



Municipality of Mississippi Mills: Transportation Master Plan

November 2024



The Municipality of Mississippi Mills: Transportation Master Plan

- FINAL REPORT -

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EXECUTIVE SUMMARY

INTRODUCTION

The following Transportation Master Plan (TMP) has been prepared for the Municipality of Mississippi Mills that reflects a proactive and comprehensive approach to planning a multi-modal transportation system that will serve the municipality for decades to come. The TMP is a roadmap for future planning decisions and capital investments while being used to align the goals and necessities of staff, stakeholders, and decision makers under a comprehensive community vision. The municipality is expected to grow considerably in the fullness of time, and the TMP can help address the transportation challenges that growth imposes – connecting new communities, promoting equity and inclusivity, safety, and accessibility, and overcoming barriers to travel. There are also opportunities for the municipality to capitalize on new ways of thinking, such as the function and design of streets to include all modes of travel, beyond the singular priority of moving vehicles, by adopting a “complete streets” approach, which is a hallmark of this TMP.

The TMP was developed through a collaborative process led by Parsons under the direction of municipal staff with significant input from various stakeholders and the public. The TMP was carried out in accordance with the Municipal Class Environmental Assessment (EA) process for Master Plans, completing requirements for Phase 1 and Phase 2, which culminates to a comprehensive prioritized list of transportation infrastructure and policy recommendations.

ENGAGEMENT

Multiple public consultation and stakeholder engagement opportunities were offered over the course of the TMP. These events were published through the project website, social media, and newspaper notices, and consisted of a community transportation survey, two stakeholder working groups meetings, two public information centres, and multiple separate meetings with individual stakeholders. All the comments, input, and feedback from stakeholders and the public were grouped, mapped, and assessed to help inform the recommendations in the TMP.

A TRANSPORTATION VISION FOR MISSISSIPPI MILLS

The TMP was guided by the following vision and objectives, crafted through consultation with municipal staff, stakeholders, and members of the public.

“The Municipality of Mississippi Mills will have a transportation system that is inclusive, accessible, and safe for all users. The transportation system will be environmentally sustainable and support the local economy by continuing the efficient movement of people and goods within the municipality and to adjoining regions. These qualities reflect the rural and small-municipal character with its rich cultural history while promoting a healthy and vibrant community.”

Key Objectives:

- Develop a transportation system that prioritizes inclusivity, equity, and accessibility, one that is welcoming to all users regardless of age, physical ability, and financial means.

- Emphasize sustainable travel modes to reduce pollution and climate implications, enhance quality of life through active living, and offering more choices for residents who cannot drive, or have limited or no access to an automobile.
- Maintain satisfactory vehicular mobility to support local tourism and the local economy.
- Improve road safety, especially for the most vulnerable groups.
- Emphasize permeability and connectivity, particularly among active modes, and overcome barriers that separate communities and important destinations.
- Implement the TMP in a fiscally responsible manner.
- Develop a network that maintains an acceptable level of service as the community grows.

NEEDS AND OPPORTUNITIES

Mississippi Mills is expected to grow over the next 25-years; in parallel with that growth, travel patterns and transportation technology are also evolving. The municipality will need to respond to these driving forces to ensure the future transportation system will continue to adapt to the community's needs. A summary of the overarching needs and opportunities identified for the municipality's long-term transportation system is as follows:

Contemporary themes and priorities to incorporate into the Official Plan and relevant policy documents.

- Sustainable Transportation
- The "Complete Streets" Philosophy
- Universal Accessibility
- Transitioning to Electric Vehicles
- Equity and Inclusivity
- Environmental Stewardship
- Affordability and Economic Sustainability
- Respecting the unique needs of Urban and Rural areas

The growth and evolution of active transportation as a main mode of transportation.

- Promote and prioritize active modes (walking, rolling and cycling) in all facets of transportation planning and design including:
 - recognize the importance of active transportation early in the planning stage of all future development or redevelopment projects.
 - incorporate pedestrian and cycling facilities in new municipal road design standards.
 - strive to update minimum design criteria for pedestrian and cycling facilities to optimal targets based on contemporary industry standards where appropriate for the municipality.
 - develop a pedestrian facility gap program to ensure existing gaps and deficiencies are filled in the fullness of time.
- Provide guidance on active transportation integration at intersections and crossings, according to contemporary standards.
- Strengthen the requirements within the development review process to maximize the comfort, safety and convenience of pedestrians and cyclists when designing the development site.

Strategic expansion of the road network to manage anticipated growth.

- Develop a road network plan that addresses the anticipated long-term capacity issues with utmost regard for social, environmental, and economic implications.
- Develop new municipal road design criteria and standards that incorporate the complete streets approach.

- Refine the road classification system to better distinguish between and respect the unique needs found among urban and rural roads.
- Develop a road network plan that recognizes the importance of mobility to the urban and rural economy; the unique needs of agriculture industry and their vehicles; and protecting built-up areas from the undue impacts of traffic growth, particularly through Almonte and the rural villages.
- Identify funds and mechanisms required to support recommended projects.
- Coordinate needs on county roads to support growth within the municipality.

Encourage and support the resurgence of transit and ridesharing/ carpooling opportunities.

- Leverage opportunities to bring transit service to the municipality through existing partners and private operators and explore avenues to synergize future transit service with adjacent municipalities, such as Lanark Transportation and OC Transpo.
- Investigate affordable travel options, such as ridesharing and carpooling to improve equity within the transportation system, particularly for the most vulnerable users, such as the elderly and low-income individuals/ families.
- If/ when transit service resumes in the municipality, whether a local or commuter-oriented service, contemporary guidelines and standards for treatment and design of transit facilities need to be provided (e.g., bus pads, bus shelters, seating, etc.).
- Ensure the development review process includes provisions and considerations for future transit service, and all future developments provide adequate connections and accommodations within the development design that supports transit riders.
- Consider opportunities to provide supporting transit infrastructure if/ when transit service returns to the municipality, such as new park and ride lots at locations that promote greater ridership.

Identify new or expand upon existing policies, strategies, and programs to support the vision and objectives, the needs of the municipal staff, the desires of the public and stakeholders, and the various infrastructure recommendations identified in the TMP.

- | | |
|--------------------------------------|-------------------------|
| ▪ Equity and Inclusivity | ▪ Specific Policy Needs |
| ▪ Transportation Demand Management | ▪ Goods Movement |
| ▪ Road Safety | ▪ Maintenance |
| ▪ Development Review Traffic Studies | ▪ Emerging Technologies |

RECOMMENDATIONS

The Mississippi Mills TMP consists of recommendations that include physical infrastructure projects, policy refinements, and additional programs and studies to strengthen the municipality's multi-modal transportation network. The recommendations from the various chapters of the TMP have been summarized below.

ACTIVE TRANSPORTATION (SECTION 3.0)

Providing a continuous and connected active transportation network is critical to the longevity of a sustainable transportation system; it leads to an increase in overall neighbourhood accessibility, it improves safety and equity for the more vulnerable road users, supports a healthy and vibrant community, and contributes to the economic vitality of the municipality.

The TMP vision and objectives established the framework in the development of the Active Transportation Strategy. Key factors that were emphasized from the active user perspective included:

- Safety and comfort – the “8 to 80” approach to planning the active transportation network.
- Access to destinations (e.g. schools, stores, and public areas) – the desire of residents to be able to access important locations efficiently and directly.
- Crossing of major barriers (e.g. the Mississippi River or major roads) – recognizing that people should not have to overcome significant obstacles when using the active transportation network.
- Permeability in new developments – ensuring future growth areas apply the highest standard for pedestrian and cycling mobility within their development sites.
- Active Tourism – establishing Mississippi Mills as a local and regional tourist destination.

The Active Transportation Strategy comes with various infrastructure, policy, and programming recommendations that touch upon all aspects of the active transportation system, such as pedestrian facility gaps, cycling routes in both urban and rural contexts, recreational trails, facility integration on roads, active transportation in future developments, education – promotion - incentivization, winter maintenance, special district designations, among others.

The full list of recommendations within Active Transportation Strategy are presented below, with supporting material relating to policy and infrastructure recommendations provided in **Schedules 9** through **14**.

Walking, Rolling and Cycling

To improve the travel experience of pedestrians, accessible users, and cyclists it is recommended that the municipality:

- Revise current municipal design standards such that sidewalks are provided on both sides of new or reconstructed urban collector and arterial roads.
- Sidewalks should be provided on at least one side of urban local roads. Some judgement can be exercised in the application of this recommendation, but for the majority, a sidewalk shall be provided on at least one side of the road. However, a sidewalk may not typically be required for a “cul-de-sac” or similarly limited, low-volume local road. Sidewalks should typically only be constructed on cul-de-sacs where they are determined to improve pedestrian network connectivity, such as where there is a pedestrian through-link at the end of the cul-de-sac.
- Adopt a 1.8 m target sidewalk width with 1.5 m only considered acceptable in constrained situations.
- Consider sidewalk widths greater than 1.8 m where appropriate, such as the “downtown district” (discussed further in **Section 3.8.1**) or segments with high pedestrian volumes.
- Expand the policy for sidewalk construction related to development to include requirements for sidewalks on roads not directly related to, fronting, or within the development. Where development activity occurs that *creates* a new gap in the pedestrian network (i.e. creates potential demand for pedestrian connectivity where it does not currently exist), the onus to fill that gap should fall to the developer.
- Adopt the priority system for filling in the sidewalk network gaps discussed in **Section 3.3.1** and identified by **Schedule 9** and **Schedule 10**.
- Consider developing a detailed Pedestrian Crossing Policy and Standards, to be integrated with an updated Sidewalk Policy.
- Implement pedestrian crossovers (PXOs) at noted locations with immediate needs, and consider implementing PXOs at candidate locations, outlined in **Section 3.3.2**.
- Adopt and implement the Interim Cycling Plan identified by **Schedule 11**; and consider augmenting the local cycling network with traffic calming measures where appropriate.
- Adopt and implement the Ultimate Cycling Plan identified by **Schedule 12**.

- Leverage the lifecycle renewal opportunities of the existing roads within the Ultimate Cycling Plan to include recommended cycling interventions within the scope of the renewal project.
- Adopt the Rural Cycling System shown by **Schedule 13**; at the renewal of municipally owned roads and bridges identified on this network, consider the provision of minimum 2.0 m paved shoulders on both sides of the road, in accordance with the recommended standard Rural Cross-Sections (refer to **Section 4.2.6**).
- As development proceeds in the rural areas and villages, look for opportunities to connect to the OVRT to further strengthen the municipal trail system and attract tourism to the region.
- Engage with Lanark County to accelerate the provision of widened paved shoulders on Tatlock Road, Clayton to Bellamy Mills; and Wolf Grove Road, Christian to Ramsay Concession 8; and integrate active transportation facilities on bridges at the time of renewal/ rehabilitation.
- Update the relevant Official Plan sections and associated Zoning By-Laws relating to minimum bicycle parking requirements, as described in **Section 3.4.4**.
- Undertake a review of bike parking supply at all municipal public facilities and key commercial areas (such as downtown Almonte, Ottawa Street between Paterson Street and Appleton Side Road, and downtown Pakenham).
- Consider a rebate program for businesses to assist in the purchase and installation of bicycle parking.

Accessibility

To support equitable access and inclusivity for all people, including the most vulnerable road users, it is recommended the municipality:

- Consult with the Accessibility Advisory Committee to set a minimum standard for the provision of rest areas (i.e. a bench every 300 m on pathways and trails, and every 500 m along major roadways).
 - This standard should be integrated into an updated Sidewalk Policy, tying the provision of rest areas to the implementation of new or reconstructed pedestrian facilities.
 - The standard should also cover the provision of shade. Rest areas should be placed with regard for the position of new and existing trees, where possible; or, where not possible, consideration should be given to the provision of shade structures.
- Ensure sidewalks, curbs and PXOs meet provincial accessibility standards (AODA) for all street construction or re-construction work, and Accessible Pedestrian Signals be provided where new pedestrian signals are being installed or existing pedestrian signals are being replaced.
- Require accessibility reviews be incorporated in re-development and new development projects in the Official Plan, including accessible connections between the municipality's active transportation facilities and all future development/ redevelopment projects, including buildings, parks, and open spaces.
- Consider the implementation of AODA compliant accessible on-street parking spaces in downtown Almonte along Mill Street, Bridge Street, and Brae Street; and in Pakenham along County Road 29.

Active Transportation on Bridges

To overcome the barrier presented by the Mississippi River and promote a more connected active transportation network, it is recommended the municipality:

- Consider providing separated active transportation facilities as a minimum, and protected active facilities where feasible, as part of any new vehicle bridge or at the time of renewal of any existing vehicle bridge in Almonte.
- Look for opportunities to bundle an active transportation bridge facility with other capital projects crossing the Mississippi River, such as a servicing extension.

- Plan to incorporate improved active transportation facilities at the next renewal of the Queen Street, Almonte Street, and Main Street bridges over the Mississippi River, and coordinate with Lanark County where required.

Recreational Trails

The following recreational trail recommendations should be considered by the municipality:

- Coordinate with Lanark County to explore options for paving all or portions of the OVRT within the Almonte urban boundary.
- Coordinate with Lanark County to explore options for resurfacing of rural sections of the OVRT, using a less dust and erosion prone surface material.
- Review and evaluate warrants for improved facilities where the OVRT crosses major roadways, considering the need for PXO's or other controlled/ semi-controlled crossing types.
- Coordinate with Lanark County to review and evaluate warrants for improved facilities where the OVRT crosses County Roads, considering the need for PXO's or other controlled/ semi-controlled crossing types.
- Implement the new recommended OVRT pathway connections in Pakenham (outlined in **Section 3.4.3**) and continue to look for opportunities to create new connections throughout the municipality that improve the usability, connectivity of the OVRT, reinforcing its role as an active transportation spine.
- Require that future multi-unit development occurring within 250 m of the OVRT property limits provide a direct active transportation connection to the OVRT, or otherwise prove the connection is not feasible.
- Ensure new recreational trail corridors adhere to provincial accessibility standards (AODA) and industry best practices.
- Require any new recreational trails to have a minimum width of 3.0 m, and only permit a minimum 2.4 m width in constrained conditions.
- Require any new recreational trails to use a less dust and erosion prone surface material. Ensure new recreational trails consider the standards outlined in **Section 3.6.2**.
- Improve trail safety, usability by installing pedestrian lighting along the OVRT through Almonte, and at OVRT access points, in accordance with the municipality's illumination By-law No. 03-62.
- Coordinate with the Ontario Snowmobile Federation and OPP to identify alternative routes for motorized vehicles to the OVRT through settlement areas.
- If public concerns and incident rates or severe injuries/ fatalities rise over time, initiate a study to review existing and potential future ATV and snowmobile policies and safety strategies within the municipality.

Community Education and Promotion

To encourage participation and retention of active users as well as leverage the investments recommended in the Active Transportation Plan, it is recommended the municipality:

- Develop a targeted advertising strategy to promote and educate users on the social, health, mental, economic, and environmental benefits of active transportation, which is coordinated with the municipal website, social media, and newsletters, and targets the following unique users identified in **Section 3.7.1**.
- Apply for the "Bicycle Friendly" community designation once some of the active transportation recommendations have been implemented.
- Celebrate Bike Month through various events identified in **Section 3.7.1**.
- If necessary, establish a municipal active transportation advisory committee to coordinate a public engagement strategy and provide input on future active transportation interventions.

- Work with the public and relevant stakeholders to facilitate a coordinated strategy across municipal agencies identified in **Section 3.7.1**.
- Update corporate materials on all Mississippi Mills branded outlets to highlight up-to-date cycling opportunities in the municipality.
- Investigate bike and e-bike rebate programs to support the uptake of bicycling.
- Include bicycle repair workshops to support promotional and education programs.

Additional Active Transportation Supporting Policies

It is recommended the municipality consider the following additional supporting active transportation policies:

- Adopt a special “Downtown District” designation along Bridge Street (Country Street to Water Street) and Mill Street (Main Street to Bridge Street) in recognition of the unique character and importance of the downtown area as a tourist and local destination, with exclusive policies that further prioritize active modes over vehicles.
- Consider adopting the suggested policies and action items listed in **Section 3.8.1** for the new Almonte “Downtown District” designation.
- Update the *Road Inspection and Maintenance Policy – PW 07* and *Sidewalk Policy – PW 10* to expand the winter maintenance program include multi-use pathways and trails to school and consider including multi-use pathways and cycle tracks along Class 1 routes in Almonte, as well as pathway connections to the OVRT, to provide year-round cycling and recreational trail access.
- As a condition of development approval, require the applicant to demonstrate how their development will connect to the long-term pedestrian and cycling networks, and ensure they adhere to provincial accessibility standards (AODA)
- Within the Official Plan and subsequent zoning by-laws incorporate the concept of “permeability”, or the extent to which a transportation network permits the movement of people on foot or bike.
- As a condition of development approval, identify a maximum block-length for subdivision developments that requires a “shortcut” or a mid-block connection between parallel streets be provided where a block is above this limit.
- Seek opportunities through infill development or other renewal processes, to improve active transportation network permeability by providing pathway connections through available public rights-of-way, easements, or joint use agreements.¹
- Identify local roads which are vulnerable to traffic infiltration from future developments (see: Malcolm Street, King Street) and consider options such as full or partial vehicle access closures which maintain access for active modes.

ROAD NETWORK (SECTION 4.0)

The road network will need to be expanded and upgraded to keep up with anticipated growth in Mississippi Mills. New road corridors will enable efficient access between existing and new neighbourhoods, foster economic development within the municipality, and reduce the adverse traffic and trucking impacts found within settlement areas, specifically Almonte where the majority of long-term growth within the municipality is expected to occur.

¹ Joint Use Agreements provide terms for the sharing of the cost and responsibilities associated with the use, maintenance, and repairs of these shared facilities.

There are also opportunities to rethink how roads should be designed, operated, and maintained. The Road Network Strategy introduces the “Complete Streets” approach that is a foundational element found throughout the TMP. It embodies the TMP vision and various key objectives including equity, inclusivity, safety, and sustainability into how the municipality develops and manages its transportation system. Various road corridors were recommended for retrofits to better align with this new approach.

The Road Network Strategy also includes various policy and program recommendations that will help the municipality administer, protect, and maintain the transportation system so it can best leverage the road infrastructure investments made. These recommendations extend to various branches and departments, including development review, maintenance and operations, education and promotion, and road safety.

The list of recommendations within Road Network Strategy are presented below, with supporting material relating to policy and infrastructure recommendations provided in **Schedules 15** through **19**.

Road Classifications

- Adopt the updated road classification system, which introduces collector and arterial classes, as well as urban and rural sub classes based on traffic volumes.
- Adopt the proposed road reclassifications outlined in Table 20 and depicted in **Schedules 15, 16 and 17**.

Complete Streets

- Adopt the complete streets policy suggestions stated in **Section 4.2.11** into the Official Plan, incorporating the established principles and contemporary language.
- Integrate the complete streets approach and thinking in all relevant municipal departments.
- As required per project, collaborate with County of Lanark and external stakeholders to describe this new approach and how best to adopt these new road planning and design processes.
- Adopt the complete streets design criteria and cross-sections developed in **Sections 4.2.5** and **4.2.6** and update any other guidelines and standards to include accommodation for all road users.
- Include a clearly stated complete streets approach in the project charter of all future transportation infrastructure projects (including roads, intersections, bridges etc.).
- Review traffic operational study policies and procedures for all new capital projects and new development sites to ensure that they explicitly consider the safety of all modes, as well as proper pedestrian and cycling accommodations, access, and supporting facilities within and along the surrounding frontage of the proposed development based on minimum maintenance standards. Refer to the recommended Transportation Impact Study (TIS) Framework in **Section 6.6**.
- Ensure pedestrian and cycling priority measures are always considered as standard practice when constructing new or retrofitting signalized and stop controlled intersections as outlined in **Section 4.2.7**.
- Ensure pavement marking and signage requirements for pedestrian and cycling facilities meet contemporary design standards and consider new approaches that enhance the safety of vulnerable users.
- Ensure contemporary roundabouts are considered and evaluated as standard practice.
- Review and update maintenance standards as needed to address all modes.
- Adopt right-of-way protection requirements for updated local and collector road in both urban and rural contexts in the Official Plan and apply them to all new roads and to existing roads when opportunities arise, such as at the time of the lifecycle renewal or as part of a future development/ redevelopment.

- The municipality should work with adjacent municipalities and MTO to improve and/ or expand road connections with nearby provincial highways where appropriate to support long-term growth.

New Roads

- Include a 24 m right-of-way protection requirement in the next Official Plan update to construct a new municipal road corridor between Martin Street and Ramsay Concession 11A in north Almonte. Additionally:
 - The road shall be designed as a 2-lane Urban Collector Road standard (refer to **Section 4.2.6** for cross-section).
 - A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.
- Include a 26 m right-of-way protection requirement in the next Official Plan update to construct a new arterial road corridor between County Road 29 and Appleton Side Road in south Almonte. Additionally:
 - The road shall be designed as a 2-lane Urban Arterial Road standard (refer to **Section 4.2.6** for cross-section).
 - A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.
 - Engage Lanark County staff if there is a desire to upload the corridor to county jurisdiction.
 - There would be three distinct sections/ phases for this project:
 - Southwest Connection: County Road 29 to Country Street
 - Southeast Connection: Old Almonte Road to Appleton Side Road
 - River Crossing Connection: Country Street to Old Almonte Road, includes road connections, possible embankment, and new bridge structure over the Mississippi River.
- Review the need for future municipal road connections to the collector or arterial road network triggered by future development. Ensure appropriate traffic studies are completed to identify the appropriate road classification, right-of-way protection requirements, and they adhere to policies and standards outlined in the TMP and/ or relevant industry standards.
- The municipality should work with adjacent municipalities and MTO to improve and/ or expand road connections with nearby provincial highways where appropriate to support long-term growth.

Road Retrofits

- Implement the complete streets retrofit projects specified in Table 27.
- Coordinate with Lanark County on any complete streets retrofit project specified in Table 27 located on county roads.
- Adopt right-of-way protections where required to support retrofit projects as specified in Table 27.
- A focused study is recommended to reimagine Ottawa Street as a truly multi-modal corridor and ascertain widening and design requirements to ensure contemporary safety, accessibility and design principles for active transportation facility integration are met throughout the corridor, including intersections.
- Consider protecting 24 m right-of-way along Country Street, Rae Road (between Country Street and County Road 29), and Paterson Street to fit a standard urban collector road in case long-term development triggers the need for upgraded facilities.
- Long-term vehicle capacity on March Road and County Road 29 should be re-evaluated as part of future TMP updates including the two mitigation scenarios outlined in this TMP. The municipality should continue to engage with Lanark County and the City of Ottawa on the importance of this corridor as they proceed with their respective TMP updates.

Intersections

- Complete the recommended intersection modifications within municipal jurisdiction outlined in Table 28.
- Coordinate with Lanark County to complete the required intersection modifications within county jurisdiction outlined in Table 28.
- Take the opportunity to improve pedestrian and cycling facility integration in all future intersection projects if feasible.

Schedules 18 and 19 depict the recommended Interim and Ultimate Road Networks that incorporate the various road projects noted above.

PUBLIC TRANSIT AND RIDESHARING (SECTION 5.0)

The reality of providing a municipally operated local transit system is likely out of reach based on geographic and financial challenges; however, there may be an opportunity to revisit this option, as the municipality grows and matures, population density and employment increases, and as stakeholder input, and funding opportunities arise in the fullness of time.

A common topic for rural transportation or transportation in smaller municipalities is facilitating a service to people rather than a people to service approach by providing smaller ‘feeder services’ that connect the outskirts to more populated centres and higher order transit systems (typically the traditional fixed route systems). For instance, the Ride the LT service operated by Lanark Transportation is unique as it has on-demand options, but still provides a limited fixed schedule service to the main urban centres in the county. Eventually, these services could link with the established transit systems, for instance a resurrected daily commuter transit service to Ottawa, or hypothetical County of Lanark Corridor Loop or County of Lanark-OC Transpo partnered service.

In the meantime, the municipality should remain committed to supporting the revival of commuter and long-distance commuter transit and shuttle services provided by private operators, adjacent municipal services, and established ridesharing/ carpool programs. Demand for these services, particularly for intra-county trips including appointments, shopping, hospital visits and other regular needs among the most vulnerable users, which has started to return to pre-pandemic levels.

The following recommendations represent the Public Transit and Ridesharing Strategy, to promote and foster more equitable and affordable travel options in the municipality.

- As the transit landscape evolves after COVID-19, it will be essential for the municipality to be proactive and leverage opportunities to support and promote more affordable options for its residents. The municipality may consider developing on its own or in collaboration with adjacent municipalities a transit feasibility study to assess in detail the type of transit service(s) would best suit the municipality and how much it may cost. Any future transit decisions should always be made with the lens of equity and inclusivity – targeting users with the greatest need and would benefit most from future services, such as seniors and low-income families.
- Engage or continue engagement with OC Transpo, Lanark Transportation, and private transit operators (e.g., Leduc Bus Lines Ltd.) to revive commuter transit between the City of Ottawa and the various municipalities in the county. If a future commuter transit service becomes a reality, the municipality should focus on the following:
 - Extend transit service into Almonte with sufficient stops to capture most households within reasonable walking distance.

- At minimum, the service route should have a final stop at Moodie LRT Station in Ottawa, which is the western-most station of the Stage 2 Confederation West LRT line, but strive to extend the route to downtown Ottawa, if possible, to reduce the number of transfers.
- Consider a 2- or 3-weekday schedule to start, aligning with the peak travel days to Ottawa, so to maximize ridership and reduce operating costs.
- Consider a park and ride lot in Almonte on the west side of the Mississippi River, preferably near or along the proposed south road corridor to extend the capture area of the future transit service. The preferred location should attempt to reduce vehicle travel into or through downtown Almonte.
- Continue engagement with Lanark County and/ or Lanark Transportation (LT) to:
 - Expand the Ride the LT service into Almonte.
 - Investigate and support future opportunities to expand Ride the LT service if demand warrants it, such as Pakenham or any future growth areas in the municipality.
 - Collaborate with LT service for major/ special events in the municipality; strive to make transit a viable option by prioritizing it over single-occupant vehicles.
 - Support the LT on-demand service and look for opportunities to expand it for the most vulnerable users.
- Incorporate the carpool, rideshare and commuter transit supporting policies and measures:
 - Provide the appropriate transit supporting infrastructure at all bus stop locations that meet contemporary design standards (e.g., AODA). Furthermore, ensure all bus stops are connected to the municipal sidewalk network, and connecting sidewalks are maintained year-round.
 - Engage with Lanark County to create new carpool focused park and ride facilities.
 - Continue pursuit of opportunities to increase rideshare and carpool options and access for residents.
 - Investigate options to promote and incentivize municipal employees and the local business community to increase carpool, rideshare and transit ridership, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Ensure all future developments and capital projects in Almonte consider carpool, rideshare, and transit supportive infrastructure or measures, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Consider specialized transit-oriented development policies and measures in the “Downtown District” (as discussed in **Section 3.8.1**) that support transit use, such as designated shuttle pickup/ drop off areas in lieu of on-street parking during special events, reduce parking minimums for medium density developments, or other strategies and measures. Refer to the TDM Strategy in **Section 6.4** for further details.

SUPPORTING POLICIES AND STRATEGIES (SECTION 6.0)

The following recommendations relate to supporting policies and strategies that will supplement the infrastructure recommendations so to ensure the financial investments are leveraged to their fullest potential.

Equity and Inclusion:

- Strive to achieve greater equity and inclusivity in the planning, designing, operating, and maintenance of the transportation system through the suggested policies and action items outlined in **Section 6.1**.

Treaty and Indigenous Rights Holders Considerations

- Indigenous Groups shall be referred to as “Treaty and Inherent Indigenous Rights Holders” within the Transportation Master Plan

- Consult with Treaty and Inherent Indigenous Rights Holders, at an early stage to allow for substantial time for meaningful communication, in preparation of capital Municipal infrastructure construction and maintenance projects. Consultation shall include the identification of culturally significant land and traditional harvesting areas as well as preferred archaeological practices and procedures and receiving knowledge on archaeological significant areas.
- Complete archeological studies for all land disruptive projects, including projects that are not identified by legislation or regulation as needing archaeological studies or lands deemed to be heavily disturbed and possibly exempt from study. Land disruptive projects, initiated by the Municipality, within 300m of a water body will include a Stage 2 Archeological Assessment.

Road Safety, and more specifically Speed Management and Traffic Calming

- Consider developing in the fullness of time, a comprehensive Road Safety Plan (or a “Vision Zero” equivalent policy) that builds upon recommendations in this TMP, including additional policies, programs, and guidelines to reduce road fatalities and serious injuries in the municipality.
- Build upon the Traffic Calming and Public Safety Review and Options staff report and prepare a comprehensive update to the Policy for Traffic Calming and Speed Management (2010) that aligns with the draft Lanark County Speed Management Policy (2023) and current industry best practices, such as the TAC: Canadian Guide to Traffic Calming (2018).
- Public and stakeholder engagement is essential before any speed management or traffic calming measures are implemented; the established consultation processes in the draft Lanark County Speed Management Policy (2023) or TAC: Canadian Guide to Traffic Calming (2018) should be incorporated into municipal policy.
- Collect new speed data along Clayton Road, Ottawa Street, Almonte Street and Ramsay Concession 8 to validate public concerns and respond accordingly, following the procedures outlined in municipal and county speed management policies.
- Investigate potential for rural traffic calming measures in “transition zones” (defined in **Section 6.3.3**) using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018), in collaboration with Lanark County where appropriate.
- Engage Lanark County to review speed management and traffic calming options along county roads within settlement areas, such as County Road 29 within Pakenham, applying the processes outlined in the Lanark County Speed Management Policy (2023).
- Consider a reduced target operating speed policy of 40 km/h on all municipal urban local roads if there is data-driven evidence vetted by relevant municipal departments, broader stakeholder acceptance, and sufficient community and public support.
- Alternatively, consider identifying candidate neighbourhoods for reduced operating speed limits and approved traffic calming measures, designated “Neighbourhood Speed Zones,” using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

Transportation Demand Management

- Investigate the initiatives outlined in the TDM Toolbox in **Section 6.4** to leverage investments in active transportation and a potential future with a return of transit service in the municipality.

Goods Movement

- Engage with Lanark County to adjust the county truck route network to include the recommended new south road corridor between County Road 29 and County Road 17 (Appleton Side Road), to reduce the impact of truck traffic to local commercial businesses and public spaces in Almonte.

Transportation Impact Study Framework

- Adopt the Transportation Impact Study (TIS) Framework outlined in **Section 6.6** and apply it to all future development applications.

Climate Change

- Acknowledge in the Official Plan the risks posed by climate change to human health and the environment, the role of transportation in greenhouse gas emission and the climate, and the need for actionable mitigation/ adaptation strategies.
- Apply a climate change and emissions lens during the planning and evaluation of all future municipal transportation projects and in the development review process to limit the increase of vehicle emissions, such as applying strategies to reduce single-occupant vehicle use (refer to TDM Strategy in **Section 6.4**), adopting the complete streets approach, ensure the design of future development sites prioritize the movement of pedestrians and cyclists.
- Consider adopting Goals 1.1, 1.2, 1.4, and 1.5 of the Lanark County Community Climate Action Plan that target community transportation emissions in the Official Plan or in a Mississippi Mills specific Climate Action Plan (if developed).
- Consider adopting the county community emission reductions targets, for which transportation is the largest emitting-group within from community sources.
 - 10% below 2019 levels by 2030
 - 80% below 2019 levels by 2050
- Consult with Lanark County on the degree to which monitoring data will be able to be delineated by municipality, and request that Mississippi Mills-specific data be provided.

Specific Policies

- Adopt the relevant policy statements and language suggested in **Section 6.8** to support the development review process, identify appropriate right-of-way protection requirements, and ensure consistency in the application of design standards and guidelines in all future development sites.

Emerging Technology

- Continue to explore opportunities to expand electrified vehicle supportive infrastructure within the municipality.
- Investigate the opportunities to improve and expand shared mobility use and adoption – in tandem with the TDM program (previously outlined in **Section 6.4**), such as bikesharing and e-scooter programs and technology.
- Investigate alternative and innovative methods of providing transit service as technology enables more efficient options, such as demand-responsive approaches.
- Investigate opportunities to utilize Big Data platforms (such as Streetlight Data Inc. and Strava Inc.) and other data service providers to better monitor and assess multi-modal transportation network performance.

IMPLEMENTATION PLAN (SECTION 7.0)

The identified road and active transportation network plan recommendations were incorporated into an implementation plan that prioritizes the capital projects into three phases based on implementation timing. High-level cost estimates were developed for each project and the total cost was allocated to either the municipality or the county based on its jurisdiction. All active transportation projects and most road retrofit and intersection projects that have limited right-of-way impacts were considered Schedule 'A' or 'A+' projects under the Municipal Class Environmental Assessment process. New roads and larger retrofit projects were categorized as Schedule 'C' projects.

The recommended Active Transportation Network Implementation Plan is reflected in **Schedules 9** through **14**, while the Road Network Implementation Plan is reflected in **Schedules 18** and **19**. The estimated total municipal cost for all recommended projects is approximately **\$200.4 million** or **\$8.0 million** per year over the next 25 years. This total municipal cost reflects approximately \$183.3 million in road related projects (including new roads, road retrofits that bundle active transportation facilities, and intersection modifications) and \$17.1 million in active transportation specific projects. The vast majority, over 70% of the total municipal capital investment is recommended by the 25-year/ long-term horizon, reflecting a gradual and fiscally responsible approach towards achieving the long-term vision of the municipal transportation system.

The following recommendations relate to implementation plan developed in this TMP.

- Adopt and implement the Active Transportation Network Implementation Plan, including the pedestrian facility gap program, as outlined in **Section 7.2**, and in Tables 35 and 36.
- Adopt and implement the Road Network Implementation Plan, as outlined in **Section 7.3**, and Tables 37, 38 and 39.
- Leverage all available funding sources from all levels of government and other sources (such as Development Charges) to support the implementation of the TMP's recommendations, as outlined in **Section 7.4**.
- Develop a monitoring program to track both the progress and impact of implementing the TMP recommendations, as outlined in **Section 7.5**.
- Review the TMP every five years or when deemed necessary, to determine if the original assumptions and recommendations continue to apply or if a comprehensive update is required.

