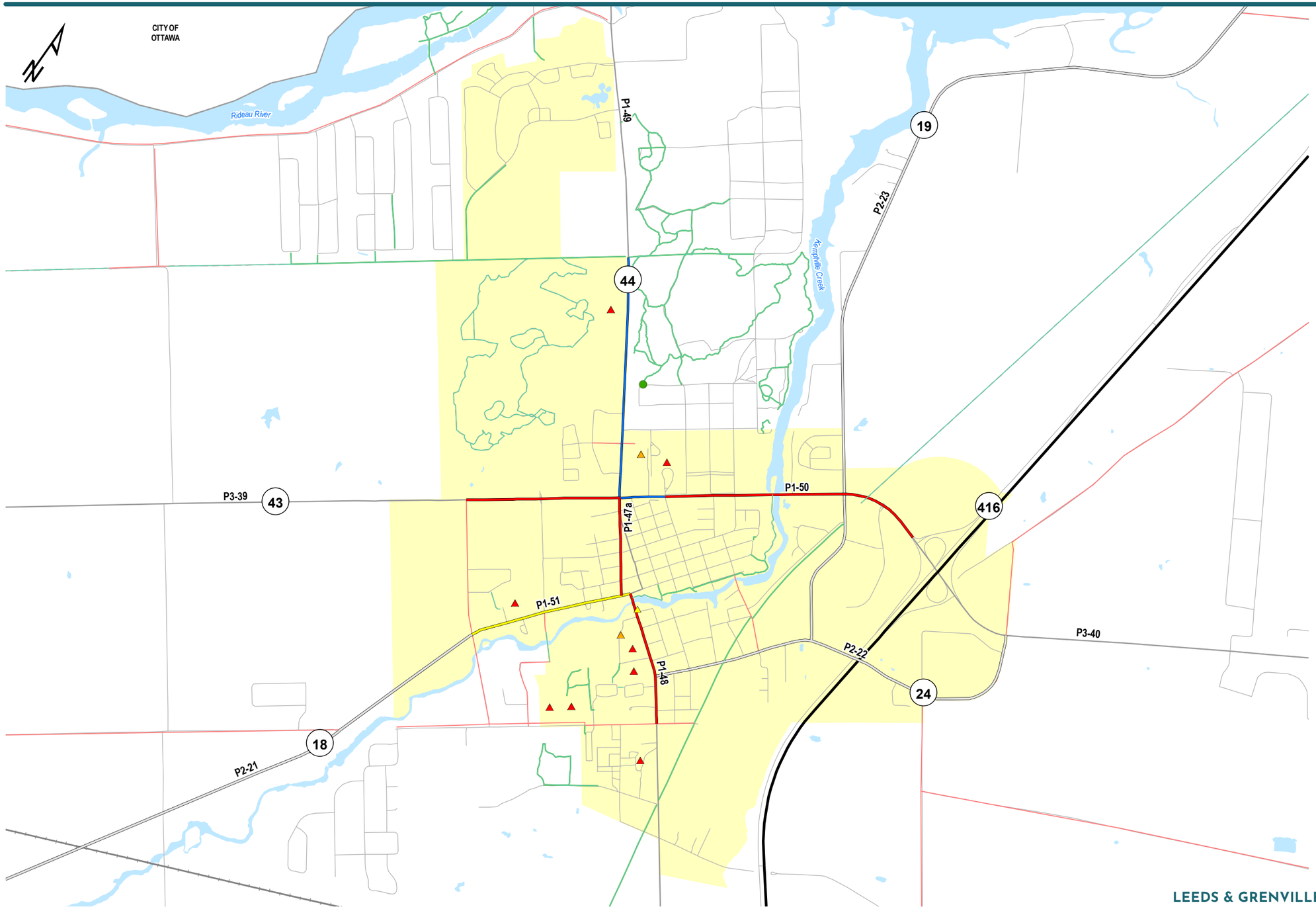
- MTO Cycling Route
- Ontario Trail Network
- Limerick Trails