Table ES-1: Active Transportation Network Implementation Plan with Estimated Costs

Specific Active Transportation Enhancements	Short-Term	Medium-Term	Long-Term
Local Cycling Routes (Various) - Signage and Pavement Markings	\$220,000	-	-
Almonte & District Community Centre Pathway Connection - New MUP	\$210,000	-	-
Cameron St. OVRT Connector - Formalize Pathway Connection	\$15,000	-	-
Menzie-North Pathway - New MUP	-	-	\$965,000
Ottawa St. Commercial Area Pathway Connector (North) - New MUP	\$195,000	-	-
Ottawa St. Commercial Area Pathway Connector (South) - New MUP	-	\$250,000	-
Greystone Trail Local Route Connector - New MUP	-	\$85,000	-
Frank Davis St. MUP - New MUP	\$500,000	-	-
Industrial Dr. MUP (West/South) – New MUP	\$870,000	-	-
Industrial Dr. MUP (North) – New MUP	\$75,000	-	-
R Tait McKenzie P.S. Pathway - New MUP	\$205,000	-	-
Holy Name Mary Catholic School Pathway - New MUP	\$205,000	-	-
Harold St. Linear Park - New MUP	\$270,000	-	-
Pakenham Beach - OVRT Connector	\$110,000	-	-
Five Arches Community Housing - Pathway Connector	\$115,000	-	-
Veterans Memorial Walkway – MUP Enhancement	\$130,000	-	-
Thomas St. OVRT - Connector	\$15,000	-	-
Cameron St. OVRT - Connector	\$25,000	-	-
Peterson St. OVRT - Connector	\$25,000	-	-
PXO Type B – Country Street and Bridge Street	\$50,000	-	-
PXO Type B – Industrial Drive	\$50,000	-	-
PXO Type B – Queen Street (at Union Street)	-	-	\$50,000
TOTAL	\$3,285,000	\$335,000	\$1,015,000
Specific Active Transportation Enhancements Total Costs	\$4,630,000		

General Costing Assumptions:

1. Costs are in 2024 CAD and rounded up to nearest \$5,000.
2. Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/ or recent contract unit prices.
3. Estimates based on conceptual sections – costs to be confirmed during detailed design.
4. Property impacts were not costed - value needs to be reviewed on a case-by-case basis by municipal staff.

Table ES-2: Pedestrian Facility Gap Program with Estimated Costs

Pedestrian Facility Gaps	Priority	Estimated Length (m)	Overall Cost
Sidewalk Facilities Gaps - Urban Context	High	950	\$820,000
	Medium	3,690	\$3,215,000
	Low	3,800	\$3,315,000
	Gaps Filled under Retrofits	6,890	
Sidewalk Facilities Gaps - Rural Context	High	1,330	\$1,160,000
	Medium	0	-
	Low	4,540	\$3,955,000
Total Cost (assuming all priority projects)			\$12,465,000
Medium/ High Priority Project Cost (not including Low Priority projects)			\$5,195,000

Refer to Schedules 9 and 10 for supporting map, and Appendix H for comprehensive list.

General Costing Assumptions:

1. Costs are in 2024 CAD and rounded up to the nearest \$5,000.
2. Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/or recent contract unit prices.
3. Estimates based on conceptual sections – costs to be confirmed during detailed design.
4. Property impacts were not costed - value needs to be reviewed on a case-by-case basis by municipal staff.
5. Cost estimate for sidewalks in rural contexts assume a redesign of the existing road drainage is not required. If a custom solution is not possible, the implementation may need to be deferred until the lifecycle renewal of the road.

Table ES-3: New Road Infrastructure Implementation Plan with Estimated Costs

Road Corridor	Assumed Municipal Ownership	From	To	Road Class ^a	Assumed Length ^b		Short-Term	Medium-Term	Long-Term	
New Northeast Corridor	MM	Martin Street	Ramsay Concession 11A	2-Lane Urban Collector	1.4 km	MCEA Study to assess implications, confirm alignment and design requirements and cost. ^c Est. \$300,000		\$32,550,000	-	
New Southeast Corridor	MM or County (To Be Confirmed)	Old Almonte Road	Appleton Side Road	2-Lane Urban Arterial	680 m	MCEA Study to assess implications, confirm alignment and design requirements and cost. ^c Est. \$700,000		\$16,150,000	-	
		Bridge E limit	Old Almonte Road	2-Lane Urban Arterial	450 m (including increased geotechnical factor for floodplain)			-	\$8,350,000	
New Southwest Corridor (assumes embankment)	MM or County (To Be Confirmed)	County Road 29	Country Street	2-Lane Urban Arterial	680 m			\$16,150,000	-	
		Country Street	Bridge W Limit	2-Lane Urban Arterial	800 m (including increased geotechnical factor for floodplain)			-	\$15,100,000	
South bridge crossing (no embankment – shore to shore)	MM	-	-	2-Lane Urban Arterial including Sidewalks and Cycle Tracks	160 m (assumed shoreline to shoreline distance)			-	\$35,050,000	
Total Cost: All Projects by Horizon								\$1,000,000	\$64,850,000	\$58,500,000
Total Cost								\$124,350,000		
Cost of projects expected to be on MM roads, by Horizon								\$300,000	\$39,000,000	\$39,750,000
Cost of projects expected to be on Lanark County roads, by Horizon								\$700,000	\$25,850,000	\$18,750,000

Notes: MCEA = Municipal Class Environmental Assessment

- a The road class is based on the recommended complete street cross-sections (refer to **Section 4.2.6**)
- b Assumed length based on a linear alignment, with a factor considering floodplain implications. The MCEA study will confirm the preferred alignment based on technical evaluations and adjust costs accordingly.
- c MCEA study costs will be 100% responsibility of assumed municipal owner.

General Costing Assumptions:

1. All costs in 2024 CAD and rounded up to nearest \$50,000.
2. New road infrastructure with possible Lanark County ownership was split as follows: 20% MM / 80% County.
3. New road infrastructure assumed under MM ownership: 100% MM.
4. Risk factors and contingency include Engineering Costs, Municipal Internal Costs, Utilities, Property, Miscellaneous Soft Costs, Geo-Technical, AODA Compliance, Phasing of Implementation, Species at Risk and Project Mitigation, Approvals, Federal and Provincial Environmental Assessments.
5. Property Costs assumed at 10% of construction value.
6. Underground Utility Costs (Storm, Sanitary, Water) assumed based on standardized factors.
7. Geotechnical factors applied based on unknown soil conditions (equal parts soils, rock, peat, etc.).
8. All options assume sidewalk and cycle track. Alternative multi-use pathway option would reduce cost by roughly \$ 400/m.
9. Large embankment costs expected for roadways approaching bridges - not estimated at this time.
10. Significant low-lying material for Southwest Bridge - not considered within estimate.



Table ES-4: Retrofit Street Network Implementation Plan with Estimated Costs

Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Ottawa Street	MM	Appleton Side Road	Industrial Drive	Add MUP on South Side	450	No	-	-	\$610,000
		Industrial Drive	Paterson Street	Replace Sidewalks with MUPs on Both Sides	230	No	-	-	\$620,000
		Paterson Street	Martin Street	Widen Bike Lanes and Sidewalk	670	No	-	-	\$1,460,000
Queen Street	County	Ottawa Street	Union Street	Replace Sidewalk with MUP on North Side	200	N/A	-	-	\$270,000
Queen Street Bridge	County	-	-	Add Shared-Use Pavement Marking and Signage	90	N/A	Nominal Cost - approximately \$100/m	-	-
Bridge Street	County	Country Street	Perth Street	Enhance Sidewalks and Convert Bike Lanes to Cycle Tracks	460	N/A	-	-	\$2,390,000
Perth Street	County	Bridge Street	County Road 29	Enhance Sidewalks and Convert Bike Lanes to Cycle Tracks	290	N/A	-	-	\$1,510,000
Old Perth Road	MM	County Road 29	Almonte West Boundary	Widen Shoulders (interim)	250	No	\$390,000	-	-
				Urban Collector Design (ultimate)		Yes	-	-	\$5,670,000



Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Martin Street	County	Ottawa Street	Stephen Street	Widen Bike Lanes (interim)	400	N/A	60,000	-	-
		Stephen Street	Future North Collector	Convert Paths to Sidewalks, Pavement Marking and Signage (interim)	800 ^c	N/A	-	870,000	-
		Ottawa Street	Future North Collector	Convert Bike Lanes to Cycle Track (ultimate)	1,200 ^c	N/A	-	-	\$6,230,000
Almonte Street	MM	60 m West of Farm	Malcolm Street	Add MUP on North Side	120	No	-	\$210,000	-
		Malcolm Street	Euphemia Street	Add MUP on South Side	160	No	-	\$220,000	-
		Euphemia Street	County Road 29	Add MUP on South Side and Widen Sidewalk	310	No	-	\$760,000	-
		County Road 29	Almonte West Boundary	Widen Shoulders (interim)	270	No	\$420,000	-	-
				Urban Collector Design (ultimate)		Yes	-	-	\$6,120,000
Ramsay Concession 11A	MM	March Road	Leishman Drive	<i>Add Sidewalk on West Side (requires custom drainage solution) Provided for information only; not included in the final cost.</i>	550	Yes	\$1,700,000	-	-
				Assuming custom drainage solution not possible: Urban Collector Design with MUP - West Side Only		Yes	-	-	\$4,850,000
		Leishman Drive	Future North Collector	Urban Collector Design with MUP - West Side Only	650 ^c	Yes	-	-	\$5,740,000



Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Old Almonte Road	MM	Robert Hill Street	Almonte South Boundary	Add Sidewalk on Both Sides (requires custom drainage solution) <i>Provided for information only; not included in the final cost.</i>	500	Yes	\$3,100,000	-	-
				Assuming custom drainage solution not possible: Reconstruct Road at 22m ROW with Sidewalk on Both Sides		Yes	-	-	\$9,890,000
		Almonte South Boundary	Appleton Side Road	Paved Road Surface Only (interim) <i>Provided for information only; not included in the final cost.</i>	2,500	No	\$1,000,000	\$7,370,000	-
				Rural Collector Design (affordable ultimate) <i>Provided for information only; not included in the final cost.</i>		Yes	-	-	\$42,630,000
				Urban Collector Design (preferred ultimate)		Yes	-	-	\$56,630,000
Appleton Side Road	County	March Road	Almonte South Boundary ^d	Add MUP on Both Sides (assume property acquisition possible)	600	N/A	-	\$1,750,000	-
Total Cost: All Projects by Horizon							\$870,000	\$3,810,000	\$101,990,000
Total Cost							\$106,670,000		
Cost of projects on MM roads, by Horizon							\$870,000	\$3,810,000	\$95,760,000
Cost of projects on Lanark County roads, by Horizon							\$0	\$0	\$6,230,000

Notes: MUP = Multi-Use Pathway

- a Despite road jurisdiction, active transportation facilities on county roads are still the responsibility of the municipality.
- b DC eligibility was not considered for road retrofits on county roads.
- c The location of the Future North Collector Road has been estimated to prepare the cost estimate but will be confirmed during the Municipal Class Environmental Assessment process.
- d The proposed enhancements should eventually be extended to the Future South Road Corridor and potentially farther south depending on how development proceeds in Almonte. The estimated cost reflects work only up to the current Almonte boundary.

General Costing Assumptions:

1. All costs in 2024 CAD and rounded up to nearest \$10,000.
2. Full reconstruction/ retrofits on Lanark County roads were assumed to be 100% county responsibility. AT specific retrofits on Lanark County roads were assumed to be 100% MM responsibility.
3. Risk factors and contingency include Engineering Costs, Municipal Internal Costs, Utilities, Property, Miscellaneous Soft Costs, Geo-Technical, AODA Compliance, Phasing of Implementation, Species at Risk and Project Mitigation, Approvals, Federal and Provincial Environmental Assessments.
4. Property Costs assumed at 10% of construction value.
5. Underground Utility Costs (Storm, Sanitary, Water) assumed based on standardized factors.
6. Geotechnical factors applied based on unknown soil conditions (equal parts soils, rock, peat, etc.).
7. All options assume sidewalk and cycle track. Alternative multi-use pathway option would reduce cost by roughly \$ 400/m.
8. Large embankment costs expected for roadways approaching bridges - not estimated at this time.
9. Significant Low-lying material for Southwest Bridge Connection - Not considered within estimate.
10. Double Surface Treatment includes gravel shoulder and roundings. Cost provided by MM staff directly at \$162/m with a 100% contingency.

Table ES-5: Recommended Intersection Enhancements with Estimated Costs

	Intersection Enhancements	Short-Term	Medium-Term	Long-Term
1	March Road/ Appleton Side Road Roundabout:			
1a	Short-term Roundabout Enhancements (not including PXO enhancements)	\$670,000		
1b	Enhance PXO Crossings at Roundabout (e.g. signals or new signage etc.)	To be reviewed for safety, accessibility, and best design practices as part of future Ottawa Street renewal plan. Property implications expected.		
2	Ottawa Street/ Industrial Drive Long-term intersection design			
3	Ottawa Street/ Paterson Street Long-term intersection design			
4	Ottawa Street/ Martin Road Intersection:			
4a	Ottawa Street/ Martin Road long-term intersection design			
4b	Short-term Realignment of Martin St. S to Queen St. for safety	\$330,000		
5	Bridge Street/ Perth Street Redesign for safety		\$500,000	
6	CR29/ Almonte Street - adjust auxiliary lanes		\$410,000	
7	CR29/ Perth Street - new traffic signal & remove NBR channel		\$1,260,000	
8	Almonte Street/ Main Street/ Mill Street - convert PXO to signal		\$970,000	
9	Appleton Side Road/ Industrial Drive - new Traffic Control Signal ^a			\$900,000
10	Old Almonte Road/ Appleton Side Road - new Traffic Control Signal ^a			\$900,000
11	<u>New Unsignalized Intersections:</u> ^a New North Road Corridor @ Martin St, Ramsey Concession 11A	Included in new road costs		
12	<u>New Signalized Intersections:</u> ^a New South Road Corridor @ CR29, Country, Old Almonte, Appleton Side, OVRT Old Almonte Road @ Appleton Side	Included in new road costs		
Total Cost: All Projects		\$1,000,000	\$3,140,000	\$1,800,000
Total Cost			\$5,940,000	
Cost of projects on MM roads, by Horizon		\$670,000	\$2,290,000	\$900,000
Cost of projects on Lanark County roads, by Horizon		\$330,000	\$830,000	\$900,000

Notes: PXO = pedestrian crossover

a Considered DC Eligible

General Costing Assumptions:

- Costs are in 2024 CAD and rounded up to nearest \$10,000.
- Cost share estimate for intersections located on both MM and county roads were split 50/50.
- Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/or recent contract unit prices.
- Estimates based on a conceptual desktop review. Some concepts were prepared and provided in Appendix M.
- In some cases, intersection modification costs were estimated based on modifications to only part of the intersection.
- Property Impacts were not costed - value should be reviewed on a case-by-case basis by staff.

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TRANSITION PAGE



1.0 INTRODUCTION

The Municipality of Mississippi Mills has updated their Transportation Master Plan (TMP) to assess weaknesses in the transportation system and provide an appropriate response (whether policy changes, new programs or new infrastructure) in order to meet the needs of current and future residents, visitors, and businesses.

Mississippi Mills is one of nine local area municipalities in the County of Lanark located in eastern Ontario as shown in Figure 1. Mississippi Mills is bounded by the City of Ottawa to the east, the Town of Carleton Place and the Township of Beckwith to the south, the Township of Lanark Highlands to the west and the Township of McNab and Braeside to the north. The development of the Mississippi Mills TMP comes at a strategic point in the municipality’s evolution, where anticipated growth is expected to impact various aspects of the transportation system. The TMP will provide a long-term planning framework to address the transportation challenges that come with this growth, including but not limited to balancing the unique needs between urban and rural areas; providing needed infrastructure to support new growth areas; ensuring new neighbourhoods and communities are connected and permeable for pedestrians and cyclists; accommodating the needs of an aging and evolving population; and managing the impacts of vehicle travel through sensitive communities and across major geographical barriers, such as the Mississippi River.

This TMP represents a comprehensive update to its predecessor from 2016. The TMP will utilize this opportunity to re-think how we approach transportation planning and various aspects of the integrated network, including contemporary approaches as well as new guidelines and standards. The TMP has been developed so that the municipality is well-positioned to adapt to the macro-level changes occurring in the world. Employment and settlement patterns are changing, and technology is driving new forms of mobility. The way residents and visitors move within and through the municipality is shifting and the TMP must be flexible to adapt.

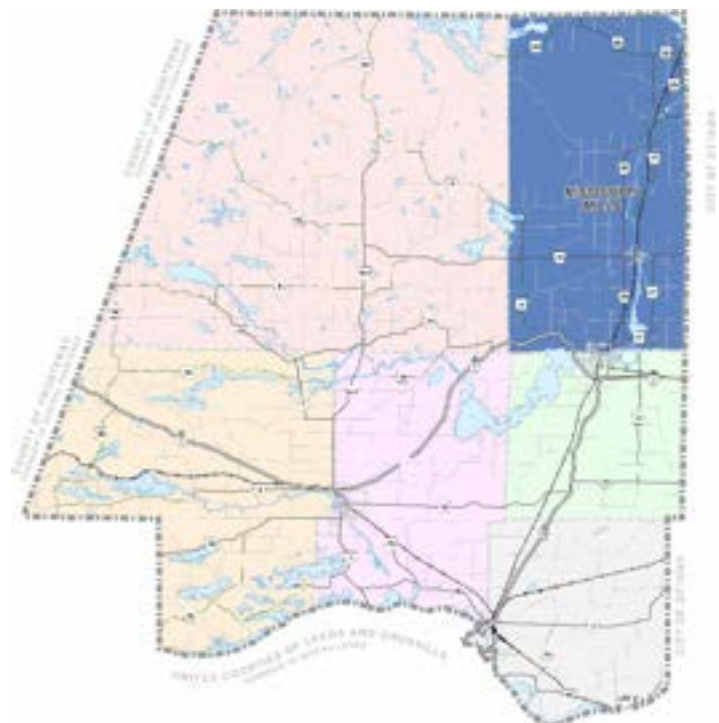
1.1 What is a Transportation Master Plan?

A Transportation Master Plan (TMP) is a long-term, strategic planning document that sets policy direction and prioritizes infrastructure investment in the transportation system. A TMP takes a high-level approach to transportation planning and is closely integrated with land-use planning. It presents a bundle of actions and projects designed to be implemented over the longer term that collectively work towards achieving the vision of the study.

The TMP analyses the entire transportation system, including infrastructure for all modes and the associated policies and programs. This report and the accompanying schedules represent a blueprint that will help Council make decisions about transportation infrastructure investment over the coming years that will benefit the local and broader community.

This report is also an action plan that will help the municipality focus its transportation policies and priorities

Figure 1: Mississippi Mills (Blue) within the County of Lanark



towards achieving the objectives of this TMP and realizing the vision that has been set out. The purpose is to address or prevent various issues, while making the system nimble to respond to changes in travel patterns and new transportation trends, promoting more sustainable modes of travel, and encourage public participation in the decision-making process. The Mississippi Mills TMP takes a multi-modal approach to maximize the effectiveness of each mode of travel, which best supports municipal objectives for mobility, health, sustainability, and local economy.

1.2 The Environmental Assessment Process

The TMP study was conducted in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process for a Master Plan (Approach #1), as described in Section A.2.7 of the Municipal Engineers Association Municipal Class Environmental Assessment Manual (amended 2010, 2011, 2015 and 2023), under the Environmental Assessment Act. This process is illustrated in Figure 2. The Class Environmental Assessment process provides a transparent approach to planning and building municipal infrastructure. Public and stakeholder participation is mandatory throughout the process. Phases 1 and 2 involve identifying problems and opportunities and presenting alternative solutions.

The TMP identifies various needs and opportunities, from which broad alternative solutions were developed to address these needs and leverage the opportunities. Each alternative was evaluated, including stakeholder input before coming to a preferred alternative solution. The preferred alternative led to the package of projects, policies and actions that are presented in this TMP. Individual projects recommended through this TMP that require an individual Environmental Assessment will be able to proceed to Phase 3, starting with alternative design concepts.

It is important to note that there are upcoming changes to the MCEA process planned by the Ministry of Environment, Conservation and Parks. While this TMP follows the latest amendments to the MCEA as is required, when future implementation of any recommended project or a TMP update occurs, it is essential that the latest MCEA processes be followed at that time.

Figure 2: Municipal Class Environmental Assessment Process



1.3 The Transportation Master Plan Process

The TMP was developed through a collaborative process under the direction of municipal staff and with significant input from stakeholders and the public. The first step was establishing the context for the TMP by completing a detailed review of existing transportation infrastructure, relevant plans and policies, historical trends in population and employment, early staff and public input on key issues, and future travel demand forecasts that will shape future growth that is driving the need for the TMP. After this review, the project team formulated the TMP vision that will guide the

decision-making process, which incorporates the ideals and priorities of the municipality. This work is documented in **Section 2.0**.

Once the existing conditions and future growth projections were understood and the vision had been set, the technical analysis begins with a high-level needs and opportunities assessment of all modes of transportation. This work is documented in **Section 3.0**.

The process moving forward was to develop a collection of alternative solutions, which were presented to all stakeholders for feedback. Upon further refinement and discussions with municipal staff, a set of technically preferred solutions were developed. These solutions comprised recommendations for physical modifications to the transportation network, new supporting strategies and programs, and suggestions for policy changes. Collectively, these recommendations represent the core elements (the long-term ‘blueprint’) of the TMP, which are detailed in **Sections 4.0 through 6.0**.

The final step of the TMP was to create an implementation plan that lays out the timing and high-level cost of anticipated transportation infrastructure projects. Additionally, a list of actions for the municipality to undertake that will support the TMP implementation process was developed such as leveraging funding opportunities, monitoring, future updates etc. The implementation plan is documented in **Section 7.0**.

1.4 The Consultation Process

Input from the public and local stakeholders is integral and mandated by the Environmental Assessment process. The outcomes of this study need to reflect the wants and desires of the entire community since they will be directly impacted by this plan over the coming years.

Mississippi Mills initiated a comprehensive process branded ‘MM2048’ that involved virtually every service and department. The TMP was one of several projects within this framework, which spanned childcare, water and wastewater, recreation, economic development among others.

All communications and public outreach related to the TMP fell within the MM2048 process. Engagement efforts focused on two streams: engaging the public and engaging specific stakeholders. Various forms of communication were utilized throughout the study to keep the public informed of progress and solicit feedback, including the municipality website, local newspaper, and social media accounts. Documentation of this process has been provided in **Appendix A**.



A separate online portal was created for MM2048 from which information related to all projects under this initiative could be accessed. Early in the TMP process, the municipality created a TMP-dedicated webpage linked to the MM2048 portal serving as a tool for public engagement. This forum was essential so the public could easily learn about the study and provide feedback. Notices and display boards were posted to the platform, and links to feedback surveys were available directly from the website. In addition, the municipality utilized its own social media accounts to send reminder of key milestones and events for subscribers.

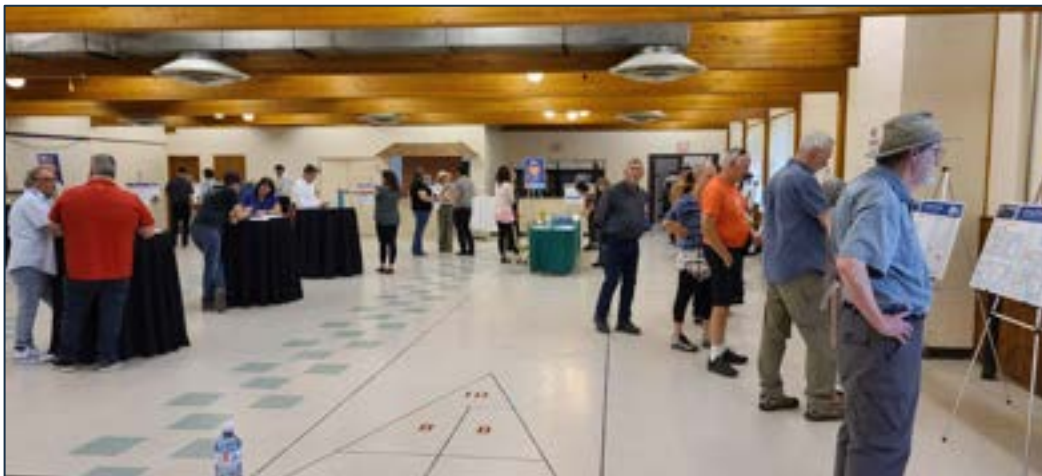
Engaging The Public

Public engagement is essential in assessing community values. It provides the project team with the ability to identify issues and opportunities from varying perspectives.

The key events and milestones in the consultation process is described below.

1. **Community Transportation Survey [3 weeks in March/April 2023]:** A transportation survey was released to the public via the TMP website and various social media accounts to better understand current thoughts, concerns and future priorities related to the transportation system. Over 300 persons responded to this anonymous 20 question survey ranging from personal travel choices, demographics to general thoughts/ concerns.
2. **Public Information Centre #1 [April 13, 2023]:** This PIC introduced the study, provided an overview of needs and opportunities and a draft recommended active transportation and road network plan. All comments were compiled and used to inform the assessment and evaluation of alternative solutions.
3. **Public Information Centre #2 [January 18, 2024]:** This PIC presented various alternative solutions to the defined needs and opportunities, with a set of preliminary preferred recommendations for the long-term active transportation and road networks. This meeting also identified various strategies and policies to support the recommended infrastructure investments and the overall vision and objectives of the TMP.

Figure 3: Public Information Session #1 (April 13, 2023)



Engaging Specific Stakeholders

Beyond the public at large, the project team engaged with specific stakeholders representing agencies, local interest groups or institutions that may be impacted or have useful knowledge to share to help inform the TMP. A select group of individuals made up the 'Working Group' whose input was critical to the development of various recommendations made in this TMP. Invitees to the stakeholder Working Group, besides municipal staff and the project team, included representatives from the County of Lanark, the Ontario Ministry of Transportation (as well as other relevant federal ministries), transportation providers (e.g. Lanark Transportation), institutional representatives (e.g. Carleton Place Hospital, Leeds, Grenville and Lanark District Health Unit, etc.), and other important local community groups and representatives (e.g. Destination Almonte, Carebridge Community Support etc.). Study notices were also sent out to

Indigenous communities to invite input and participation. The Working Group met twice over the course of the study, roughly aligning with each round of public engagement.

1. **Working Group Meeting #1 [April 11, 2023]:** This meeting introduced the project and provided an opportunity to receive initial feedback, thoughts, and concerns about transportation within the municipality.
2. **Working Group Meeting #2 [December 13, 2023]:** This meeting outlined the project progress to date and provided an opportunity to provide feedback. The key focus of this meeting was identifying infrastructure needs and presenting various alternative solutions, including a set of preliminary preferred recommendations for the long-term active transportation and road networks.

Engaging Treaty and Indigenous Rights Holders (TIRH)

The municipal staff engaged with eleven TIRH groups which included a combination of groups close to the municipality's geographical boundary and groups which were recommended by the Ministry of the Environment, Conservation and Parks (MECP) for consultation. These groups were contacted either by letter package delivered via registered mail or email. No responses were received by the municipality from the initial mail out packages. A follow up email was sent on June 26th, 2023, which included much of the same information that was included in the mail out packages. Two responses were received from a member of the Hiawatha First Nation and the Meti Nation of Ontario. A second and final follow up email was sent on December 7th, 2023, which contained similar information provided in the first follow-up email, with minor changes to reflect the updated timeline for the Master Plans. One response was received from a member of the Alderville First Nation as a result of the second follow up.

General Feedback

Over the course of the study's engagement program, feedback from the public and stakeholders was consolidated, and several themes were identified including:

- Not being able to accommodate vehicle congestion associated with population growth.
- New roads are needed to service future growth areas, the existing road network is not enough.
- Pedestrian and cycling safety concerns along Ottawa Street in Almonte.
- Roundabout safety concerns in Almonte.
- Reported speeding in various neighbourhoods, both urban and rural environments.
- Need for more traffic calming in neighbourhoods.
- Existing active transportation facilities don't fit the context or are missing.
- Encouraging more residents who work in the municipality to take alternate modes of transportation.
- An aging population may increase the need for alternative and more affordable travel options.
- Acknowledgement of Treaty and Indigenous Rights Holders, cultural protections, and archeological procedures.

More specific issues, comments and concerns have been documented within **Section 2.0** for various elements of the transportation system.

2.0 NEEDS AND OPPORTUNITIES

The Transportation Master Plan (TMP) is a long-term strategy that identifies infrastructure, policies, and programs to achieve the transportation vision and associated goals of the municipality over the next 25 years. This section presents a review of relevant plans and policies, existing transportation infrastructure, and population and employment trends to provide an understanding of the municipality’s existing and future transportation needs.

2.1 Existing Policies

The TMP has been developed within the context of previous and ongoing land use and transportation planning policies and initiatives undertaken by federal and provincial government ministries and agencies, the County of Lanark, and the Municipality of Mississippi Mills. The following sections detail some of the more relevant documents that have informed the TMP.

2.1.1 Federal

National Active Transportation Strategy

The *National Active Transportation Strategy* (2021-2026) provides the strategic approach for supporting, promoting, and investing in active transportation at a federal level across Canada. The strategy utilizes the ACTIVE framework consisting of six strategic directions essential to advancing active transportation. These include:



- Awareness: Focus is to raise public awareness about active transportation and communicate its benefits and best practices.
- Coordination: Focus is on coordinating the planning, design, regulations, standards, and active transportation investments across all levels of government, Indigenous communities, not-for-profit, and the private sector.
- Targets: Targets not only focus on modal share but also prioritizes greater diversity and inclusion, health and wellness, benefits to the environment, and impacts on tourism and business.
- Investment: Focus is on exploring connections with other programs to better coordinate investments that reflect best practices in planning, design, regulations, and standards.
- Value: Focus is on ensuring that active transportation investments and policies promote social, economic, and environmental benefits.
- Experience: Focus is on ensuring safe, accessible, and convenient design and infrastructure that supports connections between existing transportation, active transportation, or transit networks, which considers the participation of persons with disabilities, women, and equity-deserving communities.

The strategy also identifies existing programs that offers funding for active transportation investments including:

- Investing in Canada Infrastructure Program
- Active Transportation Fund
- Canada Community-Building Fund
- Natural Infrastructure Fund
- Disaster Mitigation and Adaptation Fund
- Permanent Public Transit Program

2.1.2 Provincial

Provincial Policy Statement (2020)

The 2020 *Provincial Policy Statement* (PPS) is issued under Section 3 of the Planning Act and came into effect on May 1, 2020. The 2020 PPS provides policy direction on matters of provincial interest related to land use planning and development. The policy statement includes a range of policies related to building strong healthy communities, wise use and management of resources and protecting public health and safety.

Policy 1.6.7.3 of the 2020 PPS states “as part of a multimodal transportation system, connectivity within and among transportation systems and modes should be maintained and, where possible, improved including connections which cross jurisdictional boundaries”. Policy 1.6.7.4 states “a land use pattern, density and mix of uses should be promoted that minimize the length and number of vehicle trips and support current and future use of transit and active transportation.” Policy 1.2.1 (d) states “a coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including...infrastructure [and] multi modal transportation systems....”

The 2020 PPS defines a Multi Modal Transportation System as one which “may include several forms of transportation such as automobiles, walking, trucks, cycling, buses, rapid transit, rail (such as commuter and freight), air and marine”.

A proposed update to the PPS was introduced in Spring, 2023 as part of broader changes to Provincial planning policy, under the directive of Ontario Bill 23 (*More Homes Built Faster*, 2022). Published in Spring, 2024 the new proposed Provincial Policy Statement (PPS) is proposing new and updated policies based on the feedback received during consultation.

Although the update primarily relates to the mechanisms of land-use planning approvals, many of the broader points of the updates to the PPS and *Planning Act* have relevant transportation implications:

- Changes to how and when “development charges” can be collected will impact how transportation infrastructure is financed.
- More development in rural settings (i.e. multi-lot residential developments on rural land) is to be allowed, as well as permitting more housing to be built on existing farmland.
- Municipalities are required, under the PPS, to:
 - Provide a range and mix of housing options with an expanded definition to include multi-unit types and typologies.
 - Support general intensification.
 - Plan for intensification on lands that are adjacent to existing and planned frequent transit corridors.
 - Plan for infrastructure to support these increased levels of development.
 - Protect corridors for major infrastructure.
 - Integrate land-use and transportation planning.
 - Encourage freight-supportive and transit-supportive development.
 - Develop approaches to reduce greenhouse gas emissions and improve air quality.
- The contribution of efficient land-use patterns to equitable communities is affirmed, and municipalities are encouraged to apply an equity lens to planning matters.



Accessibility for Ontarians with Disabilities Act, 2005

The *Accessibility for Ontarians with Disabilities Act, 2005* (AODA) was enacted for the purpose of improving accessibility standards for Ontarians by 2025. The AODA outlines mandatory standards for private, public, and nonprofit sectors to remove barriers and ensure equitable access for all individuals with disabilities. Ontario Regulation 191/11 under the AODA establishes accessibility standards to apply when planning, designing, and building transportation facilities, which will be referenced as part of the TMP.

Ontario Trails Strategy (2005)

The *Ontario Trails Strategy* (2005) is a long-term plan that establishes strategic directions for planning, managing, promoting, and using trails in Ontario. The Strategy recognizes trails as key economic and tourism assets for Ontario communities that, in addition to their economic benefits, bring important health benefits and contribute to a high quality of life. With a vision to develop a world-class system of diversified trails, planned and used in an environmentally responsible manner, that enhances the health and prosperity of all Ontarians, the strategy focuses on improving collaboration among stakeholders, enhancing the sustainability of Ontario's trails, enhancing the trail experience, educating Ontarians about trails, and fostering better health and a strong economy through trails.



Transit Supportive Guidelines (2012)

The *Transit Supportive Guidelines* (2012) prepared by the Ministry of Transportation (MTO) promote transit-oriented planning and design throughout the province based on transit-friendly land use planning, urban design, and operational best practices. The aim is to assist practitioners in creating environments that are supportive of transit and develop services and programs to increase transit ridership in communities over time. The document is structured in to four key chapters with strategies applicable to all community scales including: community-wide guidelines to create transit-supportive communities through a range of high-level planning strategies; district-level and site-specific guidelines detailing design guidelines relating to streets, buildings infrastructure, and unique uses; transit improvement guidelines noting transit improvement programs, innovations and services that can help to increase transit ridership; and implementation tools to help achieve the principles and guidelines within the document.



Ontario Ministry of Transportation - Permit Control Area

The Ministry of Transportation is the approval authority for all transportation and development within their permit control areas as defined by the Public Transportation and Highway Improvement Act. The Ministry of Transportation regulates the permit-controlled area for buildings, structures, roads, entrances, and the placement of signs. All municipal plans and approvals must be consistent with provincial plans and provincial direction as per sections Part II, 1.6.8.3, 4.6 and 4.7 of the Provincial Policy Statement. Permit-controlled areas within Mississippi Mills are located along Highway 7, where a small section of the Highway passes through the municipality's boundary in the south, as depicted in Figure 4.