Connections Outside UCLG

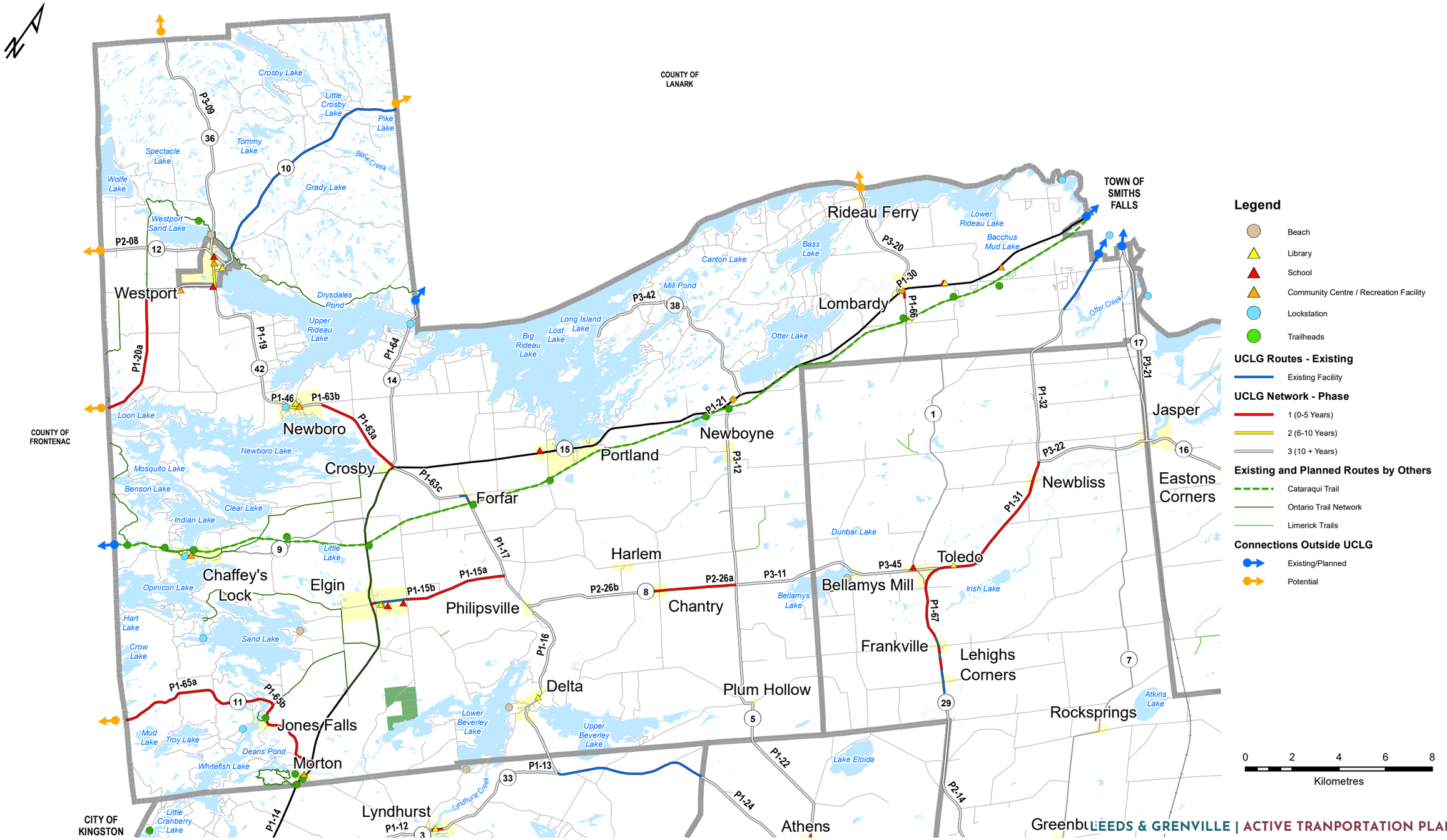
- Existing/Planned
- Potential

0 1 2 3 4
Kilometres

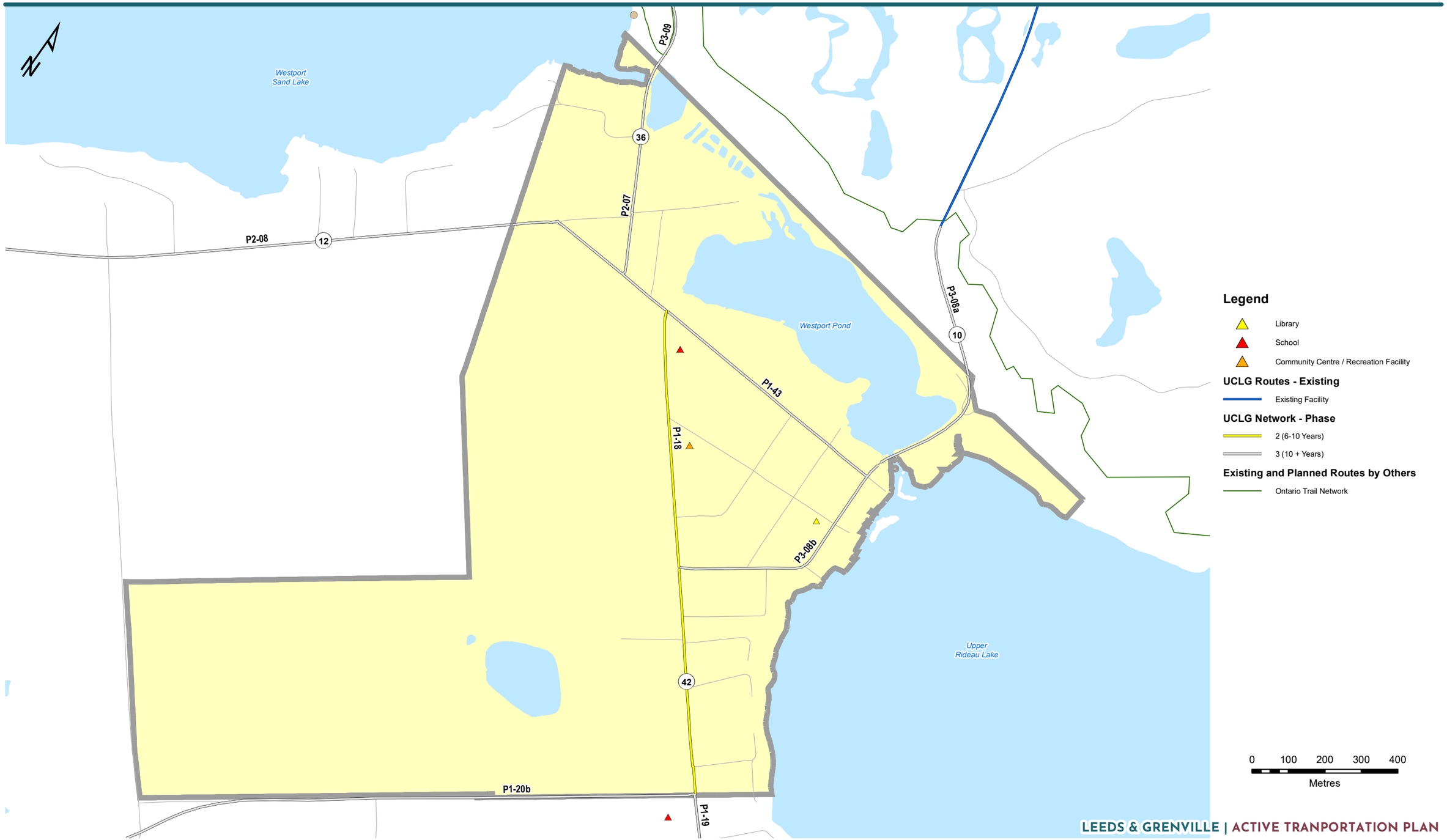
Proposed Network Phasing - Kemptville



Proposed Network Phasing - Rideau Lakes



Proposed Network Phasing - Westport



APPENDIX F

PROPOSED PROJECT LIST

PROJECT ID	ROAD	PROJECT LIMITS (FROM)	PROJECT LIMITS (TO)	MUNICIPALITY	SEGMENT LENGTH (KM)	POSTED SPEED	AADT	DRIVEWAY ACCESS	PARKS / REC	SCHOOL	COMM AMENITY	EMP NODE	NATURE AREA / TRAILS	PREVIOUSLY IDENTIFIED	ON A PLANNED ROUTE	LOCATION CONTEXT	PRIORITY LEVEL
P1-01	CO RD 2	E. LIMIT WATERTON/ESCOTT	W. LIMIT MALLORYTOWN	LEEDS AND THE THOUSAND ISLANDS	4.96	80	1500	No	No	No	No	No	No	AMP		2m gravel shoulders, 6.5m paved road, flat, bikable distance	High
P1-02	CO RD 2	160M E. OF W. LIMIT OF MALLORYTOWN	210M W. OF E. LIMIT OF MALLORYTOWN	FRONT OF YONGE	1.03	50	3500	No	No	No	No	No	No	AMP		Mountable curb at EP, 0.5m painted out area on road, 2.5m paved beyond Curb on both sides, wide sidewalk in place on at least one side	High
P1-03	CO RD 2	100m W of 401 west Off-Ramp Terminal	Heathers Pt Road	FRONT OF YONGE	6.47	80		Yes	Yes	Yes	Yes	Yes	Yes		Yes	substandard width shoulders	High
P1-04	CO RD 2	END OF C&G EAST LIMIT MAITLAND	CO RD 31 BLUE CHURCH RD	AUGUSTA	5.98	80	3100-4000	No	No	No	No	No	No	AMP	No	2.2m gravel shoulders on both sides, flat; Pieces of paved shoulder in first portion of section leaving Maitland. Portion of paved shoulder on left side in front of old DuPont site.	High
P1-05	CO RD 2	CO RD 31 BLUE CHURCH RD	WEST LIMIT OF PRESCOTT	AUGUSTA	4	60-80	3510	No	No	No	No	No	No	AMP	No	2m partially paved or gravel shoulders on both sides, only 1.1 meters of shoulder where there is steel beam guide rail systems.	High
P1-06	CO RD 2	E. LIMIT PRESCOTT	HWY 16 JOHNSTOWN	EDWARDSBURGH CARDINAL	4.4	50-60	4550	No	No	No	No	No	No	AMP/2017	No	1.5m gravel shoulders on both sides, flat edgeline with narrow paved strip or gravel shoulder; identified as "Existing" facility on Province-wide Cycling Network	High
P1-07a	CO RD 2	80 m West of Vic Woodland Road	160m W of Dundas Street	EDWARDSBURGH CARDINAL	0.77	60		Yes	Yes	Yes	Yes	Yes	Yes	CP/2026	Yes	Discontinuous substandard width paved shoulders on both sides of the road; transition to curb and gutter in certain residential areas	High
P1-07b	CO RD 2	160m W of Dundas Street	Bridge Street	EDWARDSBURGH CARDINAL	0.77	80	2600	No	No	No	No	No	No	AMP		urban cross-section, sidewalks on both sides with curb and gutter	High
P1-07c	CO RD 2	Bridge Street	80m W of Flett Street	EDWARDSBURGH CARDINAL	1.09	60		Yes	Yes	Yes	Yes	Yes	Yes		Yes	narrow section with guiderail in parts; gutter and paved shoulder	High
P1-08	CO RD 3	CNR RR WAY IN LANSDOWNE	N END LANSDOWNE	LEEDS AND THE THOUSAND ISLANDS	1.3	50	3000	No	No	No	No	No	No			urban cross-section, constrained ROW, sidewalk exists on both sides, painted edgeline on east side	High
P1-09	CO RD 3	T.I. PARKWAY	CO RD 2	LEEDS AND THE THOUSAND ISLANDS	3.48	80	2425	No	No	No	No	No	No			1.8 to 2m, gravel shoulders, flat, bikable distance, lots of guide rail throughout 1.6km section Hwy 401 to County Road 2	High
P1-10	CO RD 32	N. LIMIT OF GANANOQUE	CO RD 13	LEEDS AND THE THOUSAND ISLANDS	6.49	80	4550	No	No	No	No	No	No	AMP		2m gravel shoulders, 6.7m paved flat, bikable distance	High
P1-11	CO RD 32	CO RD 13	5.37KM N. OF TAYLOR RD	LEEDS AND THE THOUSAND ISLANDS	8.34	80	1730	No	No	No	No	No	No	AMP		2 to 2.2m gravel shoulders, 6.7 to 7m paved area, flat, bikable distance; no adjacent north-south potential parallele cycling route available	High
P1-12	CO RD 33	CO RD 15	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	7.98	50-80	2000-2500	No	No	No	No	No	No			0.6km of gravel shoulders may be too narrow for paving full width shoulders 2m gravel shoulders with 7m paved area, flat, bikable distance, multiple key destations	High
P1-13	CO RD 33	COOK STREET	CO RD 42	LEEDS AND THE THOUSAND ISLANDS	6.46	50-80	1650-2500	No	No	No	No	No	No			1.7 to 2m gravel shoulders, 6.7 to 7m paved area, flat, bikable distance, connection to urban centre Narrow Bridge and Mix of Monolithic sidewalk, barrier curb, mountable curb and 2.5m parking; sidewalks with parking bays on two sides, constrained ROW	High
P1-14	HWY 15	CR33	CR11	RIDEAU LAKES	5.45	80		Yes	Yes	Yes	Yes	Yes	Yes		Yes	Filling in Gap for proposed route	High
P1-15a	CO RD 8	S CROSBY/BASTARD TWP LINE	CO RD 42	RIDEAU LAKES	2.6	80	1080	No	No	No	No	No	No	CP/2025		3.3m gravel shoulders with 6.8m paved surface, flat, bikable distance	High
P1-15b	CO RD 8	Hwy 15	S CROSBY/BASTARD TWP LINE	RIDEAU LAKES	1.97	40-80	1080	Yes	Yes	Yes	Yes	Yes	Yes		Yes	3.3m gravel shoulders with 6.8m paved surface, flat, bikable distance concrete sidewalks, two lane road with some street parking, within a 40 km/h community safety zone	High
P1-16	CO RD 42	CO RD 33	S. LIMIT PHILLIPSVILLE	RIDEAU LAKES	8.03	50-80	1435-2000	No	No	No	No	No	No			2 to 2.5m gravel shoulders, 6.7m paved road, flat, bikable distance between urbanized areas, "trailhead" connection sidewalks in place on one or two sides, maintenance strip between curb and sidewalk looks wide enough for cycletrack, multiple destinations connections	High
P1-17	CO RD 42	N. LIMIT PHILLIPSVILLE	S. LIMIT FORFAR	RIDEAU LAKES	4.69	80	1500	No	No	No	No	No	No			2m gravel shoulders, 6.7m paved surface, flat, bikable distance	High
P1-18	CO RD 12, CO RD 42	CO RD 10 S (PERTH ST)	BEDFORD ST	VILLAGE OF WESTPORT	1.33	40	1500-2000	No	No	No	No	No	No			south of Bedford Street curb on west side, asphalt sidewalk on east side with wide paved lane (pot parking) with hydro poles within curb lane; 1.5m gravel shoulders on west side between Rideau Street and Spring Street, paved lane continues on east with	High
P1-19	CO RD 42	W. SIDE OF BRIDGE	CO RD 10 S. (PERTH ROAD)	RIDEAU LAKES	7.23	50-80	1900	No	No	No	No	No	No			2m gravel shoulders, flat, bikable distance	High
P1-20a	CO RD 10	FRONTENAC CO BDRY	S END CURVE, LOT 9/10, CON 8/9	RIDEAU LAKES	5.7	80	1675	No	No	No	No	No	No	CP/2025		1.5m gravel shoulders for 2km, flat, inter county connection	High
P1-20b	CO RD 10	S END CURVE, LOT 9/10, CON 8/9	CO RD 42	RIDEAU LAKES	3.02	80	1675	No	No	No	No	No	No			1.5m gravel shoulders for 2km, flat, inter county connection	High

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P1-21	HWY 15	CR5	CR38	RIDEAU LAKES	0.8	80		Yes	Yes	Yes	Yes	Yes	Yes		Yes	Filling in Gap for proposed route	High
P1-22	CO RD 5	N LIMITS OF ATHENS	CO RD 8	ATHENS	12.23	80	1100-2200	No	No	No	No	No	No			1.8 - 2m gravel shoulders, flat, bikable distance with some vegetated sections, provides connection to urban centre	High
P1-23	CO RD 5	CO RD 42	N. LIMIT ATHENS	ATHENS	0.93	50	1500	No	No	No	No	No	No			urban cross-section, discontinuous sidewalks, painted curb space to be desiginated as bike lane, Open ditch and gravel shoulder for approx 300m x 2.3m at north end of the road segment	High
P1-24	CO RD 42	5 KM W OF ATHENS LIMITS	START OF CURB AND GUTTER	ATHENS	5.92	40-70	2500	Yes	Yes	Yes	Yes	Yes	Yes		Yes	substandard width shoulders; urban cross-section, main street through commercial corridor, sidewalk on one or two sides	High
P1-25	CO RD 5	T I PARKWAY	CO RD 2 IN MALLORYTOWN	FRONT OF YONGE	3.31	50-80	1160-2200	No	No	No	No	No	No			2 to 2.5m gravel shoulders, flat, bikable distance urban cross-section, constrained ROW, 0.5m with mountable curb / sidewalk exists on west side	High
P1-26	CO RD 46	CO RD 2	CO RD 27	ELIZABETHTOWN KITLEY	4.63	80	2250	No	No	No	No	No	No			2m gravel shoulders, flat, bikable distance, constrained ROW at rail track underpass, trailhead connection, mountable curb on south side of road at CN rail underpass	High
P1-27a	CO RD 27	1.3 KM W OF CITY OF BROCKVILLE	W LIMIT, CITY OF BROCKVILLE	ELIZABETHTOWN KITLEY	1.24	80	3500	No	No	No	No	No	No	CP/2027		1.8 to 2m gravel shoulders, multiple destination connection	High
P1-27b	CO RD 27	Perth Street W	1.3 KM W OF CITY OF BROCKVILLE	ELIZABETHTOWN KITLEY	4.13	40-80	3000-3700	Yes	Yes	Yes	Yes	Yes	Yes		Yes	1.8 to 2m gravel shoulders, multiple destination connection; 2m gravel shoulders, constrained ROW, no delineated shoulder space / section at bridge has 1m paved shoulder; urban cross-section, sidewalk on one side, marked curb space on both sides with substandard width urban cross-section, sidewalk on one side, marked curb space on both sides with substandard width; only paved shoulder is from School to 46 1m wide. The remainder is a mix of monolithic sidewalk, barrier curb, mountable curb and lawns	High
P1-28	CO RD 28	CO RD 29	170M N NEW DUBLIN RD W	ELIZABETHTOWN KITLEY	5.28	80	1055	No	No	No	No	No	No			1.7 to 2m gravel shoulders, 6.1m pavement width, flat, bikable distance between settlement areas	High
P1-29	CO RD 3	CO RD 2	CNR RR WAY IN LANSDOWNE	LEEDS AND THE THOUSAND ISLANDS	1.11	80	3200	No	No	No	No	No	No			1.5-2m gravel shoulders, flat, bikable distance, alternative popularly selected route via municipal road; Left shoulder only paved from CN tracks to LCBO. Remainder from LCBO to CR2 is 2.0m gravel.	High
P1-30	HWY 15	CR1	CR1	RIDEAU LAKES	0.24	80		Yes	Yes	Yes	Yes	Yes	Yes		Yes	Filling in Gap for proposed route	Low
P1-31	CO RD 29	CO RD 29	CO RD 16	ELIZABETHTOWN KITLEY	8.7	80	2040	No	No	No	No	No	No	AMP,CP/2026		1.5m gravel shoulders, flat, bikable distance, Paved shoulder in Newbliss approximately 80m on both sides	High
P1-32	CO RD 29	CO RD 16	HUNTER'S RD.	RIDEAU LAKES	7.21	80	3040	No	No	No	No	No	No	AMP		direct route to downtown Smiths Falls, gravel shoulders, flat, inter county connection	High
P1-33	CO RD 16	CO RD 41	CO RD 15	MERRICKVILLE WOLFORD	8.62	80	1520	No	No	No	No	No	No			1.7m gravel shoulders, flat, bikable distance	High
P1-34	CO RD 15	CO RD 16, S LIMIT MERRICKVILLE	CO RD 43 MAIN ST	MERRICKVILLE WOLFORD	0.93	50	4500	No	No	No	No	No	No	AMP		downtown main road	High
P1-35	CO RD 26	MAYNARD W LIMIT	ROBERT RD	AUGUSTA	1.31	50	2400	No	No	No	No	No	No	AMP		Curb and gutter with asphalt sidewalk/shoulder, constrained area. Sidewalks on one or two sides, constrained ROW between curbs unknown width of gravel shoulders could mean additional build of shoulders needed	High
P1-36	CO RD 15	200M S OF CO RD 21	N LIMIT N AUGUSTA	AUGUSTA	1.23	50-60	3000	No	No	No	No	No	No			1.5m gravel shoulders, SB sidewalk from ballpark to Cty Road 6 Curb and gutter on both sides with paved sidewalk on east side only sidewalks available on one or two sides, constrained ROW	High
P1-37	CO RD 15	CO RD 41	CO RD 16	MERRICKVILLE WOLFORD	12.89	80	2090	No	No	No	No	No	No			paved shoulders, flat, bikable distance to urban centre, 1.5m gravel shoulders on SB side	High
P1-38	CO RD 15	N LIMIT N AUGUSTA	CO RD 41	AUGUSTA	10.06	80	2090	No	No	No	No	No	No			paved shoulders, flat, bikable distance to urban centre, 1.5m gravel shoulders on SB side	High
P1-39	CO RD 18	S LIMIT, DOMVILLE	CO RD 21 IN ROEBUCK	AUGUSTA	6.86	50-80	1040-1800	No	No	No	No	No	No			1-1.6m gravel shoulders, flat, connect urbanized areas	High

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P1-40	CO RD 21	FORSYTHE ROAD (CO RD 18)	W LIMIT, SPENCERVILLE	AUGUSTA	5.96	50-80	1300-2220	No	No	No	No	No	No			1.7-1.9m gravel shoulder, flat, bikable distance between urbanized areas; Curb and gutter on north side from Forsythe Road to E limit; gravel shoulder on south side	High
P1-41	CO RD 22	CO RD 2	N LIMIT, CARDINAL	EDWARDSBURGH CARDINAL	1	50	2760	No	No	No	No	No	No			north of First Street, gravel shoulder on one side with sidewalk on the other side; south of First Street, urban cross-section, sidewalk on one side, constrained ROW; Left side has 200m of 2m of gravel shoulder. The rest of section is curb and gutter.	High
P1-42	CO RD 21, CO RD 44	HWY 416 I/C 12 SW RAMPS	CO RD 22	EDWARDSBURGH CARDINAL	8.53	50-80	2790-3000	No	No	No	No	No	No	AMP/2019	No	1.2 to 2.7m Gravel shoulders on each end of section with constrained area across bridge; paved shoulders, wide enough to have designated bike lane	High
P1-43	CO RD 12 (BEDFORD ST)	CO RD 42	CO RD 10	VILLAGE OF WESTPORT	0.71	40		No	No	No	No	No	Yes		Yes	key connection through village between County roads with a number of destinations, mix of gravel shoulders, asphalt s/w, concrete s/w and parking	High
P1-44	CO RD 21	W LIMIT, SPENCERVILLE	CO RD 44, SPENCER ST	AUGUSTA	0.89	50	2500	No	No	No	No	No	No			urban cross-section, sidewalk on one or both sides	High
P1-45	CO RD 44	CENTRE STREET (CO RD 21)	CENTRE OF MEDIAN OF HWY 416	EDWARDSBURGH CARDINAL	3.07	50-80	1360-3000	No	No	No	No	No	No	AMP		1.5m gravel shoulders for 2.5m, flat, bikable distance between urbanized areas; urban cross-section, sidewalk on one or both sides, painted curb space in place with parking	High
P1-46	CO RD 42	East side of Bridge in Newboro	John/Bay Street Newboro	RIDEAU LAKES	0.64	50		Yes	Yes	Yes	Yes	Yes	Yes		Yes	through settled area with mix of parking, some narrow maintenance strips and concrete S/W	High
P1-47a	CO RD 44 RIDEAU STREET	CLOTHIER at PRESCOTT	CO RD 43 via RIDEAU	NORTH GRENVILLE	0.69	40	6620	Yes	Yes	Yes	Yes	Yes	Yes	CP/2025	Yes	Concrete sidewalk on west side of the road approximately 1.5 m wide	High
P1-48	CO RD 44 PRESCOTT STREET	Concession Road	Clothier Street East	NORTH GRENVILLE	0.95	40	4110-8060	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Alternating west and east side parking on Prescott Street with bulb-outs narrowing asphalt width to approximately 7.5 m - 8 m; Concrete sidewalks on west and east sides of the road, approximately 1.8 m wide each; Bridge over Kemptville Creek: asphalt; concrete sidewalk on west side of the road approximately 1.5 m wide	High
P1-49	CO RD 44	Settler's Trail	North Municipal Boundary	NORTH GRENVILLE	2.04	80	7720	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 2.0 m wide	High
P1-50	CO CR 43	Somerville Road	Highway 416 SB Ramps	NORTH GRENVILLE	3.75	60	17530	Yes	Yes	Yes	Yes	Yes	Yes	CP/2023	Yes	Pavement width highly variable due to multiple auxiliary lanes, 10.5 m width measured between James Street and King Street; Bridge over Kemptville Creek: asphalt is approximately 9.5 m wide, sidewalk on south side is approximately 1.5 m wide	High
P1-51	CO CR 18	CLOTHIER at PRESCOTT	CO RD 43 via RIDEAU	NORTH GRENVILLE	1.16	40	3440-8060	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Additional 3.5 m parking lane on north side of road between 80 m west of Alfred Street and CR 44; Concrete sidewalk on north side of the road approximately 1.5 m wide, between Holy Cross School and CR 44; Includes north and south side parking; Concrete sidewalks on north and south sides of the road, approximately 1.5 m wide each	High
P1-52	CO RD 18	HWY 401 I/C 716 N	S LIMIT DOMVILLE	AUGUSTA	4.6	60-80	3320	No	No	No	No	No	No			1.6 to 2.2m gravel shoulders, flat, bikable distance between urbanized areas, "trailhead" connection -- connects to amenities in Prescott for communities to the north and to main E-W spine of County Road 2	High
P1-53	CO RD 43	CO RD 15 (ST LAWRENCE ST.)	RR UNDERPASS	MERRICKVILLE WOLFORD	1.09	50	4970	No	No	No	No	No	No	AMP/2019		<0.5m shoulders existing substandard paved shoulders on both sides would require widening, In town paved curb to curb with sidewalk (1 km)	High
P1-54	CO RD 43	RR UNDERPASS	CO RD 23 W.	MERRICKVILLE WOLFORD	4.68	50-80	4970	No	No	No	No	No	No	AMP/2019		<0.5m shoulders existing substandard paved shoulders on both sides would require widening, In town paved curb to curb with sidewalk (1 km)	High

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P1-55a	CO RD 46	CO RD 27	HOWE RD	ELIZABETHTOWN KITLEY	1.75	50-80	500-1600	No	No	No	No	No	No			1m gravel shoulder, would require widening, flat, bikable distance; 1m wide paved shoulders for 850m with utility pols in west shoulder	High
P1-55b	CO RD 46	HOWE RD	CO RD 29	ELIZABETHTOWN KITLEY	5.46	80	500	No	No	No	No	No	No			1m gravel shoulder, would require widening, flat, bikable distance; 1m wide paved shoulders for 850m with utility pols in west shoulder	High
P1-56	CO RD 2	E LIMITS OF BROCKVILLE	END OF C&G EAST LIMIT MAITLAND	ELIZABETHTOWN KITLEY	4.84	60		Yes	Yes	Yes	Yes	Yes	Yes		Yes	Paved shoulders on both sides of the road with varying widths and surface conditions, bikable distance, shoulders transition to paved maintenance strips in certain residential areas	High
P1-57	CO RD 27	CNR RR-XING	W LIMIT, LYN	ELIZABETHTOWN KITLEY	0.89	80	1265	No	No	No	No	No	No			1.5-2m gravel shoulders, flat, bikable distance, connect urbanized areas	High
P1-58	CO RD 3	N END OUTLET	CO RD 33	LEEDS AND THE THOUSAND ISLANDS	17.03	80	850-2425	No	No	No	No	No	No	2015, 2016		1.5-1.8m gravel shoulders, flat, bikable distance, narrows at guide rails	High
P1-59	CO RD 29	WOODS RD.	S. LIMITS OF ADDISON	ELIZABETHTOWN KITLEY	8.63	80	4040-7900	No	No	No	No	No	No	AMP		2.5m gravel shoulders, flat, bikable distance, fill gap in the direct route between Brockville and Smiths Falls	High
P1-60a	CO RD 30	CO RD 42	YONGE/ELIZABETHTOWN TWP LINE	ATHENS	3.24	80	4400	No	No	No	No	No	No	CP/2027		2.5m gravel shoulders, flat, connect urbanized areas	High
P1-60b	CO RD 30	ELIZABETHTOWN/YONGE TOWN LINE	CO RD 29	ATHENS	1.4	50	4400	No	No	No	No	No	No			2.5m gravel shoulders, flat, connect urbanized areas	High
P1-61	CO RD 42	E. LIMIT ATHENS	ELIZABETHTOWN/YONGE TOWN LINE	ATHENS	1.75	80	4400	No	No	No	No	No	No			3m gravel shoulders, flat, connect urbanized areas	High
P1-62	CO RD 15	CO RD 2	CO RD 26	AUGUSTA	4.49	70-80	2880	No	No	No	No	No	No			paved shoulder on east side, 1.7m gravel shoulder on the west side; painted shoulder space on bridge over Hwy	High
P1-63a	CO RD 42	E. LIMIT NEWBORO	HWY.#15	RIDEAU LAKES	4.25	80	1700	No	No	No	No	No	No	CP/2026		2-2.5m gravel shoulders, flat, bikable distance	High
P1-63b	CO RD 42	START OF CURB & GUTTER	E. LIMIT NEWBORO	RIDEAU LAKES	0.82	50	1700	No	No	No	No	No	No			2-2.5m gravel shoulders, flat, bikable distance	High
P1-63c	CO RD 42	HWY.#15	W. LIMIT FORFAR	RIDEAU LAKES	3.25	80	700	No	No	No	No	No	No			2-2.5m gravel shoulders, flat, bikable distance	High
P1-64	CO RD 14	CO RD 42	LANARK CO BDRY	RIDEAU LAKES	7.49	80	725	No	No	No	No	No	No			1m gravel shoulders with some sections that have grass up to paved surface edge, 6 to 6.5m paved space; Causeway 4m paved space with 0.5m shoulders only. Will likely require widening of shoulders through 60% of project; no option for widening at Causewa	High
P1-65a	CO RD 11	400M WEST OF SMITHS BAY BRIDGE	FRONTENAC CO BDRY - SIMPSON ROAD	RIDEAU LAKES	5.83	80	165	No	No	No	No	No	No	CP/2025		1-1.5m gravel shoulders, bikable distance, "trailhead" connection	High
P1-65b	CO RD 11	FRONTENAC CO BDRY - SIMPSON ROAD	HWY 15	RIDEAU LAKES	5.17	80	400	No	No	No	No	No	No			1-1.5m gravel shoulders, bikable distance, "trailhead" connection	High
P1-66	CO RD 1	170 M N OF KITLEY LINE 3	HWY 15	ELIZABETHTOWN KITLEY	0.39	80	1040	No	No	No	No	No	No	CP/2023		1 to 1.2m gravel shoulders with vegetation - will likely require widening, flat, bikable distance, constrained ROW on the bridge, connection to Cataraqui Trail	High
P1-67	CO RD 29	435m North of Line Road 9	CO RD 8	ELIZABETHTOWN KITLEY	4.14	50-80	3200	Yes	Yes	Yes	Yes	Yes	Yes	AMP, CP/2026	Yes	gravel shoulders tie into paved north and south limits, flat, bikable distance connecting two settlement areas, alternative popularly used route via municipal road narrow concrete sidewalk on east side, painted wite narrow lanes, curb and gutter, constrained area with large trees rest of road has paved shoulders should be feasible	High
P1-68	CO RD 27	CHURCH STREET	CO RD 46	ELIZABETHTOWN KITLEY	0.45	40		Yes	Yes	Yes	Yes	Yes	Yes	CP/2023	Yes	Through the Town of Lyn with narrow paved shoulders/parking beside driving lane in some areas, utility poles within curb lines. Concrete narrow sidewalks on either side. Between Jessie Street and Church Street narrow gravel shoulders.	High
P2-01	CO RD 2	MTO/L&G	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	11.18	80	4825	No	No	No	No	No	No	AMP/2016		2m gravel shoulders, flat, bikable distance	Medium
P2-02	CO RD 2	CO RD 3	E. LIMIT WATERTON/ESCOTT	LEEDS AND THE THOUSAND ISLANDS	9.32	60-80	1265-1450	No	No	No	No	No	No	AMP/2016		2m gravel shoulders, flat, bikable distance. Watertown - north side is 1m paved shoulder, south side mountable curb. Escott - north side mountable curb, south side 1 m paved shoulder. Between hamlets, gravel shoulders 1.7 wide	Medium
P2-03	CO RD 44	HWY 16, N OF SPENCERVILLE	CO RD 20	NORTH GRENVILLE	9.88	80	1680	No	No	No	No	No	No	AMP/2021		1.5m gravel shoulders, flat, bikable distance	Medium
P2-04	CO RD 32	5.37KM N. OF TAYLOR RD	80 M S. OF HWY 15	LEEDS AND THE THOUSAND ISLANDS	2.61	80	2305	No	No	No	No	No	No	AMP/2015		2m gravel shoulders, flat, bikable distance; no adjacent north-south potential parallel cycling route available	Medium
P2-07	CO RD 36	CO RD 12 IN WESTPORT	N LIMIT, WESTPORT	RIDEAU LAKES	0.59	50	775	No	No	No	No	No	No			gravel shoulders of 1m, rural cross-section, low speed and volume, constrained shoulder space, sidewalk for 160m through Westport on one side; rural cross-section, low speed and volume, constrained shoulder space	Medium
P2-08	CO RD 12	FRONTENAC CO BDRY	CO RD 42	RIDEAU LAKES	4.88	40-80	1600	No	No	No	No	No	No			2m gravel shoulders, flat, bikable distance	Medium
P2-09	CO RD 5	CO RD 2 E OF MALLORYTOWN	S END MCINTOSH MILLS - HOUSE#309	ATHENS	8.71	80	1450	No	No	No	No	No	No	2018		1.5-1.8m gravel shoulders, flat, bikable distance, paved shoulders at Jones Creek bridge	Medium

PROJECT ID	ROAD	PROJECT LIMITS (FROM)	PROJECT LIMITS (TO)	MUNICIPALITY	SEGMENT LENGTH (KM)	POSTED SPEED	AADT	DRIVEWAY ACCESS	PARKS / REC	SCHOOL	COMM AMENITY	EMP NODE	NATURE AREA / TRAILS	PREVIOUSLY IDENTIFIED	ON A PLANNED ROUTE	LOCATION CONTEXT	PRIORITY LEVEL
P2-14	CO RD 29	N. LIMITS OF ADDISON	500m South of Line Road 9	ELIZABETHTOWN KITLEY	6.76	80	750-3225	No	No	No	No	No	No	AMP/2017		2-3m gravel shoulders, flat, bikable distance, fill gap in the direct route between Brockville and Smiths Falls, alternative popularly used route via municipal road	Medium
P2-15	CO RD 6, CO RD 28, CO RD 6	170M N NEW DUBLIN RD W	CO RD 15	ELIZABETHTOWN KITLEY	11.47	80	2250	No	No	No	No	No	No	2017		1.7-2m gravel shoulders, flat, bikable distance between urbanized areas; very narrow gravel shoulders for section from augusta limits to County Road 14, could be difficulate to build full shoulders for this section	Medium
P2-16	CO RD 15	CO RD 26	200M S OF CO RD 21	AUGUSTA	12.4	50-80	2100	No	No	No	No	No	No	2015		primarily 1.7-1.9 gravel shoulders on east side, some paved shoulder on west side, sidewalk on one side for 1.5km; narrow shoulder of 1m for 2km on one side would need widening	Medium
P2-18	CO RD 26	CO RD 15	MAYNARD W LIMIT	AUGUSTA	13.69	80	2630	No	No	No	No	No	No	AMP		1.5 to 1.8m gravel shoulders, flat, bikable distance connecting urban centres	Medium
P2-19	CO RD 44	Beach Road	CO RD 20	NORTH GRENVILLE	4.93	80	2820	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 2.0 m wide	Medium
P2-20	CO RD 22	DUNDAS STREET	CO RD 2	EDWARDSBURGH CARDINAL	0.93	40	2300	No	No	No	No	No	No			urban cross-section, sidewalk on one side, street parking in place	Medium
P2-21	CO CR 18	CO RD 25	SOMERVILLE RD	NORTH GRENVILLE	5.2	80	830-3440	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide, Asphalt width on bridge is approximately 8.6 m	Medium
P2-22	CO RD 24	CO RD 44 Prescott Street	CO CR 43	NORTH GRENVILLE	2.92	40-80	5500-6290	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Concrete sidewalk on north side of the road approximately 1.5 m wide	Medium
P2-23	CO RD 19	CO RD 24	Flynn Road	NORTH GRENVILLE	6.48	80	3490	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approx. 1.5m. Provides a direct route between Kemptville and the boundary with Ottawa; buffered bike lanes appropriate given vehicle volumes and operating speed, connects to the Colonnade Drive commercial area and Kemptville.	Medium
P2-24	CO CR 18	Bedell Road	Wellington Street	NORTH GRENVILLE	0.41	50	830	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Narrow section of roadway through Oxford Mills with concrete sidewalk on east side, asphalt sidewalk/parking strip on west side.	Low
P2-26a	CO RD 8	CO RD 42	W LIMIT CHANTRY	RIDEAU LAKES	3.63	60-80	975	No	No	No	No	No	No	CP/2027		0 to 0.5m shoulder, vegetated to edge of pavement, trailhead connection, constrained ROW for 9.5km; 8km with 2m gravel shoulders	Medium
P2-26b	CO RD 8	W LIMIT CHANTRY	CO RD 5	RIDEAU LAKES	5.43	50	930	No	No	No	No	No	No			0 to 0.5m shoulder, vegetated to edge of pavement, trailhead connection, constrained ROW for 9.5km; 8km with 2m gravel shoulders	Medium
P2-27	CO RD 22	N LIMIT, CARDINAL	N LIMIT, PITTSTON	EDWARDSBURGH CARDINAL	8.33	60-80	2680	No	No	No	No	No	No			8.5km of 1.6 - 2m gravel shoulders; sections of paved shoulder already 0.5km, constrained ROW; flat, bikable distance, constrained ROW on bridge with substandard width of sidewalk, potential need for widening, curb and gutter through Pittston for 500m	Medium
P3-01	CO RD 34	CO RD 2	KYES RD	LEEDS AND THE THOUSAND ISLANDS	10.08	80	900-1475	No	No	No	No	No	No	015, 2016, 201		1.5m gravel shoulders, flat, bikable distance, some section has constrined ROW	Low
P3-02	CO RD 34	KYES RD	CO RD 3, PRINCE ST	LEEDS AND THE THOUSAND ISLANDS	4.7	50-80	915-1500	No	No	No	No	No	No	2017		1.5m gravel shoulders, flat, bikable distance; 560m urban cross-section, paved curb side parking area and sidewalk exist; school frontage with no sidewalk	Low
P3-03	CO RD 37	LOADING RAMP, HOWE ISLAND FERRY	START, BUILT-UP AREA #333	LEEDS AND THE THOUSAND ISLANDS	1.99	50	980	No	No	No	No	No	No	2016		0.5m gravel shoulders, flat, bikable distance, some section has constrained ROW, St. Lawrence River to immediate west, would require widening	Low
P3-04	CO RD 4	200M S OF JUNETOWN RD	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	11.51	80	325	No	No	No	No	No	No			low traffic, 1-1.5m gravel shoulders on both sides (4km of 1m wide), flat, trailhead connection, road surface needs improvement	Low