Figure 4: MTO Permit-Controlled Areas within Mississippi Mills Boundary ²



2.1.3 Regional

Lanark County Sustainable Communities Official Plan (2012)

The County of Lanark’s Sustainable Communities Official Plan (SCOP) provides a vision for growth within a 20-year timeframe and is approved under the *Planning Act*. The SCOP provides an overview of County objectives “that are consistent with the Provincial Policy Statement”, whereas “more detailed and focused policies reflecting local priorities are in local Official Plans”. The SCOP states “the County Plan and the local Official Plan [are to be read together] when considering new development or when moving towards the implementation of a policy or sustainable action plan”.



The County’s vision in the SCOP is as follows: “County of Lanark is proud of its heritage and cherishes its small-town character, rural way of life, sense of community and distinctive natural features. We want to strengthen and diversify the economy, effectively manage growth, protect the environment, preserve our heritage, and maintain our unique character for future generations”. Section 4.3 of the OP outlines the County’s Objective for transportation which is “for the development and maintenance of [transportation infrastructure] to ensure that the road network within the County will function in a cost effective, efficient and safe manner for the movement of people and goods throughout the County”.

² Ontario Ministry of Transportation. <https://www.hcms.mto.gov.on.ca/PermitsControlledArea>. Date Accessed:2024-02-12.

County of Lanark Transportation Master Plan (2010)

The County of Lanark’s 2010 Transportation Master Plan (TMP) identifies transportation needs over a 20-year timeline that was intended to fulfil requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process for transportation projects. Goals of the TMP include balancing “current and future transportation standards and needs, as well as between public safety, the environment, business needs and aesthetic considerations.”

Key Strategies include optimizing the existing transportation network (access management, operational improvements, safety improvements, accessibility improvements), managing transportation demand (cycling, flexible hours and telecommuting, ridesharing, and transit and land use planning) and expanding/improving the transportation network through widening of roads and building of new roads. A range of transportation projects and strategies were identified from 2008 to beyond 2028.



Key policies of the Lanark TMP (2010) include:

- The consideration of traffic calming on County roads for the purposes of improving driver behaviour and/or improving safety.
- Removal of accessibility barriers from pedestrian facilities (including intersections) and the design of new pedestrian facilities in accordance with provincial (AODA) guidelines.
- Commitment to mitigate excessive road-related noise on county roads.
- Commitment to carefully coordinate capital projects with lower tier and adjacent municipalities.
- Implementation of paved shoulders on all County roads rehabilitation or reconstruction projects (funding permitting).

The County is planning to initiate an update to the TMP in the latter half of 2024. This TMP will provide the County with insights into the transportation needs of the municipality.

County of Lanark Accessibility Plan (2012)

The County of Lanark’s 2012 Accessibility Plan outlines policies and actions to improve opportunities for people with disabilities in Lanark. For the Built Environment, the plan notes “the AODA’s built environment standard shall require accessibility features to be incorporated into newly constructed facilities and those that need significant renovations” and “County of Lanark shall continue to model best practices when undertaking accessibility retrofits of existing facilities”.

Lanark County Speed Management Policy (2023)

Lanark County recently prepared a draft speed management policy in 2023, which outlined a comprehensive framework to help guide the county through the process of responding to requests for speed management measures on county roads. This policy is an important aspect of road safety and equity, since speeding and aggressive driving behaviour can be a significant barrier to sustainable travel modes, such as walking and cycling.

Lanark County Climate Change Action Plan (2023)

The *Lanark County Climate Change Action Plan (2023)* establishes goals and actions for achieving emission reductions while ensuring the resilience of local communities. Climate action goals are grouped by theme and include corporate and community specific actions. The publication of the Action Plan marks the completion of Milestone 3 of the Partners

for Climate Protection (PCP) program offered by the Federation of Canadian Municipalities and Local Governments for Sustainability. The primary objective of the Action plan is to work with stakeholders to reduce greenhouse gas (GHG) emissions, while preparing the community for present and future changes.

The Corporation of the County of Lanark By-Law No. 2010-10: Assumption of Local Roads by the County of Lanark

The existing Lanark County By-Law No. 2010-10 (March 24, 2010), sets the criteria and methodology to determine which roads should be under the jurisdiction of Lanark County.

Ottawa Valley Recreational Trail Management Plan

The *Ottawa Valley Recreational Trail Management Plan* (2018) provides direction to trail managers on achieving the Ottawa Valley Recreational Trail (OVRT):

- Goal of providing and encouraging safe and responsible recreational use while ensuring the protection of the corridor's environment and historical values; and
- Objectives of preserving the integrity of the trail and providing guidance on trail maintenance, governance and development to each partner.

The management plan also suggests that trail managers be responsible for upholding the management plan guidelines and to oversee the management and maintenance of the trail.

Management of the trail is split between Lanark County, the Township of Papineau-Cameron, and Renfrew County, with each partner responsible for maintaining their own section of the trail. All maintenance and management costs are the responsibility of the respective partner. Additionally, each partner retains the right to pass by-laws that regulate and govern the use of their sections of the trail. The management plan also includes trail management and maintenance policies, including:

- OVRT code of conduct;
- Authorized trail users;
- Maintenance procedures;
- Trail closure;
- User education and safety;
- Motorized vehicle access;
- Commercial uses;
- Signage;
- Development policies;
- Future non-conforming uses;
- Trail improvements/ amenities; and
- Economic resources.

2.1.4 Local

Mississippi Mills Strategic Plan (2023-2027)

The Strategic Plan, approved in 2023, defines a set of themes, actions and deliverables intended to meet the priorities set by municipal council. The *Plan* defines a deliverable intended to support the implementation of the TMP update.

Mississippi Mills Community Official Plan (2019)

The Mississippi Mills *Community Official Plan* (COP) was adopted by the Ministry of Municipal Affairs and Housing in 2006. The most recent Five-Year Review was approved in 2019. The COP is intended to guide the physical development of the municipality, and includes broad policies related to transportation planning, and particularly how it relates to land use. The statement of intent included in the COP regards transportation planning as to "...provide an integrated, diverse transportation system for all residents and businesses that is safe, convenient, affordable, efficient and energy-conserving while minimizing environmental impacts."

Mississippi Mills Comprehensive Transportation Master Plan (2016)

Completed by Dillon Consulting in March 2016, the previous *Transportation Master Plan* (TMP) guided the development of transportation services and networks in Mississippi Mills through 2035. The plan broadly focuses on sustainability and affordability, and was developed around the core themes of:

- Improving the integration of the existing transportation networks;
- Providing networks to encourage and facilitate transportation by Active Modes;
- Providing infrastructure to serve demands at preferred Performance Targets; and
- Providing transportation systems that serve all citizens.



Mississippi Mills Active Transportation Plan (2015)

Completed by Dillon Consulting in December 2015, the *Active Transportation Plan* (ATP) provided a framework and set of recommendations for improvements that enabled residents, visitors and cycling enthusiast the ability to travel within and around the Municipality of Mississippi Mills. The plan primarily focused on promoting walking and cycling on the existing municipal and/or County Road network.



Complete Street Policy PW-03

The Mississippi Mills *Complete Streets Policy* provides the following policies to guide implementation throughout the municipality:

- New roads will include appropriate facilities for pedestrians, cyclists, and vehicles;
- Pedestrian and cyclist facilities will be added to existing road when reconstructed;
- Key gaps in the pedestrian and cycling network will be prioritized;
- Pedestrian and cyclist crossings of arterials and collectors will be provided based on active transportation traffic patterns; and
- Maintenance policies will be followed for all active transportation facilities.

Municipality of Mississippi Mills Comprehensive Zoning By-Law #11-83

The existing Municipal By-Law #11-83 (March 10, 2020) regulates the use of land and buildings and structures. The By-Law provides general provisions to be applied in all zones and identifies specific provisions for the following: Agricultural, Rural, Residential, and Parking, Queuing and Loading Spacing.

The Corporation of the Town of Mississippi Mills (Traffic and Parking) By-Law No. 02-27

Within the general provisions of Mississippi Mills By-Law No. 02-27 (April 9, 2002) parking, traffic, and general regulations identifies where parking is permitted, where vehicles are not permitted to operate, and other provisions such as designated accessible parking spaces.

The Corporation of the Municipality of Mississippi Mills (ATV Usage) By-Law No. 22-044

Within the general provisions of Mississippi Mills By-Law No. 22-044 (June 26, 2013) for All-Terrain, Multi-purpose Off-Road Utility and Recreational Off-Road Vehicles, sets regulations indicating which municipal highways may be used, and other regulations including equipment requirements, rates of speed, hours of usage, as well as other provisions.

Minimum Standards for Assumption of Private Roads Policy PW-05

The Minimum Standards for Assumption of Private Roads Policy (September 14, 2004) sets the requirements and minimum physical standards before considering any request to assume a private road into the municipal road network.

Multi-Way Stop Sign Policy PW-06

The Multi-Way Stop Sign Policy (November 12, 2002) gives direction on the procedure for the installation of multi-way stop signs within the Municipality.

Road Inspection and Maintenance Policy PW-07

The Road Inspection and Maintenance Policy (June 9, 2003) sets out the municipality's maintenance, patrol, and inspection standards for municipal road infrastructure. These include minimum standards for patrol frequencies, snow and ice accumulation, pothole and crack treatments, bridges, and lighting, signage, and traffic control signals.

The Corporation of the Municipality of Mississippi Mills Road Surface Upgrade Policy PW-08

The Road Surface Upgrade Policy (June 21, 2016) establishes a set of guidelines for the assessment of road surfaces and the thresholds to be met before upgrading municipal roads.

Sidewalk Policy – Capital Construction Program/ Sidewalk Program PW-10

The Sidewalk Policy (June 21, 2016) establishes priorities, criteria, and requirements for the maintenance of existing and construction of new sidewalks within the municipality.

Plan-12: The Corporation of the Municipality of Mississippi Mills – Municipal Procedures and Policies: Issuance of Entrance Permits and Permissions for Alteration and Improvement of Unopened Road Allowances

The Municipal Procedures and Policies: Issuance of Entrance Permits and Permissions for Alteration and Improvement of Unopened Road Allowances (June 4, 2018) sets the requirements for issuance, criteria for a complete application, the process for application review, and establishes the authority to issue entrance permits from private property onto municipally-owned road allowances; and sets the requirements for issuance, criteria for a complete application, the

process for application review, and conditions for the approval of residential requests to improve or alter a surveyed unopened road allowance.

Interim Control By-law – Limited Service Residential and the definition of frontage (2023)

In November of 2021, the municipality passed an Interim Control By-law (ICB) to restrict development on existing lots zoned Limited Service Residential (LSR) and evaluate the success of cluster lot development policies in the Official Plan and Zoning By-Law and determine if updates are needed prior to the municipality approving new developments on private roads. In December of 2023 the ICB expired, and a Limited Service Residential and Private Roads Interim Control By-Law Study (2023) was completed to evaluate the cluster lot subdivision policies within the municipality’s Community Official Plan, Comprehensive Zoning By-law, and other related policies. The study outlines the characteristics of private roads, the process for creating and maintaining them, and in the event a private road is assumed by the municipality, that it must meet the acceptable standards for road construction. The study also recommended that the municipality include private roads within their road network hierarchy map in the Official Plan. Official Plan Amendment 33 (and associated Zoning By-law Amendment) is anticipated to be passed by council before the end of 2024.

Council Resolution No. 081-10: Policy for Traffic Calming and Speed Management on Municipal Roads (2010)

The policy for Traffic Calming and Speed Management on Municipal Roads (February 16, 2010) establishes the guidelines for identifying areas of concern and selection of appropriate traffic calming or speed measures to be implemented through capital planning projects. The traffic issue resolution process includes three stages: Initiation Stage, Evaluation Stage, and Implementation.

Commercial Vehicles

The County of Lanark TMP notes that “commercial vehicles are permitted on all county roads with seasonal reduced load restrictions during spring thaw.” The county consolidated By-Law 2022-34 outlines additional restrictions and exceptions, such as specified half-load limits between February 15th to May 15th, bridge prohibitions, specific vehicle weight restrictions, etc. Mississippi Mills restricts loads to 5 tonnes per axle on all municipal roads and streets in Mississippi Mills between February 27 and May 31 each calendar year or when deemed suitable to lift the restrictions.

2.2 Historical Trends and Growth Projections

The following section will provide a general overview of historic demographic trends, as well as projections for future population and employment in the municipality. Historical trends were based on Canadian census data collected by Statistics Canada. Growth projections were provided by the municipality, developed as part of the update to the Water and Wastewater Master Plan.

Statistics Canada completes their national surveys every five years. The latest data set was collected in the summer of 2021. At that time, COVID-19 pandemic restrictions were in effect, causing a shift in travel behaviour reducing auto-use and a rise in people who work-from-home. Therefore, metrics from previous census were provided for additional context.

2.2.1 Demographic Trends

Mississippi Mills has a total area of approximately 520 km² and is one of nine municipalities within the County of Lanark. The entire county has a total population of approximately 75,750 people in 2021, of which Mississippi Mills has the highest population compared to all other municipalities, with a total population of approximately 14,740 and a total

number of private dwellings of approximately 6,240 in 2021. The historical population, number of dwellings, and employment numbers in Mississippi Mills are shown in Table 1.

The municipality’s population, employment and housing have all experienced growth between 2011 and 2021. Population and housing both increased by roughly 20%, whereas employment grew by only 3%. Between 2016 and 2021, the largest share of the increases in both population and housing occurred in Almonte, where approximately 62% of the total population and 80% of the total housing growth took place.

Population and housing growth have historically been focused in Almonte.

Table 1: Historical Population, Employment and Housing Trends in Mississippi Mills

	2011	2016	2021
Population	12,385	13,150	14,740
Employment¹	6,605	6,605	6,820
Housing	5,040	5,535	6,240

1 – Includes employees that work at home and with no fixed workplace

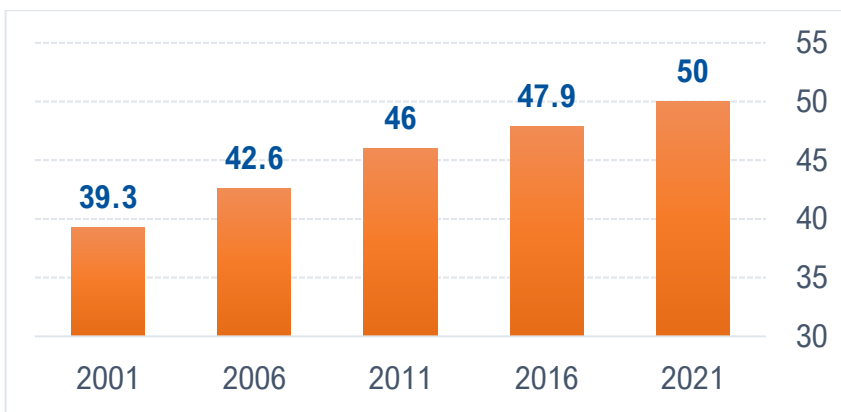
The median age of residents in Mississippi Mills is approximately 50 years old, compared to the Ontario median age of approximately 42 years old and approximately 49 years old in County of Lanark. The breakdown of population count by age group for the municipality and the province are provided in Table 2.

Table 2: 2021 Census Count, by Age Group in Mississippi Mills and Ontario

Age Groups	Census Count			
	Mississippi Mills	Percentages	Ontario	Percentages
Under 19 years	2,765	19%	2,889,095	20%
19 to 25 years	845	6%	1,254,260	9%
26 to 45 years	3,080	21%	3,777,300	27%
46 to 65 years	4,410	30%	3,840,755	27%
Over 65 years	3,650	25%	2,462,545	17%
Total	14,750	100%	14,223,955	100%

A comparison between the historic median age in Mississippi Mills is shown in Figure 5. The trend confirms the median age has been rising steadily since 2001, so the municipality is aging and not being replenished by younger people. It should also be noted that the median age in Almonte is even higher compared to Mississippi Mills with approximately 53 years old in 2021, an increase from approximately 50 years old in 2016.

Figure 5: Mississippi Mills Historic Median Age



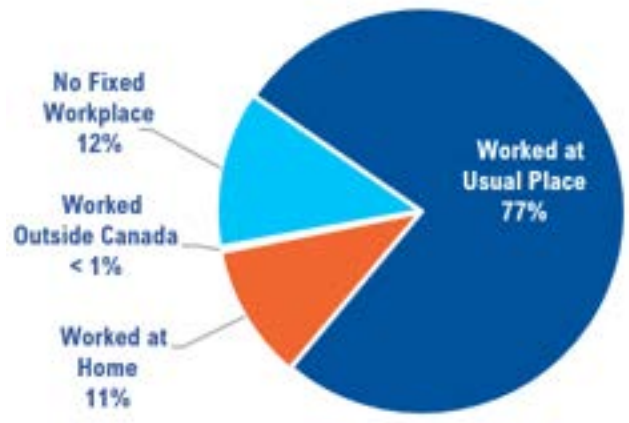
Overall, historical trends confirm Mississippi Mills is growing, roughly a 20% increase in population and housing over a decade between 2011 and 2021; however, the municipality still possesses an older population compared to the provincial average. Furthermore, the age gap has been steadily increasing since 2001. These trends suggest new resident who have moved to Mississippi Mills in recent years are generally older, contributing to the growing age disparity. As of 2021, nearly 45% of the population comprise youths (under 19 years) and elderly (over 65 years), and if historical trends continue, this proportion will grow meaning there will be greater demands to meet the specific needs of these users, such as safety and quality of transportation facilities and providing affordable choices.

Mississippi Mills population has been growing rapidly but is also aging.

2.2.2 Workplace Travel Trends

The total employed labour force was approximately 6,820 employees, consisting of 3,660 with a consistent work location, 2,215 working from home, 945 with no fixed workplace address. Due to the COVID-19 conditions in 2021, the work from home employee percentage increased significantly compared to 2016. It should be noted that the percentage breakdowns for the labour force in Almonte are similar to those of the whole municipality.

Usual Place of Work: 2016 Census



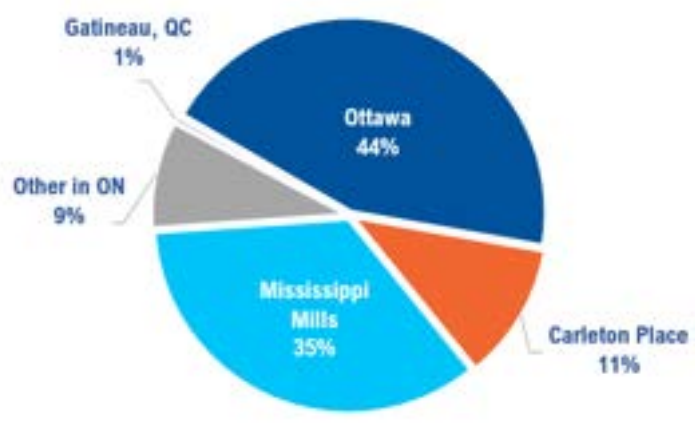
Usual Place of Work: 2021 Census



The COVID-19 pandemic has resulted in more residents working from home.

Census results for two specific commuting travel patterns are shown below: the commuting destination of employees who live in the municipality and the commuting origin of employees who work in the municipality.

Specific Work Destination for MM Residents



Specific Work Destination for MM Employees



Understanding commuting patterns can influence where the TMP should focus its efforts to support workplace travel, and whether coordination with adjacent authorities or municipalities is needed. In 2021, most Mississippi Mills residents either commute within Mississippi Mills (35%) or travel to the City of Ottawa (44%), while a smaller portion travel to the Town of Carleton Place (11%) with the remainder travelling elsewhere outside the municipality.

In contrast, over half of employees in the municipality are residents. These results suggest that commuter trips between neighbouring municipalities is common among both residents and employee, but there is a notable draw from the local labour force for jobs within Mississippi Mills.

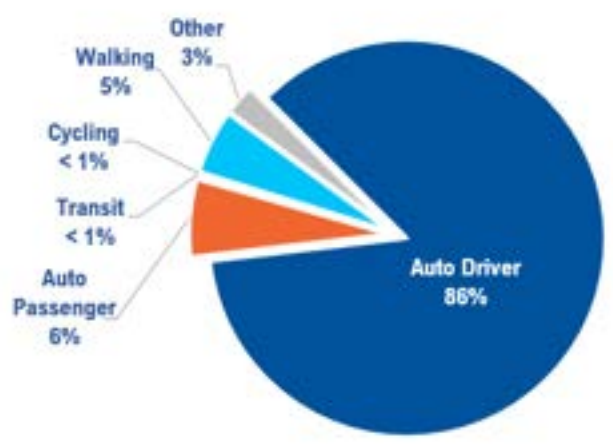
Roughly two thirds of residents commute regularly outside of the municipality, whereas roughly half of employees in the municipality are residents.

2.2.3 Mode of Transportation Trends

The predominant travel mode amongst employees with a consistent work location (approximately 3,660) and employees with no fixed workplace address (approximately 945) was “auto driver”, with a much smaller proportion of auto passengers and pedestrians. All other travel modes were relatively insignificant.

For comparison purposes, Table 3 below provides the breakdown of commuter trips by travel mode for the province, the municipality, and Almonte. In all cases, the auto-driver mode share was the predominant choice by

2021 Mode Shares in MM



commuters. Unsurprisingly, the rural context and lower population densities within the municipality and Almonte contributed to lower public transit use, which increased the auto-driver proportion further.

Table 3: Mode Share Comparisons between Ontario, MM and Almonte in 2016 and 2021

Mode	2021			2016		
	Ontario	MM	Almonte	Ontario	MM	Almonte
Auto Driver (Car, Truck, Van)	76%	86%	81%	66%	88%	85%
Auto Passenger	7%	6%	8%	12%	5%	5%
Public Transit	9%	0%	1%	15%	2%	2%
Walking	5%	5%	7%	5%	4%	7%
Cycling	1%	0%	0%	1%	0%	0%
Other	2%	2%	3%	1%	1%	0%

The dominant mode of travel amongst commuters is the personal vehicle.

2.2.4 Community Transportation Survey (2023)

A community transportation survey was conducted in the spring of 2023 to engage residents and the broader community about their thoughts and concerns of the municipal transportation system. The 20-question survey also provided insights about respondents' travel preferences and trends. The survey was available in written format or online from the project website. A general summary of the results is provided below, while full survey results have been provided in **Appendix B**.



- The number of respondents to each question varied between 150 to 200 individuals. Generally, the age breakdown was 20% among 26 to 45 years, 40% among 46 to 65 years, and 40% over the age of 65.
- The majority of respondents indicated they live within the municipality, with a small number living in the Town of Carleton Place, City of Ottawa, Town of Perth and Township of Beckwith.
- Two-thirds of respondents indicated they work in the municipality, with the rest working in the City of Ottawa.
- Nearly 70% of respondents work or go to school within the municipality, over half do so in Almonte, 25% travel to Ottawa, and the remaining travel to Carleton Place. These work locations align with the Census results, though there was greater representation from residents that worked in the municipality.
- Over 60% of respondents that physically travel to/ from work or school at least 3 to 5 days per week, with 20% travelling 1 to 2 days per week.
- The most frequently used mode of transportation by far is the personal vehicle, which supports data obtained from the Census (although survey results show higher walking and cycling usage compared to Census results).
- The most popular travel mode for discretionary trips is also the personal vehicle, followed by walking, cycling and being a passenger or carpooling. Notably, walking and cycling discretionary trips are significantly higher compared to commuter trips, which was a common trend during COVID-19, as societal behaviour resulting from closures of activity spaces; work-from-home mandates provided opportunities for greater outdoor and recreational activity.

- Over 80% of respondents indicated they **do feel safe and comfortable walking** within the municipality. The reasons that lead those to disagree included vehicle speeding and subpar crosswalk/ sidewalk facilities.
- Over 60% of respondents indicated they **do feel safe and comfortable cycling** within the municipality. The reasons that lead those to disagree included the lack of bicycle facilities and substandard road surfaces on some roads.
- Over 75% of respondents indicated they **do not think Mississippi Mills has a transportation system that is accessible and inclusive**. The main reasons cited for this included the lack of public transit, ride hailing services and safe pedestrian and cyclist facilities.
- Approximately 50% of respondents indicated they **do think Mississippi Mills has vehicle traffic congestion issues**. The main reasons cited for this included congestion observed on key streets mainly within or in proximity to Almonte, such as March Road, Ottawa Street, Main Street and Almonte Street.
- Over 50% of respondents indicated **satisfaction with the travel experience in the municipality**, while 35% were neutral and 15% were dissatisfied.
- The rank of transportation themes, starting with the most important, were safety and security, mobility and connectivity, healthy community, affordability, accessibility and inclusivity and finally environmental sustainability.
- The rank of transportation topics, starting with the most important, were expanding/ improving each of the pedestrian, cycling and road networks, improving safety and accessibility for all travel modes, increasing parking supply, promoting ride-sharing services, and finally emerging technologies.
- Some additional comments included: interest in an alternative route between the municipality and Ottawa, improvements to roads, cycling and pedestrian infrastructure and a desire for public transit.

2.2.5 Population and Employment Projections

Existing Land Use

The existing land uses within the municipality, with emphasis on Almonte, the rural villages, and rural areas are provided in **Schedule 1**. The current Official Plan includes various land use designations such as rural areas, residential, commercial, and industrial, of which there are sub-categories, such as low and medium density residential or downtown commercial. Most of the municipality is designated rural, the villages of Appleton, Blakeney and Clayton are designated settlement areas, whereas urban land-use designations can be found in Almonte and the village of Pakenham. Land uses are the primary basis from which future travel patterns are forecasted.

Future Growth Areas

Mississippi Mills retained a consultant to prepare an update to the Water and Wastewater Master Plan (WWMP). As part of this assignment, future growth areas were identified, which were provided in a technical support document titled *Municipality of Mississippi Mills Growth Forecast* (J.L. Richards Ltd, 2023). The JLR Report set three long-term planning horizons for the municipality. The current Official Plan has identified growth areas for years 2028 and 2038. The JLR Report refreshes projections these and added a 25-year/ 2048 horizon. The 2048 horizon year is considered a conceptual development scenario that was created to help inform the WWMP and TMP, providing a long-term lens for infrastructure needs. **It is important to note that the 2048 development scenario is not Council approved and is subject to change. The uncertainty of the 2048 growth scenario will be addressed as part of future Official Plan and TMP updates in the fullness of time.**

The future growth areas identified in the JLR Report, including the conceptual 2048 horizon year are provided in **Schedule 2**.

Future population growth in Almonte was generally evenly distributed, while future employment lands were mostly concentrated in the southeast quadrant. Rural growth was also assumed to be evenly distributed.

Population Projections

The population projections in the JLR Report are summarized in Table 4. The total population of the municipality is projected to reach approximately 25,000 by 2048, reflecting roughly 70% growth over the next 25 years. Almonte is expected to accommodate roughly 70% of the total population growth, representing over 100% growth in Almonte from the 2021 Census count by 2048. In comparison, the rural areas and villages is expected to experience more gradual growth, roughly 35% increase by the 2048 horizon.

Table 4: Population Forecasts ³

Year/ Horizon	Total Population	Mississippi Mills Population Breakdown	
		Rural Areas/ Village	Almonte
2021 (per Census)	14,740	8,642	6,098
2028	17,445	9,415	8,030
2038	21,309	10,519	10,790
2048	25,173	11,623	13,550

Population growth is expected to accelerate, particularly in Almonte.

Employment Projections

According to the JLR Report, the total labour force in the municipality is expected to increase to roughly 13,000 by 2048, which is slightly less than double the number in 2021. The JLR Report found that approximately 72.7 ha of total employment lands would be needed in the future to meet this demand.

The labour force is expected to nearly double by 2048.

Local Development Applications

Many of the growth areas identified in the Growth Report (specifically in the 2028 and 2038 horizon years) already have open development applications, which have been summarized in Table 5. As mentioned previously, the 2048 development horizon has not been approved by the municipality yet and has been excluded here.

³ J.L. Richards, Municipality of Mississippi Mills Growth Forecast, 2023, Table 3

Table 5: Current Development Applications Aligned with Future Planning Horizons

Future Planning Horizons			
2028 Horizon		2038 Horizon	
Name or Address	Location – Land Use	Name or Address	Location – Land Use
Brownlands Subdivision	Almonte – Residential	Brownlands Subdivision (future phases)	Almonte – Residential
430 Ottawa Street	Almonte – Residential/ Commercial	Weavers Way (future phases)	Almonte – Residential
Gas Station and Fast-Food Restaurant	Almonte – Commercial	Sonneburg Lands (future phases)	Almonte – Residential
Glen Isle Shores Subdivision	Rural (South Boundary) – Residential	Mill Run Phases 7-8	Almonte – Residential
Baker’s Quarry	Almonte – Residential	Almonte South/Cavanagh	Almonte – Residential
Menzie Lands	Almonte – Residential	Commercial development lands	Almonte – Commercial
Sonneburg Lands	Almonte – Residential	Municipal Business Park Lands	Almonte – Commercial
Weavers Way (formerly known as Mill Valley Estates)	Almonte – Residential	Industrial subdivision lands (Weavers Way)	Almonte – Industrial
Mill Valley Retirement Living	Almonte – Residential	Various minor residential infill	Almonte – Residential
Business Park Lands	Almonte – Commercial		
Industrial subdivision lands (Weavers Way)	Almonte – Industrial		
Appleton Subdivision	Appleton – Residential		
Hilan Village	Almonte – Residential		
Various minor residential infill	Almonte – Residential		

2.3 Existing Transportation System Overview

The transportation system in Mississippi Mills is managed between the province, county, and municipality, consisting of sidewalks, trails, paths, cycling facilities, highways, arterial, collector and local roads, and a limited number of private roads. The following section represents a comprehensive overview of the multi-modal infrastructure and key elements within the municipality that will be built upon in this TMP.

2.3.1 Active Transportation

Active transportation (AT) refers to a mode of travel that requires physical activity such as walking and cycling, to travel from one location to another. Dedicated pedestrian and cycling infrastructure - such as sidewalks, pathways, trails, and bike lanes - are important to safely accommodate active users as they move between destinations. The municipal active transportation network is highlighted by the Ottawa Valley Recreational Trail (OVRT), which was constructed in 2018 and forms a spine that runs north-south through the region. Additional facilities include pedestrian pathways, recreational/ multi-use pathways, sidewalks, and some limited on-road cycling facilities.

Existing Sidewalk and Pathway Network

The municipality has gradually expanded the sidewalk network over the years, reaching approximately 43 km in total sidewalk length in 2023. Almonte has a dense network of sidewalk infrastructure, but they are also found in two rural villages: Pakenham and Clayton. In each case, there are sidewalks that do not meet minimum accessibility standards for

width (AODA specifies 1.5 m), and gaps exist that creates discontinuity in the networks. The existing sidewalk network is illustrated in **Schedule 3** and **Schedule 4**.

There are isolated segments of asphalt pedestrian pathways, primarily in Almonte. These differ from multi-use pathways since they do not provide sufficient width to safely accommodate both cyclists and pedestrians. These are commonly installed in lieu of sidewalks in areas of less pedestrian activity or at rural to urban transition segments. While they are more affordable and easier to install, they are less durable and require more maintenance, particularly for accessibility standards.

At more recently constructed or reconstructed intersections/ crossings, including traffic control signals, pedestrian crossovers (PXO), and stop signs, sidewalk to crosswalk transitions may include tactile walking surface indicators (TWSI) for accessibility, but these are less common. Some traffic control signals also have audible signals in addition TWSI to further aid those who are visually impaired. The municipality's winter maintenance program establishes three classes of sidewalks which determines which sidewalks have priority and when winter maintenance is required.

Existing Cycling Network

A review of existing cycling routes was performed and a summary of key cycling routes within the municipality are identified in Table 6 and shown in **Appendix C**.

There are roughly **1.9 km of urban bike lanes** within the municipality, all located in Almonte along the following sections:

- Ottawa Street - Paterson Street to Martin Street
- Martin Street N - Ottawa Street to Stephen Street (county road)
- Perth Street – Bridge Street to County Road 29 (county road)
- Bridge Street – Perth Street to Country Street (county road)

Table 6: Municipal Cycling Routes

Route	Regional Connections		Distance
OVRT	Smiths Falls Frankton Station Beckwith Carleton Place Almonte	Pakenham Arnprior Renfrew Pembroke Mattawan	283 km
Rotary Centennial Trail	Smiths Falls Appleton		7 km
Textbook Tour	Pakenham Cedar Hill		42 km
Rapids Picnic Tour	Almonte Blakeney Bennies Corners		18 km
Councilors' Tour	Almonte		11 km
Museum Tour	Carleton Place Almonte Appleton	Blakeney Bennies Corners	41 km
Naismith Loop	Clayton Bennies Corners		22 km
Pioneer Loop	Almonte		18 km
Tour de Mississippi Mills	Carleton Place Appleton Almonte	Blakeney Pakenham Clayton	100 km

There are roughly [600 m of multi-use pathway](#) in Almonte, located on segments of Ottawa Street between Ramsay Concession 11A and Sadler Drive.

The province's cycling network within Mississippi Mills consists only of the OVRT. As shown in **Appendix C** the County of Lanark has designated nine regional recreational cycling routes within Mississippi Mills. These routes include:

- 1 Almonte-Pakenham
- 2 Almonte-Perth
- 3 Almonte-Carleton Place
- 4 Carleton Place-Almonte
- 17 Tatlock-Clayton
- 18 Bellamy Road-Pakenham
- 19 Pakenham-Burnstown
- 20 Arnprior-Pakenham
- 21 Kanata-Almonte

The existing urban and rural cycling network are shown in **Schedule 3 to 5**.

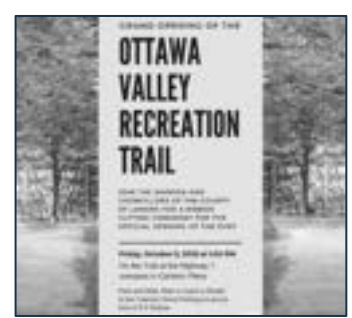
Existing Recreational Trails

A review of the municipality's trail system was completed, and a summary of key cycling routes within the municipality is shown in **Appendix D**. The trail system collectively provides approximately 90 km of recreation trails throughout the municipality and included:

- Almonte Lagoons Birding Complex
- Ottawa Valley Recreational Trail (OVRT)
- Blakeney Park Trail
- Bell Woodland Preserves Trails

- Almonte Riverwalk
- Almonte Riverside Trail
- Gemmill Metcalfe Park Trails
- Veteran’s Memorial Walkway
- High Lonesome Nature Reserve
- Mill of Kintail Trail
- Carbine Road Trail
- Fulton’s Pancake House & Sugar Bush Trails
- Greystone Trail
- Rotary Centennial Trail
- Spring Bank Trail

The OVRT is a part of the former 300 km corridor belonging to the Canadian Pacific Railway line and was recently repurposed in 2018 for recreational use. In Mississippi Mills, the OVRT forms the main north-south spine of the active transportation network spanning roughly 30 km. In addition to pedestrians and cyclists, the OVRT also accommodates other modes including ATVs, snowmobiles, and cross-country skiing. A vehicle parking lot is available for OVRT users at 180 Reserve Street in Almonte and at 171 Waba Road in Pakenham.