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P3-05	CO RD 4	CO RD 2	200M S OF JUNETOWN RD	LEEDS AND THE THOUSAND ISLANDS	5.32	50-80	555-700	No	No	No	No	No	No	2015, 2016		Northern paved shoulder through village varies throughout from .5m-2.2m with utility poles. Southern edge ranges from 0m -1m, 1.5m gravel shoulders, flat, bikable distance to urbanized area, connection to local shops and municipal roads	Low
P3-06	CO RD 47	START CURB & GUTTER	HWY.#15 NORTH END SEELEY'S BAY	LEEDS AND THE THOUSAND ISLANDS	1.61	50-80	720-800	No	No	No	No	No	No	2019		urban cross-section, paved curb side parking area and sidewalks exist, undelineated shoulder space, constrained ROW, elevation gain	Low
P3-08a	CO RD 10	80M N OF BEDFORD ST	GRADY RD	RIDEAU LAKES	0.8	50	1925	No	No	No	No	No	No	2020		40 km/h, substandard width paved shoulder, constrained ROW, railguard exists	Low
P3-08b	CO RD 10	CO RD 42	80M N OF BEDFORD ST	RIDEAU LAKES	0.69	40	2000	No	No	No	No	No	No			40 km/h, curb on Rideau Street between CO RD 42 and where switch to Main Street occurs; commercial area on Main Street to Bedford Street with parking on west side constained ROW with on street parking, bridge	Low
P3-09	CO RD 36	N LIMIT, WESTPORT	LANARK CO BDRY	RIDEAU LAKES	9.55	80	485	No	No	No	No	No	No	2017		2m gravel shoulders, significant elevation gain, inter county and "trailhead" connection, low volume	Low
P3-11	CO RD 8	CO RD 5	50M EAST OF LAKE ELOIDA RD	RIDEAU LAKES	5.67	80	810-975	No	No	No	No	No	No	2019		1.5m gravel shoulders, flat, bikable distance	Low
P3-12	CO RD 5	CO RD 8	HWY 15	RIDEAU LAKES	7.72	80	1000	No	No	No	No	No	No	2021		1.8m gravel shoulders, flat, bikable distance, "trailhead" connections; vegetated in sections	Low
P3-13	CO RD 5	S END MCINTOSH MILLS	50M S OF SARAH ST, ATHENS - HOUSE #25	ATHENS	9.68	80	1320	No	No	No	No	No	No	2019		1.4-1.8m gravel shoulders, flat, bikable distance	Low
P3-14	CO RD 40	START CO RD @ DOCK	S LIMIT, ATHENS	ATHENS	7.04	50-80	1645-2500	No	No	No	No	No	No	2019		where shoulder exists 1m only - would require widening; Paved swale on east EP, mountable curb half of west side, other half is 2m gravel parking, Curb and no ditch starts 200m North of CR39.	Low
P3-15	CO RD 5	50 M S OF SARAH STREET	CO RD 42	ATHENS	0.51	50	1500	No	No	No	No	No	No			urban cross-section, no sidewalk or on one side, mountable curbconstrained roadway space, Monolithic sidewalk at east EP, western 2.3m paved shoulder used for parking	Low
P3-16	CO RD 40	S LIMIT, ATHENS	CO RD 42 MAIN ST ATHENS	ATHENS	0.95	50	1500	No	No	No	No	No	No			gravel paved shoulders; OR urban cross-section, discontinuous sidewalks, painted curb space; CR42 to Church st, 3m paved parking on both sides. 1.2m paved shoulder from church st to Kimberly cres.	Low
P3-20	CO RD 1	HWY 15 AT LOMBARDY	CO BDRY AT CENTRE BRIDGE	RIDEAU LAKES	5.58	50-80	5250	No	No	No	No	No	No	2020		1m paved shoulders, inter county connection, muntiple destinations	Low
P3-21	CO RD 17	CO RD 16 IN JASPER	S LIMIT TOWN OF SMITHS FALLS	ELIZABETHTOWN KITLEY	8.49	50-80	2500-3640	No	No	No	No	No	No	2018		sidewalk on one side, 2m shoulder space available on one side, alternative popularly selected route via municipal road, direct route to downtown Smiths Falls, inter county connection, connection between urban centres, gravel shoulders, flat, alternate r	Low
P3-22	CO RD 16	CO RD 29	CO RD 41	ELIZABETHTOWN KITLEY	9.98	50-80	1530-1910	No	No	No	No	No	No	2015, 2017		1 -2m gravel shoulders, flat, bikable distance; 500m with 1m shoulder, wide shoulder. Approx 100m of open ditch from #318 CR17 to start of C/G in Jasper; alternative route to municipal route	Low
P3-24	CO RD 21	CO RD 15	FORSYTHE ROAD (CO RD 18)	AUGUSTA	12.25	50-80	1300	Yes	Yes	Yes	Yes	Yes	Yes	2015	Yes	road surface may not be full paved, Gravel shoulders, some widening may be needed, Curb and gutter through Roebuck - north side only east of Forsythe Road. 1.5-1.8m gravel shoulders, flat, bikable distance between urbanized areas, "trailhead" connection	Low
P3-25	CO RD 31	CO RD 2	CO RD 26	AUGUSTA	4.42	80	750	No	No	No	No	No	No	AMP/2017		0-1.5m shoulders 60% no space gravel shoulders, constrained ROW on bridge, alternative route via municipal road; 60% would require widening	Low
P3-26	CO RD 26	ROBERT RD	CO RD 18	AUGUSTA	3.59	80	2150	No	No	No	No	No	No	AMP/2018		1.6-2m gravel shoulders, flat, bikable distance	Low
P3-29	CO CR 18	CO RD 21 W OF ROEBUCK	South Municipal Boundary	NORTH GRENVILLE	13.6	80	250-480	Yes	Yes	Yes	Yes	Yes	Yes	2016	Yes	low traffic, 1.2-1.8m gravel shoulders on both sides, flat, trailhead connection	Low
P3-30	CO RD 22	CO RD 21 @ SHANLY	CO RD 20	EDWARDSBURGH CARDINAL	10.05	80	1690	Yes	Yes	Yes	Yes	Yes	Yes		Yes	1.8m gravel shoulders, flat, bikable distance	Low
P3-31	CO RD 20	CO RD 22	E BOUNDARY	NORTH GRENVILLE	2.52	80	910	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide	Low
P3-32	CO RD 20	CO CR 18	CO RD 22	NORTH GRENVILLE	16.09	80	2490	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide; Long route results in some variance of asphalt width and shoulder width; Bridge over Hwy 416 is approximately 10.8 m wide	Low

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P3-34	CO CR 18	CO RD 20	Wellington Street	NORTH GRENVILLE	13.11	50-80	620-1390	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.2 m wide, Bridge is approximately 8.8 m wide, sidewalk on north side approximately 1.4 m wide	Low
P3-35	CO RD 25	CO CR 18	CO CR 43	NORTH GRENVILLE	3.71	80	1500-2260	Yes	Yes	Yes	Yes	Yes	Yes		Yes	1.2-1.5m Gravel shoulders	Low
P3-36	CO CR 23	Haskin Road / Monkman Road	West Municipal Boundary	NORTH GRENVILLE	4.27	60-80	1100-1300	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide, Bridge over Hwy 416 is approximately 10.8 m wide	Low
P3-37	CO RD 22	Kennedy Road	CO RD 19	NORTH GRENVILLE	8.21	80	2790	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide	Low
P3-38	CO RD 22	CO RD 20	Kennedy Road	NORTH GRENVILLE	7.67	80	2300	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide	Low
P3-39	CO CR 43	CO RD 25	Somerville Road	NORTH GRENVILLE	4.85	80	9780	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 2.0 m wide	Low
P3-40	CO CR 43	Highway 416 SB Ramps	Municipal Boundary	NORTH GRENVILLE	5.78	80	10380	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Bridge over Hwy 416 is approximately 18.2 m wide; Gravel shoulders approximately 2.2 m wide	Low
P3-41	CO CR 19	Flynn Road	East Municipal Boundary	NORTH GRENVILLE	5.79	80	2630	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Gravel shoulders approximately 1.5 m wide	Low
P3-42	CO RD 38	CO RD 42	CO RD 5	RIDEAU LAKES	9.6	50-80	300	No	No	No	No	No	No			0 to 0.5m shoulder, vegetated to edge of pavement, trailhead connection, constrained ROW for 9.5km; 8km with 2m gravel shoulders	Low
P3-45	CO RD 8	50M E. OF LAKE ELOIDA RD	CO RD 29	ELIZABETHTOWN KITLEY	3.31	50-80	810	No	No	No	No	No	No			1.5m gravel shoulders, flat, bikable distance	Low

LEGEND FOR FACILITY TYPE

PROJECT ID	ROAD	PROJECT LIMITS (FROM)	PROJECT LIMITS (TO)	MUNICIPALITY	SEGMENT LENGTH (KM)	FACILITY TYPE	COUNTY COSTS (CAPITAL PROJECTS)	COUNTY COSTS	PROVINCIAL COSTS	MUNICIPAL COSTS	PHASE YEAR	PHASE	PROJECT DESCRIPTION	POTENTIAL PROJECT RISK
P1-01	CO RD 2	E. LIMIT WATERTON/ESCOTT	W. LIMIT MALLORYTOWN	LEEDS AND THE THOUSAND ISLANDS	4.96	PS		$495,800			2033+	3	Pave 1.5m shoulders, no widening required	
P1-02	CO RD 2	160M E. OF W. LIMIT OF MALLORYTOWN	210M W. OF E. LIMIT OF MALLORYTOWN	FRONT OF YONGE	1.03	UMUP				$257,900			Designate existing asphalt area behind mountable curb (sidewalk) as MUP with unidirectional cycling facilities; infrastructure exists with the exception of SW corner of CO RD 5 intersection	
P1-03	CO RD 2	100m W of 401 west Off-Ramp Terminal	Heathers Pt Road	FRONT OF YONGE	6.47	BPSW		$1,618,200			2033+	3	Current shoulders are insufficient in width, project includes widening shoulders to 1.5m with 0.5m buffer due to safety concerns involving vehicle speeds	
P1-04	CO RD 2	END OF C&G EAST LIMIT MAITLAND	CO RD 31 BLUE CHURCH RD	AUGUSTA	5.98	PS		$598,000			2023, 2033+	1 and 3	Pave 1.5 shoulder, no widening required. In Phase 1, pave the shoulders from end of C&G E limit Maitland to CO RD 45 and in Phase 3, pave the shoulders from CO RD 45 to CO RD 31 Blue Church Road	
P1-05	CO RD 2	CO RD 31 BLUE CHURCH RD	WEST LIMIT OF PRESCOTT	AUGUSTA	4	PS / PSW		$586,700			2031	2	Pave 1.5 shoulder, no widening required for large extents. Where guiderail is located west of Merwin Ln shoulder width is 1.1m widening (potential shift of crown) will be required and moving of guiderail.	May be difficult to move guiderail; widen roadway
P1-06	CO RD 2	E. LIMIT PRESCOTT	HWY 16 JOHNSTOWN	EDWARDSBURGH CARDINAL	4.4	PS		$542,000			2030	2	Pave 1.5m shoulder, no widening required	
P1-07a	CO RD 2	80 m West of Vic Woodland Road	160m W of Dundas Street	EDWARDSBURGH CARDINAL	0.77	PS	$115,900				2026	1	1.5m paved shoulder, no widening required	
P1-07b	CO RD 2	160m W of Dundas Street	Bridge Street	EDWARDSBURGH CARDINAL	0.77	BL		$22,300			2024	1	Implement dedicated bike lanes through urban section in town	
P1-07c	CO RD 2	Bridge Street	80m W of Flett Street	EDWARDSBURGH CARDINAL	1.09	PSW		$218,000			2032	2	Implement a unidirectional MUP on north side where there is mountable curb, shift guiderail to south and widen road bed to accommodate 1.5m bike lane (1.2m if constrained) to 250m west of Flett Street, pave shoulders remaining 70m	Guiderail requires relocation and road bed widening
P1-08	CO RD 3	CNR RR WAY IN LANSDOWNE	N END LANSDOWNE	LEEDS AND THE THOUSAND ISLANDS	1.3	BL		$37,800			2024	1	Remove on street parking and repaint to accommodate bike lanes	Loss of parking may be controversial
P1-09	CO RD 3	T.I. PARKWAY	CO RD 2	LEEDS AND THE THOUSAND ISLANDS	3.48	PS		$348,200			2033+	3	Pave 1.5m shoulders, no widening required	
P1-10	CO RD 32	N. LIMIT OF GANANOQUE	CO RD 13	LEEDS AND THE THOUSAND ISLANDS	6.49	BPSW		$1,623,600			2033+	3	Pave 1.5m shoulder with 0.5m buffer due to high speeds and volumes	Recommendation would ideally include a 2m paved shoulder with 0.5m buffer however, widening would be required
P1-11	CO RD 32	CO RD 13	5.37KM N. OF TAYLOR RD	LEEDS AND THE THOUSAND ISLANDS	8.34	PS		$834,100			2033+	3	Pave 1.5m shoulder	
P1-12	CO RD 33	CO RD 15	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	7.98	PS/PSW		$835,500			2033+	3	Pave shoulders for consistency to west - while 50km/h, suspected higher operating speed with significant number of entrances. Widening required from CO RD 3 to Cook St to pave 1.5m shoulders	
P1-13	CO RD 33	COOK STREET	CO RD 42	LEEDS AND THE THOUSAND ISLANDS	6.46	SS / PS		$595,900			2024, 2033+	1 and 3	Shared space with signage; recommend reducing speed through limits of Cook Street to north limit to 40 km/h due to volumes (designated space preferred but difficult to implement with narrow bridge and parking). Rural segment can be paved to 1.5m shoulder. In Phase 1, provide a shared space with signage from Cook Street to N. limit Lyndhurst. In Phase 3, pave the shoulders from N. limit Lyndhurst to County Road 42.	If speed not reduced undesireable facility type with posted speed of 50 km/h (operating likely higher) and volumes
P1-14	HWY 15	CR33	CR11	RIDEAU LAKES	5.45	BPS			$1,226,900				Pave 1.5m shoulders with 0.5m buffer -- buffer width to be confirmed with traffic volumes provided by MTO at time of implementation.	Project would be initiated and implemented by MTO
P1-15a	CO RD 8	S CROSBY/BASTARD TWP LINE	CO RD 42	RIDEAU LAKES	2.6	PS	$259,600				2025	1	Pave shoulders to 1.5m	
P1-15b	CO RD 8	Hwy 15	S CROSBY/BASTARD TWP LINE	RIDEAU LAKES	1.97	SS / PS		$177,200			2024	1	Pave shoulders in 80 km/hour area; Community Safety Zone has reduced speed limit already - add signage for wayfinding and education that it is a shared space	
P1-16	CO RD 42	CO RD 33	S. LIMIT PHILLIPSVILLE	RIDEAU LAKES	8.03	PS		$662,700		$350,800	2033+	3	Pave shoulders south of John Street where it is currently gravel. Convert paved maintenance strip into unidirectional MUP to connect though village and tie into paved shoulders.	Narrowing at bridge creates a pinch point -- unless bridge being widened cyclists will need to merge to a shared space
P1-17	CO RD 42	N. LIMIT PHILLIPSVILLE	S. LIMIT FORFAR	RIDEAU LAKES	4.69	PS		$469,400			2033+	3	Pave 1.5m shoulder, no widening required	
P1-18	CO RD 12, CO RD 42	CO RD 10 S (PERTH ST)	BEDFORD ST	VILLAGE OF WESTPORT	1.33	PS / BL		$88,700			2028	2	On east side construct bike lane for full length between County Road 10 and Bedford Street - maintain asphalt sidewalk; review opportunities to combine parking with bike lane north of Rideau Street; west side construct unidirection MUP behind curb to Spring Street where it turns to paved 1.5m shoulder and then transitions to bike lane within curb line south of Rideau Street to CO RD 10	Potential loss of parking
P1-19	CO RD 42	W. SIDE OF BRIDGE	CO RD 10 S. (PERTH ROAD)	RIDEAU LAKES	7.23	PS		$723,200			2033+	3	Pave 1.5m shoulder, no widening required	
P1-20a	CO RD 10	FRONTENAC CO BDRY	S END CURVE, LOT 9/10, CON 8/9	RIDEAU LAKES	5.7	PS	$570,000				2025	1	Pave 1.5m shoulder, no widening required	
P1-20b	CO RD 10	S END CURVE, LOT 9/10, CON 8/9	CO RD 42	RIDEAU LAKES	3.02	PS		$301,700			2033+	3	Pave 1.5m shoulder, no widening required	
P1-21	HWY 15	CR5	CR38	RIDEAU LAKES	0.8	BPS			$180,200				Pave 1.5m shoulders with 0.5m buffer -- buffer width to be confirmed with traffic volumes provided by MTO at time of implementation.	Project would be initiated and implemented by MTO
P1-22	CO RD 5	N LIMITS OF ATHENS	CO RD 8	ATHENS	12.23	PS		$1,223,300			2033+	3	Pave 1.5 shoulder, no widening required	
P1-23	CO RD 5	CO RD 42	N. LIMIT ATHENS	ATHENS	0.93	BL		$26,900			2024	1	Repaint existing curb space as bike lanes	
P1-24	CO RD 42	5 KM W OF ATHENS LIMITS	START OF CURB AND GUTTER	ATHENS	5.92	BL / PS		$828,100			2024, 2033+	1 and 3	Current pavement width in urban area is wide and can be narrowed by repaving to add bike lanes to the end of the curb and gutter. Rural shoulders are insufficient in width, project includes widening shoulders to 1.5m from the end of the curb and gutter to west of Athens. In Phase 1, add bike lanes from start of curb and gutter to end of curb and gutter and in Phase 3, pave the shoulders from end of curb and gutter to West of Athens.	Loss of parking may be controversial

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P1-25	CO RD 5	T I PARKWAY	CO RD 2 IN MALLORYTOWN	FRONT OF YONGE	3.31	PS / UMUP		$290,300		$151,500	2032	2	Consider changing sidewalk behind mountable curb between CO RD 2 and Community Centre/Library to a unidirectional MUP, pave shoulders on CO RD 5 to 1.5m (no widening required)	Some large trees within section of urban area - if designated area not possible for cyclists consider reducing speed in town to 40 km/h
P1-26	CO RD 46	CO RD 2	CO RD 27	ELIZABETHTOWN KITLEY	4.63	PS		$462,700			2033+	3	Pave 1.5m shoulder, no widening required	
P1-27a	CO RD 27	1.3 KM W OF CITY OF BROCKVILLE	W LIMIT, CITY OF BROCKVILLE	ELIZABETHTOWN KITLEY	1.24	PS	$124,300				2027	1	Pave 1.5m shoulder, no widening required	
P1-27b	CO RD 27	Perth Street W	1.3 KM W OF CITY OF BROCKVILLE	ELIZABETHTOWN KITLEY	4.13	PS / UMUP / BL		$337,800		$291,500	2028	2	Incorporate bike lane through widened paved areas with designated parking areas, designate area adjacent to curb as bike lane, pave area beyond mountable curb east of James Street between roadway and hydro lines on south side to a unidirectional multi-use path. For rural areas, pave 1.5m shoulder, no widening required	While already posted 40 km/h volumes would suggest designated area for cyclists
P1-28	CO RD 28	CO RD 29	170M N NEW DUBLIN RD W	ELIZABETHTOWN KITLEY	5.28	PS		$527,800			2033+	3	Pave 1.5m shoulder, no widening required	
P1-29	CO RD 3	CO RD 2	CNR RR WAY IN LANSDOWNE	LEEDS AND THE THOUSAND ISLANDS	1.11	PS		$111,200			2024	1	Pave 1.5m shoulders, no widening required	
P1-30	HWY 15	CR1	CR1	RIDEAU LAKES	0.24	BPS			$54,500				Pave 1.5m shoulders with 0.5m buffer -- buffer width to be confirmed with traffic volumes provided by MTO at time of implementation.	Project would be initiated and implemented by MTO
P1-31	CO RD 29	CO RD 29	CO RD 16	ELIZABETHTOWN KITLEY	8.7	PS	$869,600				2026	1	pave shoulder to 1.5m, no widening required	
P1-32	CO RD 29	CO RD 16	HUNTER'S RD.	RIDEAU LAKES	7.21	PS		$721,000			2033+	3	Pave 1.5m shoulder, no widening required	
P1-33	CO RD 16	CO RD 41	CO RD 15	MERRICKVILLE WOLFORD	8.62	PS		$861,600			2033+	3	Pave 1.5m shoulders, no widening required	
P1-34	CO RD 15	CO RD 16, S LIMIT MERRICKVILLE	CO RD 43 MAIN ST	MERRICKVILLE WOLFORD	0.93	SS		$1,100			2023	1	while volumes and speed dictate designated space; would result in loss of a lane of parking in downtown. Reduced speed to 40 km/h would still require designated space with volumes -- municipality to consider parallel route on municipal road	Parallel route on municipal road likely preferred for through route; loss of parking would be required on St Lawrence Street (Co Rd 15)
P1-35	CO RD 26	MAYNARD W LIMIT	ROBERT RD	AUGUSTA	1.31	UMUP / PS		$135,800		$102,400	2033+	3	Pave gravel shoulder up to settled area (1.5m shoulder) and tie in to existing asphalt sidewalks. Designate existing asphalt area behind mountable curb (sidewalk) to MUP with signage and paint markings	Gravel shoulder width unknown could require some additional build before ditch
P1-36	CO RD 15	200M S OF CO RD 21	N LIMIT N AUGUSTA	AUGUSTA	1.23	UMUP				$460,000			Designate existing asphalt area behind mountable curb (sidewalk) to MUP with signage and paint markings.	
P1-37	CO RD 15	CO RD 41	CO RD 16	MERRICKVILLE WOLFORD	12.89	PS1		$644,500			2033+	3	pave shoulder on south side to 1.5m, no widening needed	
P1-38	CO RD 15	N LIMIT N AUGUSTA	CO RD 41	AUGUSTA	10.06	PS		$1,005,900			2033+	3	Pave 1.5m shoulder, no widening required	
P1-39	CO RD 18	S LIMIT, DOMVILLE	CO RD 21 IN ROEBUCK	AUGUSTA	6.86	PS		$916,200			2024, 2033+	1 and 3	Current volumes would suggest shared space as acceptable from CO RD 21 to southern Roebuck limits with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening in this segment - volumes should be confirmed at time of implementation. South of Roebuck limits can be paved with 1.5m shoulders without widening. In Phase 1, provide a shared space with signage from S limits, Roebuck to CO RD 21 in Roebuck and in Phase 3, pave the shoulders from S limits, Roebuck to S limit, Domville	
P1-40	CO RD 21	FORSYTHE ROAD (CO RD 18)	W LIMIT, SPENCERVILLE	AUGUSTA	5.96	PS		$589,200			2029, 2033+	2 and 3	There is limited space with the mountable curb and gutter through Roebuck make signed route through the more urban area. Pave existing gravel shoulder on south side east of Forsythe Road for consistency with road cross section east of Roebuck limits. Remainder of the section can be paved with 1.5m shoulders without widening. In Phase 2, pave one-sided shoulder from Forsythe Road (CO RD 18) to E limit, Roebuck and in Phase 3, pave the shoulders from E limit, Roebuck to W limit, Spencerville.	
P1-41	CO RD 22	CO RD 2	N LIMIT, CARDINAL	EDWARDSBURGH CARDINAL	1	BL		$28,900			2033+	3	Narrow travel lanes to accommodated painted bike lane	
P1-42	CO RD 21, CO RD 44	HWY 416 I/C 12 SW RAMPS	CO RD 22	EDWARDSBURGH CARDINAL	8.53	PS / PSW / BL		$1,251,100			2033+	3	Designate paved area on bridge to barrier wall as a bike lane. Segment from CO Rd 44 to the highway ramps will need to be widened to accommodate paved shoulders as current shoulders are 1.2 to 1.4m	Discussions required with MTO, may want to look at connections/crossings at ramps
P1-43	CO RD 12 (BEDFORD ST)	CO RD 42	CO RD 10	VILLAGE OF WESTPORT	0.71	BBL		$29,000			2033+	3	The context of this street and adjacent land uses changes significantly; shared operating space feasible with 40km/h zone; a detailed review of how to implemented a designated space -- bike lane should be considered at time of reconstruction	key consideration of adjacent land uses and parking required
P1-44	CO RD 21	W LIMIT, SPENCERVILLE	CO RD 44, SPENCER ST	AUGUSTA	0.89	BL		$25,900			2028	2	Repaint existing curb space as bike lanes	
P1-45	CO RD 44	CENTRE STREET (CO RD 21)	CENTRE OF MEDIAN OF HWY 416	EDWARDSBURGH CARDINAL	3.07	SS		$250,900			2024, 2033+	13	Pave 1.5m shoulders, no widening required. Signed bike route through commercial area in town, recommendation to reduce speed limit to 40 km/h so as to not keep parking (otherwise bike lane recommended). In Phase 1, provide a shared space with signage from Centre Street (CO RD 21) to N limit, Spencerville and in Phase 3, pave the shoulders from N limit, Spencerville to Centre of median of Hwy 416.	Through commercial area there is parking in curb lane; speed of 50 km/h and traffic volumes should include a designated space - bike lane however would mean the loss of parking. If speed not reduced, facility not appropriate for volumes and speed.

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P1-46	CO RD 42	East side of Bridge in Newboro	John/Bay Street Newboro	RIDEAU LAKES	0.64	BL		$18,600			2028	2	Recommend reducing speed through settled area with sidewalks to 40 km/h, designated space recommended where feasible to install a bike lane - adacent parking where width allows or with widened maintenance strip. Reduced speed due to not all areas having sufficient width for designated area.	If speed not reduced, designated space recommended for cyclists
P1-47a	CO RD 44 RIDEAU STREET	CLOTHIER at PRESCOTT	CO RD 43 via RIDEAU	NORTH GRENVILLE	0.69	BBL	$28,400				2025	1	A southbound buffered bike lane can be provided on Rideau Street between Elvira Street and Clothier Street West by dedicating space for cyclists with the modification of Rideau Street and Sanders Street to a one-way couplet (TMP project 1-L2). Buffered bike lanes can be provided on this section of Clothier Street East by removing or relocating three parking spaces on the south side of the road. This segment is a key link between the CR 18 spine route and the CR 44 spine route.	Removal of parking subject to consultation, route within the RVCA Regulation Limit requiring RVCA permit
P1-48	CO RD 44 PRESCOTT STREET	Concession Road	Clothier Street East	NORTH GRENVILLE	0.95	SS / BL		$16,900			2024	1	The majority of Prescott Street between Clothier Street and Van Buren Street is too narrow for bike lanes; provide a signed bicycle route with sharrows to guide cyclists visiting or passing through downtown Kemptville. Provide bike lanes on Prescott Street to provide an on-road spine route between Concession Road and Van Buren Street.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P1-49	CO RD 44	Settler's Trail	North Municipal Boundary	NORTH GRENVILLE	2.04	MUP				$663,200			Provide an in-boulevard multi-use pathway on CR 44 between the Rideau River and Settler's Trail to provide a separated spine route that is comfortable for all users and connects the eQuinelle community with Kemptville.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P1-50	CO CR 43	Somerville Road	Highway 416 SB Ramps	NORTH GRENVILLE	3.75	CT				$1,499,800	2023	1	Provide uni-directional cycle tracks on CR 43 between Somerville Road and Highway 416 to be consistent with the 2010 EA for the Four Lane Upgrade of CR 43, as well as the updated 2017 CR 43 road widening plans between CR 44 and Colonnade Drive.	While a portion of the route is within the RVCA Regulation Limit, the CR 43 widening has already gone through the EA process with input from required agencies
P1-51	CO CR 18	CLOTHIER at PRESCOTT	CO RD 43 via RIDEAU	NORTH GRENVILLE	1.16	BL		$34,400			2028, 2029	2	Provide bike lanes on Clothier Street West between Somerville Road / Hurd Street and Rideau Street to provide an east-west spine route through Kemptville.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P1-52	CO RD 18	HWY 401 I/C 716 N	S LIMIT DOMVILLE	AUGUSTA	4.6	PS		$459,600			2033+	3	Pave 1.5m shoulder, no widening required	
P1-53	CO RD 43	CO RD 15 (ST LAWRENCE ST.)	RR UNDERPASS	MERRICKVILLE WOLFORD	1.09	BBL				$44,700			incorporate buffered bike lane from rail crossing to intersection with CO RD 15; could use maintenance area where available or incorporate unidirectional MUP behind curb -- requires buffer with parked cars	could require removal of one parking lane from CO RD 15 to Elgin Street
P1-54	CO RD 43	RR UNDERPASS	CO RD 23 W.	MERRICKVILLE WOLFORD	4.68	BPSW		$931,100		$238,100	2033+,	3	0.5m buffer recommended due to traffic volumes; widening would be required on substandard width shoulders	
P1-55a	CO RD 46	CO RD 27	HOWE RD	ELIZABETHTOWN KITLEY	1.75	PSW / SS		$214,100			2023, 2033+	13	AADT through town at 50 km/h designated space recommended, consider lowering to 40km/h. With 80 km/h recommendation is designated space north of Lyn Limits to railroad tracks - scheduled for repaving 2022. In Phase 1, provide a shared space from CO RD 27 to N limits of Lyn and in Phase 3, pave the shoulders (with widening) from N limits of Lyn to Howe Road.	Designated space recommended; without reduced speed not ideal facility type
P1-55b	CO RD 46	HOWE RD	CO RD 29	ELIZABETHTOWN KITLEY	5.46	PSW		$1,091,300			2033+	3	1.5m paved shoulder, will require widening	
P1-56	CO RD 2	E LIMITS OF BROCKVILLE	END OF C&G EAST LIMIT MAITLAND	ELIZABETHTOWN KITLEY	4.84	PS		$484,200			2029	2	Existing paved shoulders in poor condition, pave to 1.5m	
P1-57	CO RD 27	CNR RR-XING	W LIMIT, LYN	ELIZABETHTOWN KITLEY	0.89	PS		$89,300			2023	1	pave shoulder to 1.5m CR2 to Rail Crossing	
P1-58	CO RD 3	N END OUTLET	CO RD 33	LEEDS AND THE THOUSAND ISLANDS	17.03	PS		$1,703,400			2033+	3	Pave 1.5m shoulders, no widening required	
P1-59	CO RD 29	WOODS RD.	S. LIMITS OF ADDISON	ELIZABETHTOWN KITLEY	8.63	BPS		$1,725,800			2033+	3	0.5m buffer recommended due to traffic volumes; existing 2.5m shoulders; no required widening	
P1-60a	CO RD 30	CO RD 42	YONGE/ELIZABETHTOWN TWP LINE	ATHENS	3.24	PS	$324,200				2027	1	Pave 1.5 shoulder, no widening required	
P1-60b	CO RD 30	ELIZABETHTOWN/YONGE TOWN LINE	CO RD 29	ATHENS	1.4	PS		$139,800			2033+	3	Pave 1.5 shoulder, no widening required	
P1-61	CO RD 42	E. LIMIT ATHENS	ELIZABETHTOWN/YONGE TOWN LINE	ATHENS	1.75	PS		$175,000			2033+	3	Pave 1.5 shoulder, no widening required	
P1-62	CO RD 15	CO RD 2	CO RD 26	AUGUSTA	4.49	PSW / PS		$467,700			2033+	3	Pave 1.5m shoulder. Segment over Highway 401 will required widening - volumes should be confirmed at time of implementation.	Consultation required with MTO
P1-63a	CO RD 42	E. LIMIT NEWBORO	HWY.#15	RIDEAU LAKES	4.25	PS	$425,200				2026	1	Pave 1.5m shoulder, no widening required	
P1-63b	CO RD 42	START OF CURB & GUTTER	E. LIMIT NEWBORO	RIDEAU LAKES	0.82	PS		$81,900			2033+	3	Pave 1.5m shoulder, no widening required	
P1-63c	CO RD 42	HWY.#15	W. LIMIT FORFAR	RIDEAU LAKES	3.25	PS		$324,700			2033+	3	Pave 1.5m shoulder, no widening required	
P1-64	CO RD 14	CO RD 42	LANARK CO BDRY	RIDEAU LAKES	7.49	PS		$1,123,700			2033+	3	Current volumes would suggest shared space as acceptable with a 70 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation	
P1-65a	CO RD 11	400M WEST OF SMITHS BAY BRIDGE	FRONTENAC CO BDRY - SIMPSON ROAD	RIDEAU LAKES	5.83	SS	$5,800				2025	1	Traffic volumes very low - confirm that they are under 1000 AADT for shared space at time of renewal	
P1-65b	CO RD 11	FRONTENAC CO BDRY - SIMPSON ROAD	HWY 15	RIDEAU LAKES	5.17	SS		$5,100			2024	1	Traffic volumes very low - confirm that they are under 1000 AADT for shared space at time of renewal	
P1-66	CO RD 1	170 M N OF KITLEY LINE 3	HWY 15	ELIZABETHTOWN KITLEY	0.39	PSW	$78,800				2023	1	paving shoulder will require widening of road bed; provides connection to Cataraqui Trail from Lombardy - remainder of CR1 will not have shoulders due to construction constraints	