Source: Hometown News

The Rotary Centennial Trail is a 7 km accessible trail that connects Appleton to Carleton Place showcasing the varied landscapes along the Mississippi River. While the Greystone Trail is a 1km trail that connects the Greystone subdivision east of Almonte to Appleton Side Road. The remaining trails consist of loops and wilderness trails intended to support regional tourism.

Snowmobile routes in Mississippi Mills, designated by the Ontario Federation of Snowmobile Clubs (OFSC), include the Rails and Trails Ontario East Loop Route A311E (OVRT), running from Smiths Falls to Arnprior and connecting to Carleton Place, Almonte, and Pakenham along the way. It is noted that snowmobiles may require permits issued by the Ontario Federation of Snowmobile Clubs (OFSC), while ATVs may require permits issued by the Ottawa Valley ATV Club.

The existing trail network is illustrated in **Schedule 5**.

Supporting Infrastructure or Programs

The Municipality’s Comprehensive Zoning By-Law #11-83 sets bicycle parking requirements throughout the municipality including minimum thresholds and where bicycle parking should be located. Additionally, the Community Official Plan provides guidance on the provision of bicycle parking through policy 4.6.10, which states:

- Where Council considers it appropriate, new development or redevelopment will be expected to provide bike racks.
- When undertaking public works and where appropriate, the municipality will include the provision of bike lanes and bike racks to address the needs of cyclists.
- To encourage cycling, routes should be safe, convenient, and attractive for cyclists. This may include signage, bike parking, bike repair stations, designated lanes, or paths.

There are no formal bike programs that operate through the municipality, but there are local non-profit organizations that support cycling in the municipality, such as Mississippi Mills Bike Movement’s Mississippi Mills Bicycle Month program (<https://mmbm.ca>).⁴

⁴ Mississippi Mills Bike Movement – Supporting the development of a rural cycling community (mmbm.ca)

Almonte Revitalization Project

The Downtown Almonte Revitalization Project (Figure 6) was a holistic infrastructure renewal project covering Mill Street, Brae Street, and Little Bridge Street in downtown Almonte completed in fall 2023. The project included modified pedestrian facilities along the corridor to bring them to modern accessibility standards; tactile ground surface indicators at intersections, new pedestrian crossovers (PXOs) with improved crossings, and widened sidewalks.

Figure 6: Almonte Downtown Revitalization Project Area



Existing Active Transportation Volumes - Almonte

Intersection counts completed within Almonte indicate that pedestrian and cyclist activity is mostly limited to the peak commute hours during the day, e.g., the morning, lunch, and afternoon peak hours. For instance, at the intersection of Main Street and Ottawa Street, a one-day survey observed an average of 50 pedestrian crossings for those three hours, but an average of 13 across all other hours. The same survey observed eight total cyclists, in either the morning or afternoon peaks. It is important to note that pedestrian and cycling data was not available during off-peak hours at most intersections, where recreational users might be more prominent.

What We Heard

The public consultation process, previously discussed in **Section 1.4**, revealed the following important active transportation specific themes/ topics:

- Most commute trips do not use active transportation modes, but there is greater use of these modes for recreational trips.

- Walking was more popular than cycling for all trip types.
- Residents largely agreed with the statement “I feel safe and comfortable walking within the municipality”, although speed and safety at crossings were commonly cited concerns.
- A much higher percentage stated that they did not feel safe cycling within the municipality, indicating that the existing network of separated facilities is insufficient.
- Missing pedestrian links along different roads in Almonte, such as Argyle Street, Malcolm Street and Houston Street.
- Desire for pedestrian enhancements for Pakenham and Appleton villages.
- Unsafe bike lanes along Ottawa Street and the need for more bike facilities and infrastructure within municipality and upgrading the OVRT paving material.
- Paved shoulders with sufficient width requested along rural roads.

2.3.2 Transit and Ridesharing

The municipality currently has limited transit and ride-sharing or carpooling service options for regular commuters, which is a direct result of COVID-19; however, in recent months there has been renewed interest and opportunity to reinstitute prior services, particularly those that cater to intra-County travel.

Existing Transit Service

The municipality does not currently operate its own transit service, it relies on services provided by third party agencies and non-for-profit organizations such as:

Lanark Transportation (LT): currently operates within the county and provides a program called “Ride the LT” which is currently only available from Lanark Town Hall, Carleton Place and Perth. Ride the LT offers people transit services to shopping and other pre-determined stops for \$4 flat per person.



Pick-up occurs at pre-determined locations or can be requested at specific locations if users have difficulty accessing the pre-determined stop. Riders have the option of choosing a single stop for 110 minutes or 2 stops for 50 minutes each.⁵ Currently, Ride the LT provides service within Lanark Town Hall every second Tuesday, Carleton Place every Wednesday and recently introduced in 2023 service in Perth every Friday.

Based on an article from 2019, Lanark Transportation provided 21,326 trips to 1,935 registered users. “According to 2015 statistics, the largest number of users of LT are in Smiths Falls (3,856), followed by Perth (2,506) and Carleton Place (1,664). Mississippi Mills had 816 users”.⁶ Their current fleet consists of 16 vehicles, of which 5 are wheelchair accessible and one being a hybrid.

It is understood that since the majority of funding for LT comes from within the county, their mandate is to provide service within the county, to promote and stimulate the local economy. For this reason, it is unlikely that LT will expand its current routes outside of the county, such as the City of Ottawa or Arnprior.

⁵ <https://lanarktransportation.com/ride-the-lt/>. Date Accessed: 2023-08-21.

⁶ https://www.insideottawavalley.com/news/lanark-transportation-eyes-pilot-project-in-mississippi-mills/article_c4b1eb23-d798-5018-bed5-1a191be02f27.html. Date Accessed: 2023-08-23.

3rd Party Commuter Service: Classic Alliance Motorcoach, a division of Leduc Bus Lines Ltd. was providing bus service from various rural municipalities (including Almonte) to the City of Ottawa. They had acquired their buses from former Lanark Community Transit (LCT) which was launched as pilot program called “Lanark Community Transit” in 2010.

At the time, a private bus company already operated this route, however, Lanark Community Transit (LCT) believed they could offer a cheaper, more convenient service. The LCT completed community outreach and public consultation, and secured funding to launch. After three months of operating, the company was in serious financial distress and required a loan from the Town of Carleton Place, eventually selling their buses to private operator, Leduc Bus Lines Ltd.

Leduc Bus Lines Ltd operated routes 502 and 503 between Almonte, Carleton Place, Perth, and the City of Ottawa. Single one-way tickets costed \$22 a ride, \$90 for 10 fares and \$325 for a monthly pass.⁷ Service was discontinued March 30th, 2020, due to lack of ridership as a result of COVID-19. All routes continue to be suspended despite all COVID-19 restrictions being lifted. The Leduc website suggests they are planning to resume service. In discussions with Leduc in 2023, they have initiated due diligence to ascertain the viability of restarting service. At the time of this report, transit service has not resumed.

On-Demand Accessible and Medical Service Transit: Lanark Transportation (LT) also provides on-demand door-to-door service for anyone with medical related trips and for accessible users within the County of Lanark. Trips can include medical appointments, day programs, counselling services, social service appointments, food programs and more.⁸ This service can be booked a day in advance or accessed at a pre-determined pick-up location (there are currently none provided within Mississippi Mills). This program is subsidized for those in need. Note, this service is not the same as the Ride the LT program.

Carebridge: A volunteer run program which transports Almonte, Ramsay and 256 telephone area code residents to in-town and out of town non-emergency medical appointments, shopping, or social outings. To be eligible, the person must be 18 years or older with a disability or be a senior citizen.⁹

⁷ <https://millstonenews.com/almonte-commuter-bus-fare-and-schedule-info/>. Date Accessed: 2023-08-23.

⁸ <https://lanarktransportation.com/>. Date Accessed: 2023-08-23.

⁹ <https://www.caredove.com/carebridge/serviceorganization/4509/refr/search>. Date Accessed: 2023-08-23.

Existing Ridesharing or Carpool Services and Facilities

The municipality does not provide or subsidize any ridesharing or carpooling services, but there are informal groups through social media available to the community, such as the “Community Ride Share Connection” Facebook group that helps people connect and provides a platform to make rideshare arrangements. Uber and taxis do provide services in Mississippi Mills; however, the cost and general availability during peak periods can be prohibitive.

As of summer 2023, residents of Lanark County can access a free service from Community Carpool, “a program for rural residents who don't drive, or who don't have access to a car or who want to leave a smaller carbon footprint on our environment. It will also help residents feel less isolated in their rural communities. Ride sharing involves people sharing a ride in private automobiles where both the driver and passenger(s) have a similar origin, destination and/or route.”¹⁰ The program is operated by Frontenac Transportation Services (FTS) under the umbrella of Rural Frontenac Community Services in the County of Frontenac, that is accessible to residents of the County of Lexington & Addington and now the County of Lanark.



There are other larger 3rd party carpool platforms, such as CarpoolWorld that offer plans for municipalities as low as \$4.99/month for 200 or less users, or higher fees for more active locations.¹¹

City of Ottawa Transit System

The City of Ottawa does not operate or provide any transit service within the municipality. The city is currently constructing Stage 2 of its light rail transit system (LRT). The Confederation Line runs east-west, with the final western station located at Moodie Drive, roughly 35 km or less than 30-minutes from Almonte. Construction of the west extension is expected to be completed by 2026.

The city is currently in the process of preparing its own TMP update, which will identify new long-term transit infrastructure and service needs, such as the location of new transit corridors, stations, and park and ride facilities to accommodate long-term demand.

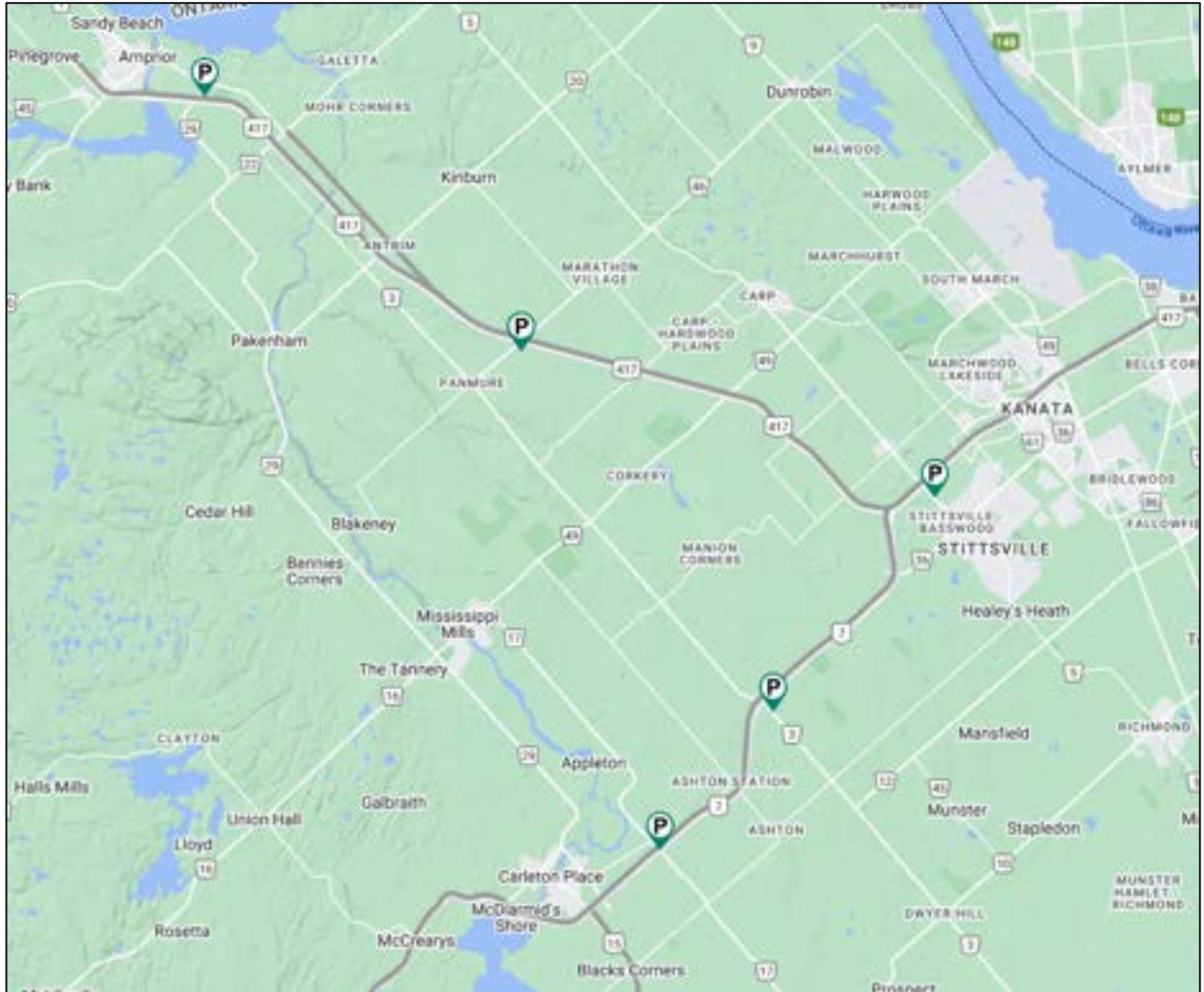
Park and Ride / Carpool Facilities

There are currently no municipally owned park and ride facilities, however, the Ontario Ministry of Transportation maintains multiple carpool lots along major highways leading to the City of Ottawa, which are shown in Figure 7. Of most relevance to residents of the municipality, the Cemetery Side Road lot has 30 parking spaces and 4 accessible spaces, Dwyer Hill lot has 42 parking spaces and 2 accessible spaces, and the Panmure lot has approximately 52 parking spaces. Slightly farther north of the municipality is the Arnprior lot, which has approximately 56 parking spaces.

¹⁰ <https://www.communitycarpool.ca/>. Date Accessed: 2023-08-23.

¹¹ <https://www.carpoolworld.com/carpool-software-for-municipalities.html#learnmore>

Figure 7: Carpool Lots Operated by MTO



There are also park and ride facilities identified by Lanark County located at:

- County Road 17 (Cemetery Side Road) – MTO
- County Road 15 at Highway 7
- County Road 10 (Richmond Road) at Highway 15
- County Road 1 (Rideau Ferry Road) and County Road 21 (Elmgrove Road)

The above lots are intended to be used by regular commuters but also recreational users and visitors to the county. The county has identified target locations for future facilities close to population centres such as Almonte, Carleton Place, Perth and Smiths Falls as well as villages and hamlets, as well as near major intersections. There is also the opportunity for users to park in existing parking spaces at county facilities, such as at arenas, community centres, halls etc. that are less utilized during typical workdays.

The nearest City of Ottawa park and ride facilities, as shown in Figure 8, provide direct access to OC Transpo system:

- Carp Park and Ride: Located approximate 25 kms or 20-minutes from Mississippi Mills, this park and ride facility has limited services. There is one “connexion” route, #262 that operates during the peak hour-peak direction only and local route 303 which operates a single trip on Wednesdays only.

- Canadian Tire Place Park and Ride: Located approximate 28 kms or 22-minutes from Mississippi Mills, this park and ride facility has three routes in service, including rapid route #62 with headways from this location every 30 minutes during weekday hours and connexion routes #261 and #263 which operate during peak hour-peak direction only.
- Terry Fox Park and Ride: Located approximate 30 kms or 25-minutes from Mississippi Mills, this park and ride facility has various transit route options including two rapid routes #61 and #62 and a frequent route #88, all which provide connectivity to Ottawa's Confederation LRT Line.

Figure 8: Closest City of Ottawa Park and Ride Facilities



Funding

One of the major challenges for small municipalities with the implementation of public transportation is funding. In a study done by Transportation Association of Canada, multiple small municipalities were analyzed to get a collective idea of feasibility, usage, and overall costs. On average, a town of 50,000 people or less, the average per capita funding a

town invests is \$50.¹² This funding can come from tax rebate programs such as the ‘gas tax’, federal or provincial grants as well as municipal investments obtained from property taxes.

According to data received from Lanark Transportation (LT), they currently receive approximately 50% of their operating budget from medical fare recovery, in part subsidized by Ontario Disability Support Program (ODSP) and Ontario Works Program. The County of Lanark provides approximately \$85,000 and approximately \$450,000 comes from the provincial gas tax. Although the Ride the LT program does not currently operate in Mississippi Mills at the time of writing this TMP, there are initiatives currently in motion to bring this service into the municipality. Refer to **Section 5.4** for more information related to the public transit strategy.

What We Heard

Feedback received during the consultation process yielded the following concerns and desires relating to transit and ride sharing:

- Many of the concerns related to the lack of existing public transit service.
- Public transit is desired particularly during the winter season.
- Suggestions were made about providing a bus stop with park and ride at convenient locations in the municipality.
- Requests were made to provide a shuttle service or other affordable travel options to meet the needs of seniors and low-income households.
- Taxis were noted as being too expensive and ride-hailing services such as Uber does not offer enough service in the municipality.

2.3.3 Roads

Existing Road Classifications

There are four roadway designations identified in the current Official Plan: provincial highways, county roads, local roads, and private roads. The key policy statements, based on Section 4.6 of the Official Plan, related to each roadway type has been summarized below:

- **Provincial Highways** – Under the jurisdiction of the Ministry of Transportation, Highway 7 is currently the only highway within the municipality, where a short section crosses into the boundary of Mississippi Mills in the south end. The primary purpose of the highway is to carry a high volume of traffic at high speeds and restrict direct access to it.
- **County Roads** – These are roads that are under the jurisdiction of the County of Lanark and generally function as arterial or collector roads. There are currently 11 county roads within the municipality, which includes: County Roads 7B, 9, 11, 16, 16A, 17, 20, 22, 24, 29 and 49. The purpose of these roads is to carry medium to high traffic volumes and may have higher speeds than typically found on municipal roads.
- **Local Roads** – All roads within the municipality (excluding provincial highways or county roads) are currently classified as local roads in the Official Plan – though other policies do propose broader road classes. The purpose of local roads is to accommodate medium to low traffic volumes and provide direct access to properties. The

¹² Beck, Wally CET, MIS, Mark. “Right-Sizing Transit: What is a Reasonable Level of Transit Investment?” HDR. September 2010. <https://www.ruralontarioinstitute.ca/uploads/userfiles/files/>. Date Accessed: 2023-08-19.

general right-of-way for local roads is 16 to 20m, some local roads may be designated as “scenic” or “historic”. The Official Plan also has some policy considerations for municipal roads in commercial/ industrial settings, as well as rural settings.

- **Private Roads** – Roads that are under private ownership, serving two or more lots. The municipality does not have the responsibility to maintain or repair private roads or provide services to developments located along private roads. The municipality recently drafted a *Limited Service Residential and Private Roads Interim Control By-law Study* (2023) that provides some expanded discussion on the treatment private roads in developments.

The 2016 Mississippi Mills TMP introduced an expanded road hierarchy that included collector roads and arterial roads; however, these new classifications have not yet been adopted in the Official Plan.

Existing Road Network

The existing road network found within Almonte, the rural villages, and rural areas have been provided in **Schedule 6**, **Schedule 7**, and **Schedule 8** respectively.

The following section summarizes the general structure of the municipal road network in Mississippi Mills. There is approximately 390 km of roads owned and maintained by the municipality. Additionally, there is approximately 150 km of county roads, 7 km of provincial highway, and 9 km of private roads within the municipality. Additional descriptions of the road network within the municipality are as follows:

- The municipality consists of urban and rural roads, where the urban roads¹³ are mostly located in Almonte, with isolated segments located in Pakenham and Clayton. All remaining roads of the municipality are strictly rural.
- Posted speed limits of roads within the municipality can vary depending on road design and whether it is rural or urban. For municipal and county roads, posted speed can range from 40 km/h to 80 km/h, where most urban road posted speeds are 40 or 50 km/h and most rural road posted speeds are 60 km/h to 80 km/h. Provincial highways can have even higher posted speeds. Highway 7, within the municipality, has a posted speed limit of 80 km/h.
- Intersections within the municipality are typically unsignalized and stop controlled. Five traffic control signals are in Almonte along with one roundabout. The locations are as follows:
 - Traffic signals:
 - Ottawa/ Industrial
 - Ottawa/ Paterson
 - Ottawa/ Martin
 - Almonte/ County Road 29
 - Bridge/ Mill
 - Roundabout:
 - March/ Appleton Side
- There are pedestrian specific crossing treatments called pedestrian crossovers (PXOs) that provide pedestrians a safe mid-block crossing (not located at an intersection). PXOs are mostly found in Almonte and the rural villages. PXOs are also provided on all approaches of the March Road roundabout in Almonte, which has become industry standard practice. More detail on pedestrian treatments is provided in **Section 3.3**.

¹³ Urban roads, for the purposes of this TMP are roads that have curbs. Urban contexts are areas with urban roads and underground servicing, i.e. no ditches.

- Traffic calming measures are provided at strategic locations in the municipality, mostly in Almonte. Some of the measures found include curb extensions, road narrowing, and unique pavement markings and signage. Further discussion on road safety and traffic calming measures is provided in **Section 6.3**.

Existing Road Network Performance

An evaluation of the existing road network was completed and documented in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E**. The memo also includes the road network evaluations for future growth scenarios, which will be discussed in further detail when discussing the road network strategy in **Section 4.0**. A summary of the existing road network evaluation is presented below.

Road Network Evaluation Scope, Approach and Criteria

Detailed analysis of the existing road network was focused within Almonte, given large amount of growth is expected and general concerns heard from stakeholders; however, a review of traffic volumes and road capacity was included at key corridors within the rural areas and villages.

The scope and approach to the evaluation was based on the 2016 TMP, since it provides an ideal baseline to track changes in traffic volumes. Relevant traffic data was provided by the municipality, the county, and the province; any gaps were collected by the project team.

Weekday peak period traffic volumes at various intersections in Almonte were evaluated. Operational analysis was conducted using the Synchro v11 software for signalized and unsignalized intersections, and the SIDRA v9 software for roundabouts. A screenline analysis was also conducted along the Mississippi River in Almonte to assess the Main Street and Bridge Street bridges.

In the rural areas and villages, mid-block average annual daily traffic volumes (AADT) were reviewed and compared with AADT data at generally the same locations/ corridors used in the 2016 TMP. The comparison helped determine the degree of traffic growth between the two studies, particularly on county roads.

The general operational criteria at both intersections and mid-block along corridors were as follows:

- LOS D or better, v/c ratio < 0.91: acceptable results, no further actions needed.
- LOS E or v/c ratio 0.91 - 1.00: increased congestion risk – still adequate operations but the location/ corridor will be sensitive to increasing vehicle demand.
- LOS F or v/c > 1.00: high risk of congestion – the municipality should consider road network mitigation to increase capacity or specialized strategies to reduce vehicle use.

Existing Traffic Volumes

Intersection traffic volumes were collected at ten intersections in the Almonte over the course of 2023. The data was collected in the morning, midday and afternoon peak periods and included passenger vehicles, heavy vehicles, bikes, and pedestrians. The peak commuter hour in each of the morning (AM) and afternoon (PM) was identified. The data indicated the following:

- Ottawa Street had the highest two-way vehicle volume between 800 vehicles and 1,500 vehicles in the peak hours.
- Main Street and Almonte Street had two-way vehicle volumes between 500 and 800 vehicles in the peak hours.
- County Road 17 (Martin Street), County Road 29 (Christian Street) and County Road 16A (Queen/ Bridge/ Perth Streets), had two-way vehicle volumes ranging between 300 and 700 vehicles in the peak hours.

In the rural areas and villages, mid-block average daily traffic volumes (ADT) were collected along several municipal and county roads. The dates of data collected varied greatly, but for this evaluation, data collected between 2019 and 2023 were considered. The evaluation indicated the following:

- Recorded ADT volumes were generally low along municipal roads in the rural areas and villages - no greater than 1,600 vehicles per day, with the highest volumes recorded along Ramsay Concession 8 and Clayton Road. For the most part, ADT were within the normal ranges for a rural local road class.
- Recorded ADT volumes were moderate to high along certain county roads in the rural areas and villages, specifically along County Roads 16, 29 and 49, where daily traffic volumes of approximately 3,500, 8,200 and 10,300 vehicles per day respectively were recorded. These volumes are indicative of the important function of county roads in the municipality. These results are still within acceptable capacity limits of rural arterial roads.
- A comparison with the ADT results in the 2016 TMP shows that daily traffic volumes have generally increased, but only notably on county roads. The ADT increased by 1,000 vehicles per day along County Roads 16, 17 and 29, and by over 2,300 vehicles on County Road 49. Along rural municipal roads, the change in daily traffic volumes has been negligible since 2016.

In addition to municipal and county road traffic volumes, data was collected for the short section of the provincial Highway 7 passing through the southwest corner of the municipality's boundary. The data collected indicated that AADT volumes along the highway were approximately 6,300 vehicles in 2022, which is well within the operational capacity of a provincial highway.

Traffic Signal Warrant Analysis

A traffic signal warrant analysis determines whether an unsignalized intersection should be considered for an upgrade to a traffic control signal using the *Ontario Traffic Manual (OTM) Book 12* methodology. The warrant analysis was completed at current unsignalized intersection locations that had potential to be warranted, specifically Almonte/ Mill, Bridge/ Country, and County Road 29/ Perth, and found none of these locations triggered the warrant.

Summary of Road Network Capacity Analysis Results

The evaluation of the existing road network in Almonte under existing traffic conditions showed all intersections operate within acceptable standards. Screenline analysis across the Almonte Street bridge and Bridge Street bridge indicates that the two bridges are currently operating at less than 60% of their capacity. The ADT along noted corridors in the rural areas and villages, including rural bridges, do not exceed available lane capacities.

The existing urban and rural road network evaluations do not suggest there are significant or systemic capacity issues or constraints in the system.

Electric Vehicle (EV) Stations

There are currently three level two (J1772) charging stations available for public use in the municipality, which are all located within Almonte: 250 Almonte Street, 182 Bridge Street, and 155 High Street.

What We Heard

Feedback received during the consultation process yielded the following concerns and desires relating to the existing road network:

- **Concerns with speeding along several roads:**

- In the rural areas: Clayton Road, Ramsay Concession 8, and Country Street.
- In Almonte: Robert Street, Malcolm Street, Paterson Street, Honeyborne Street, Queen Street, Bridge Street, Ottawa Street, Main Street and Almonte Street.
- Congestion along Ottawa Street creating difficulty in completing turns from side streets onto Ottawa Street; the need to provide an alternative bridge route around Almonte.
- A request to consider preventing transport trucks from travelling through Almonte.
- Safety issues at the March Road roundabout, including short merge lanes.
- Increase in traffic volumes along residential local roads because of future developments in Almonte, some of which include Martin Street, Honeyborne Street and Union Street.
- Need to address road maintenance on some roads including Old Perth Road, Clayton Road, and Argyle Street.
- Congestion on Paterson Street due to traffic travelling to schools.

2.4 Needs for Sustainable Modes

2.4.1 Active Transportation

Specific Policies

Mississippi Mills Community Official Plan (2019)

The *Mississippi Mills Community Official Plan* (COP) provides additional active transportation guidance such as:

- Promote active modes and update existing infrastructure accordingly.
- Maintain and enhance the existing sidewalk, path, and trail networks, filling in any missing links.
- Maintain the right-of-way previously used as rail corridors to be retrofitted for future transportation use.

Mississippi Mills Comprehensive Transportation Master Plan (2016)

The previous Transportation Master Plan (TMP) provides policies that emphasize the role of active modes for local trips. These included that:

- New roads should be designed with facilities for pedestrians and cyclists.
- Facilities should be added to existing roads at the time of reconstruction.
- Key gaps in the pedestrian and cycling networks should be identified and prioritized.
- Pedestrian and cycling crossings of major roads should be improved as needed.

Mississippi Mills Active Transportation Plan (2015)

The Active Transportation (ATP) provides policies for implementing the ATP. These included:

- Updating the *Mississippi Mills Community Official Plan* (2006) to include:
 - Recognition of the benefits of active transportation in creating a healthy and complete community.
 - Recognition of the active transportation Plan and the recommended bicycle and pedestrian networks identified within this plan.
 - Policy to support pedestrian connectivity through new neighbourhoods, to parks, and community facilities.
 - Guidelines to inform when active transportation facilities should be provided for in and connecting to new developments.
 - Harmonizing with and informing changes to other municipal by-laws and policies including the Parking By-Law, the Winter Control Policy, and the Development Charges By-Law.

- Include Accessibility and Street Lighting policies.
- Accessibility requirements in future infrastructure projects, specifically relating to exterior paths of travel policies identified in the AODA.
- Winter maintenance requirements:
 - Class 1 facilities are maintained with 8-hours of a winter event.
 - Class 2 facilities are cleared within 24-hours of a winter event.
 - Class 3 facilities are not winter maintained.
- Operational improvements included:
 - Review and updating pedestrian crossings.
 - Review of traffic signal operations and timing.
 - Provision of bicycle detectors at traffic signals.
 - Replacement of older style catch basin covers compatible with bicycle tires.
 - Enforcement of parking restrictions on bike lanes.

Mississippi Mills Comprehensive Zoning By-Law #11-83

The Municipality’s Comprehensive Zoning By-Law sets out the bicycle parking requirements throughout the municipality:

- Bicycle Parking minimum requirements as identified in Table 7.
- Bicycle parking must be located on the same lot as the use or building for which it is provided.
- Bicycle parking spaces must be located to provide convenient access to main entrances or well-used areas.

Table 7: Minimum Bicycle Parking Requirements

I - Land Use	II - Minimum Number of Spaces Required
Apartment building, low-rise	0.50 per dwelling unit
School	1 per 100 m ² of gross floor area
Bank, convenience store, daycare, office, post office, post-secondary educational institution, restaurant, retail food store, retail store	1 per 250 m ² of gross floor area
Library, municipal service centre, personal service business, service and repair shop, shopping centre	1 per 500 m ² of gross floor area
Airport, hospital, hotel, light industrial use, medical facility	1 per 1,000 m ² of gross floor area
Animal clinic, storage yard, warehouse	1 per 2,000 m ² of gross floor area
All other non-residential uses	1 per 1,500 m ² of gross floor area

Complete Street Policy PW-03

The Mississippi Mills *Complete Streets Policy* provides policies to guide implementation throughout the municipality:

- New roads will include appropriate facilities for pedestrians, cyclists, and vehicles.
- Pedestrian and cyclist facilities will be added to existing road when reconstructed.
- Key gaps in the pedestrian and cycling network will be prioritized.
- Pedestrian and cyclist crossings of arterials and collectors will be provided based on active transportation (AT) traffic patterns.

- Maintenance policies will be followed for all active transportation facilities.

County of Lanark Transportation Master Plan (2010)

The County's Transportation Master Plan (TMP) policies establish the process for the identification of traffic related safety concerns and accessibility barriers on county roads, and the selection of mitigation measures that can be incorporated into capital planning projects. For safety related concerns these include:

- The resolution process for identifying and evaluating traffic concerns, and requirements for implementing solutions.
- Recommended traffic calming measures.
- Recommended speed management measures.

Further discussion related to the recent release of the county's draft Speed Management Policy (2023) can be found in **Section 6.3.2**. For accessibility barriers these include:

- The assessment and mitigations process for identifying accessibility needs and selecting implementation measures.
- Recommended planning guidelines for addressing specific barriers.

Planned Active Transportation Infrastructure

The Mississippi Mills 2016 TMP document outlines an "AT Infrastructure Project Prioritization Plan", which includes several recommended active transportation projects, each assigned a "priority" indicating the approximate order in which they should be targeted for funding. This table can be found in **Appendix F**, with an additional column indicating whether the project has been completed since the publication of the TMP document. Although the TMP is somewhat unspecific about the exact intended interventions for designated cycling routes, it is assumed that:

- *Rural Spine Routes* were to feature paved shoulders or an otherwise widened roadway surface.
- *Rural Secondary Routes* were to feature at a minimum "cycling route" signage.
- The *Urban Spine Network* was to be defined by separated facilities, e.g. painted on-road bike lanes as a minimum.
- *Urban Primary Cycling Routes* were also to be defined by the presence of dedicated facilities.
- *Urban Secondary Cycling Routes* were to be signed as designated routes, at a minimum.

Municipal staff confirmed there are no active transportation specific capital projects planned at the time of this study. Lanark County confirmed various upcoming renewals will feature updated paved shoulder requirements – list of planned renewals can be found in **Section 2.5.1**. The planned Highway 7 renewal project by MTO does not introduce new active transportation facilities, only reinstatement of existing paved shoulders.

O. Reg. 369/09: Power-Assisted Bicycles

Ontario Regulation 369/09: Power-Assisted Bicycles sets out the legal requirements for operating an e-bike in the province. The regulation sets out the maximum weight and assisted speed, electric motor requirements and power output limits, minimum wheel widths, as well as braking system requirements.

O. Reg. 389/19: Pilot Project – Electric Kick-Scooters

Ontario Regulation 389/19: Pilot Project – Electric Kick-Scooters outlines the requirements for participating in the e-scooter provincial pilot program. These include where e-scooters may be permitted, requirements for usage, and the roles of the municipality. This regulation will be revoked on November 27, 2024, marking the completion of the program.

O. Reg. 389/19: Pilot Project – Electric Kick-Scooters

Ontario Regulation 141/21: Pilot Project – Cargo Power-Assisted Bicycles and amendment 321/21 establishes the legal requirements for participating in the pilot, intended to evaluate the use and operation of cargo power-assisted bicycles. These include the legal definition, where operation is permitted and prohibited, requirements of the operator, required equipment for operation, and the requirements of the municipality. The pilot project commenced on April 19, 2021, and will be completed on March 1, 2026.

Needs, Opportunities and Challenges

Feedback heard during the consultation process suggests there are widespread concerns for the safety and comfort of pedestrians and cyclists, particularly in Almonte. The common factor was the conflict with vehicles related to speeding, volume/ congestion, the lack of adequate space on both urban and rural roads, the downtown district area in Almonte, and in neighbourhoods close to future development areas. Specific concerns were raised about the challenges of navigating the Almonte roundabout and the number and frequency of transport and dump truck traffic travelling through Almonte.

All these issues present barriers to active transportation adoption and retention. Parents may be reluctant to allow their children to travel on their own, while other individuals with limited mobility or transportation options may find it increasingly difficult to safely and comfortably navigate through these spaces to access basic needs and services. These barriers contribute to the belief that there is a lack of equity and inclusivity in the transportation system.

The transportation trends reviewed in **Section 2.2.2** confirmed roughly one-third of residents also work within Mississippi Mills; however, only 5% reached their destination by walking and less than 1% by bicycle. This coupled with the municipality's aging population offers an opportunity to convert local trips less than 5 km in distance to other alternative and affordable travel options. Additionally, there is an opportunity to convert rural trips to other alternative and affordable travel options through the provision of transportation facilities that are respective of the rural context – and leveraging the OVRT as a commuter corridor for active users with more connections and better integration within the settlement areas.

There's also a need to revisit active transportation policies and programs as it relates to new developments, design standards, maintenance, and education and promotion, to reflect contemporary best practices and approaches that will maximize the comfort, safety, ease of use, and directness of active transportation infrastructure in the municipality.

2.4.2 Transit and Ridesharing

Specific Policies

The Official Plan has general considerations for public transportation. It outlines the limited opportunities due to geography and population densities today, but highlights that in the long run, may be achievable as the municipality grows, particularly in its highest population centre: Almonte. It encourages the municipality to pursue future opportunities for public transit links with the City of Ottawa; needs for carpool and park and ride facilities; work with

other jurisdictions to coordinate commuter services; and co-operate with Lanark County and other public and private authorities on public transportation initiatives.¹⁴

The Mississippi Mills 2016 TMP does not recommend any plans for future municipally funded transit services given the already noted challenges; however, the report does encourage privately organized public transit between Mississippi Mills and the City of Ottawa and supplementing the existing community-based Lanark Transportation service (previously discussed in **Section 2.4.2**) with encourage future on-demand services and the implementation of new carpool lots.

The Lanark County TMP acknowledged the need to promote alternative transportation modes and the importance of providing more choices to residents but cited the costs of developing a transit system as a deterrent to implementation.

Needs, Opportunities and Challenges

The lack of public transportation in smaller communities can lead to the exodus of those who depend on it. The youth may relocate to larger cities for work or educational reasons rather than commute from afar. The elderly may be forced to move to relocate to receive regular medical treatments without a reliable and affordable means to make their appointments (or to visit their partner receiving treatment). The latter point is of particular importance to Mississippi Mills since the recent census confirmed the municipality has a predominantly older population and the median age has been steadily increasing over time (refer to **Section 2.2.1**).

The lack of public transportation may also directly affect the local economy. A rural transit study titled *Rural Transportation Issues and Options for County of Lanark* found that quite frequently, good jobs in rural settings sat with vacancies as the employers struggled to find employees who could commute to the site.¹⁵ During the TMP public consultation process, one of the recurring themes and desires of stakeholders was to offer more choices for residents and visitors on how they can access amenities, destinations and business within the municipality and county at large. Demographic and transportation trends reviewed in **Section 2.2.2** confirmed roughly two-thirds of residents of the municipality work outside the municipality, with the largest employment destination being the City of Ottawa. More importantly, over half of persons employed in the municipality are residents of the municipality. Providing affordable options for both long and short-distance commuter trips must be a priority; however, this creates a challenging operating environment without strategic partnerships with adjacent municipalities or private operators. One of the risks is the impact of service duplication that ultimately limits ridership potential. Lanark Transportation already provides specialized service within the county, Leduc Bus Lines Ltd. previously provided service to the City of Ottawa for commuters, and while service was suspended during COVID-19, the possibility exists they may return to service.

There are also challenges to develop a municipally owned and operated traditional transit system. The initial capital costs (such as buses, infrastructure, amenities etc.), operating costs (such as fuel/ electricity, onboarding, drivers, fare collection etc.) and the size of the municipality combined with low population density are notable barriers to a traditional transit system; however, there have been innovative new approaches to rural transit in recent years that leverage advances in information technology and smaller scale fleet options (such as on-demand shuttle service and microtransit). New technologies and innovations represent opportunities that could be explored further.

¹⁴ Municipality of Mississippi Mills Community Official Plan. Municipality of Mississippi Mills. 2019. pg 167.

¹⁵ Rogers, N. & Leitch R. (2016). Rural Transportation Issues and Options for County of Lanark. Sonoptic Media & Communications.

2.5 Long-Term Road Network Needs

The municipal road network performance was assessed in three different time horizons: 5-year, 15-year, and 25-year, representing the 2028, 2038 and 2048 horizon years.

2.5.1 Planned Roadway Infrastructure

Ministry of Transportation, Ontario (MTO) - Highway 7 Renewal

The MTO has undertaken a Detail Design and Class Environmental Assessment (as a Group 'C' project) for the resurfacing, operational improvements, intersection improvements and structural rehabilitations on Highway 7, from 0.9 km west of Paul's Road to Carleton Place, Lanark County. Identified solutions within the municipality include:

- Fully reconstructed pavement of the right turn taper at Ramsay Concession 4A intersection and partial paved shoulder on the north side of the right turn taper.
- Installation of new opposing left-turn lanes (eastbound and westbound) at the Pup Patrol (Waggs' n Whiskers), A1 Towing and Ramsay Concession 5A intersection (as depicted in Figure 9).

The MTO is still reviewing the identified improvements at the Highway 7 intersections based on concerns from the public, to see if further improvements are required. No decisions have been made as of the writing of this report.

Figure 9: Technically Preferred Alternative - The Pup Patrol/A1 Towing and Ramsay Concession 5A



County of Lanark

Table 8 lists the planned capital road projects within Mississippi Mills over the next 10 years. These projects represent opportunities to bundle additional enhancements along these corridors in support of the TMP.

Table 8: Lanark County Planned Road Projects within Mississippi Mills (2024 – 2033)

Year	Road	Description	From – To	Length (km)
2024	CR#20 Kinburn Side Road	PR1	Boundary – Five Arches Bridge	1.9
2025	CR#20 Waba Road	PR1	Shaw Road – OVRT	5.5
	CR#20 Kinburn Side Road	BR	Five Arches Bridge	N/A
	CR#49 March Road	PR1	Appleton Side Road - Boundary	2.9
2026	CR#20 Waba Road	PR1	OVRT – Five Arches Bridge	0.8
	CR#11 Wilson Street/River Road	PR1	CR29 – Appleton Side Road	3.25
2027	CR#29 County Road 29	BR	Indian River Bridge	N/A
	CR#17 Blakeney Road	PRD	Needham Side Road – Kinburn Side Road	3.71
2028	CR#29 County Road 29	R1	McWatty Road – Walter Bradley Road	4.8
2029	CR#16 Wolf Grove Road	R1	Ramsay Concession 4B – Christian Street (CR29)	6.5
	CR#29 County Road 29	C1	Snedden Road – McWatty Road	7.47
2030	CR#29 County Road 29	C1	Perth Street (CR16A) – McWatty Road	15.12
2032	CR#11 Wilson Street	BR	Appleton Bridge	N/A
2033	CR#29 County Road 29	C1	Ramsay Concession 8 – Wilson Street (CR11)	1.89
	CR#29 County Road 29	C1	Wilson Street (CR11) – Perth Street (CR16A)	7.35

Notes:

PR1 - Pulverizing, Restoration, 1-Lift Warm Mix
 BR – Bridge Rehabilitation
 PRD – Pulverizing, Restoration, Double Surface Treatment
 R1 – Restoration, 1-Lift Warm Mix
 C1 – CIP, 1-Lift Warm Mix

Municipality of Mississippi Mills

The Development Charge (DC) Bylaw 2021 Update, identifies infrastructure costs covered in the DC calculation for increased service needs attributable to anticipated development, shown in Table 9.

Table 9: Planned Infrastructure Projects (DC Bylaw - Table 3-1)

Project No.	Increased Service Needs Attributable to Anticipated Development (2018 - 2037)	Timing (year)	Status
1	Ottawa Street Reconstruction	2014-2025	Incomplete
2	TMP-1: North Collector Schedule C EA Study and Preliminary Design - Martin Street North to Ramsay Conc 11 (1.5km).	-	Incomplete
3	TMP-13: North Collector Detailed and Construction - Martin Street North to Ramsay Conc 11 (1.5km).	2035	Incomplete
4	TMP-20: Ramsay Conc 11A Reconstruction – Ottawa Street to North Collector (600m)	2028	Incomplete
5	TMP-22: 4 th Conc. Pakenham Reconstruction – Campbell Side Road (CR24) to Mississippi Mills North Limit (1km)	2035	Incomplete

Project No.	Increased Service Needs Attributable to Anticipated Development (2018 - 2037)	Timing (year)	Status
6	TMP-23: Ramsay Conc 8 Reconstruction – Wolf Grove Road to Clayton Road (3.1km)	2035	Incomplete
7	TMP-24: Ramsay Conc 7A Reconstruction – Rae Road to Mississippi Mills South Limit (5.5km)	2035	Incomplete
8	TMP-26: Menzie Street Construction – Ottawa Street to Maude Street (300m)	2018	Complete

As part of this TMP, some of these projects will be revisited with a revised scope and schedule, specifically projects #2, #3, and #4. The remaining incomplete projects that are not included in this TMP may still be included in the next DC Bylaw update but were not within the identified scope of this TMP for reassessment.

2.5.2 Future Traffic Volumes

Section 2.2 introduced the JLR Report and growth scenarios in the municipality in three separate time horizons: 5-year (2028), 15-year (2038), and 25-year (2048). Future traffic volumes at each horizon were developed based on existing data, forecasted traffic from local traffic studies in support of development applications, and population and employment growth forecasts. The technical process to develop the future traffic volumes can be found in the “Traffic Analysis and Trip Generation Memo” in **Appendix E** and has been summarized below.

The JLR Report provided land use assumptions within each future growth area for each horizon year, including residential, industrial, office, and retail. An important assumption with the overall approach is that the existing mode choice among residents within the municipality will not change significantly in the next 25-years assuming status quo or business as usual – there may be minor shifting towards transit or active modes organically over time as pre-COVID services resume, but they were considered insignificant for establishing the baseline. Corresponding peak hour trips were estimated using industry standard conversion rates, which were layered over existing traffic volumes:

- **Year 2028** – Existing Traffic + Growth Areas Traffic in the next 5-years
- **Year 2038** – Year 2028 Traffic + Growth Areas Traffic between 5- and 15-year horizons
- **Year 2048** – Year 2038 Traffic + Growth Areas Traffic between 15- and 25-year horizons

In general, a large proportion of future traffic is expected to be generated or destined within Almonte or will eventually cross through Almonte if they are commuting to the City of Ottawa. This is not unexpected since roughly 70% total population growth forecasted over the next 25 years is expected in proximity to Almonte. Ottawa Street and March Road are expected to continue to be a popular route for commuters travelling to/ from Ottawa. As a result, a most notable outcome was that traffic along the Ottawa Street and March Road corridors is expected to double from existing conditions by the 2048 horizon year.

Within the rural areas and villages, growth exists but is less pronounced. There was only marginal growth in average daily traffic volumes (ADT) along key rural corridors through to the 2048 horizon year and most municipal rural local roads still operate within acceptable ranges for their road class, there may be consideration given to upgrading certain municipal rural local roads that experience higher ADT, such as Clayton Road and Ramsay Concession 8. Further discussion on the future municipal road classification system is provided in **Section 4.1**.

Peak hour traffic volumes on Ottawa Street and March Road are expected to double over 25-years.

There was only marginal growth in the rural network, suggesting there will not be significant capacity issues within the 25-year planning horizon.

2.5.3 Future Traffic Operations

As previously discussed in **Section 2.3.3**, the same evaluation criteria used to assess existing traffic conditions was utilized for future traffic conditions. The detailed evaluation and results are documented in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E**. A summary of the performance of the existing road network in the three future traffic scenarios in Almonte (i.e. reflecting the “do-nothing” or “business as usual” scenario) is presented in Table 10.

Table 10: Summary of Existing Road Network Performance with Future Traffic Volumes

Location	Performance Summary
2028 Horizon Year	
Corridors	No significant capacity constraints are anticipated along corridors in the municipality.
Intersections	Analysis indicates that no new infrastructure or physical modifications are needed beyond optimizing signal timings at traffic control signals in Almonte. Design modifications at intersections may still be implemented to improve safety as needed.
Bridges	A screenline analysis showed there is sufficient capacity along the two Almonte bridge crossings (Main Street and Bridge Street) over the next 5-years.
2038 Horizon Year	
Corridors	Notable congestion is expected in Almonte along Ottawa Street, especially within the two-lane section between Paterson Street and Martin Street. Some growth in traffic volumes is anticipated along roads in rural areas and villages. The volumes are expected to remain within the available capacity of the respective roads, though some rural local roads may be considered for upgrade to a rural collector class; however, daily volumes along March Road are expected to be approaching its theoretical capacity.
Intersections	Some capacity constraints are expected at intersections primarily within Almonte. Signalized intersections along Ottawa Street, Main Street and Almonte Street may require modifications to accommodate traffic. No concerns are anticipated at intersections in rural areas and villages.
Bridges	While congestion is expected to increase, both bridges are still expected to adequately accommodate travel demand.

Location	Performance Summary
2048 Horizon Year	
Corridors	<p>In Almonte, significant capacity constraints are expected along Ottawa Street. Due to significant intersection capacity constraints, Main Street and Almonte Street corridors may also experience congestion. High risk of gridlock along minor roads particularly intersecting Ottawa Street, potentially causing traffic congestion in local neighbourhoods.</p> <p>For roads in rural areas and villages, traffic volumes are expected to grow but stay within the theoretical capacities of the respective roads for all municipal roads and most county roads. The one exception is County Road 49 or March Road, which is expected to exceed capacity.</p>
Bridges	Capacity along both bridges is expected to be insufficient to accommodate travel demand
Intersections	<p>Intersections within Almonte along the Ottawa Street/Main Street/Almonte Street corridor, as well as along the Bridge Street/Queen Street/Perth Street corridor are expected to experience capacity constraints in the future. High delays and congestion will occur at most signalized intersections, with design modifications potentially needed at signalized intersections and the March Road roundabout to accommodate future constraints.</p> <p>Given the available capacity along roads in rural areas and villages, no major concerns are anticipated at intersections outside of Almonte.</p>

2.6 Summary of Needs and Opportunities

Table 11 summarizes the overall street network needs and opportunities identified in the preceding sections.

Table 11: Summary of Needs and Opportunities

Theme	Needs or Opportunities
GENERAL THEMES	
Sustainable Transportation	<p>The 2021 Census and the community survey conducted for this TMP identified opportunities to increase active transportation use in the municipality.</p> <p>While the personal vehicle will continue to be the primary preferred mode of transportation for commuters and long-distance trips, there is a strong desire for more affordable options for more vulnerable and mobility impaired residents.</p> <p>Corresponding language in the OP can be strengthened to recognize these long-term objectives.</p>
“Complete Streets” Philosophy	<p>There is an opportunity to include stronger, more contemporary language in the OP, reflecting industry best practices that epitomize a more holistic (“complete streets”) philosophy.</p> <p>While the 2016 Mississippi Mills TMP acknowledges the importance of “complete streets” principles, it starts from an assumption that these principles are not achievable everywhere, which undermines the intent of the philosophy. The TMP will build upon the previous efforts to broaden and strengthen “complete streets” language in the OP.</p>

Theme	Needs or Opportunities
Urban and Rural areas	<p>The current OP outlines various transportation policies specific to urban and rural areas, which can be revised to reflect current conditions and outcomes stemming from this TMP. For example, the preservation of built-up urban areas through the study of alternative traffic routes has been investigated in this TMP.</p> <p>Also, there is a lack of specific transportation policies that acknowledge challenges for active travel and rural vehicles (e.g., farm vehicles) in rural areas.</p>
Accessibility	<p>Acknowledgement of national or provincial safety policies and standards, including accessibility (meaning the Accessibility for Ontarians with Disabilities Act or AODA), ensuring all capital projects strive to achieve optimal standards, not just minimum, and providing the municipality with tools and guidance to address certain public concerns related to road safety.</p>
Equity and Inclusivity	<p>The TMP provides an opportunity to expand on contemporary transportation planning principles, such as equity and inclusivity, such as the “8 to 80” or “complete streets” approaches that strive to reduce barriers and constraints facing vulnerable (which can be physically or financially) persons.</p>
Environmental Stewardship	<p>The current Official Plan strives to improve the overall health and quality of life for residents. This should extend to the environment, and the importance of environmental stewardship when considering long-term transportation planning decisions. For example, acknowledgement and ensuring capital projects align with the recent Climate Action Plan for Lanark County (2023).</p>
Affordability and Economic Sustainability	<p>Aspire to adhere to current economic policies within the Official Plan to maintain financial sustainability of future transportation infrastructure and investing in programs that will promote local businesses and spur the local economy.</p>
ACTIVE TRANSPORTATION	
Pedestrian infrastructure	<p>There are various pedestrian infrastructure needs identified in this TMP, including but not limited to:</p> <ul style="list-style-type: none"> • Address gaps in sidewalk urban network. • Sidewalks do not consistently meet contemporary design standards. • Obstructions reduce sidewalk effective width. • Greater consideration of pedestrian comfort and experience on recreational trails and at road crossings. • Stronger sidewalk requirements in new road or road retrofit/renewal projects. <p>There is also a need for a more clearly defined sidewalk implementation 'priority' system to help guide financial planning and targeted investment.</p>
Cycling infrastructure	<p>There are various cycling infrastructure needs identified in this TMP, including but not limited to:</p> <ul style="list-style-type: none"> • Gaps in the urban cycling network. • Lack of cycling facility continuity. • Greater consideration of cyclist comfort and experience on rural and urban facilities. <p>There is also a need for a more clearly defined cycling infrastructure implementation system to help guide financial planning and targeted investment.</p>

Theme	Needs or Opportunities
Active Transportation integration at intersections and crossings	<p>There is a need to adopt contemporary cycling treatments, pedestrian treatments, and pedestrian crossovers (PXO). These may include, but not limited to:</p> <ul style="list-style-type: none"> • Provision of accessibility features such as TWSIs and audible crossing signals as set out in the AODA. • Ensure all existing PXOs reflect current standards as set out in OTM Book 15. • Cycling integration at intersections for different facility types, e.g., cycle tracks or multi-use pathways, as per OTM Book 18.
Development review support	<p>There is a need to adopt contemporary language in the development review process to reflect various policies and strategies developed in this TMP. For example, include “permeability” when considering active transportation modes in subdivision design through the use of easements; adopt the TIA Guideline developed in this TMP that includes greater considerations for sustainable modes and “complete streets” philosophy etc.</p>
ROADS	
Corridor Capacity	<p>There is a long-term need to address road corridor capacity at the following locations to accommodate future growth in the municipality:</p> <ul style="list-style-type: none"> • Almonte Street: County Road 29 to Mary Street • Main Street E: Mary Street to Martin Street • Ottawa Street: Martin Street to Ramsay Concession 11A • March Road: Appleton Side Road to Golden Line Road <p>There is also a need to ensure the road network has the appropriate resiliency to avoid spillback of traffic onto local roads to service vehicle traffic, particularly in Almonte.</p>
Intersection Capacity	<p>There is a long-term need to modify some existing intersections within Almonte to accommodate future growth in the municipality. If “status quo” is maintained, by the 25-year horizon several intersections along Ottawa Street, Main Street, Perth Street, Bridge Street, Almonte Street, and County Road 29 within the municipality will require additional capacity.</p>
Complete Streets Retrofits	<p>There are several existing streets that do not align with current design standards or contemporary thinking, specifically with regard for the complete streets approach to road design. There is an opportunity to provide the municipality with guidance on where, when, and how to better accommodate all road users, of varying age and ability, in new roads and during road retrofits/rebalancing.</p>
Road Classifications	<p>The 2016 Mississippi Mills TMP developed a new road classification system that has yet to be adopted in the Official Plan. This TMP will revisit the road classification recommendations and refine them, so they reflect the long-term outlook of the road network and unique contexts that exist in the municipality. For example, consider introduce “urban” and “rural” subclasses, that will lead to distinct treatments, guidelines, and policies in these areas.</p>

Theme	Needs or Opportunities
<p>Road Design Guidelines</p>	<p>While the 2016 Mississippi Mills TMP began the process of developing standard cross-sections, and the municipality built upon them in their own Complete Streets Policy. There is an opportunity to review best practices and provide updated design criteria and standard cross-sections, catered to the context and preferences of the municipality that will guide the construction of new roads and the reconstruction of existing roads in the future. Unique characteristics or contexts to consider may include provisioning for wider shoulder requirements on rural roads to better accommodate rural vehicles, e.g., farm vehicles, or incorporating cycling facilities in standard road designs.</p>
<p>TRANSIT AND RIDESHARING</p>	
<p>Transit Service</p>	<p>There are opportunities to leverage existing transit service and system expansions by neighbouring municipalities or private operators, including:</p> <ul style="list-style-type: none"> • Lanark Transportation and their ongoing service expansion to key municipalities within the county. • The City of Ottawa continuing their Stage 2 LRT expansion west to Moodie Drive station. • Leduc Bus Lines Ltd, who are reviewing options to restart commuter service to Ottawa within the county.
<p>Ride Sharing and Park and Rides</p>	<p>Lanark County recently joined a "community carpool" program (partnership with the counties of Frontenac and Lennox and Addington — a program driven by Rural Frontenac Community Services). This is a significant building block, and if successful presents an opportunity to expand offerings. Both MTO and Lanark County provides park and ride lots for residents to use to carpool/ rideshare. The municipality should investigate opportunities to provide a new lot if transit service were to resume in Almonte.</p>
<p>SUPPORTING POLICIES AND STRATEGIES</p>	
<p>Transportation Demand Management</p>	<p>There is a need to encourage sustainable modes of travel and reduce single-occupant vehicle travel, thereby increasing the resiliency of the long-term road network, as well as the various intrinsic benefits of reducing overall vehicle use from an environmental, social, and fiscal perspective. The TMP will review best practices and provide policy recommendations and a supporting framework with action items and potential strategies to promote and support the infrastructure investments made in sustainable modes of travel.</p>
<p>Safety</p>	<p>Safety is intrinsic to road design, but sometimes issues or public concerns arise after implementation that require intervention. One of the most common issues is vehicle speeding, which directly impacts not just road users, but all users in the corridor space. There is a need to provide the municipality with guidance on speed management policies and practices based on best practices, including the use of traffic calming measures to address vehicle speeding, and other concerns relating to vehicle safety. Concerns from residents surrounding speeding on various roads should be investigated.</p>

Theme	Needs or Opportunities
<p>Development Review Process</p>	<p>Communities are built through the collaboration of various public and technical agencies, the development community, technical consultants, and a wide range of stakeholders as part of a municipal development approval process. The transportation system is the means for communities to connect, interact, access, and grow. As such, it is in the best interests of all parties to support a community that integrates well with the municipality’s long-term vision for the transportation system.</p> <p>As travel patterns evolve, the needs of the transportation system change, meeting the requirements of the development approval process also need to evolve to ensure they support the long-term vision of the municipality and its communities. The TMP represents an opportunity to provide the municipality with recommendations to augment the development review process that will support a more sustainable and multi-modal transportation system. Some aspects of the development review process that will be touched on in this TMP include:</p> <ul style="list-style-type: none"> • Develop a framework for transportation impact studies (TIS) to support development applications, ensuring the transportation implications of a planned development is properly assessed by the developer prior to receiving approval. • Consider TDM requirements as part of the development review process, encouraging the development community strive to reduce single-occupant vehicle usage. • Strengthening policies and By-laws that better support sustainable modes, ensuring all future developments will align with the vision and objectives of this TMP (some examples are provided in the next topic below).
<p>Specific Official Plan and/ or Bylaw Amendments</p>	<p>There is an opportunity to strengthen existing Official Plan and/ or specific By-law language to better encapsulate the vision and objectives of this TMP, including but not limited to:</p> <ul style="list-style-type: none"> • Adopting the “complete streets” approach and the various plans, right-of-way protections, and design guidelines developed based on this philosophy. • Strengthening language in the relevant By-laws to ensure any new municipal road connection within future developments adhere to the road hierarchy and relevant design guidelines. • Strengthening the requirements for active transportation amenities, facilities, and connections to the municipal active transportation network for all future developments. • Strengthen language public amenities and services that support active transportation, transit, and ridesharing. • Considering specialized exemptions to reduce minimum parking requirements in specific areas within the municipality, for example, the Downtown Commercial area. • Consider proactive transit supportive policies if/ when transit service returns to the municipality, such as ensuring future developments provide active transportation connections to the adjacent municipal network in the direction of the nearest transit facility as directly as possible. • Reviewing specific development review issues including the treatment of corner triangles, local road widenings, intersection widenings, and private roads.
<p>Goods Movement</p>	<p>Through consultation with municipal staff and the public, there is a strong desire to reduce the impact of transport trucks in settlement areas, particularly Almonte. The TMP will review such options as part of the road network strategy, without compromising the local economy.</p>
<p>Maintenance</p>	<p>As per feedback from public stakeholders, there are concerns with the conditions and road maintenance of some roads within the municipality, including Old Perth Road, Clayton Road, and Argyle Street.</p> <p>There is also a need to establish a maintenance program which identifies active transportation maintenance priorities as established in Ontario Regulation 366/18.</p>



2.7 Crafting a TMP Vision

The following section outlines the key pillars of the Mississippi Mills TMP, beginning with the establishment of a vision and set of objectives. These guiding principles were developed through consultation with the public and with municipal staff and are meant to express the values of these stakeholders as they relate to the transportation system. They additionally reflect the Council priorities set out by the municipal council: high quality of life, sustainable infrastructure, modernization and operational excellence, economic development, and financial management.

2.7.1 Vision and Objectives

The following vision was developed based on existing policy documents, input from public and stakeholders, and consultation with municipal staff. The Mississippi Mills TMP vision is as follows:

“The Municipality of Mississippi Mills will have a transportation system that is inclusive, accessible, and safe for all users. The transportation system will be environmentally sustainable and support the local economy by continuing the efficient movement of people and goods within the municipality and to adjoining regions. These qualities reflect the rural and small-municipal character with its rich cultural history while promoting a healthy and vibrant community.”

To support the vision, the following general objectives were developed based on feedback received from municipal staff, stakeholders, and the public:

- Develop a transportation system that prioritizes inclusivity, equity, and accessibility, one that is welcoming to all users regardless of age, physical ability, and financial means.
- Emphasize sustainable travel modes to reduce pollution and climate implications, enhance quality of life through active living, and offering more choices for residents who cannot drive, or have limited or no access to an automobile.
- Maintain satisfactory vehicular mobility to support local tourism and the local economy.
- Improve road safety, especially to the most vulnerable groups.
- Emphasize permeability and connectivity, particularly among active modes, and overcome barriers that separate communities and important destinations.
- Implement the TMP in a fiscally responsible manner.

2.7.2 The TMP Strategy

Various transportation strategies exist to address the different transportation needs and opportunities in the municipality. In some cases, multiple strategies may be used to tackle a single problem, or a single strategy may be used for multiple problems. The following section discusses some of the key strategies exemplified in this TMP – some are overarching and permeate throughout while others are specific to a particular theme or need. Ultimately, the culmination of these strategies aims to achieve the vision and objectives of this TMP.

Equity and Accessibility

The TMP strives to integrate and expand on contemporary transportation planning principles, which may have been absent from previous versions of the document. One such highly important principle is that of “equity”, the goal of accommodating all users of the transportation system equitably regardless of age, ability, or financial means. The lens

of equity should be applied to every other part of the TMP Strategy, including the Road Network Strategy, Active Transportation Strategy, and Transit and Ridesharing Strategy.

Building upon the equity lens and one of the critical subsets of this principle, there is an opportunity to revisit accessibility policies and standards in the TMP; its primary aim is to ensure equal opportunity to activities and services for all people, including those with physical, sensory, and cognitive challenges. A frequently discussed theme emerging from the public consultation process was the declining mobility of Mississippi Mills' aging population, and the increasing need to reflect this in the design of the transportation network. The Accessibility for Ontarians with Disabilities Act (AODA) promotes the goal of making Ontario fully accessible for people with disabilities by 2025. Beyond physical challenges, a balanced approach to transportation planning encourages alternate modes of travel, which fosters inclusivity by enabling people with varied backgrounds and financial status to have a viable means to access their place of work, local amenities, and destinations without the need to own a personal vehicle.

Acknowledging the “spirit” of equity and AODA, several supporting strategies developed in this TMP stem from these two critical themes (such as complete streets, road safety, and transportation demand management), reflecting their importance to residents and stakeholders. One example of how these themes have been integrated within the TMP is to adopt policy that requires these concepts must be considered in all future capital projects; and capital transportation projects should strive to achieve optimal standards, not just minimums.

Investing in Active Transportation

Early consultation with municipal staff, stakeholders and the public highlighted the strong desire to expand and improve the active transportation (AT) network, with the objective of supporting a truly multi-modal transportation system as a focal point of the TMP. The existing active transportation network is highlighted by the Ottawa Valley Recreational Trail (OVRT), which the section within the municipality is owned and maintained by Lanark County. The OVRT is a multi-use trail which links many of the settlement areas in Mississippi Mills and extends to adjacent municipalities to the north and south, such as Carleton Place and Arnprior.

The OVRT is predominantly travelled by recreational users, including recreational vehicles such as all-terrain vehicles (ATVs) and snowmobiles. Dedicated facilities for active modes outside of this corridor are somewhat limited and often isolated.

There is a significant opportunity to convert more short-distance trips to active modes; and this opportunity may be even more pronounced for non-commuting/ recreational trips. The TMP will strengthen policies and recommend increasing infrastructure investment to support the overall goal of reducing barriers to active modes, particularly to the most vulnerable, pursuant to a more balanced and sustainable transportation system.

Re-energizing Transit and Ridesharing

Residents expressed concerns about the lack of affordable travel options beyond active transportation. Those with physical challenges (such as the elderly) or need to travel longer distances have few options beyond the personal vehicle. The impact of COVID-19 greatly impacted local transit service options, where some operators were forced to cease operations.

Historically, efforts to expand transit options within the county have had limited success; census data confirmed transit ridership remained flat from 2006 to 2016; however, since the end of the pandemic, Lanark Transportation, a non-profit association that provides limited transit service within Lanark County, the “Ride the LT” program has seen ridership

grow and the county recently joined a regional carpool program, partnering with adjacent municipalities, further supplementing commuter options for residents.

There is an opportunity to take advantage of recent momentum; the municipality must continue to support and expand transit and ridesharing options for residents, through strategic investment and continuing collaboration with adjacent municipalities as well as external transit partners (such as Lanark Transportation, OC Transpo, and Leduc Bus Lines Ltd.). Although the need for private automobiles for regional travel remains a reality, there is a growing movement that wants to see more travel options both inter-regional (within the county and particularly those to/ from Ottawa) as well as locally, which is the foundation to build upon in this TMP.

Prioritizing Road Safety

Another emergent theme from the consultation process was concern over safety, especially related to vehicle speeds on rural settlement main-streets, and the use of the OVRT by motorized vehicles. Desire was expressed for implementing speed reductions, traffic calming measures or other localized modifications in select locations.

The 2016 TMP emphasized the importance of safety, but took a more reactive approach, recommending to “...improve safety where required”. A more contemporary policy approach is to start from a commitment to safe and inclusive design, acknowledging that traffic-related casualties are preventable and even one is too many. The TMP will provide guidance and support in responding to road safety concerns, in both urban and rural settings. This will not take the form of a Road Safety Action Plan (which in some jurisdictions is labelled a “Vision Zero” plan); such comprehensive action plans are typically developed for large dense municipalities where the magnitude and frequency of incidents are high, and the resources are available for the substantial tasks of coordinating between various public stakeholders, and the implementation of the action plan (e.g., the data analytics, monitoring, enforcement etc.); however, the underlying philosophy behind these plans is no less important in rural municipalities; in the U.S. in 2009, rural roads accounted for ~33% of vehicle miles travelled, but ~56% of fatalities, as per the FHWA.

Instead, the TMP will incorporate various safety themes in the various strategies, as well as a section specific to road safety that will identify some best practices and high-level policy, and strategic actions – inspired by work in other municipalities when dealing with public road safety concerns, such as vehicle speeding and pedestrian crossings.

Strategic Road Expansion

While there will be significant emphasis on sustainable travel modes in the TMP, roads still function as the primary connector of neighbourhoods, communities, and regions; essential to maintaining the livelihood of residents. Ensuring there is sufficient long-term road network capacity is essential to the success of the TMP strategy.

The TMP will assess the long-term road network in both urban and rural regions, but the central element of the road network strategy will focus on the Almonte road network, considering the majority of future growth in the municipality will occur in Almonte and based on the Official Plan Policy 4.6.13, which “...encourages the undertaking of a study to look at an alternative traffic route around the Almonte Ward and other built-up areas”. As per this policy and the supporting road network analysis, there is a need to study the potential of new strategic road corridor(s) in Almonte, which meets the following criteria:

- Multi-modal corridor reflecting “complete streets” principles.
- A potential truck route, fulfilling the purpose of diverting heavy traffic away from downtown Almonte.
- Connect at least County Road 29 to Appleton Side Road with a new bridge across the Mississippi River, that diverts county commuter traffic travelling through Almonte to/ from Ottawa.

An alternate regional corridor will lessen the traffic impacts of future development on the existing built-up urban area of central Almonte and reduce the various implications of expanding the road network through downtown.

Policy refinements and updates will be considered to support the long-term road network, such as new roadway classifications to better distinguish the variety of land use contexts and road functions in Mississippi Mills, and new road design guidelines that encompass the latest best practices and contemporary principles developed in this TMP, such as complete streets, accessibility, and safety.

Complete Streets Philosophy

The existing Mississippi Mills *Complete Streets Policy*, approved by Council in 2017, provides a strong expression of contemporary “complete streets” planning principles. As per this policy, complete streets are “...designed to consider the needs of all users, such as people who walk, bicycle, or drive, and people of varying ages and levels of ability”. The concept is closely linked to other themes discussed here, like accessibility and safety, and forms a key element of the overall strategy for this TMP. While acknowledging that “not every type of use may be accommodated on every street”, a complete streets framework is a valuable starting point for providing equitable consideration to all modes and users. This TMP will adopt and expand on the contents of the *Complete Streets Policy* as appropriate, integrating complete street principles in all recommendations.

Affordability and Financial Sustainability

The Mississippi Mills Strategic Plan (2023-2027) identifies sustainable financial stewardship as a theme and recommends the development of a Long-Term Financial Plan.

The TMP will develop a wide range of infrastructure recommendations but recognizes the financial challenges of delivering capital projects. Therefore, the implementation plan will reflect an incremental approach, leveraging more cost-effective solutions in the short-term that will still provide tangible benefits to the local community, while maintaining the ultimate vision of the plan, which includes “long-term considerations” in addition to recommendations. The intent of the TMP is to be flexible and nimble, providing a strong foundational blueprint, but still enabling the municipality to make course corrections or adapt to changing conditions in the fullness of time.