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P1-67	CO RD 29	435m North of Line Road 9	CO RD 8	ELIZABETHTOWN KITLEY	4.14	PS / SS	$569,200				2026	1	Reduce speed through hamlet to 40 km/h for shared space use; contraints with large trees and buildings not possible for providing designated space. For rural areas, pave shoulders to 1.5m - no widening required	Designated space recommended; without reduced speed not ideal facility type
P1-68	CO RD 27	CHURCH STREET	CO RD 46	ELIZABETHTOWN KITLEY	0.45	PSW / BL	$48,500				2023	1	Pave shoulder with widening existing gravel shoulders to 1.5m. Use painted shoulder between lane and sidewalk to paint bike lanes, parking to be consolidated on single side where space permits. From Jessie Street to Church Street pave shoulders with widening.	
P2-01	CO RD 2	MTO/L&G	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	11.18	BPS		$2,236,400			2033+	3	Pave 1.5m shoulder with 0.5m buffer due to high speeds and volumes	A 2m paved shoulder with 0.5m buffer is preferred however widening would be required
P2-02	CO RD 2	CO RD 3	E. LIMIT WATERTON/ESCOTT	LEEDS AND THE THOUSAND ISLANDS	9.32	PS / PSW		$1,105,400			2033+	3	Pave 1.5m shoulders, widening required in Watertown where there is only 1m shoulder on one side. Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation.	
P2-03	CO RD 44	HWY 16, N OF SPENCERVILLE	CO RD 20	NORTH GRENVILLE	9.88	PS		$987,900			2033+	3	Pave 1.5m shoulders, no widening required	
P2-04	CO RD 32	5.37KM N. OF TAYLOR RD	80 M S. OF HWY 15	LEEDS AND THE THOUSAND ISLANDS	2.61	PS		$260,500			2033+	3	Pave 1.5m shoulders, no widening required	
P2-07	CO RD 36	CO RD 12 IN WESTPORT	N LIMIT, WESTPORT	RIDEAU LAKES	0.59	SS		$700			2033+	3	Traffic volumes very low - confirm that they are under 1000 AADT for shared space at time of renewal	
P2-08	CO RD 12	FRONTENAC CO BDRY	CO RD 42	RIDEAU LAKES	4.88	PS / BL		$476,800			2033+	3	Pave existing shoulder from Frontenac Boundary to CO RD 36; add painted bike lane within existing curbs between CO RD 36 and CO RD 42	If space not available could be in shared operating space within 40 km/h community safety zone. Could be some loss of parking with bike lane.
P2-09	CO RD 5	CO RD 2 E OF MALLORYTOWN	S END MCINTOSH MILLS - HOUSE#309	ATHENS	8.71	PS		$870,600			2033+	3	Pave 1.5 shoulder, no widening required	
P2-14	CO RD 29	N. LIMITS OF ADDISON	500m South of Line Road 9	ELIZABETHTOWN KITLEY	6.76	PS		$676,100			2033+	3	pave shoulder to 1.5m; while on the verge of paved shoulder with buffer with > 3000 AADT recommended buffer width per MTO Bikeway Design Guide is 0m	
P2-15	CO RD 6, CO RD 28, CO RD 6	170M N NEW DUBLIN RD W	CO RD 15	ELIZABETHTOWN KITLEY	11.47	PS / PSW		$1,221,800			2033+	3	Pave gravel shoulder, will require from west limits of North Augusta to CO RD 14	widening shoulder base could be difficult in places
P2-16	CO RD 15	CO RD 26	200M S OF CO RD 21	AUGUSTA	12.4	PS		$1,860,300			2033+	3	Pave 1.5m shoulder, no widening required. Centre line may need to be shifted and repainted where one side of the shoulder is only 1m over the bridge	Potential that centre line shift not possible.
P2-18	CO RD 26	CO RD 15	MAYNARD W LIMIT	AUGUSTA	13.69	PS		$1,368,600			2033+	3	Pave 1.5m shoulder, no widening required	
P2-19	CO RD 44	Beach Road	CO RD 20	NORTH GRENVILLE	4.93	BPS		$1,110,200			2033+	3	Provide buffered paved shoulders on CR 44 to provide a spine route between Kemptville and communities along CR 20. Lane markings at Highway 416 interchange require modification for continuous cycling infrastructure through the northbound and southbound d	Collaboration with the MTO for lane marking modifications at the Highway 416 interchange, and for increase in barrier height on overpass structure
P2-20	CO RD 22	DUNDAS STREET	CO RD 2	EDWARDSBURGH CARDINAL	0.93	BL		$26,800			2033+	3	Remove on street parking and repaint to accommodate bike lanes	Loss of parking may be controversial
P2-21	CO CR 18	CO RD 25	SOMERVILLE RD	NORTH GRENVILLE	5.2	BPS / BL		$1,132,700			2033+	3	Provide buffered paved shoulders on CR 18 to connect Oxford Mills to Kemptville and form part of the spine route along CR 18 between Kemptville and the southwest corner of the Municipality. Provide paved shoulders on CR 18 to provide a spine route connection between CR 25 / CR 18 and Bedell Road. Localized narrowing of cycling facility required at bridge over Kemptville Creek.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P2-22	CO RD 24	CO RD 44 Prescott Street	CO CR 43	NORTH GRENVILLE	2.92	BL / BPS		$508,000			2033+	3	Provide bike lanes on Van Buren Street between Prescott Street (CR 44) and Bridge Street South to provide part of the Van Buren Street east-west secondary route that connects Prescott Street (CR 44), the North Grenville Rail Trail, Rideau River Road Provide buffered paved shoulders on Van Buren Street between Bridge Street South and CR 43 to provide part of the Van Buren Street east-west secondary route that connects Prescott Street (CR 44), the North Grenville Rail Trail, Rideau River Road (CR 19)	Portion of route within the RVCA Regulation Limit requiring RVCA permit Collaboration with the MTO for increase in barrier height on Highway 416 overpass structure
P2-23	CO RD 19	CO RD 24	Flynn Road	NORTH GRENVILLE	6.48	BL / BPS		$1,440,700			2033+	3	Provide buffered paved shoulders on Rideau River Road as a spine route between Kemptville and Ottawa to the northeast of the Municipality. The Rideau River Road spine route also provides connectivity to the North Grenville Rail Trail at Wellington Road.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P2-24	CO CR 18	Bedell Road	Wellington Street	NORTH GRENVILLE	0.41	BL		$12,000			2033+	3	Provide a signed bicycle route on CR 18 within Oxford Mills to provide guidance to cyclists visiting or passing through the Hamlet.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P2-26a	CO RD 8	CO RD 42	W LIMIT CHANTRY	RIDEAU LAKES	3.63	PS	$545,100				2027	1	Pave 1.5m shoulder, no widening required	
P2-26b	CO RD 8	W LIMIT CHANTRY	CO RD 5	RIDEAU LAKES	5.43	PS		$813,900			2033+	3	Pave 1.5m shoulder, no widening required	
P2-27	CO RD 22	N LIMIT, CARDINAL	N LIMIT, PITTSTON	EDWARDSBURGH CARDINAL	8.33	PS / SS		$724,000			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation.	

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P3-01	CO RD 34	CO RD 2	KYES RD	LEEDS AND THE THOUSAND ISLANDS	10.08	PS		$1,008,000			2033+	3	Pave 1.5m shoulders, no widening required	
P3-02	CO RD 34	KYES RD	CO RD 3, PRINCE ST	LEEDS AND THE THOUSAND ISLANDS	4.7	PS / UMUP		$405,600		$239,500	2033+	3	Consider changing on street parking behind mountable curb between western limit to Prince St to a unidirectional MUP, pave 1.5m shoulders on rural section	
P3-03	CO RD 37	LOADING RAMP, HOWE ISLAND FERRY	START, BUILT-UP AREA #333	LEEDS AND THE THOUSAND ISLANDS	1.99	PSW		$398,100			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation	
P3-04	CO RD 4	200M S OF JUNETOWN RD	CO RD 3	LEEDS AND THE THOUSAND ISLANDS	11.51	PS / PSW		$2,152,300			2033+	3	Current volumes would suggest shared space as acceptable with a 70 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation	
P3-05	CO RD 4	CO RD 2	200M S OF JUNETOWN RD	LEEDS AND THE THOUSAND ISLANDS	5.32	PS / PSW		$848,700			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation	
P3-06	CO RD 47	START CURB & GUTTER	HWY.#15 NORTH END SEELEY'S BAY	LEEDS AND THE THOUSAND ISLANDS	1.61	SS / PSW		$199,600			2033+	3	Low volume suggests shared space acceptable. Volumes to be confirmed at time of implementation.	
P3-08a	CO RD 10	80M N OF BEDFORD ST	GRADY RD	RIDEAU LAKES	0.8	PS		$119,400			2033+	3	North of bridge pave shoulders where feasible - large number of constrained areas	A number of areas where widening will not be possible - or cost prohibitive for a consistent paved shoulder
P3-08b	CO RD 10	CO RD 42	80M N OF BEDFORD ST	RIDEAU LAKES	0.69	BL		$20,000			2033+	3	Between Bedford Street and Bridge construct curb with unidirectional MUPs on either side for pedestrians and cyclists on steep grade from bridge - -means removal of parking on west side. Paint bike lane within curb width (Concession to Main) - reduce lane widths in town with 40 km/h speed for shared operating space on Main Street to Bedford Street	removal of parking may be controversial -- approx 3 spaces; no room for dedicated facility on bridge
P3-09	CO RD 36	N LIMIT, WESTPORT	LANARK CO BDRY	RIDEAU LAKES	9.55	SS		$9,500			2033+	3	Traffic volumes very low - confirm that they are under 1000 AADT for shared space at time of renewal	
P3-11	CO RD 8	CO RD 5	50M EAST OF LAKE ELOIDA RD	RIDEAU LAKES	5.67	PS		$614,700			2033+	3	Pave shoulders; AADT close to threshold for designated space	
P3-12	CO RD 5	CO RD 8	HWY 15	RIDEAU LAKES	7.72	PS		$771,900			2033+	3	Pave shoulders; AADT close to threshold for designated space	
P3-13	CO RD 5	S END MCINTOSH MILLS	50M S OF SARAH ST, ATHENS - HOUSE #25	ATHENS	9.68	PS		$968,200			2033+	3	Pave 1.5 shoulder, no widening required	
P3-14	CO RD 40	START CO RD @ DOCK	S LIMIT, ATHENS	ATHENS	7.04	PSW / PS		$1,074,000			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through bike lanes, paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation.	
P3-15	CO RD 5	50 M S OF SARAH STREET	CO RD 42	ATHENS	0.51	BLW		$194,000			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed. Project would be to provide a designated space for cyclists through bike lanes which would require widening - volumes should be confirmed at time of implementation. Existing 2.3m parking lane north of Church Street can be repainted to narrow lanes and accommodate a bike lane	Loss of parking may be controversial
P3-16	CO RD 40	S LIMIT, ATHENS	CO RD 42 MAIN ST ATHENS	ATHENS	0.95	BLW		$357,500			2033+	3	Current volumes would suggest shared space as acceptable with a 40 km/h posted speed - volumes should be confirmed at the time of implementation. 3m parking from CO RD 42 to Church St can be removed and repainted to accommodate painted bike lanes. South of Church St does not have sufficient space and will require widening.	Loss of parking may be controversial
P3-20	CO RD 1	HWY 15 AT LOMBARDY	CO BDRY AT CENTRE BRIDGE	RIDEAU LAKES	5.58	BPSW		$1,395,600			2033+	3	Buffered paved shoulders; 2020 renewal project therefore low on priority list. Will need to be widened to accommodate buffer and paved shoulder	
P3-21	CO RD 17	CO RD 16 IN JASPER	S LIMIT TOWN OF SMITHS FALLS	ELIZABETHTOWN KITLEY	8.49	PS		$1,273,600			2033+	3	Pave shoulders; 2018 renewal project therefore low on priority list. No widening required	
P3-22	CO RD 16	CO RD 29	CO RD 41	ELIZABETHTOWN KITLEY	9.98	PSW / PS1		$1,353,500			2033+	3	Pave shoulder on south side to 1.5m, no widening needed	
P3-24	CO RD 21	CO RD 15	FORSYTHE ROAD (CO RD 18)	AUGUSTA	12.25	BLW / PS / PSW		$1,927,300			2033+	3	Pave 1.5m shoulder, widening may be required from CO RD 18 to western limits - volumes should be confirmed at the time of implementation. Current volumes suggest the segment from western limit of Roebuck to Forsythe Rd is acceptable with 40km/h posted speed. through bike lanes, paved shoulders or unidirectional MUP behind curb which would require widening - volumes should be confirmed at time of implementation.	Additional lifts on main roadway may be required, Consultation with MTO needed
P3-25	CO RD 31	CO RD 2	CO RD 26	AUGUSTA	4.42	PS / PSW		$773,400			2033+	3	Low volumes so shared space ok, but with 80km/h recommendation would be designated space. Segment over the highway will need to be widened, volumes should be confirmed at the time of implementation	
P3-26	CO RD 26	ROBERT RD	CO RD 18	AUGUSTA	3.59	PS		$359,200			2033+	3	Pave 1/5m shoulder, no widening required	
P3-29	CO CR 18	CO RD 21 W OF ROEBUCK	South Municipal Boundary	NORTH GRENVILLE	13.6	PS		$1,360,200			2033+	3	Provide paved shoulders on CR 18 to form part of the spine route along CR 18 between Kemptville and the southwest corner of the Municipality.	
P3-30	CO RD 22	CO RD 21 @ SHANLY	CO RD 20	EDWARDSBURGH CARDINAL	10.05	BPS / PS		$1,364,700			2033+	3	Provide buffered paved shoulders on South Gower Drive to continue the South Gower Drive spine route south from CR 20 to the southern boundary of the Municipality. The South Gower Drive spine route is also part of the Province-wide Cycling Network.	
P3-31	CO RD 20	CO RD 22	E BOUNDARY	NORTH GRENVILLE	2.52	PSW		$503,900			2033+	3	Provide paved shoulders on CR 20 to continue the CR 20 spine route east from CR 22 to the eastern boundary of the Municipality, towards the community of South Mountain. Widening to 1.5m required	
P3-32	CO RD 20	CO CR 18	CO RD 22	NORTH GRENVILLE	16.09	BPS		$3,621,200			2033+	3	Provide buffered paved shoulders on CR 20 to provide a spine route between CR 18 and CR 22 and connect the hamlets of East Oxford, Oxford Station, and Heckston.	Collaboration with the MTO for increase in barrier height on Highway 416 overpass structure Portion of route within the RVCA Regulation Limit requiring RVCA permit