3.0 ACTIVE TRANSPORTATION STRATEGY

Active transportation provides the opportunity to travel in a safe, affordable, and efficient manner while incorporating physical activity into residents' daily lives and contributing to healthier lifestyles. A major focus of the Transportation Master Plan (TMP) is to promote sustainable and active transportation, including walking and cycling, through improvements to active transportation infrastructure. The TMP also provides an excellent opportunity to create a new and enhanced pedestrian and cycling culture that will support the municipalities projected growth and encourage shifts to active travel. It was an early priority for the TMP to improve the walking and cycling environment of the municipality, particularly in the more "urban" area of Almonte. The desire for active transportation improvements was reinforced by feedback heard through the Community Transportation Survey and public consultation process (discussed in **Section 2.3.1**), ranking as one of the top public priorities for the TMP.



This section provides a vision for an [Active Transportation Plan](#), which aims to create a safe, efficient, and connected active transportation network, remove active transportation barriers, and help contribute to the municipalities broad planning objectives for the next 25 years.

3.1 Benefits of Active Transportation

The sustainability of a community is closely related to the sustainability of its transportation system. At the community level, sustainable transportation typically centers around the use of "active" travel modes – walking, cycling and public transit. Modes such as walking, cycling, and transit support healthy neighbourhoods; foster a sense of community; ensure that all residents can move around safely and efficiently regardless of age, income, or level of mobility; reduce greenhouse gas emissions and their impacts on climate change; improve air quality; encourage economic development; and promote tourism.

A summary of some of the key reasons for investing in active transportation infrastructure includes:

- **Public Health and Livability:** Active transportation encourages people to get outside, promotes social interaction, and creates a sense of community pride and cohesion. Walking, cycling, rolling or other human-powered mode of transportation increase physical activity and promote healthier communities, which reduces the strain on the health care system.
- **Equity:** Active transportation serves all ages, income levels and mobility levels. Such modes enable an aging community to maintain independence and autonomy without the use of a vehicle and provide an affordable alternative to driving for those on a limited income.
- **Climate Change and Air Quality:** Active transportation modes result in fewer emissions and fresher air. Lanark County estimates that > 60% of county-wide greenhouse gas emissions come from on-road transportation, making low-carbon mobility options a critical piece of a broader climate change mitigation strategy.
- **Economy and Tourism:** Active modes of transportation are good for business and can help revitalize the downtown area. There is ongoing debate as to whether pedestrian and bicycle tourists spend *less* money than tourists who arrive by car. Nonetheless, supporting more equitable and sustainable modes can expand the reach of local business and need not impact those who drive.

- **Efficient Infrastructure:** Sustainable modes are also more efficient. For example, one vehicle parking space can accommodate 20 bicycles. A shift to alternative modes can relieve traffic congestion on existing roads and reduce the need for new or expanded road infrastructure.

3.2 Guiding Principles and Methodology

The process for developing the [Active Transportation Plan](#) (ATP) specific to Mississippi Mills and the needs unique to the community included the following steps:

- Reviewing the existing active transportation facilities within the municipality, including sidewalks, multi-use pathways, bike lanes and trails – consider the condition and status of facilities.
- Inventorying the active transportation network to identify existing gaps and potential locations for new active transportation facilities.
- Connecting to future growth areas, including the northern areas (north of Strathburn Street and Brookdale Street) and southeastern areas along Old Almonte Road within Almonte.
- Identifying key areas of interest for improving active transportation including schools, community facilities, employment areas, recreational/ tourism, and commercial areas.
- Developing an active transportation network that connects key areas of interest, and has adequate permeability, improving the efficiency of movement of active users.
- Identifying the appropriate type of active transportation facilities and supporting infrastructure needed to promote an inclusive and equitable network.
- Identifying major barriers to active transportation (e.g. major roads like Ottawa Street, Mississippi River, etc.).
- Investigating the feasibility and availability of alternative active transportation routes in areas where there are greater vehicle conflicts and barriers, to maximize the comfort and convenience for recreational or more vulnerable users.

The approach and general methodology when preparing the ATP was also informed by the extensive consultation process, including public and working group members and municipal staff. There was also background research of previous studies including the 2016 Mississippi Mills Transportation Master Plan (TMP) and the 2015 Mississippi Mills Active Transportation Plan (ATP), various municipal policies, and general principles based on contemporary best practice for active transportation planning. Key industry guidelines and practices were also referenced including the *Ontario Traffic Manual (OTM) Book 18: Cycling Facilities* and *OTM Book 15: Pedestrian Crossing Facilities*.

3.3 Walking Or Rolling

Within the municipality, existing pedestrian facilities encompass sidewalks, paved pathways, and recreational trails, offering a strong foundation for pedestrian mobility. In Almonte, the current sidewalk network facilitates relatively good pedestrian connectivity and coverage. Despite this, there are noticeable gaps within the broader urban municipal network, particularly in the villages of Clayton and Pakenham, where sidewalk infrastructure is more fragmented.



In the broader rural regions of Mississippi Mills, pedestrian infrastructure is largely absent; however, this has not been identified as an urgent need. The 2015 (ATP) process highlighted several gaps in the sidewalk network—some of which have been addressed since then - yet many remain unattended to. This progress is detailed in **Appendix F**. Moreover, new gaps have appeared following recent development activities since the last review was conducted. To prevent future

discrepancies and ensure these emerging gaps are filled promptly, direct policy language is essential to guide development activities accordingly.

3.3.1 Sidewalks

The current Mississippi Mills *Sidewalk Policy Capital Construction Program/ Sidewalk Program PW-10*, approved by Council in December 2004, outlines the capital construction and maintenance program for sidewalks. Specifically, policy 4.6.9 includes:

- The provision of pedestrian facilities to address needs and safety components.
- Incorporating building design and street amenities such as lighting, furniture, and landscaping to improve the streetscapes.
- Establishment of a pedestrian walkway plan, which encourages pedestrian interconnections to key amenities.

The 2015 ATP included a sidewalk gap analysis which identified low, medium, and high priority locations for sidewalk implementation through Almonte and the surrounding rural settlements; however, this plan needs to be updated to better reflect existing conditions, while also requiring a more clearly defined implementation ‘priority’ system to help guide financial planning/targeted investments.

To better understand the current pedestrian facility needs, an updated gap analysis was conducted to provide an overview of the networks current state. Using the existing approach identified in the *Sidewalk Policy* and the 2015 ATP, the analysis aims to:

- Prioritize gaps near “sensitive uses.”
- Improve access to commercial and employment areas.
- Improve walkability throughout central Almonte.
- Prioritize arterial and collector streets with existing sidewalks on only one side.
- Determine which local roads not in the vicinity of a sensitive use or do not represent a pedestrian desire-line to reduce their priority.

Furthermore, some engineering judgement was applied in the prioritization of some segments, taking into account:

- Input received during the public consultation process.
- Where sidewalks are recommended for one side of the street only, the side on which the sidewalk is to be constructed will be confirmed at the time of implementation.

The analysis also distinguished between gaps on roads with either a rural or urban context, which is an important consideration to the costing of the new facility, such as addressing drainage along rural roads. A rural cross-section typically does not contain curbs, and normally has overland or ditch drainage, and may include gravel and/ or paved shoulders, while urban cross-section streets include curbing and stormwater infrastructure, and typically include high-order active transportation infrastructure such as bike lanes, sidewalks, or multi-use pathways.

The recommended changes to the *Sidewalk Policy* are summarized below:

- Revise current municipal design standards such that sidewalks are provided on both sides of new or reconstructed urban arterial roads as well as collector roads.
- Sidewalks should be provided on at least one side of urban local roads. Some judgement can be exercised in the application of this recommendation, but for the majority, a sidewalk shall be provided on at least one side of the road. However, a sidewalk may not typically be required for a “cul-de-sac” or similarly limited, low-volume local

road. Sidewalks should typically only be constructed on cul-de-sacs where they are determined to improve pedestrian network connectivity, such as where there is a pedestrian through-link at the end of the cul-de-sac.

- Adopt a 1.8 m target sidewalk width with 1.5 m only considered acceptable in constrained situations. The spirit of *Accessibility for Ontarians with Disability Act* (AODA) is not to provide the minimum level of accessibility, but to provide a high level of accessibility to all road users. Therefore, consider widths even wider than 1.8 m where appropriate, such as the “downtown district” (discussed further in **Section 3.8.1**) or segments with high pedestrian volumes.
- Expand the policy for sidewalk construction related to future development or redevelopment, to include requirements for sidewalk(s) on roads fronting or within the development, or in rare cases along nearby road corridors for larger developments that are expected to generate significant pedestrian demand. Where development activity occurs that either creates a gap or is demonstrated to be contributing additional pedestrian demand to an existing gap in the municipal network, the onus to fill that gap falls to the developer.
- Adopt the following priority system for filling in the sidewalk network gaps identified by **Schedule 9** and **Schedule 10**:
 - High Priority - should be completed in the near-term; target facilities fronting/connecting to sensitive uses.
 - Medium Priority - should be completed within the TMP planning horizon, or at the time of lifecycle road renewal if sooner.
 - Low Priority - complete at lifecycle road renewal; target sidewalks on at least one side of all roads in the urban areas of Almonte and Pakenham. Within this category, prioritize “through” streets before crescents or other dead-ending roads.

Amend current Sidewalk Policy to include the new minimum sidewalk width standards, development requirements, and sidewalk gap priority system.

3.3.2 Pedestrian Crossings

The Highway Traffic Act indicates that pedestrian crossings fall into one of the following two categories:

- Protected crossing - where vehicles must yield to pedestrians, and
- Unprotected crossing - where pedestrians must yield to vehicles.

The standard practice for protected pedestrian crossing design in the province is based on the *Ontario Traffic Manual (OTM) Book 15: Pedestrian Crossing Facilities*. This manual provides detailed information relating to various types of controlled pedestrian crossings include traffic control signals, pedestrian crossovers (PXOs), stop signs, all-way stop control, pedestrian signals, pedestrian grade separation, and crossing guards.

PXOs are any portion of a roadway distinctly indicated for pedestrian crossing by signs and road markings. Motorists are required to stop before entering the crossover when a pedestrian is present, providing pedestrians with protected crossing opportunities. There are four types of PXOs (as shown in **Appendix G**), each with prescribed signage, road marking, and lighting treatments. The type of PXO used is determined by the selection matrix as shown in **Appendix G**.

Currently there are ten PXO installations within Mississippi Mills, with two in Pakenham and eight located in Almonte (refer to **Schedule 3** and **Schedule 4**). The three PXOs along Mill Street and at the Almonte Street intersection are new installations as part of the downtown revitalization project (previously discussed in **Section 2.3.1**). Of the ten PXOs, eight are classified as Type B and two are Type D. In addition, there are two signalized pedestrian crossings located in

Almonte: one on Martin Street North in front of Almonte District High School and the other on Ottawa Street between Appleton Side Road and Industrial Drive.

Investigation of potential new PXO locations may be initiated by municipal staff or through resident requests. OTM Book 15 provides a Decision Support Tool to aid in determining the need for a PXO and a Pedestrian Crossover Selection Matrix to identify the appropriate type of PXO. It is recommended that the municipality continue to implement the screening and selection processes identified in OTM Book 15 when considering requests for pedestrian crossings. All PXOs must also comply with AODA requirements.

Comments related to pedestrian crossings received through the consultation processes included:

- Upgrading older PXOs to latest standards.
- Locations for new crossings.
- Crossing enhancements such as improved signage and raised crossings.
- Extending crossing times and providing pedestrian priority at signalized crossings.

The municipality should leverage opportunities to consider or implement PXOs in all future infrastructure renewal projects as well as part of future development applications, to continuously improve urban pedestrian connectivity and safety, and to address the barriers formed by major road crossings. As part of a broader strategy for improving pedestrian safety and accessibility, the municipality should codify these principles by updating their existing *Sidewalk Policy* to include a detailed Pedestrian Crossing Policy and Standards based on OTM Book 15.

Develop a detailed Pedestrian Crossing Policy and Standards, to be integrated with the updated existing Sidewalk Policy.

Pedestrian Crossing Treatment Needs

In developing a long-term vision for Almonte's pedestrian and cycling networks, locations demonstrating a potential need for enhanced pedestrian crossing facilities (as shown in **Appendix H**) were identified in order to strengthen the proposed network and address barriers created by major roadways. Some of these locations do not currently warrant an enhanced crossing but are strong candidates as projected growth materializes in the municipality in the coming years.

The following location was identified as showing an immediate need for improved crossing facility:

- Country Street at Bridge Street:
 - A crossing on the east leg of the intersection would align with the recommended multi-use pathway through Gemmill Park, providing improved continuity of this active transportation route and enhancing community access for the Almonte Community Centre.
 - At least a Type D pedestrian crossover is warranted at this location (as per OTM Book 15 guidelines). The warrants should be re-assessed prior to implementation to confirm the proper crossing facility type is chosen.
 - In the overall context of the Active Transportation Plan, this intersection represents an important transition point to the “downtown district” (further information on this designation is in **Section 3.8.1**), where a crossing and potential gateway feature should be considered.

Pedestrian Crossing Treatment Candidates

The following locations were identified as long-term candidates for enhanced pedestrian crossing treatments (as shown in Table 12 and **Appendix H**) as the need for greater prioritization will increase as the long-term Active Transportation

and Road Network Strategies proceed. Warrants for crossings at these locations should be assessed at the appropriate time, in conjunction with related active transportation or road infrastructure projects.

Table 12: Recommended Pedestrian Crossing Treatments

Name	Description
Almonte Street (150 m east of Malcolm Street)	<ul style="list-style-type: none"> Provides continuity of the Local Cycling Route system in Almonte (discussed further in Section 3.4.1), aligning with the proposed new Gemmill Park pathway connection. Connects north-west Almonte to central Almonte, the District Community Centre across Almonte Street. Noted that the optimal location for this crossing is within roughly 150 m of the existing PXO's at both Malcolm Street and Mill Street; future work should be coordinated with possible changes to these crossings.
Martin Street (at Maude Street)	<ul style="list-style-type: none"> Adds continuity to the Local Cycling Route system in Almonte. Next nearest pedestrian crossings area roughly 200 m to the north and south; a new crossing improves network permeability along this corridor. In combination with the proposed improved OVRT connection at Cameron Street, creates a continuous pedestrian/ cycling route from north-east Almonte to downtown which avoids Ottawa Street.
Country Street (at Perth Street)	<ul style="list-style-type: none"> Adds continuity to the Local Cycling Route system in Almonte, acting as a link in a safe east-west alternative route to Bridge Street. Evaluate warrants based on projected future traffic increases on County, considering planned development in south-west Almonte.
Paterson Street (200 m south of Morton)	<ul style="list-style-type: none"> Adds continuity to the Local Cycling Route system in Almonte (discussed further in Section 3.4.1) Aligns with the proposed east-west pathways crossing the Holy Name Mary and R. Tait McKenzie school properties, completing this east-west active transportation route.
Appleton Side Road (at Greystone Trail)	<ul style="list-style-type: none"> Evaluate warrants for improvements to the existing Type D PXO at this location, providing improved safety for Appleton Trail users crossing this high-speed roadway.
Queen Street (at Union Street)	<ul style="list-style-type: none"> Aligns with the proposed multi-use pathway along Queen Street and the Queen Street Bridge shared space, providing improved continuity of this active transportation route and enhancing community access to the Downtown area. Evaluate warrants based on projected future traffic increases on Queen Street.
Industrial Road (at Frank Davis Street)	<ul style="list-style-type: none"> Aligns with proposed Industrial and Frank Davis multi-use pathways, providing improved continuity of this active transportation route and enhancing community access to the Almonte Business Park. Evaluate warrants based on projected future traffic increases on Industrial Drive.

3.3.3 Other Considerations

Accessible Sidewalks

Section 80.23 of the AODA stipulates that new or redeveloping exterior paths of travel meet a series of technical requirements to reach the accessibility standards. These include minimum widths, maximum slopes, clearance treatments, surface requirements, and minimum pathway openings. Additional guidance is provided for:

- Ramps – Section 80.24
- Stairs – Section 80.25

- Curb Ramps – Section 80.26
- Depressed Curbs - Section 80.27
- Accessible pedestrian control signals – Section 80.28

Street Furnishing

Section 80.29 of the AODA stipulates that rest areas are to be provided along exterior paths of travel, when constructing pedestrian facilities; however, it does not define the maximum distance between rest areas, rather requires that “Municipalities...consult with their municipal accessibility advisory committees.”

Acknowledging the need demonstrated by demographic trends in the municipality (i.e. an aging population, decreasing overall mobility), Mississippi Mills should commit to a high standard for the provision of “rest areas” and other street furnishing, particularly along walkways in settlement areas. It is recommended to consult with the Accessibility Advisory Committee to set a minimum standard for the provision of rest areas (i.e. a bench every 300 m on pathways and trails, and every 500 m along major roadways).

- This standard should be integrated into an updated *Sidewalk Policy*, tying the provision of rest areas to the implementation of new or reconstructed pedestrian facilities.
- The standard should also cover the provision of shade. Rest areas should be placed with regard for the position of new and existing trees, where possible; or, where not possible, consideration should be given to the provision of shade structures.

Consider the consulting with the Accessibility Advisory Committee to set minimum standards for the provision of rest areas and street furnishings along exterior paths of travel.

Accessible Parking

Section 80.39 of the AODA provides the technical requirements for on-street parking. The standard states that public sector organizations must consult with the public and people with disabilities before creating on-street parking spaces, in addition to consulting with their municipal accessibility advisory committees. Accessible on-street parking spaces (Figure 10) do not currently exist in Mississippi Mills; however, it is recommended that the municipality consider their potential need, particularly in downtown Almonte wherever on-street parking is provided along the Mill Street, Bridge Street, and Brae Street; and along the core segment of CR 29 in Pakenham.

Consider the implementation of AODA compliant accessible on-street parking spaces in downtown Almonte along Mill Street, Bridge Street, and Brae Street; and in Pakenham along County Road 29.

Figure 10: Example of Accessible Parking Bays, Beckwith Street, Smiths Falls (Google Maps, 2023)



3.4 Cycling


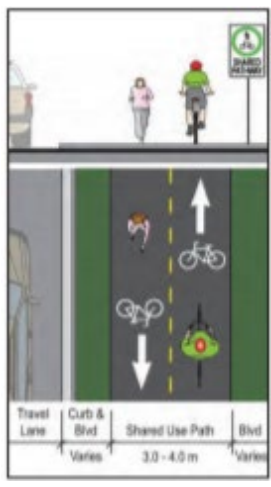
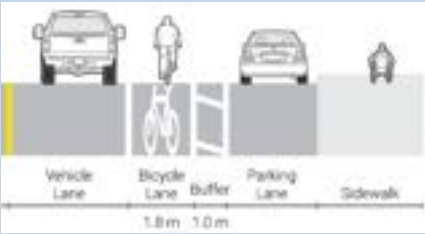
Providing a network of safe, comfortable, and connected cycling facilities is essential to better support existing cyclists and encourage the uptake of cycling in the municipality. Although the 2015 Active Transportation Plan (ATP) provided the recommendation to build out cycling infrastructure along identified “spine-routes” that generally follows the major road network, the catalogue of dedicated, continuous cycling facilities on municipal roads in Almonte remains limited – a full listing of different cycling facilities based on provincial standards (*Ontario Traffic Manual: Book 18 Cycling Facilities, 2021*) is shown in Table 13.

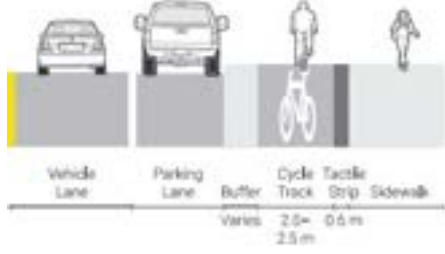


Cyclists, particularly recreational or “entry-level” users, face significant challenges to cycle within Almonte and through rural areas of the municipality, particularly along high friction, high speed, and high-volume roadways (e.g. Ottawa Street, County Road 29, etc.), which cater to efficient travel needs for vehicle drivers, but force cyclists to take a more circuitous but safer route, use the sidewalk, or avoid cycling altogether.

The network of spine-routes defined by the 2015 ATP were not linked to any particular infrastructure interventions, rather the intent was to undertake future work to determine the appropriate facility. There is a need for a clearer understanding of where and to what scale investment will be needed to achieve the ultimate vision for cycling in the municipality. This is the intent of the plans outlined in this section. Furthermore, consideration should be given for major barriers such as the Mississippi River and the arterial road network, and crossings provided as necessary to mitigate their impact on accessibility.

Table 13: Cycling Facility Type Design Considerations (Source: OTM Book 18)

Facility Type	Description	Application	Illustration
<p>Shared Use Roads</p>	<p>Motorists and cyclists share the same travel lane. No reserved or separated space is provided for bicycles.</p> <p>As streets have low vehicle speeds and less traffic, they are more comfortable for people of all ages and abilities to ride.</p> <p>Treatments may include signage, pavement markings (e.g. sharrows, as shown in the illustration), lower speed limits and bicycle friendly traffic calming measures to slow down vehicles.</p> <p>The typical width for a shared cycling lane is 4.5 m.</p>	<p>Low speed, low volume streets (local streets).</p> <p>Urban and rural areas.</p>	
<p>Multi-Use Pathways (MUP)</p>	<p>Physically separated from traffic vehicles and shared between people walking, cycling, and using other forms of active transportation, like wheelchairs, skateboards, in-line skating and scooters. MUPs are located in the boulevard of the roadway.</p> <p>MUPs may be uni-directional or bi-directional.</p> <p>The typical widths for a MUP are 2.0 m for a one-way facility, and 3.0 - 4.0 m for a two-way facility.</p>	<p>High-volume, high-speed streets (arterial and collector streets).</p> <p>Urban areas.</p>	
<p>Bike Lanes</p>	<p>A portion of roadways that has been designated by pavement markings, signage, and buffers in some cases. Bikes lanes provide preferential or exclusive space for people riding bikes.</p> <p>The recommended width for a bike lane is 1.8 m and the minimum width is 1.5 m.</p>	<p>Low- to moderate-volume, low speed streets</p> <p>Urban areas.</p>	

Facility Type	Description	Application	Illustration
<p>Cycle-Tracks</p>	<p>A physically separated bikeway that is horizontally and vertically separated from the travelled portion of the roadway by a curb and buffer. Cycle tracks are designated exclusively for use by people riding bikes.</p>	<p>Higher-volume, higher-speed streets (arterial and collector streets).</p> <p>Urban areas.</p>	 <p>The diagram shows a cross-section of a roadway with the following elements from left to right: a 'Wide Lane' with a car icon, a 'Parking Lane' with a car icon, a 'Buffer' zone, a 'Cycle Track' with a 'Tactile Strip' and a cyclist icon, and a 'Sidewalk' with a pedestrian icon. Dimensions are provided: 'Varies' for the buffer, '2.5-3.0 m' for the cycle track, and '0.6 m' for the tactile strip.</p>

Generally, the use of shared roads is appropriate on all urban local roads since speeds and volumes are typically low. Only in the rare instance, when right-of-way space is too constrained to fit the desired facility, they may also be applied to collector roads or arterial roads; however, in these situations the municipality must assess the operating speeds and environment to ensure it is safe for cyclists (for example, if the road is a high-volume truck route, shared roads should not be considered), and to determine what appropriate mitigation is possible if it is not conducive, such as traffic calming measures (further discussion on traffic calming policy and measures is provided in **Section 6.3.2**). Some mitigation measures may not be appropriate along arterial roads, which are frequently used by emergency vehicles and trucks, which do not mix well with vertical deflection measures.

Nevertheless, using shared roads represents a lower-cost option that can help to increase the network of complete streets without large financial expenditures and provides interim measures for users that can be implemented more quickly. Specialized treatments are recommended as part of shared roads implementation, such as “Cycling Route” and “Share the Road” signs and sharrow pavement markings shown in Figure 11.

3.4.1 Cycling Plan in Almonte

Based on 2021 Census data, approximately 40% of Almonte residents commute within Mississippi Mills, and approximately 30% of all commutes are less than 15 minutes in duration; however, only 7% of residents consider walking their primary mode of commuting, and <1% biking. This suggests an opportunity to convert shorter distance local trips from using a personal vehicle to active modes, which supports the municipality’s broader policy objectives. Based on community feedback, this opportunity is even more pronounced for non-commuting/ recreational trips and local tourism.

To better visualize the cycling vision, imagine Almonte is divided into four “quadrants” along an axis formed by Almonte Street, Main Street and Ottawa Street, crossed by the Mississippi River. A key objective of the Almonte cycling plan is for each of these quadrants be directly connected to each other, with a focal point in downtown Almonte and leveraging the Ottawa Valley Recreational Trail, to maximize convenience and ensuring safe cycling route options are provided to as many key destinations along the way as possible.

Figure 11: Suggested Shared Use Road Signage and Pavement Markings ¹⁶



Pursuant of a stronger urban network, convenient and safe cycling network should enable access for residents to various destinations, including schools, community and recreational facilities, and employment/ commercial areas. Under the ultimate arrangement of the Almonte active transportation network, it should be possible for any resident, regardless of age or ability, to cycle safely and comfortably between any two key destinations.

Based on these principles, a recommended series of cycling interventions were developed for Almonte; these are described in more detail below. A number of these interventions will be relevant to pedestrians, providing improved accessibility and connectivity for both modes.

The interventions proposed in this study are intended to provide a roadmap for the implementation of a more robust cycling network in Almonte; however, these are not intended to be inflexible and may change as the needs of the municipality evolve. Furthermore, as per the complete streets policies and proposed cross-sections as seen in **Section 4.2** either cycle tracks or multi-use pathways may be considered for implementation. The cycling plan assumes that cycle tracks will be implemented, as these are the highest standards for cycling facilities. However, at implementation a multi-use pathway may be used if there is a desire, and they can be supported by the local context.

Interim Cycling Plan (15-Years)

A key part of the financially sustainable TMP is to bundle major infrastructure work together to gain cost savings – this can be applied to the expansion of active transportation infrastructure with future road works, both new roads and/ or road retrofits, which has been detailed extensively in the Road Network Plan in **Section 4.3**. It may also be combined with other forms of infrastructure works such as servicing extensions across rivers, which is discussed in **Section 3.5**.

However, there remains both a need and an opportunity to provide separate cycling infrastructure solutions in the near and medium-term which substantially improve cyclist safety and connectivity outside of these bundled projects. This recommended interim plan is summarized below, and shown in **Schedule 11** with further details in **Appendix I**.

The municipality should implement the Interim Cycling Plan identified by Schedule 11; and consider augmenting the local cycling route network with traffic calming measures where appropriate.

¹⁶ Regulatory signs referenced from OTM Book 18, **Section 4.1.1.2**. Shared Use Lane (Sharrow) Pavement Marking referenced from OTM Book 18, Section 4.2.2.

Cycling on Major Roads

There are always opportunities to bundle active transportation facilities in lifecycle road renewal/ retrofit projects, where the replacement of underground infrastructure triggers the teardown of the existing road surface. A comprehensive review of major road corridors in Almonte was completed to determine where facilities should be added or enhanced to improve safety and comfort of cyclists. This process is documented in detail within the Road Network Strategy (**Section 4.0**). The approach and methodology supporting this process were based on the “complete streets” philosophy (**Section 4.2**), where an equity lens is applied when considering the different elements within the road corridor, specifically the needs of all road users and particularly the most vulnerable. A summary of recommended interim cycling measures is provided in Table 14. A detailed list of all recommended retrofit projects is provided in Table 27.

Table 14: Recommended Interim Cycling Enhancements in Road Corridors

Type of Facility	Location
<p>Shared Road</p>	<ul style="list-style-type: none"> ▪ Queen Street Bridge (Refer to Section 3.5 for more detail) ▪ Malcolm Street – Almonte to Strathburn ▪ Strathburn Street – Malcom to County Road 29 ▪ Peter Street – Perth to Church ▪ Church Street – Perth to High ▪ King Street – Perth to King south boundary ▪ Ann Street – Country to OVRT ▪ Stephen Street – Union to Martin ▪ Thomas Street – Thomas to OVRT Connector ▪ Cameron Street – Cameron to OVRT Connector ▪ Peterson Street – Peterson to OVRT Connector ▪ Union Street – Stephen to Princess ▪ Maude Street – Martin to Honeyborne ▪ Honeyborne Street – Maude to Ramsay Concession 11A ▪ Menzie Street – Maude to Ottawa ▪ Patterson Street – Ottawa to Robert Hill ▪ Robert Hill Street – Patterson to Johanna ▪ Johanna Street – Robert Hill to Jack Dalgity ▪ Jack Dalgity Street – Johanna to Spring ▪ Spring Street – Jack Dalgity to St. Paul ▪ St. Paul Street – Spring to Martin ▪ Martin Street – St. Paul to Ottawa ▪ Harold Street – Harold Street Linear Park MUP to Holy Name Mary Catholic School Pathway
<p>Multi-Use Pathways</p>	<ul style="list-style-type: none"> ▪ Almonte Street (North Side) – 60 m west of Farm to Euphemia ▪ Almonte Street (South Side) – Euphemia to County Road 29 ▪ Appleton Side Road – March to Almonte South Boundary ▪ Queen Street (North Side) – Ottawa to Union ▪ Frank Davis Street (North Side) – Industrial to Industrial ▪ Industrial Drive – Appleton Side to Ottawa
<p>Bike Lanes</p>	<ul style="list-style-type: none"> ▪ Martin Street – Stephen to Future North Collector Road ▪ Sadler Street – Leishman to Ottawa

Local Cycling Routes

There is an opportunity to implement a series of “local cycling route” designations in Almonte, leveraging the network of low-volume, lower-speed urban local roads. The routes chosen would feed into the regional or higher order cycling infrastructure, such as the OVRT and separated facilities on major road. The main purpose of these local routes is to provide less confident users with safer and more comfortable routes to cycle in Almonte away from busy road corridors.

The local cycling routes would be enhanced with shared-road treatments, implemented in accordance with the guidelines in *Ontario Traffic Manual (OTM) Book 18* (refer to Table 13) using a combination of pavement markings and signage. These routes should also be considered for additional speed management and traffic calming measures if there are concerns with vehicle speeds to support the passive treatments, such as cyclist-friendly bulb-outs, speed-humps, seasonal “flex-post” delineators, and posted speed limit reductions to 40 km/h or 30 km/h.

Off-Street Multi-Use Pathway Connections

To further support the cycling network in Almonte, expanding the off-street multi-use pathway (MUP) system would broaden continuity of local cycling routes across physical barriers such as the Mississippi River or across existing private properties while avoiding major roads. These recommendations aim to create greater permeability in the network, avoiding the often winding and indirect routing of local roads in Almonte. Through strategic investment in new or enhancing existing pathway linkages, it will be possible to create more direct cycling routes between each of Almonte’s four “quadrants”, as well as several key destinations. Table 15 describes recommended locations for new or improved off-street pathway facilities.

Table 15: Recommended Off-Street Multi-Use Pathway (MUP) Enhancements

Name	Length (m)	Description
Almonte & District Community Centre Pathway Connection	215	<ul style="list-style-type: none"> New 3.0 m MUP on municipal property between Almonte Street and Brae Street/ Community Centre driveway. To be integrated with new PXO on Almonte Street approximately 70 m west of Farm Street.
Veterans Memorial Walkway Multi-Use Pathway	132	<ul style="list-style-type: none"> Formalize 3.0 m MUP connecting Perth Street to Bridge Street, of the existing Veterans Memorial Walkway
Ottawa Street Commercial Area Pathway Connector (North)	200	<ul style="list-style-type: none"> New 3.0 m MUP connecting Honeyborne Street to Ottawa Street. May require property acquisition for the southern portion between parcels of 306 and 336 Honeyborne Street.
Ottawa Street Commercial Area Pathway Connector (South)	260	<ul style="list-style-type: none"> New 3.0 m MUP connecting Frank Davis Street to Ottawa Street. Integrate with recommended south-side MUP on Ottawa Street (refer to Section 4.3.5) May require property acquisition and/ or collaboration with property owners.
Greystone Trail Local Connector	85	<ul style="list-style-type: none"> New 3.0 m MUP between Frank Davis Street and Appleton Side Road. Integrate with improved PXO on Appleton Side Road.
Holy Name Mary Catholic School Pathway	210	<ul style="list-style-type: none"> New 3.0 m MUP along the south edge of the Holy Name Mary Catholic School property. May require rearrangement of existing surface parking.
R Tait McKenzie P.S. Pathway	210	<ul style="list-style-type: none"> New 3.0 m MUP along the north edge of the R. Tait McKenzie Public School property.

Name	Length (m)	Description
Harold Street Linear Park	280	<ul style="list-style-type: none"> New 3.0 m MUP in the unopened road allowance along the south edge of the Almonte General Hospital property. Use the wide right of way for landscaping to create a linear park space.
Cameron Street OVRT Connector	10	<ul style="list-style-type: none"> Formalize existing connection by paving to a 3.0 m wide MUP between the west terminus of Cameron Street and the OVRT.
Thomas St. OVRT Connector	15	<ul style="list-style-type: none"> Formalize existing connection by paving to a 3.0 m wide MUP between the west terminus of Thomas Street and the OVRT.
Peterson St. OVRT Connector	21	<ul style="list-style-type: none"> Formalize existing connection by paving to a 3.0 m wide MUP between the west terminus of Peterson Street and the OVRT.

Ultimate Cycling Plan (25-Years)

The Ultimate Cycling Plan is showcased in **Schedule 12**. Much like the Interim Cycling Plan, the long-term vision for the cycling network in Almonte is centred upon integrated road renewals that feature contemporary, segregated cycling facilities. These major road retrofits will create a safe, direct network of high-quality cycling facilities along Almonte’s key corridors. The full list of recommended road retrofits that supports the complete streets approach are documented within the Road Network Strategy, specifically **Section 4.2**.

Like the best-practice approach taken in other municipalities, these are not proposed as standalone cycling projects. Instead, they are part of the future lifecycle renewal works that will eventually be required for all municipal roads. The financial requirements of the cycling component of these projects are normally small relative to the overall cost, and so completing them concurrently is an efficient way to implement desired cycling facilities. Although the timing of these projects cannot be confirmed at this time, they will be needed eventually, and so should be considered “long-term” interventions. These long-term projects are planned and managed through the municipality’s asset management plan.