PROJECT ID	ROAD	PROJECT LIMITS (FROM)	PROJECT LIMITS (TO)	MUNICIPALITY	SEGMENT LENGTH (KM)	FACILITY TYPE	COUNTY COSTS (CAPITAL PROJECTS)	COUNTY COSTS	PROVINCIAL COSTS	MUNICIPAL COSTS	PHASE YEAR	PHASE	PROJECT DESCRIPTION	POTENTIAL PROJECT RISK
P3-34	CO CR 18	CO RD 20	Wellington Street	NORTH GRENVILLE	13.11	BPS / PS		$2,845,900			2033+	3	Provide buffered paved shoulders on CR 18 to connect Bishops Mills to Oxford Mills and to form part of the spine route along CR 18 between Kemptville and the southwest corner of the Municipality. Provide a signed bicycle route on CR 18 within Oxford Mill	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-35	CO RD 25	CO CR 18	CO CR 43	NORTH GRENVILLE	3.71	BPSW		$926,300			2033+	3	Provide buffered paved shoulders on CR 25 between Guy Road and CR 18 to form part of the spine route along CR 18 between Kemptville and the southwest corner of the Municipality. Provide buffered paved shoulders on CR 25 to provide a spine route between CR 43 and Oxford Mills. Widening required to accommodate buffer and paved shoulder	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-36	CO CR 23	Haskin Road / Monkman Road	West Municipal Boundary	NORTH GRENVILLE	4.27	PSW		$854,600			2033+	3	Provide paved shoulders on CR 23 to provide a connection between Burritts Rapids and the western boundary of the Municipality, towards Merrickville. Provision of paved shoulders would likely require widening of the road base. Provide paved shoulders on CR 23 to provide a secondary route between Settler's Trail and Burritts Rapids.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-37	CO RD 22	Kennedy Road	CO RD 19	NORTH GRENVILLE	8.21	BPS		$1,846,500			2033+	3	Provide buffered paved shoulders on South Gower Drive (CR 22) to provide a spine route along CR 22 between CR 19 and the residential community at the crossroads of CR 22 and CR 43. The South Gower Drive spine route is also part of the Province-wide Cycling Network.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-38	CO RD 22	CO RD 20	Kennedy Road	NORTH GRENVILLE	7.67	BPSW				$1,918,700			Provide buffered paved shoulders on CR 22 to provide a spine route along CR 22 between CR 19 and the residential community at the crossroads of CR 22 and CR 43. The South Gower Drive spine route is also part of the Province-wide Cycling Network. Widening required to accomodate 1.5m paved shoulder and a 0.5m buffer.	Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-39	CO CR 43	CO RD 25	Somerville Road	NORTH GRENVILLE	4.85	MUP				$1,576,700			Provide an in-boulevard multi-use pathway on CR 43 between CR 25 and Sommerville Road to provide a separated spine route that is comfortable for all users. Multi-use pathway location (north or south side) to be determined during functional design.	
P3-40	CO CR 43	Highway 416 SB Ramps	Municipal Boundary	NORTH GRENVILLE	5.78	MUP				$1,877,200			Provide an in-boulevard multi-use pathway on CR 43 between Highway 416 and the eastern boundary of the Municipality to provide a separated spine route that is comfortable for all users. Multi-use pathway location (north or south side) to be determined during design.	Collaboration with the MTO for increase in barrier height on Highway 416 overpass structure
P3-41	CO CR 19	Flynn Road	East Municipal Boundary	NORTH GRENVILLE	5.79	BPS		$1,303,700			2033+	3	Provide buffered paved shoulders on Rideau River Road as a spine route between Kemptville and Ottawa to the northeast of the Municipality. The Rideau River Road spine route is also part of the Province-wide Cycling Network from South Gower Drive (CR 22)	Collaboration with the MTO for increase in barrier height on Highway 416 overpass structure. Portion of route within the RVCA Regulation Limit requiring RVCA permit
P3-42	CO RD 38	CO RD 42	CO RD 5	RIDEAU LAKES	9.6	SS		$9,600			2033+	3	Provide a signed route. Traffic volumes very low and there is limited ROW due to vegetation	
P3-45	CO RD 8	50M E. OF LAKE ELOIDA RD	CO RD 29	ELIZABETHTOWN KITLEY	3.31	PS		$330,600			2033+	3	Low volume would suggest shared operating space sufficient; longer term review volumes and pave shoulders	will be inconsistent with adjacent facilities

PS	Paved Shoulder
PS1	Paved Shoulder One Side Only
PSW	Paved Shoulder with Widening
BPS	Buffered Paved Shoulder
BPSW	Buffered Paved Shoulder with Widening
BBL	Buffered Bike Lane
BL	Bike Lane
BLW	Bike Lane with Widening
UMUP	Unidirectional Multi-Use Pathway
MUP	Multi-Use Pathway
CT	CycleTrack
SS	Shared Space (Signed Route)

APPENDIX G

IMPLEMENTATION UNIT PRICE LIST

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
1.0 GENERAL ACTIVE TRANSPORTATION FACILITIES				
Shared Lanes / Paved Shoulders				
1.1	Signed Bike Route in Urban Area	linear KM	$1,200	Price for both sides of the road, assumes one sign a minimum of every 500 metres in the direction of travel. Price assumes that signs will be mounted on an existing post. Price includes: - $300 per sign x 4 signs (2 signs on each side of the road)
1.2	Signed Bike Route in Rural Area	linear KM	$1,000	Price for both sides of the road, assumes one sign a minimum of every 2 kilometres in the direction of travel. Price assumes that signs will be mounted on a new post. Price includes: - $500 per sign x 2 signs (1 sign on either side of the road)
1.3	Signed Bike Route with Sharrow Lane Markings *Intended to supplement a signed bike route in specific locations. Not intended to be a stand-alone facility type.*	linear KM	$11,600	Price for both sides of the road, includes route signs every 500 metres and sharrow stencils every 75 metres as per OTM Book 18 guidelines. Price includes: - $300 per sign x 4 signs (2 signs on each side of the road) - $400 per stencil marking x 26 (13 stencils on each side of the road)
1.4	Signed Route with Edgeline	linear KM	$12,200	Price for both sides of the road, includes signs and painted edgeline (100mm solid white line). Price includes: - $300 per sign x 4 signs (2 signs on each side of the road) - $5.5 per metre for painted solid white line
1.5	Signed Bike Route with Paved Shoulder in conjunction with existing road reconstruction / resurfacing	linear KM	$100,000 to $200,000	1.5 metre paved shoulder on both sides of the road. Assumes cycling project pays for additional granular base, asphalt and painted line. Price may vary from $100,000 to $200,000 depending on work needed to improve platform. Price includes: - $300 per sign x 4 signs (2 signs on each side of the road) - $5.5 per metre for painted solid white line (both sides of the road) Price may be higher if road platform needs to be widened.
1.6	Signed Bike Route with Buffered Paved Shoulder in conjunction with existing road reconstruction / resurfacing project	linear KM	$200,000 to $250,000	1.5 metre paved shoulder + 0.5-1.0 metre paved buffer on both sides of the road. Assumes cycling project pays for additional granular base, asphalt, painted edge lines and signs (buffer zone framed by white edgelines). Price may vary from $200,000 to $250,000. Price includes: - $300 per sign x 4 signs (2 signs on each side of the road) - $5.5 per metre for painted solid white line (both sides of the road)
1.7	Addition of Rumble Strip to Existing Buffered Paved Shoulder (rural)	linear KM	$12,000	Price for both sides. Buffer $6 / m.
1.8	Granular Shoulder Sealing	linear KM	$18,000	Both sides spray emulsion applied to harden the granular shoulder. This will reduce gravel on the paved portion of the shoulder and significantly reduce shoulder maintenance. Use $9 / m.
1.9	Upgrade Granular Surface Back Road to Chip Seal Surface	linear KM	$56,000	Price includes pulverizing existing surface with double treatment ($6 / m²) or tar and chip ($2 /m²) at 7m wide.
Conventional and Separated Bike Lanes				
1.10	Conventional 1.5m-1.8m Bicycle Lanes by Adding Bike Lane Markings and Signs	linear KM	$29,000	Price for both sides of the road, includes signs, stencils and edge line. The price assumes: - $11,000 for painted lane line ($5.5 per metre multiply 2 for both sides of the road) - $10,400 for painted bike symbols (assumes $250 per symbol, 13 symbols per linear km multiply by 2 for both side of the road) - $2,500 for bike lane signs (assumes $350 per sign and tab, 5 signs per linear km - spaced every 200 metres - multiply by 2 for both sides of the road) - $3,900 for 'No Parking' signs (assumes $150 per sign, 13 signs per linear km multiply by 2). Signs to be mounted on existing and new posts. Price depends on number of stencils and signs used.

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
Conventional and Separated Bike Lanes - CONT'D				
1.11	Conventional 1.5m-1.8m Bicycle Lanes through Lane Conversion from 4 lanes to 3 lanes	linear KM	$53,000	Price for both sides. Includes grinding of existing pavement, markings, signs, painted markings. Assumes road is not be surfacing. The price assumes: - $11,000 for painted lane line ($5.5 per metre multiply 2 for both sides of the road) - $10,400 for painted bike symbols (assumes $400 per symbol, 13 symbols per linear km multiply by 2 for both side of the road) - $2,500 for bike lane signs (assumes $350 per sign and tab, 5 signs per linear km - spaced every 200 metres - multiply by 2 for both sides of the road) - $3,900 for 'No Parking' signs (assumes $150 per sign, 13 signs per linear km multiply by 2). Signs to be mounted on existing and new posts. Price depends on number of stencils and signs used. - $6 to $8 per linear metre for lane line removal (soda blasting). Price varies on markings to be removed on a multi-lane roadway. Remove soda-blasting cost component if the road is being resurfaced. The cost for resurfacing to be part of resurfacing project.
1.12	Conventional 1.5m-1.8m Bicycle Lanes in Conjunction with a New Road, or Road Reconstruction / Widening Project	linear KM	$378,000	Price for 1.5m bike lanes on both sides of the roadway (1.5m x 2 sides = 3.0m). The price assumes: - $1,980 for catch basin leads ($55/m - assumes 50m catch basin spacing and 1.8m lead) - $360,000 for asphalt and sub-base ($55/m2 = 120 x 1.5m BL x 1000 x 2) - $16,000 for signs, stencils and edge line The roadway project funds all other improvements.
1.13	Conventional 1.5m-1.8m Bicycle Lanes that require a road widening /reconstruction	linear KM	$700,000	Price for both sides of the road, includes the cost for excavation, adjust catch basins, lead extensions, new curbs/driveway ramps, asphalt and sub-base, painted markings and signs. All costs associated with widening or reconstructing the road for the purposes of adding bike facilities is born by the bike project i.e. no economies of scale of adding a bike facility in conjunction with a planned roadway project.
1.14	Buffered Bicycle Lane with Hatched Pavement Markings - No Road Construction / Widening or Road Diet required	linear KM	$41,000	Price for 1.5m bike lanes with 1m hatched buffer. The price assumes: - $22,000 for painted lines ($5.5 x 4000 metres of line paint) - $1,000 for hatching paint (1000 metres) - $10,400 for painted bike symbols (assumes $400 per symbol, 13 symbols per linear km multiply by 2 for both side of the road) - $2,500 for bike lane signs (assumes $350 per sign and tab, 5 signs per linear km - spaced every 200 metres - multiply by 2 for both sides of the road) - $3,900 for 'No Parking' signs (assumes $150 per sign, 13 signs per linear km multiply by 2). Signs to be mounted on existing and new posts. Price depends on number of stencils and signs used