In most cases, the construction of unidirectional cycle-tracks on both sides of the road was the preferred cycling facility type on collector and arterial roads, which is typically considered the highest standard for cyclists on most urban roads (refer to Table 13); however, future evaluation at the time of implementation of each road retrofit should be undertaken to determine whether other, potentially more affordable alternatives are feasible or preferred, such as bidirectional bike lanes or multi-use pathways (MUP). For the latter, OTM Book 18 acknowledges there are operating limits for MUP at a certain volume threshold for pedestrians and cyclists, and once exceeded it is suggested they be separated. Refer to OTM Book 18 for further guidance and decision-making tools related to cycling facility treatments. The suggested MUP volume thresholds are:¹⁷

- More than 20% of path users are pedestrians and total user volumes greater than 33 persons per hour per metre of path width, or
- Less than 20% of path users are pedestrians but total user volumes are greater than 50 persons per hour per metre of path width.

¹⁷ Ontario Traffic Manual Book 18: Cycling Facilities. Ontario Ministry of Transportation. June 2021. 70.

A summary of the recommended ultimate cycling measures is provided in Table 16. A detailed list of all recommended retrofit projects is provided in Table 27.

Table 16: Recommended Ultimate Cycling Enhancements in Road Corridors

Type of Facility	Location
Shared Road	<ul style="list-style-type: none"> All shared roads identified in Table 14 are to be maintained except for Johanna Street and Robert Hill Street which will be replaced by the Paterson Cycle track as described below.
Bike Lanes	<ul style="list-style-type: none"> TBD
Multi-Use Pathways	<ul style="list-style-type: none"> Maintain interim measures for Multi-Use Pathways identified in Table 14. Ramsay Concession 11A (West Side) – Ottawa to Future North Collector Road.
Cycle Tracks	<ul style="list-style-type: none"> Bridge Street – Country to Perth Perth Street – Bridge to County Road 29 Old Perth Road – County Road 29 to Almonte West Boundary Martin Street – Ottawa to Future North Collector Road Almonte Street – County Road 29 to Almonte West Boundary Old Almonte Road – Robert Hill to Appleton Side

Off-Street Multi-Use Pathways Connections

The following candidate was identified for long-term evaluation; the need for an active transportation facility at this location may increase as the proposed Almonte active transportation network fills out and development in proximity to this corridor advances.

- Menzie-North Pathway:** A new 1.0 km long, 3.0 m wide multi-use pathway in the unopened road allowance north of Menzie Street to connect to the future subdivision development in the north-east quadrant of Almonte.

Adopt and implement the Ultimate Cycling Plan identified by Schedule 12.

3.4.2 Cycling at Intersections

Crossing treatments for cyclists and their general integration at intersections should adhere to provincial standards, OTM Book 18, if possible, to ensure they are safe and adequately prioritize cyclists as they navigate across an intersection or corridor.

For multi-use pathway and cycle track crossing treatments, OTM Book 18 provides guidance on pavement markings, signage, approaches, and transition zones. As shown in Figure 12, pavement markings may include crossrides, dashed guidelines, yield lines, and conflict zone markings.

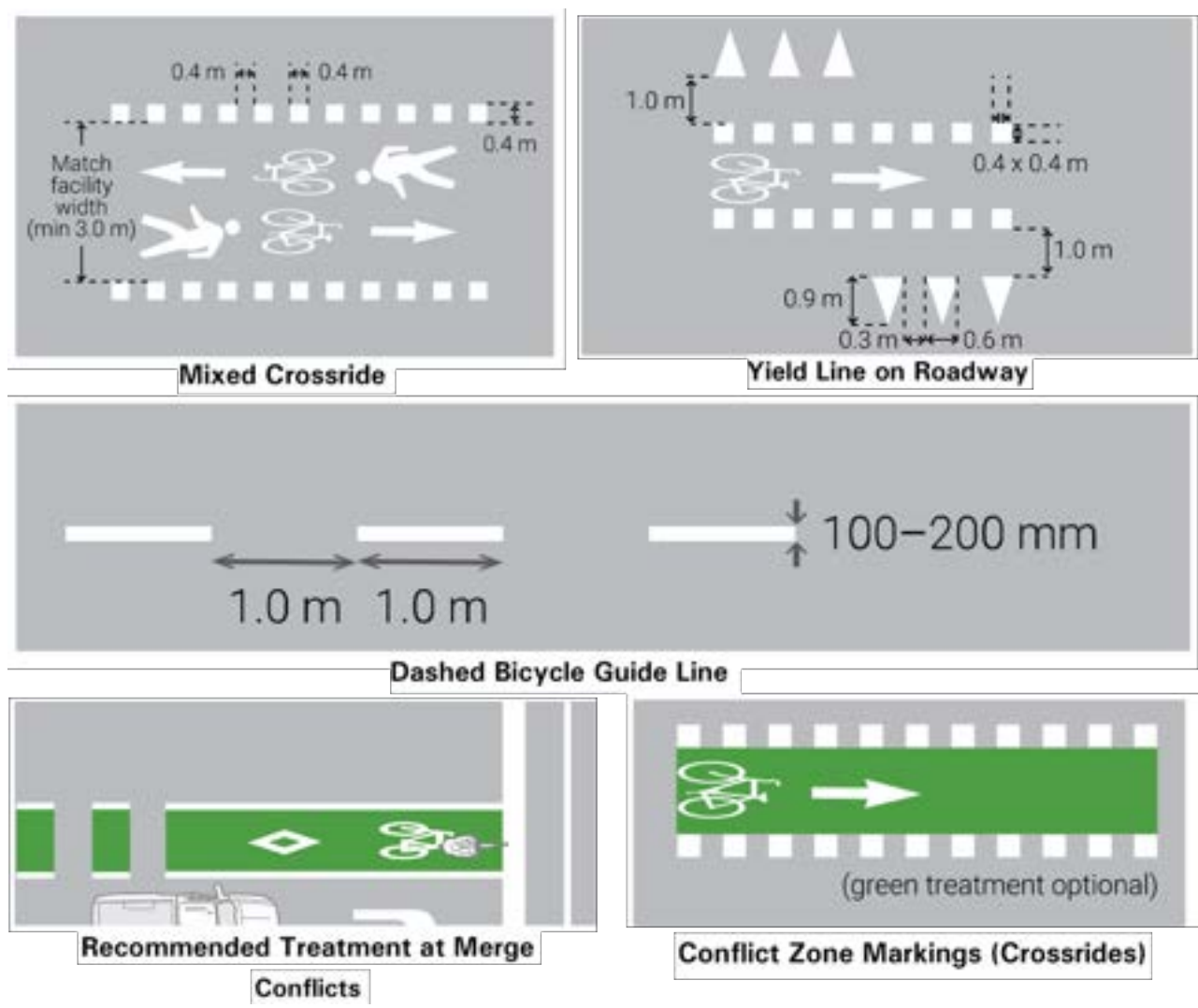
Further guidance on pavement markings and signage are provided in Section 6.2 of OTM Book 18, while guidance on approach treatments (as shown in Figure 13 and Figure 14) is provided in Section 6.3 within Book 18. Finally, transition zone treatments are discussed in detail in Section 6.6 of OTM Book 18. Transition zone treatments for multi-use pathways and cycle tracks are shown in Figure 15.

Through our needs assessment and consultation with public and stakeholders, intersection along Ottawa Street were universally decried for the challenges they pose to cyclists due to:

- High traffic volumes
- High vehicle speeds
- Transition between 2- and 4-lanes
- Transition from bike lanes to no bike lanes

If the long-term goal is to provide the best facilities for cyclists in comfort and safety, it will be important to consider and plan for additional property requirements along segments of Ottawa Street, and other sections of the Ultimate Cycling Plan where additional space for proper treatments may be necessary at intersections (refer to **Section 4.2.7** for additional intersection considerations on complete streets).

Figure 12: Crossride and other Pavement Markings ¹⁸



¹⁸ Ontario Traffic Manual Book 18: Cycling Facilities. Ontario Ministry of Transportation. June 2021. Figure 6.40. 162.

Figure 13: Multi Use Pathway Crossing Intersection Approach

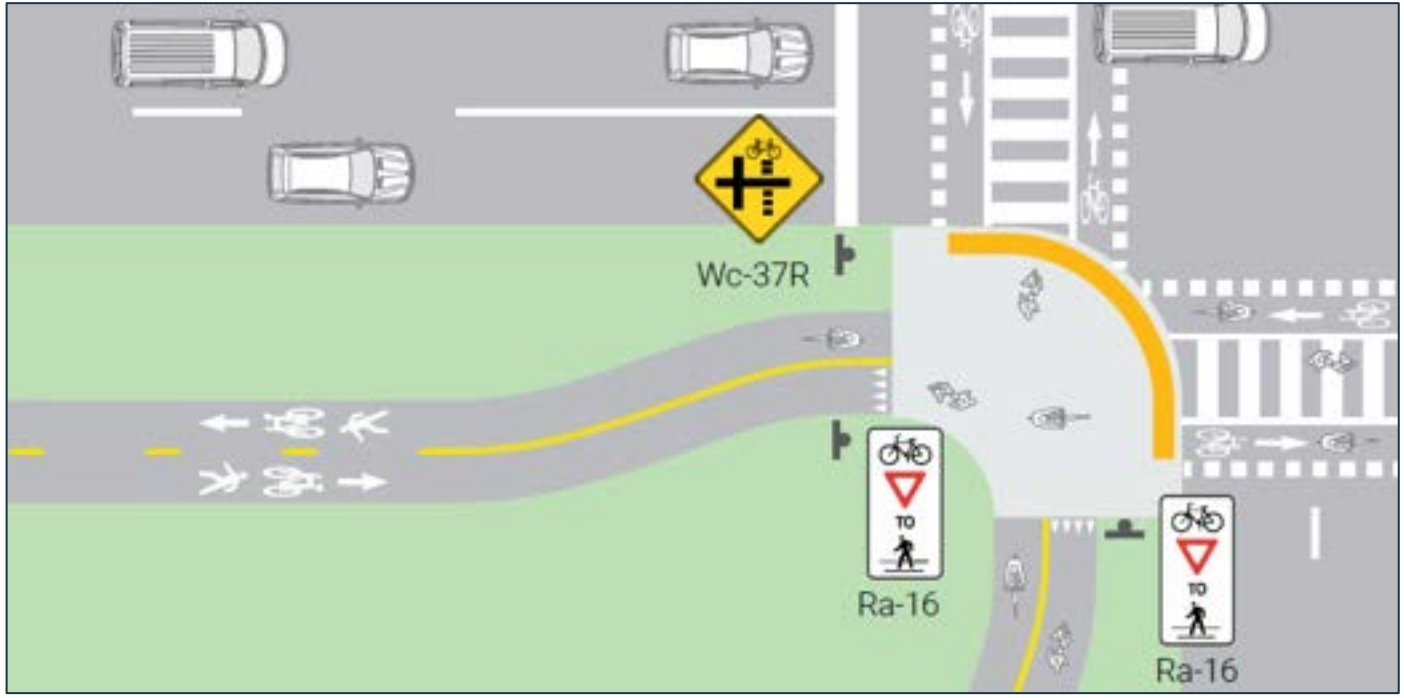


Figure 14: Cycle Track Crossing Intersection Approach

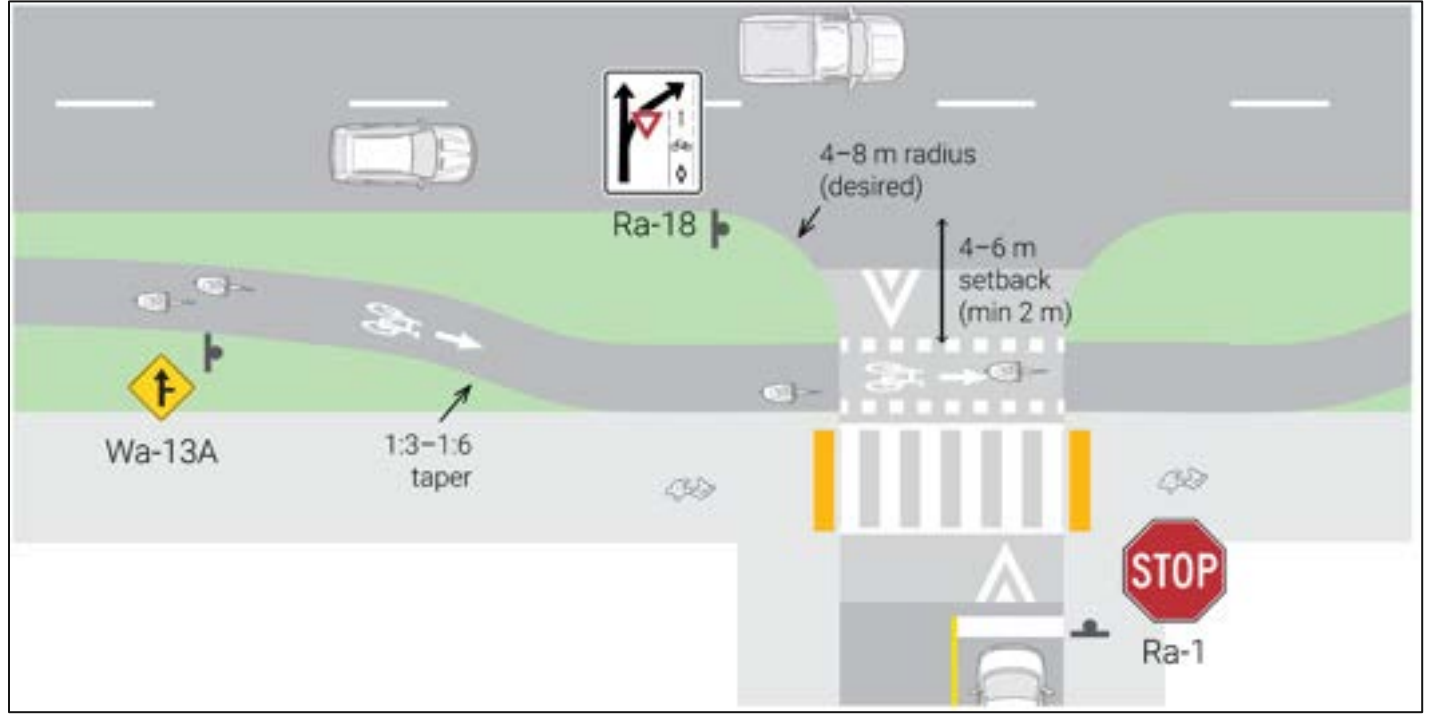
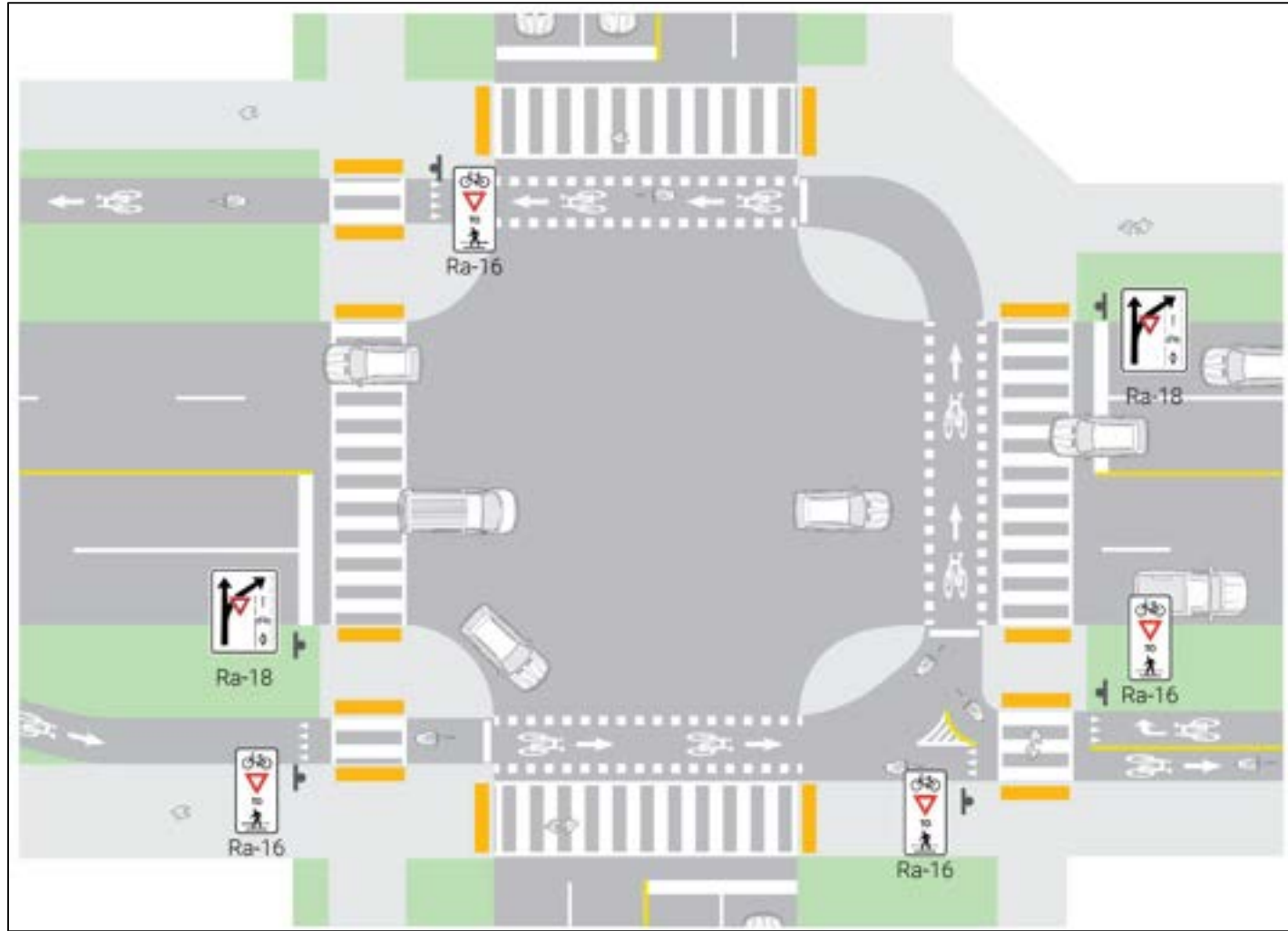


Figure 15: 1-Way and 2-Way Intersection Transition Zone Treatment



3.4.3 Rural Cycling System

While the need for private automobiles for regional and interregional travel remains a reality, there is still a strong desire for rural destinations to be linked by safe cycling infrastructure and at a minimum, make cycling a feasible travel option. This goal also supports overall community health and economic activity by encouraging and supporting recreational and tourist cycling opportunities.

Building in part on the list of recommended rural cycling facilities included in the Mississippi Mills 2015 Active Transportation Plan, as seen in **Schedule 13**, an updated “Rural Cycling System” (RCS) was developed with the goal of connecting:

- All rural settlement areas with each other and with Almonte.
- Any external cycling routes to provide improved interregional connectivity.
- Notable natural and recreational areas.

As shown in Table 17, the County of Lanark intends to gradually upgrade these roads with widened, paved shoulders over time, which will greatly improve the safety of these roads for cyclists: however, they will remain high-volume, high-speed roads with heavy vehicle traffic; the emphasis of the proposed municipal network is to improve safety on parallel

roads to provide more comfortable alternative routes and expand cycling accessibility. Therefore, where possible, the rural priority network avoids major roads such as County Road 29 or County Road 16.

Table 17: Lanark County Minimum Pavement Widths for Design

Lanark County Minimum Pavement Widths				
Average Daily Traffic Volume	Total Pavement Width (m)	Lane Width (m)	Minimum Granular Shoulder (m)	Resulting Paved Shoulder Width (m)
0 - 999	8.0	3.25	0.25	0.75
1,000 - 2,999	9.5	3.30	0.50	1.45
3,000 - 4,999	10.4	3.50	0.80	1.70
> 5,000	12.0	3.75	0.80	2.25

Off-Street Multi-Use Pathway Connections – Rural Villages

In addition to the strengthening of pathway connections to the Ottawa Valley Rail Trail (OVRT) in Almonte, a widespread comprehensive review of the rural settlement areas was completed looking for connection opportunities. Although opportunities were limited in Appleton, Blakeney and Clayton, there were opportunities in Pakenham to connect to the OVRT, as shown in **Schedule 14**, including:

- **Pakenham Beach – OVRT Connector**
 - Recommend constructing a new 3.0 m crushed-stone (or similar) surface pathway connecting the existing terminus of Margaret Street to the OVRT, utilizing the existing property right-of-way along the river-edge.
 - The new pathway would provide a new connection to the OVRT for residents in Pakenham south of County Road 29, as well as a direct connection from the OVRT to Pakenham Beach, improving the usability of this natural space.
- **Five Arches Community Housing – Pathway Connector**
 - Explore the feasibility of constructing a new 3.0 m crushed-stone (or similar) surface pathway across the existing farm property between Five Arches Drive and Jessie Street in Pakenham, which a connection to the OVRT.
 - May require property acquisition, increasing the cost, but would create a direct walking connection to Pakenham for the residents of the adjacent community housing centre.

As the rural settlement areas grow and potentially expand in the fullness of time, opportunities may arise to create new pathways connections to the OVRT, and the municipality should take advantage of them.

As the rural areas and villages grow and expand, look for opportunities to create new pathways connections to the OVRT, to further strength the municipal trail system.

Other Rural Cycling Considerations

Within the rural areas, there are opportunities for enhancing active transportation facilities along county and municipal roads. For county roads running through rural settlement areas such as County Road 9 in Clayton, County Road 11 in Appleton, and County Road 17 in Blakeney, the municipality should coordinate with Lanark County to explore options for the provision of complete streets reflecting the recommended standard rural cross-sections as discussed in **Section 4.2.6**, and in **Appendix K**.

For municipal roads consider implementing the standard rural cross-section as discussed in **Section 4.2.6**, and in **Appendix K** at the time of roadway renewal.

Rural Cycling System Prioritization

Measures should be taken to improve the safety and consistency of the corridors identified on this network, to improve the feasibility of regional and inter-regional cycling trips, with a strong emphasis placed on the OVRT as a regional spine route.

The intent of the Mississippi Mills Rural Cycling System (RCS) is to guide future investment in the rural areas to help create a more continuous cycling network. At the renewal of municipally owned rural roads on this network, consideration should be given to implementing minimum 2.0 m paved shoulders on both sides of the road in accordance with the updated Standard Rural Cross Sections (see: **Section 4.2.6**, and **Appendix K**); or to otherwise improving the safety of the route as appropriate. This may extend to surface upgrades and road maintenance policies – there should be consideration of proposed multi-modal rural roads above others. Work should also be done to explore options for accelerating the timeline of renewals or improvements, where possible.

For sections of the RCS on county roads, the municipality should coordinate with Lanark County to explore options for accelerating the provision of paved shoulders on the segments of county-owned roads which appear on the network (Tatlock Road - Clayton to Bellamy Mills; and Wolf Grove Road - Christian to Ramsay Concession 8).

At the renewal of road bridges in the RCS, the feasibility of providing integrated active transportation facilities should be evaluated on municipal bridges or in coordination with Lanark County on county bridges, to improve safety of crossings and remove potential barriers to long-distance cycling connectivity.

Adopt the Rural Cycling System shown in Schedule 13; at the renewal of municipally owned roads and bridges identified on this network, consider the provision of minimum 2.0 m paved shoulders on both sides of the road, in accordance with the updated standard Rural Cross Sections (refer to Section 4.2.6).

Engage with Lanark County to accelerate the provision of widened paved shoulders on Tatlock Road, Clayton to Bellamy Mills; and Wolf Grove Road, Christian to Ramsay Concession 8; and integrate active transportation facilities on bridges at the time of renewal/ rehabilitation.

3.4.4 Trip End Facilities

Since each walking or cycling trip ends at a destination, it is important to consider the needs of users once they reach their destination. Cyclists require safe and convenient bike storage at all trip endpoints, and in certain cases also need shower or change room facilities. Longer duration storage options that are covered and secured, such as bike lockers are important at employment areas and schools, while short-term options (bike racks, post-and-rings) may be used for public and commercial areas.

It is recommended that the existing Official Plan language relating to bike parking requirements – and associated zoning By-law (ZBL) – be strengthened to ensure an appropriate, minimum standard of both short and long-term bike storage is provided. The type and amount of bicycle parking should be defined as a function of the size and type of development, but a minimum short-term parking requirement should be instituted for *all existing and future commercial and institutional uses*. For future multi-unit residential development, minimum secure bicycle storage requirements should be reflected in the Official Plan and ZBL.

A review of bike-parking supply should be undertaken at all municipal public facilities, within the downtown area in Almonte, the highway commercial areas Ottawa Street between Paterson Street and Appleton Side Road, and downtown Pakenham. Bicycle racks at these key destinations will help improve the awareness of cycling as a viable mode of travel and may help reduce vehicular trips to and from these destinations, as well as increasing commercial activity related to active tourism.

See **Section 6.4** for more information on trip end facilities treatments as part of the Transportation Demand Management Strategy.

Update the relevant Official Plan sections and associated Zoning By-law relating to minimum bicycle parking requirements, as described in Section 3.4.4.

Undertake a review of bike parking supply and demand at all municipal public facilities and key commercial areas (such as downtown Almonte, Ottawa Street between Paterson Street and Appleton Side Road, and downtown Pakenham).

Consider a rebate program for businesses to assist in the purchase, installation of bicycle parking.

3.5 Active Transportation on Bridges

The Mississippi River creates a significant natural barrier to active mobility in Mississippi Mills, which is compounded by the lack of facilities on many existing road bridge structures. There is a need to address these barriers in support of the municipalities long-term mobility objectives.

Potential Almonte Bridge Expansions

Three crossing-points are currently available to active transportation users in Almonte: Almonte rail bridge (used by the Ottawa Valley Rail Trail (OVRT), the Queen Street bridge, and the pair of bridges on Almonte Street/ Main Street (which cross the two legs of the river at that location). None of the Queen Street, Almonte Street, and Main Street bridges provide cycling facilities.

The existing, retrofitted, elevated rail structure between Queen Street and Main Street, which is used by the OVRT, provides a valuable, grade separated north-south active transportation connection across the river through downtown Almonte; however, there is a need for both increased connectivity on existing east-west road bridges to align with the proposed Almonte cycling priority network; and future connectivity to the north and south of downtown Almonte to align with planned development, serve east-west active transportation demand, and prevent all active transportation trips from having to be routed through downtown.

The TMP investigated the merits of different active transportation river crossing options in Almonte, including:

- **Queen Street Bridge (County Bridge):** The existing Queen Street Bridge is approximately 12.75 m in width with nearly 9.0 m of paved road width, featuring 1.5 m sidewalks on both sides. This is a potentially important link in the proposed Almonte cycling network, providing a direct route into downtown and providing an alternative to the busier Almonte/ Main Streets corridor. Various alternatives were evaluated for providing enhanced cycling facilities:
 - *“Shared-use” signage, pavement markings:* traffic volumes and speeds on the bridge are higher than is typically recommended for a shared-use lane, however increasing driver awareness of the presence of

cyclists may help with cyclist safety and avoids the need for more costly bridge retrofits. Complimenting speed management measures should also be considered.

- **Unidirectional Cycle Tracks:** to maintain minimum 1.5 m wide sidewalks, the addition of 1.5 m unidirectional cycle tracks on both sides of the road would necessitate extending the bridge deck by minimum of 1.0 m. Due to the post-tensioned structure type of the bridge, this would be costly or potentially infeasible. This alternative is not recommended.
- **Multi-use Pathway (MUP):** by narrowing the existing lane widths to 3.5 m, a 3.0 m MUP could be constructed along the north side of the bridge; however, this solution is not recommended from a maintenance and operations perspective, as it reduces available snow storage space and impedes the ability for emergency vehicles to pass a disabled vehicle on the bridge. Additionally, this would require potentially costly drainage solutions.

The Queen Street bridge pavement marking and signage enhancements, as well as supporting measures are included within the Future Road Network Plan in **Section 4.3.5**.

- **Almonte Street and Main Street Bridges (MM Bridges):** Because of a combination of traffic speed, volume, and road geometry, this route was determined not to be appropriate for an on-street, “shared-use” solution. Additionally, the recency of the last renewal of these bridges means opportunities for a significant retrofit in the near-to-medium term are limited. This bridge is not recommended for cycling interventions.
- **Future Bridge(s):** Future travel demand growth may trigger the need for new vehicle corridors and bridges in Almonte, which will be confirmed within the Future Road Network Plan (**Section 4.3**). There may also be opportunities to bundle an active transportation bridge facility with other capital projects that cross the Mississippi River, such as a servicing extension. For whatever purpose or project, it is recommended that any future vehicle bridge in Almonte be constructed as a complete street featuring fully segregated pedestrian and cycling facilities.

A full retrofit of existing road bridges or the construction of a new, dedicated active transportation bridge structure is not currently recommended; however, at the lifecycle renewal period for bridges in Almonte, incorporating separated active transportation facilities should always be considered.

Other Bridges

A review of municipal bridges outside of Almonte was conducted and the findings are presented in Table 18.

Table 18: Mississippi Mills Bridge Inventory

Bridge	Location	Road Connections	Number of Lanes	Active Transportation Facilities
Blakeney Road Bridge ¹	Blakeney	Blakeney Road	1	N/A
Five Span Bridge	Pakenham	CR 29 Kinburn Side Road Dark’s Side Road	1	N/A
Wilson Street Bridge	Appleton	Old Mill Street Wilson Street Hill Street River Road	2	N/A

Bridge	Location	Road Connections	Number of Lanes	Active Transportation Facilities
Tatlock Road Bridge	Clayton	Tatlock Road Bellamy Mills Road	2	Sidewalk – East Side
Queen Street Bridge	Almonte	Queen Street	2	Sidewalk – Both Sides
River Walk Bridge	Almonte	River Walk Trail	N/A	Trail
OVRT Bridge	Almonte	OVRT	N/A	Trail
Main Street Bridge	Almonte	Main Street Almonte Street	2	Sidewalks – Both Sides
Almonte Street Bridge	Almonte	Main Street Almonte Street	2	Sidewalks – Both Sides
Mill Falls Bridge	Almonte	OVRT Carleton Street	N/A	Trail
Glen Isle Bridge	Rural Area	Glen Isle Road	1	N/A
Ramsay Concession 8 Bridge	Rural Area	Ramsay Concession 8	1	N/A
CR 29 Bridge	Rural Area	CR 29	2	N/A
Sugar Bush Road Bridge	Rural Area	Concession 6 Sugar Bush Road Bellamy Road	2	N/A
Chute Bridge	Rural Area	Clayton Road	2	N/A
Clayton Road Bridge	Rural Area	Clayton Road	2	N/A
Paterson Bridge	Rural Area	Ramsay Concession 6D	1	N/A
8th Concession Pakenham Bridge	Rural Area	8 th Concession Pakenham	1	N/A
Concession Road 9 Bridge	Rural Area	Concession Road 9	1	N/A
Pakenham 10th Concession Bridge	Rural Area	Pakenham 10 th Concession	1	N/A
Concession Road 11 Bridge	Rural Area	Concession Road 11	2	N/A

1. Blakeney Bridge is being reconstructed.

As previously stated for bridges in Almonte, the municipality should consider active transportation comfort and safety in all future bridge renewals and new bridges in the rural areas and villages. Considerations may include providing wider paved shoulders or where possible, provide fully separated active transportation bridge on one or both sides.

Consider providing separated active transportation facilities as part of any new vehicle bridge or at the time of renewal of any existing vehicle bridge.

Look for opportunities to bundle an active transportation bridge facility with other capital projects crossing the Mississippi River, such as a servicing extension.

3.6 Recreational Trails

Walking as a recreational or leisure time activity has grown in popularity across the province and is often the most common and popular activity above all other leisure pursuits in Ontario communities, particularly in the wake of COVID-19. Use of trails continues to grow with an increasing emphasis on healthy and active lifestyles, “walkable” communities, and universal accessibility. Walking and other trail activities are typically low or no cost, can be enjoyed in groups or alone. The trail system consists of 89 km of trails, providing the municipality various economic, environmental, and social benefits.



3.6.1 Ottawa Valley Recreational Trail (OVRT)

As noted during the TMP review of existing active transportation infrastructure (**Section 2.3.1**), the OVRT is an iconic facility, not only as a recreational trail and key tourism attraction, but as a utilitarian active transportation corridor connecting the length of the municipality through the centre of its largest settlement, Almonte.

Targeted investments and improvements should be considered that emphasize the OVRT’s unique role as a regional active use corridor through settlement areas and to adjacent municipalities. One particularly effective measure could be paving portions of the trail, similar to what has been done in other surrounding municipalities. The current, unpaved surface can be exclusionary to certain users, such as people with mobility devices, pedestrians uncomfortable walking on the unstable surface, or cyclists with thinner tires. Additionally, feedback received through the consultation process indicated that the dust thrown up by motorized vehicles during the summer is a major deterrent to active users on the trail; consideration should be given to possible resurfacing measures, or measures which re-route motorized users away from the trail in settlement areas. It is important to note that the cost for paving or enhancements within the OVRT through the municipality is likely to be at the cost of the municipality.

Coordinate with Lanark County to explore options for paving all or portions of the OVRT within the Almonte urban boundary.

Coordinate with Lanark County to explore options for resurfacing of rural sections of the OVRT, using a less dust-prone surface material.

OVRT Crossings

The OVRT has 17 at-grade crossings on publicly owned roadways within the Mississippi Mills boundary. Of these, two currently feature specialized crossing enhancements (i.e. pedestrian crossovers): at Main Street and Bridge Street in downtown Almonte; however, several of the remaining 15 crossings are found on high speed, high-volume roadways, which form acute safety concerns for all trail users. If the volume of users or vehicles on the roadways increase over time, as might be expected, this concern will increase.

Future consideration should be given to the provision of enhancements at OVRT crossings of major roadways, to improve trail safety and remove barriers to long-distance active transportation connectivity. These enhancements could be PXO's as per OTM Book 15 guidelines and warrants (previously discussed in **Section 3.3.2**); or signage and pavement markings to draw attention to the crossing, improve the visibility of users, with specific consideration for the crossings at Waba Road, Martin Street, Carss Street, John Street, and CR 29 (north and south).

Review and evaluate warrants for improved facilities where the OVRT crosses major roadways, considering for instance the need for PXO's or other controlled/ semi-controlled crossing types.

OVRT Connectivity

As mentioned above, there is an opportunity to leverage the OVRT as a utilitarian active transportation corridor. Connecting existing and future developments to the OVRT will help to encourage active transportation uptake in new communities, especially those around Almonte which will be provided with a direct and safe active transportation link to downtown and to the various commercial centres where one otherwise might not have existed.

Various potential OVRT pathway connections have been identified in both Almonte and Pakenham, to improve overall municipal recreational trail connectivity, which were previously recommended in the Almonte Ultimate Cycling Plan (**Section 3.4.1**) and Rural Cycling System (**Section 3.4.3**). To support connectivity to the OVRT future policy considerations should include:

Explore options or agreements to connect existing multi-unit developments to the OVRT property limits, where they are within 250 m of the corridor, using new pathway links.