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
Conventional and Separated Bike Lanes - CONT'D				
1.15	Buffered Bicycle Lane with Hatched Pavement Markings with Road Diet	linear KM	$65,000	Price for 1.5m bike lanes with 1m hatched buffer. The price assumes: - $22,000 for painted lines ($5.5 x 4000 metres of line paint) - $1,000 for hatching paint ($1000 metres) - $10,400 for painted bike symbols (assumes $400 per symbol, 13 symbols per linear km multiply by 2 for both side of the road) - $2,500 for bike lane signs (assumes $350 per sign and tab, 5 signs per linear km - spaced every 200 metres - multiply by 2 for both sides of the road) - $3,900 for 'No Parking' signs (assumes $150 per sign, 13 signs per linear km multiply by 2). Signs to be mounted on existing and new posts. Price depends on number of stencils and signs used. - $6 to $8 per linear metre for lane line removal (soda blasting). Price varies on markings to be removed on a multi-lane roadway.
1.16	Buffered Bicycle Lane with Hatched Pavement Markings - Assumes New Road or Road Reconstruction/Widening already Planned	linear KM	$381,000	Price for 1.5m bike lanes + 0.5m hatched buffers on both sides of the roadway (1.5m x 2 sides = 3.0m). The price assumes: - $1,980 for catch basin leads ($55/m - assumes 50m catch basin spacing and 1.8m lead) - $360,000 for asphalt and sub-base ($55/m2 = 120 x 1.5m BL x 1000 x 2) - $19,000 for signs, stencils and edge line The roadway project funds all other improvements.
1.17	Buffered Bicycle Lane with Flex Bollards - Assumes Road Reconstruction/Widening Already Planned	linear KM	$411,000	Price for 1.5m bike lanes + 0.5m hatched buffers + flexible bollards on both sides of the roadway (1.5m x 2 sides = 3.0m). The price assumes: - $1,980 for catch basin leads ($55/m - assumes 50m catch basin spacing and 1.8m lead) - $360,000 for asphalt and sub-base ($55/m2 = 120 x 1.5m BL x 1000 x 2) - $19,000 for signs, stencils and edge line - $30,000 for flexible bollards ($150 per bollard, spaced every 10m) The roadway project funds all other improvements.
1.18	Buffered Bicycle Lane with Pre-Cast Barrier - Assumes New road or Road Reconstruction/Widening Already Planned	linear KM	$471,000	Price for 1.5m bike lanes + 0.5m hatched buffers + flexible bollards+ pre-cast and anchored curb delineators. The price assumes: - $1,980 for catch basin leads ($55/m - assumes 50m catch basin spacing and 1.8m lead) - $360,000 for asphalt and sub-base ($55/m2 = 120 x 1.5m BL x 1000 x 2) - $19,000 for signs, stencils and edge line - $30,000 for flexible bollards ($150 per bollard, spaced every 10m) - $50,000 - $60,000 pre-case curb delineators ($250 / pre-case unit 2m length + $7.5 / pins and anchoring. Assumes 2m long x 2 = 200-250 per km depending on intersections and driveways) The roadway project funds all other improvements.
1.19	Supply and install surface mounted flexible post delineators	each	$100 to $150	Price depends on product, volume and supplier.
1.20	Standard precast concrete curb 178 mm high, 216 mm wide and 1.83 metre long	each	$250	Approximately $95,000 - $100,000 per 1 linear kilometre. Assumes 70% of roadway to include physical delineation (700 metres per 1 linear kilometre): - 700 metres / 1.83 metres = 382.5 pre-cast concrete curbs - 382.5 x $250 = $95,000
1.21	Standard precast concrete curb 457 mm high, 457 mm wide and 3.05 metre long	each	$1,380	Approximately $315,000 - $320,000 per 1 linear kilometre. Assumes 70% of roadway to include physical delineation (700 metres per 1 linear kilometre): - 700 metres / 3.05 metres = 229.5 pre-cast concrete curbs - 229.5 x $1,380 = $317,000

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
Conventional and Separated Bike Lanes - CONT'D				
1.22	Standard precast concrete bullnose 457 mm high, 457 mm wide and 1.22 metre long	each	$970	Approximately $550,000 - $560,000 per 1 linear kilometre. Assumes 70% of roadway to include physical delineation (700 metres per 1 linear kilometre): - 700 metres / 1.22 metres = 573.8 pre-cast concrete curbs - 573.8 x $970 = $556,557
Cycle Tracks				
1.23	Uni-directional Cycle Tracks: Raised and Curb Separated - In conjunction with existing road reconstruction / resurfacing project	linear KM	$250,000 - $500,000	Both sides. Assumes cycle track will be implemented as part of road construction. Could include minor utility / lighting pole relocations. Other components such as bike signals, bike boxes etc. are project specific and will impact unit price.
1.24	Uni-directional Cycle Tracks: Raised and Curb Separated - Retrofit Existing Roadway	linear KM	$500,000 - $1,200,000	Both sides. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are project specific and will impact unit price
1.25	Two Way Cycle Track - Retrofit Existing Roadway	linear KM	$500,000 - $800,000	One side. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are project specific and will impact unit price
Active Transportation Paths and Multi-Use Trails				
1.26	Two Way Active Transportation Multi-use path within road right-of-way	linear KM	$275,000 - $375,000	3.0m wide hard surface pathway (asphalt) within road right of way (no utility relocations). Price depends of scale / complexity of project and if existing sidewalk is being removed (i.e. crushing of existing sidewalk and compacting for trail base).
1.27	Concrete Splash Strip placed within road right-of-way between Active Transportation Multi-Use Path and Roadway	m^2	$150	Colour Stamped Concrete
1.28	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting (New)	linear KM	$300,000 - $400,000	3.0m wide hard surface pathway (asphalt) within park setting (normal conditions) 90mm asphalt depth. Price depends of scale / complexity of project.
1.29	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in Urban Setting (Upgrade existing granular surface)	linear KM	$150,000 - $225,000	Includes some new base work (25% approx.), half of the material excavated is removed from site. Price depends of scale / complexity of project.
1.30	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in Urban Setting	linear KM	$150,000 - $165,000	3.0m wide, compacted stone dust surface normal site conditions. Price depends of scale / complexity of project.
1.31	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in Rural Setting (New)	linear KM	$200,000	3.0m wide, compacted stone dust surface in complex site conditions (includes cost of clearing and grubbing). Price depends of scale / complexity of project.
1.32	Upgrade existing granular surface trail to meet 3.0m wide compacted granular trail standard	linear KM	$75,000 - $125,000	Includes some new base work (25% approx.) and an average of 20 regulatory signs per kilometre. Price depends of scale and existing trail conditions e.g. width, slope, location of trail, etc.
1.33	Off-Road Multi-Use Trail Outside of Road Right-of-Way on Abandoned Rail Bed	linear KM	$80,000 - $125,000	3.0m wide, compacted stone dust surface, includes signage along trail and gates at road crossings. Assumes ballast is still in place. Price depends on scale / complexity of project.
1.34	Granular Surfaced Multi-use Trail in a Woodland Setting	linear KM	$175,000	2.4m wide, compacted stone dust surface. Price depends of scale / complexity of project.
1.35	Major rough grading (for multi-use pathway)	m^2	$8.00	Varies depending on a number of factors including site access, disposal location etc.

ACTIVE TRANSPORTATION, CYCLING AND TRAILS
2021 UNIT COST SHEET - DURABLE MARKINGS

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
		2.0 PEDESTRIAN FACILITIES		
2.1	Sidewalk	linear KM	$200,000	Price for 1.5m concrete sidewalk. Include site prep., select utility relocation, minor drainage modifications / traffic control.
		3.0 STRUCTURES AND CROSSINGS		
3.1	Pedestrian Boardwalk (Light-Duty)	linear m	$1500 - $2500	Structure on footings, 3.0m wide with railings. Price depends of scale / complexity of project.
3.2	Self weathering steel truss pedestrian / cyclist bridge	linear m	$10,000	Price for 4.0m width bridge includes abutments
3.3	Feature Trail Bridge crossing over a valley land / highway	each	$2,500,000 - $4,500,000	Depends on location, length and complexity of crossing as well as architectural detail.
3.4	Metal stairs with hand railing and gutter to roll bicycle	each	$6,500	1.8m wide, galvanized steel (assumes 8ft between each landing).
3.5	Pathway Crossing of Private Entrance	each	$1500 - $2000	Adjustment of existing curb cuts to accommodate 3.0m multi-use pathway
3.6	Median Refuge	each	$20,000	Average price for basic refuge with curbs, no pedestrian signals
3.7	Pedestrian and Cyclist Crossride	each	$80,000	Average price for pedestrian and cyclist crossride
3.8	Mid-block Crossing	each	$150,000 - $180,000	Average price for new mid-block crossing
3.9	Intersection Pedestrian / Bike Signal	each	$80,000	Average price for intersection pedestrian signal. Assumes partial rebuild of intersection for bike signals i.e. realignment of ducts and poles.
3.10	At grade railway crossing	each	$120,000	Flashing lights, motion sensing switch (C.N. estimate)
3.11	At grade railway crossing with gate	each	$300,000	Flashing lights, motion sensing switch and automatic gate (C.N. estimate)
3.12	Below grade railway crossing	each	$500,000 - $750,000	3.0m wide, unlit culvert style approx. 10 m long for single elevated railway track
3.13	Multi use subway under 4 lane road	each	$1,000,000 - $1,200,000	Guideline price only for basic 3.3 m wide, lit.
3.14	Retaining Wall	m²	$1,200	Face metre squared

ACTIVE TRANSPORTATION, CYCLING AND TRAILS
2021 UNIT COST SHEET - DURABLE MARKINGS

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
4.0 BARRIERS AND ACCESS CONTROL FOR MULTI-USE TRAILS OUTSIDE OF THE ROAD RIGHT-OF-WAY				
4.1	Lockable gate (2 per road crossing)	each	$4,000	Heavy duty gates (e.g. equestrian supported step over gate). Price for one side of road - 2 required per road crossing. Typically only required in rural settings or city boundary areas
4.2	Metal offset gates	each	$2,000	"P"-style park gate
4.3	Removable Bollard	each	$500 - $750	Basic style (e.g. 75mm diameter galvanized), with footing. Increase budget for decorative style bollards
4.4	Berming/boulders at road crossing	each	$1,200	Price for one side of road (2 required per road crossing)
4.5	Granular parking lot at staging area (15 car capacity-gravel)	each	$45,000	Basic granular surfaced parking area (i.e. 300mm granular B sub-base with 150mm granular A surface), with precast bumper curbs. Includes minor landscaping and site furnishings, such as garbage receptacles and bike racks.
4.6	Paige wire fencing	linear M	$60	1.5m height with peeled wood posts
4.7	Chain link fencing	linear M	$90 - $110	Galvanized, 1.5m height
5.0 SIGNAGE				
5.1	Regulatory and caution Signage (off-road pathway) on new metal post	each	$150 - $250	300mm x 300mm metal signboard c/w metal "u" channel post
5.2	Signboards for interpretive sign	each	$2,400	Does not include graphic design. Based on a 600mm x 900mm typical size and embedded polymer material, up to 40% less for aluminum or aluminum composite panel
5.3	Staging area kiosk	each	$2,000 - $10,000	Wide range provided. Price depends on design and materials selected. Does not include design and supply of signboards
5.4	Signboards for staging area kiosk sign	each	$1,500 - $2,000	Typical production cost, does not include graphic design (based on a 900mm x 1500mm typical size and embedded polymer material). Up to 40% less for aluminum or aluminum composite panel
5.5	Pathway directional sign	each	$350 - $500	Bollard / post (100mm x100mm marker), with graphics on all 4 sides
5.6	Pathway marker sign	each	$250	Bollard / post (100mm x100mm marker), graphics on one side only
5.7	Pathway marker sign	linear KM	$1,000	Price for both sides of the path, assumes one sign on average, per direction of travel every 0.5 km
5.8	Bike sign	each	$200	Price for one side of road.
6.0 BICYCLE PARKING INFRASTRUCTURE				
6.1	Bicycle rack (Post and Ring style)	each	$150 - $250	Holds 2 bicycles , price varies depending on manufacturer (includes installation).
6.2	Bicycle rack (U style)	each	$600	Holds 2 bicycles , price varies depending on manufacturer (includes installation).
6.3	Bicycle rack	each	$1,800	Holds 6 bicycles, price varies depending on manufacturer (includes installation).
6.4	Bicycle Locker	each	$3,000	Price varies depending on style and size. Does not include concrete mounting pad.
6.5	Bike Loop	each	$2,500	Price for installation including labour and equipment. Price also includes materials e.g. two channel detector for traffic cabinet, bike loop (wire and sealant), cable to traffic cabinet, handhole and conduit.
6.6	Bicycle Corral (one parking space with bollards)	each	$1,500 - $2,900	Price may vary from $1,500 (galvanized finish with the mad shield corrosion warranty) to $2,900 (stainless finish with the mad shield corrosion warranty) for one parking space.
7.0 LIGHTING AND UTILITIES				
7.1	Pathway Lighting	per 25 m	$5,000	Includes cabling, connection to power supply, transformers and fixtures.
7.2	Relocation of Light / Support Pole	each	$4,000	Adjustment of pole offset (distance between pole and roadway).
7.3	Relocation of Signal Pole / Utility Box	each	$8,000	Adjustment of pole offset (distance between pole and roadway).
8.0 PAVEMENT MARKINGS				
8.1	Sharrow Symbol	each	$400	Price for durable paint. Sharrow symbol with green pavement marking
8.2	Bike Symbol	each	$400	Price depends on volume
8.2	Line Painting	linear M	$6	Price for durable paint.
8.2	Removal of Line Painting	linear M	$3	N/A

ACTIVE TRANSPORTATION, CYCLING AND TRAILS
2021 UNIT COST SHEET - DURABLE MARKINGS

ITEM	DESCRIPTION	UNIT	UNIT PRICE RANGE	COMMENTS / ASSUMPTIONS
		9.0 OTHER		
9.1	Bike Box	each	$1,500	Price may vary depending on road cross-section (e.g. two lane roadway, four lane roadway, etc.). Price includes installing a bike box on the approach of an intersection using a bike stencil and durable e.g. green surface treatment ($250 / each). Price also include estimate to move stop-bar back to provide space for bike box.
9.2	Clearing and Grubbing	m²	$15	
9.3	Bench	each	$1,000 - $2,000	Price varies depending on style and size. Does not include footing/concrete mounting pad
9.4	Safety Railings / Rubrail	linear M	$300	1.4m height basic post and rail style
9.5	Small diameter culvert	each (6 m)	$1,200	Price range applies to 400mm to 600mm diameter PVC or CSP culverts for drainage below trail
9.6	Flexible Bollards	each	$110	Should be placed at 10m intervals where required. Cost depends on product type used.

Notes:

1. Unit Prices are for functional design purposes only, include installation but exclude contingency, design, approvals and CA costs (unless noted) and reflect 2021 dollars, based on projects in southern Ontario.
2. Estimates do not include the cost of property acquisitions, signal modifications, utility relocations, major roadside drainage works or costs associated with site-specific projects such as bridges, railway crossings, retaining walls, and stairways, unless otherwise noted.
3. Assumes typical environmental conditions and topography.
4. Applicable taxes and permit fees are additional.