Require that future multi-unit development occurring within 250 m of the OVRT property limits provide a direct active transportation connection to the OVRT, or otherwise prove the connection is not feasible.

3.6.2 New Recreational Trails and Trail Design Considerations

As the needs and opportunities for more recreational trails emerges, new trails should:

- Look for opportunities to leverage natural corridors and existing rights-of-way; and
- Coordinate with relevant local, provincial, national strategies and organizations relating to recreational trail building (Ontario Trails Council, Great Canadian Trails, Trans Canada Trail, Canadian Trails Federation)

Recreational trails should be designed in accordance with relevant provincial accessibility standards (AODA), and with consideration for industry best practice (such as the City of Toronto Multi-Use Trail Design Guidelines, 2015 or OTM Book 18: Cycling Facilities). Upon review of additional references, the municipality should consider the following:

- As OTM Book 18 recommends that two-way in-boulevard shared-use pathways be a minimum of 3.0 m, it is recommended that any new recreational trails should have a minimum width of 3.0 m. A constrained minimum of 2.4 m can be allowed for short sections which are highly constrained.
- Recreational trail amenities, including parking spaces (regular and accessible), washrooms, waste receptacles, signage, lighting, canopies, and benches/seating should be considered at busy trail intersections or resting points.
- Crime Prevention through Environmental Design (CPTED) should be considered when designing new trails or upgrading existing trails. Key principles include signage and lighting near trail entrances and crossings of streets.

Ensure new recreational trail corridors adhere to provincial accessibility standards (AODA) and industry best practices as described in Section 3.6.2.

3.6.3 ATV and Snowmobile Considerations

Community feedback regarding trail safety concerns indicated that motorized vehicles are a deterrent to trail use by active users. Within settlement areas, the Ottawa Valley Recreational Trail should be deemphasized as a motorized vehicle route. In addition to implementing a strategic education program to promote safe and responsible All-Terrain Vehicle (ATV)/ snowmobile use, particularly for youth, monitoring speed limits along the trail and this could include:

- Implementing and enforcing a speed limit for motorized vehicles on the OVRT, and
- Updating the existing ATV by-law to reflect these changes.

There may be an opportunity to improve trail safety, usability by installing pedestrian lighting along the OVRT.

Coordinate with the Ontario Snowmobile Federation and OPP to identify alternative routes for motorized vehicles to the OVRT through settlement areas.

Consider installing lighting along the OVRT through Almonte, and at OVRT access points, in accordance with the municipality’s illumination By-law No. 03-62

Although designation of ATV/ snowmobile routes is not within this scope of this TMP, the presence of ATV and snowmobile trails has potential economic and tourism benefits to the municipality. Ultimately, the various snowmobile trails are governed by the Ontario Federation of Snowmobile Clubs (OFSC). The municipality should address public concerns collectively, through workshops or appropriate outreach, with OFSC representatives who have experience with the safe operation of other formal snowmobile routes that travel through urban areas, and others involved in safety including the OPP and potentially MTO who may have experience and policies surrounding snowmobiling along public highways. If public concerns persist, the municipality may consider initiating a separate study to review existing and potential future ATV and snowmobile trails within the municipality. This study would include the noted stakeholders and public input on how existing trails are being used, how they can be made safer, and how they may be enhanced or expanded in the future as the municipality grows.

If public concerns and incident rates or severe injuries/ fatalities rise over time, initiate a study to review existing and potential future ATV and snowmobile policies and safety strategies within the municipality.

3.7 Education, Promotion, and Tourism

As outlined in Section 11.2.2 of the current Official Plan, there is a desire to develop an active transportation-friendly culture in Mississippi Mills, and reduce the “...animosity between cyclists, pedestrians, and motor-vehicle users”. The most effective measure to accomplish this is the separation of each mode through the implementation of the infrastructure measures outlined in the preceding sections, providing each mode with its own space, and reducing the interactions which can lead to conflict.



To encourage uptake of active modes and use of active infrastructure by both residents and visitors, there is also a need to augment the recommended physical interventions with a coordinated educational and promotional strategy. This

section provides an overview of potential programs which could be used to support the success of the active transportation plan.

3.7.1 Public and Stakeholder Engagement

Public Engagement

There are numerous active transportation groups and initiatives - at the local, regional, and provincial levels, which could be leveraged to improve public awareness and grow the user base for active transportation. A strategy for public engagement should be multi-faceted and coordinated with local and regional advocacy groups (Share the Road Coalition, Mississippi Mills Bicycle Movement, Lanark County Mountain Bike Association) and cycling organizations (Almonte Bicycle Works), working to increase cycling visibility and uptake. Work should be undertaken to increase public awareness of active transportation; municipal staff should be present and visible at public, municipal events (e.g., car-free days in “Downtown District” Almonte – see **Section 3.8.1** for further discussion related to the “Downtown District” designation. Approaches to engaging the public in active transportation include:

- **Advertising strategies**
 - Develop targeted strategies to promote and educate users on the social, health, mental, economic, and environmental benefits of active transportation. Information should be updated on the municipal website and coordinated with social media and newsletters. Targeted strategies should focus on the unique users within the region including:
 - Rural and Urban residents
 - Youth, Seniors, and Care takers
 - Women and other gender identity groups
- **Bicycle Friendly Community Designation**
 - The Bicycle Friendly Community Designation, run by the Share the Road Coalition, recognizes communities that support cycling, which may bring added economic and tourism benefits to Mississippi Mills. Municipalities that apply are evaluated by a panel of cycling experts based on Engineering, Education, Encouragement, Enforcement and Evaluation. The municipality may wish to apply for a Bicycle Friendly Community Designation once some of the active transportation recommendations are implemented.
- **Bike Month:** The municipality should celebrate “Bike Month,” which is celebrated annually in June in Ontario, as an opportunity to encourage residents to cycle more. Events may include guided rides, educational events, and professional cycling races.
- **Consider a Municipal Active Transportation Advisory Committee** to coordinate a public engagement strategy and provide input on future active transportation interventions for any capital project that incorporates new or retrofit active transportation facilities.

Stakeholder Engagement

It will be additionally important to engage with local stakeholders, both public and private entities, to facilitate a coordinated strategy across municipal agencies and the business community.

- **School Boards** – There are opportunities to encourage active transportation use in children, build sustainable transportation habits; however, it is acknowledged that there are real and perceived safety concerns which may

prevent parents from wanting their children to walk or bike to school. Potential strategies which should be coordinated with relevant school boards include:

- Developing walking, cycling route maps to distribute to parents, highlight safe routes and ongoing action related to road safety.
- Establishing “walking school buses” where groups of students travel to school together under the supervision of an adult.
- Participation in initiatives such as Bike to School Week (<https://www.bikemonth.ca/biketoschoolweek>).
- **Public Health** - The Leeds, Grenville & Lanark District Health Unit has an existing active transportation strategy, intrinsic interest in the uptake of active transportation because of the quality of life, health benefits. There is an opportunity to leverage the numerous materials provided online (<https://healthunit.org/for-professionals/municipal-staff-partners/active-transportation/>), and to coordinate with public health partners on existing and future programs and initiatives.
- **Business, Development Community** – There is a need to engage with the business and development community on the active transportation related recommendations included in this TMP, which emphasizes the potential economic benefits of active transportation. This will require consultations to identify:
 - The perceived needs of businesses.
 - The perceived needs of developers in terms of the provision of active transportation facilities and connections.
 - Potential funding programs.

Look for opportunities to partner with and engage the local community, stakeholders and interest groups to promote, educate, and support the various elements of the Active Transportation Strategy.

3.7.2 Tourism

There is a significant opportunity to leverage the mobility investments described in this TMP to support “active tourism”, emphasizing the role of active transportation in driving tourism activity. The Mississippi Mills staff acknowledge tourism as a key part of the municipalities long-term economic health. The 2016 TMP’s direction on “Economic Sustainability” includes increasing the “economic impact of bicycle tourism”.

Lanark County’s Tourism Strategy and Action Plan (2020-2025) identifies the limited existing infrastructure for Active Transportation as a competitive weakness compared to similarly positioned Ontario municipalities. Enhancements require coordination with municipal and County advertising campaigns. Investment in a safe, separated cycling network has the potential to expand the tourist-base beyond dedicated, confident on-road cyclists to include new or infrequent riders who might augment their experience in the municipality with a bike ride.

The municipality should look for opportunities to expand the existing trail and pathway networks through natural areas, especially along water-courses, to improve access to usable green-spaces and also encourage natural tourism (refer to **Section 3.6** for additional recommendations). Furthermore, the municipality should coordinate with relevant organizations (such as the Lanark County Mountain Bike Association) who may already be maintaining up-to-date network maps; integrate these maps into municipal datasets, materials. Additionally coordinate with existing County mapping initiatives (such as the county cycling and trail maps). Information provided on the cycling maps should include key commuter and recreational destinations, washrooms open to the public, and locations of bicycle racks.

Finally, seek opportunities through initiatives like the “Ontario By Bike!” certification to increase awareness of cycling opportunities in the municipality. Coordinate with Ontario By Bike (<https://www.ontariobybike.ca/>) to advertise opportunities, major improvements in the municipal cycling network.

Update the relevant website pages, corporate materials on all Mississippi Mills branded outlets to highlight up-to-date cycling opportunities in the municipality.

3.7.3 Additional Programs

As well as habitual travel behaviour and perceived safety concerns, a significant barrier to cycling may be the actual availability of a working bicycle. Strategies could be explored for increasing bicycle ownership, in coordination with local organizations such as Almonte Bicycle Works, such as involving municipal rebates. There may be future opportunities through provincial or federal funding initiatives to coordinate or fund such a program. Additionally, this strategy could include programs and events focusing on bicycle repair and maintenance. The cost of significant bicycle maintenance, and the knowledge gap related to “do-it-yourself” (DIY) repairs, can deter prospective cyclists. Consider organizing DIY bike maintenance workshops or events. As the municipality’s population continues to age associated mobility concerns will impact the populations’ ability to use active modes of transportation.

E-bikes and other micromobility devices offer opportunities for users of varying abilities to explore and discover the region through sustainable modes of transportation. These power-assisted devices support users by overcoming challenges associated with long-distances of travel, difficult and hilly terrains, and uneven surfaces such as gravel and dirt, through a battery powered electric motor. This empowers users to access recreational experiences that may not have been accessible due to physical limitations. Further discussion on e-bikes and micromobility options and how they can be leveraged to reduce personal vehicle use is provided in **Sections 6.4** and **6.9**.

Investigate bike and e-bike rebate programs to support the uptake of bicycling.

Include bicycle repair workshops to support promotional and education programs.

3.8 Additional Considerations

3.8.1 Almonte “Downtown District” Designation

Over the consultation process, residents expressed the desire for better access to downtown Almonte by bike – specifically the general area bounded by the Mississippi River to the east, Main Street to the north, the community centre and Gemmill Park to the west, and Bridge Street to the south. This “downtown” area is currently isolated; cyclists from east of the river must cross one of two vehicle bridges and from the west must navigate and cross two busy road corridors (Almonte Street and Bridge Street).

Enhancing these roads segments for cyclists poses significant challenges, mainly because of the constrained right-of-way these roads feature. There are also numerous conflicting interests vying for this limited space, such as on-street parking, wider sidewalks, and enhanced public realm features to support economic activity, which creates an environment with high vehicular friction but typically low vehicle speeds. These competing interests leave very little room for the dedicated cycling infrastructure needed within the available right-of-way.

Despite these challenges, there are ample reasons to reduce the barriers for cyclists wishing to access downtown Almonte. For instance, Mill Street is Almonte’s downtown “mainstreet” and exhibits unique features not found elsewhere in Almonte – it is a destination for both local and regional residents. The street recently underwent a full reconstruction, with an emphasis on an improved public and pedestrian realm (refer to Figure 16), and while dedicated cycling facilities were not included, the changes contribute to a vibrant active downtown geared towards activity and fewer vehicles. The Ottawa Valley Recreational Trail (OVRT), a regional trail corridor that crosses runs adjacent to Mill Street should feel integrated with the adjacent uses and be granted the highest level of safety and comfort when venturing through the downtown area.

To facilitate these needs and opportunities, the municipality should consider a new “Downtown District” designation in Almonte that will have unique policy requirements intended to maximize the safety, comfort, and access for pedestrians and cyclists travelling to, within or through downtown Almonte. This district would include the properties front on Bridge Street, between Country Street and Water Street, and Mill Street, between Main Street and Bridge Street, as shown in the Interim and Ultimate Cycling Plans for Almonte (**Schedules 11 and 12**). If there is a desire to expand downtown district area to include the adjacent street, those should be reconciled in future plan updates.

Adopt a special “Downtown District” designation along Bridge Street (Country Street to Water Street) and Mill Street (Main Street to Bridge Street) in recognition of the unique character and importance of the downtown area as a tourist and local destination, with exclusive policies that further prioritize active modes over vehicles.

Figure 16: Mill Street PXO facing west (Source: Google)



A sample of some specific policies and action items to consider within the Almonte “Downtown District” designation:

- Increase minimum bicycle parking requirements and reduce minimum vehicle parking requirements for all new developments or redevelopments within the designated area.
- Limit municipal on-street parking within the designated area (with exceptions for accessible parking) and find alternative off-street parking if possible.
- Consider gateway features at entry points to the area and custom signage, pavement markings, streetlighting and furnishings that emphasizes the transition to the downtown area and its special status.

- Apply traffic calming measures where appropriate, understanding there are limits to the types of measures applied to Bridge Street since it is a county road, consultation with Lanark County would be required.
- Allow temporary vehicle restrictions - only permitting active modes entry - on Mill Street during special events, temporary alternative parking may be provided at public facilities such as the Community Centre or through partnership/ agreements with North Lanark Agricultural Society for the Almonte Fairgrounds
- Consult with Lanark County to allow for temporary vehicle restrictions - only permitting active modes entry - along Bridge Street in the designated area during special events. To support this, alternative routing of through vehicles would be needed (a traffic management plan would need to be prepared); alternative parking arrangements for visitors, such as the Community Centre, Almonte Fairgrounds, or highway commercial parking areas, and provide wayfinding, rest areas, and shuttles if necessary.
- In time, if there is sufficient support, consider unique road and urban design approaches for Bridge Street within the designated area aimed towards active use – such as narrower travel lanes, a traditional mainstreet that emphasizes lower speeds (i.e. 40 km/h), or the most progressive “woonerf” design.
- In time, study the potential to fully “pedestrianize” Mill Street, eliminating general vehicle traffic (with exceptions for accessibility, deliveries, moving trucks, emergency vehicles etc.). This would require a multi-faceted study of vehicle and parking implications, with proper engagement of residents and businesses.

For design guidance to support the new designation, refer to the following references:

- *TAC Geometric Design Guide for Canadian Roads (2020)*
- *TAC Traffic Calming Design Guidelines (2nd Ed. 2018)*
- *Ontario Traffic Manual Book 15: Pedestrian Crossing Treatments (2016)*
- *Ontario Traffic Manual Book 18: Cycling Facilities (2021)*

Adopt a new Almonte “Downtown District” designation and the suggested supporting policies and action items listed in Section 3.8.1.

3.8.2 Winter Maintenance Practices

Maintenance is key in providing an appropriate level of service for road and active transportation facilities, such as sidewalk and shoulder sweeping, tree pruning, sealing pavement cracks and potholes, repairing pavement markings, and winter maintenance, which includes snow clearing from sidewalks and pathways. The level of required maintenance generally depends on the specific facility type and demand.



Maintenance of key pedestrian and cycling facilities is critical to ensuring that these modes remain viable and safe options year-round. In colder climates, several communities have shown the ability to retain people cycling through the winter if winter operational considerations are part of the design process and if they have predictable and consistent maintenance practices. Generally, municipalities create a priority or classification system for cycling facilities to distinguish varying levels of snow clearing priority.

The municipality completes winter maintenance on sidewalks in conformance with, Ontario Regulation 239/02 *Minimum Maintenance Standards for Municipal Highways* as amended by O.Reg. 366/18, updated May 3, 2018, which includes new winter maintenance standards for bicycle lanes, sidewalks, and significant weather events.

Currently, winter maintenance on municipal sidewalks is completed on Class 1 and 2 sidewalks, and Class 3 sidewalks are exempt – winter maintenance maps for the settlement areas are provided on the municipal website. A frequent comment arising from the public consultation process was regarding the difficulty of walking during the winter as not all sidewalks are plowed. Due to constraints in staff and equipment resources, it may not be realistic for the municipality to maintain all sidewalks within municipal boundaries during extreme weather and prolonged storms, but applying the provincial standards enables a reasonable level of “safe, affordable, and effective pedestrian access through the municipality during winter months.”¹⁹

The municipality may consider updating the Road Inspection and Maintenance Policy – PW 07 and Sidewalk Policy – PW 10 to expand the winter maintenance program include multi-use pathways and trails to school and consider including multi-use pathways and cycle tracks along Class 1 routes in Almonte, as well as pathway connections to the OVRT, to provide year-round cycling and recreational trail access.

3.8.3 New Developments

The municipal planning approval process should ensure that new developments give a high level of priority to active transportation users within the development site. For future subdivision developments, active transportation connectivity should be provided *within* the subdivision, and *between* the subdivision and existing municipal active transportation facilities. For instance, providing connections and integrating with cycling facilities if the development is located along an urban collector or arterial road.

Active transportation connections should also meet accessibility requirements, and language should be added to the Official Plan requiring that a transportation-centred accessibility review be incorporated into future development projects. It is recommended that the planning and public works departments continue to coordinate potential development reviews to ensure that these requirements are met. The municipality may also consider updating the language in the Official Plan regarding the development review process, such that:

- Active transportation facilities required to support new developments connecting to the municipal network can be included as special conditions to subdivision agreements, with the active transportation facility costs partially or fully funded by the developer.
- As a condition of development approval, require the proponent demonstrate how their development will connect to the long-term pedestrian and cycling networks, and ensure they adhere to provincial accessibility standards (AODA)

It is recommended that the Official Plan and subsequent zoning By-law more specifically incorporate the concept of “permeability”, or the extent to which a transportation network permits the movement of people on foot or bike. This concept can be thought of as a “decoupling” of the movement of vehicles and active users; active users should not always be required to follow the same path of travel as motorized vehicles, where those paths are so long or hostile as to make travel by active modes infeasible. Consideration for the directness of active transportation routes, coordination between projects, and targeted investments in network permeability (i.e. “shortcuts” for active users) can close the competitive gap between active modes and motorized vehicles, increasing active transportation uptake.

- This concept should be considered in the approval process for new subdivision developments.

¹⁹ Winter Control and Parking, <https://www.mississippimills.ca/en/municipal-services/winter-control-and-parking.aspx>. Mississippi Mills. Date Accessed: 2024-03-02.

- Seek opportunities through infill development or other renewal processes, to improve active transportation network permeability by providing pathway connections through available public rights-of-way, easements, or joint use agreements.²⁰
- Special consideration should be given to the impact of new developments on existing local road traffic patterns.
 - There is an opportunity, where possible impacts exist, to both preserve the function of the local road and improve active transportation network connectivity by implementing a full or partial vehicle access closure.
 - Examples of potential candidate roads - based on the directness of the connection they provide to central Almonte, and on future anticipated development patterns - include:
 - Malcolm Street: traffic from future development north of Strathburn Street looking to access Almonte Street may prefer Malcolm as a more direct route to County Road 29, depending on the internal road organization of the development.
 - King Street: traffic from development south of Fairbairn Bros. Street looking to access Perth Street may prefer King Street as a more direct route to County Road 29, depending on the internal road organization of the development.

The development review process should always prioritize active transportation when considering how to maximize the safety and comfort of existing and future residents.

3.9 Summary of Recommendations

To encourage and support the municipality's long term active transportation system, the following recommendations have been developed.

Walking, Rolling and Cycling

To improve the travel experience of pedestrians, accessible users, and cyclists it is recommended that the municipality:

- Revise current municipal design standards such that sidewalks are provided on both sides of new or reconstructed urban collector and arterial roads.
- Sidewalks should be provided on at least one side of urban local roads. Some judgement can be exercised in the application of this recommendation, but for the majority, a sidewalk shall be provided on at least one side of the road. However, a sidewalk may not typically be required for a "cul-de-sac" or similarly limited, low-volume local road. Sidewalks should typically only be constructed on cul-de-sacs where they are determined to improve pedestrian network connectivity, such as where there is a pedestrian through-link at the end of the cul-de-sac.
- Adopt a 1.8 m target sidewalk width with 1.5 m only considered acceptable in constrained situations.
- Consider sidewalk widths greater than 1.8 m where appropriate, such as the "downtown district" (discussed further in **Section 3.8.1**) or segments with high pedestrian volumes.
- Expand the policy for sidewalk construction related to development to include requirements for sidewalks on roads not directly related to, fronting, or within the development. Where development activity occurs that *creates* a new gap in the pedestrian network (i.e. creates potential demand for pedestrian connectivity where it does not currently exist), the onus to fill that gap should fall to the developer.

²⁰ Joint Use Agreements provide terms for the sharing of the cost and responsibilities associated with the use, maintenance and repairs of these shared facilities.

- Adopt the priority system for filling in the sidewalk network gaps discussed in **Section 3.3.1** and identified by **Schedule 9** and **Schedule 10**.
- Consider developing a detailed Pedestrian Crossing Policy and Standards, to be integrated with the updated existing Sidewalk Policy.
- Implement pedestrian crossovers (PXOs) at noted locations with immediate needs, and consider implementing PXOs at candidate locations, outlined in **Section 3.3.2**.
- Adopt and implement the Interim Cycling Plan identified by **Schedule 11**; and consider augmenting the local cycling network with traffic calming measures where appropriate.
- Adopt and implement the Ultimate Cycling Plan identified by **Schedule 12**.
- Leverage the lifecycle renewal opportunities of the existing roads within the Ultimate Cycling Plan to include recommended cycling interventions within the scope of the renewal project if budget permits.
- Adopt the Rural Cycling System shown by **Schedule 13**; at the renewal of municipally owned roads and bridges identified on this network, consider the provision of minimum 2.0 m paved shoulders on both sides of the road, in accordance with the recommended standard Rural Cross-Sections (refer to **Section 4.2.6**).
- As development proceeds in the rural areas and villages, look for opportunities to connect to the OVRT to further strength the municipal trail system and economic development.
- Engage with Lanark County to accelerate the provision of widened paved shoulders on Tatlock Road, Clayton to Bellamy Mills; and Wolf Grove Road, Christian to Ramsay Concession 8; and integrate active transportation facilities on bridges at the time of renewal/ rehabilitation.
- Update the relevant Official Plan sections and Zoning By-law relating to minimum bicycle parking requirements, as described in **Section 3.4.4**.
- Undertake a review of bike parking supply at all municipal public facilities and key commercial areas (such as downtown Almonte, Ottawa Street between Paterson Street and Appleton Side Road, and downtown Pakenham).
- Consider a rebate program for businesses to assist in the purchase, installation of bicycle parking.

Accessibility

To support equitable access and inclusivity for all people, including the most vulnerable road users, it is recommended the municipality:

- Consult with the Accessibility Advisory Committee to set a minimum standard for the provision of rest areas (i.e. a bench every 300 m on pathways and trails, and every 500 m along major roadways).
 - This standard should be integrated into an updated *Sidewalk Policy*, tying the provision of rest areas to the implementation of new or reconstructed pedestrian facilities.
 - The standard should also cover the provision of shade. Rest areas should be placed with regard for the position of new and existing trees, where possible; or, where not possible, consideration should be given to the provision of shade structures.
- Ensure sidewalks, curbs and PXOs meet provincial accessibility standards (AODA) for all street construction or re-construction work, and Accessible Pedestrian Signals be provided where new pedestrian signals are being installed or existing pedestrian signals are being replaced.
- Require accessibility reviews be incorporated in re-development and new development projects in the Official Plan, including accessible connections between the municipality's active transportation facilities and all future development/ redevelopment projects, including buildings, parks, and open spaces.
- Consider the implementation of AODA compliant accessible on-street parking spaces in downtown Almonte along Mill Street, Bridge Street, and Brae Street; and in Pakenham along County Road 29.

Active Transportation on Bridges

To overcome the barrier presented by the Mississippi River and promote a more connected active transportation network, it is recommended the municipality:

- Consider providing separated active transportation facilities as part of any new vehicle bridge or at the time of renewal of any existing vehicle bridge in Almonte.
- Look for opportunities to bundle an active transportation bridge facility with other capital projects crossing the Mississippi River, such as a servicing extension.
- Plan to incorporate improved active transportation facilities at the next renewal of the Queen Street, Almonte Street, and Main Street bridges over the Mississippi River, and coordinate with Lanark County where required.

Recreational Trails

The following recreational trail recommendations should be considered by the municipality:

- Coordinate with Lanark County to explore options for paving all or portions of the OVRT within the Almonte urban boundary.
- Coordinate with Lanark County to explore options for resurfacing of rural sections of the OVRT, using a less dust-prone surface material.
- Review and evaluate warrants for improved facilities where the OVRT crosses major roadways, considering for instance the need for PXO's or other controlled/ semi-controlled crossing types.
- Implement the new recommended OVRT pathway connections in Pakenham (outlined in **Section 3.4.3**) and continue to look for opportunities to create new connections throughout the municipality that improve the usability, connectivity of the OVRT, reinforcing its role as an active transportation spine.
- Require that future multi-unit development occurring within 250 m of the OVRT property limits provide a direct active transportation connection to the OVRT, or otherwise prove the connection is not feasible.
- Ensure new recreational trail corridors adhere to provincial accessibility standards (AODA) and industry best practices.
- Require any new recreational trails to have a minimum width of 3.0 m, and only permitting a minimum 2.4 m width in constrained conditions only.
- Ensure new recreational trails consider the standards outlined in **Section 3.6.2**.
- Improve trail safety, usability by installing pedestrian lighting along the OVRT through Almonte, and at OVRT access points, in accordance with the municipality's illumination By-law No. 03-62.
- Coordinate with the Ontario Snowmobile Federation and OPP to identify alternative routes for motorized vehicles to the OVRT through settlement areas.
- If public concerns and incident rates or severe injuries/ fatalities rise over time, initiate a study to review existing and potential future ATV and snowmobile policies and safety strategies within the municipality.

Community Education and Promotion

To encourage participation and retention of active users as well as leverage the investments recommended in the Active Transportation Plan, it is recommended the municipality:

- Develop a targeted advertising strategy to promote and educate users on the social, health, mental, economic, and environmental benefits of active transportation, which is coordinated with the municipal website, social media, and newsletters, and targets the following unique users identified in **Section 3.7.1**.

- Apply for the “Bicycle Friendly” community designation once some of the active transportation recommendations have been implemented.
- Celebrate Bike Month through various events identified in **Section 3.7.1**.
- Establish a municipal active transportation advisory committee to coordinate a public engagement strategy and provide input on future active transportation interventions.
- Work with the public and relevant stakeholders to facilitate a coordinated strategy across municipal agencies identified in **Section 3.7.1**.
- Update corporate materials on all Mississippi Mills branded outlets to highlight up-to-date cycling opportunities in the municipality.
- Investigate bike and e-bike rebate programs to support the uptake of bicycling.
- Include bicycle repair workshops to support promotional and education programs.

Additional Active Transportation Supporting Policies

It is recommended the municipality consider the following additional supporting active transportation policies:

- Adopt a special “Downtown District” designation along Bridge Street (Country Street to Water Street) and Mill Street (Main Street to Bridge Street) in recognition of the unique character and importance of the downtown area as a tourist and local destination, with exclusive policies that further prioritize active modes over vehicles.
- Consider adopting the suggested policies and action items listed in **Section 3.8.1** for the new Almonte “Downtown District” designation.
- Update the Road Inspection and Maintenance Policy – PW 07 and Sidewalk Policy – PW 10 to expand the winter maintenance program include multi-use pathways and trails to school and consider including multi-use pathways and cycle tracks along Class 1 routes in Almonte, as well as pathway connections to the OVRT, to provide year-round cycling and recreational trail access.
- As a condition of development approval, require the proponent demonstrate how their development will connect to the long-term pedestrian and cycling networks, and ensure they adhere to provincial accessibility standards (AODA)
- Within the Official Plan and subsequent zoning by-laws more specifically incorporate the concept of “permeability”, or the extent to which a transportation network permits the movement of people on foot or bike.
- As a condition of development approval, identify a maximum block-length for subdivision developments that requires a “shortcut” between parallel streets be provided where a block is above this limit.
- Seek opportunities through infill development or other renewal processes, to improve active transportation network permeability by providing pathway connections through available public rights-of-way, easements, or joint use agreements.²¹
- Identify local roads which are vulnerable to traffic infiltration from future developments (see: Malcolm Street, King Street) and consider options such as full or partial vehicle access closures which maintain access for active modes.

²¹ ibid

4.0 ROAD NETWORK STRATEGY

A well-functioning road network is critical to support any municipality; it enables interaction and movement among residents and businesses, and with it, promotes more visitors and tourism – critical aspects of a growing and vibrant economy. The following section outlines key elements of the road network strategy in this TMP, culminating to the long-term [Road Network Plan](#).



4.1 Road Classifications

The TMP recognized the need to expand the road classification system to better plan for long-term growth, in a similar approach that was developed in the 2016 TMP. As previously discussed in **Section 2.3.3**, the current Official Plan classifies all municipal roadways as local roads.

4.1.1 Purpose of Road Classifications

A road classification system establishes a hierarchical structure of roadway types according to their physical and functional characteristics and the type of service they are intended to provide to the public. Road classifications also provide an opportunity and guidance to the municipality and residents to consider other factors relating to road operations such as:

- **Development Impacts** – changes to roadway classification due to future street connections or development.
- **Future Road Linkages** – recommend specific locations where future street linkages should be developed based on the Official Plan or Community Improvement Plans.
- **Complete Streets** – provides an opportunity to incorporate complete streets principles, where applicable, in alignment with corresponding policies and guidelines proposed in this TMP, to ensure that all users are considered in the design of new streets and roadway retrofit projects.

The municipality has developed a complete streets policy that includes road design criteria, which this TMP will build upon based on current best practices. More details on the complete streets approach in this TMP is discussed in **Section 4.2**.

4.1.2 Best Practices

Transportation Association Canada (TAC)

The TAC Geometric Design Guide for Canadian Roads provides general guidance for roadway classifications. The most common approach taken from municipal comparisons is to classify roads as highway, arterial, collector and local; and in when applicable, may further divide roadways into “rural” and “urban” sub-classes, which refer to the population density characteristics of the region.

Generally, TAC recognizes the following factors (Table 19) as the most important characteristics to consider when assigning a roadway classification:

Table 19: Key Roadway Classification Characteristics

Characteristic	Relevance and Importance to Roadway Classifications
Land Use	Understanding its relationship with access demands, geometric requirements, vehicular traffic, and site-specific objectives.
Service Function	Defines the degree of priority between serving traffic and providing land access.
Traffic Volumes	Provides an indication of service function based on the level of priority given to facilitating traffic movement. It is important to note that traffic volume should not be used as the main criteria for classifying roadways as it reflects how a road is serving demand in a particular part of the network rather than the role of the road in the overall network.
Flow	Represents the desired characteristics of traffic flow along a roadway, which impacts performance. Uninterrupted flow prioritizes traffic movement, whereas interrupted flow is restricted by higher traffic conflicts or specific design features, such as traffic calming or on-street parking.
Design and Posted Speeds	These speeds typically increase as you progress up the road hierarchy (i.e. local roads to highways). Appropriate care must be taken in selecting a design speed that corresponds with the adjacent land-use, service function and speed zoning policy for the roadway.
Vehicle Types	This relates the proportion of passenger cars to heavy vehicles served by a roadway. Allowances can be made within classifications for operational needs of vehicle types accessing industrial and/or commercial areas.
Connections	Roadways typically connect with roadways of similar or one class above or below in the hierarchy, e.g. local roads connect to collector roads, and collector roads to arterial roads, but not local roads generally avoid connecting to arterial roads. This order maintains consistency in the overall road network for short and long-term planning.

TAC Guidelines provide a good starting point for road design classifications. Jurisdictions across Canada commonly adopt the TAC system but may modify the guidelines to meet their specific needs. Local examples of this include:

County of Lanark – The county Official Plan identifies three (3) transportation system components, provincial highways, county roads and local public roads. The TMP outlined the design criteria for the county road system based on the Geometric Design Guide for Canadian Roads by TAC and the Geometric Design Standards for Ontario Highways by MTO. They define both urban and rural context for arterial and collector roads. Design criteria for potential cycling facilities on County roads were also provided.

Carleton Place – The Carleton Place TMP (2022) developed a road classification system that included highway, arterial, collector, and local roads, with a rural subclass for arterial roads. Additional subclasses were developed among local and collector roads based on local land use context: residential or commercial. Unique design criteria and guidelines were created for each of these subclasses to support future decision-making about the form and function of new road corridors in growth areas.

Mississippi Mills – As previously noted, the 2016 TMP also developed a new road classification system that included local, collector and arterial roads, with urban and rural designations. Design criteria were developed based on national standards with provisions for different forms of cycling facilities on arterial roads. An updated classification system was developed, and certain roads were re-classified. The project team intends to build upon the above hierarchy, with minor refinements that reflect current views and concerns from municipal staff, the public and stakeholders.

4.1.3 Road Classification Framework

A framework has been developed to define the function of the road network to inform the planning outcomes and investment decisions by the municipality. The framework defines the future function of the street network based on overall land use and transport objectives.

“Urban” vs “Rural” Streets

this TMP, distinct urban and rural designations are considered, where appropriate, so that the characteristics, design criteria and needs in each of these unique environments are reflected and considered when future infrastructure decisions are made.

New Road Classification Descriptions

The following road classification system is recommended in the municipality, based on the function served by the road. The local and collector road classes also have an urban and rural subclass. A rural arterial subclass was not considered necessary since county roads generally fulfill this need in the road network hierarchy.

Arterial Roads: Dedicated to the quick and efficient movement of goods and people over long distances with arterials playing a strategically significant function within the road network.

Collector Roads: Provide safe, reliable, and efficient movement for all users between neighbourhoods and strategic centres within the same road space. These streets should balance pass-through vehicular operations, with destination-based needs such as on-street parking, pedestrians, cyclists, and transit users.

Local Roads: Facilitates access to neighbourhood nodes, local communities, and private properties, as well as service to commercial nodes, providing a link to the broader collector road system.

Highways and Private Roads: No change from current description and characterization in the current Official Plan and 2023 Private Roads.

4.1.4 Road Reclassifications

As per the Official Plan, all municipal roads are currently classified as local roads. As part of this TMP, new arterial and collector road classes have been created. A subclass has also been created that distinguishes between urban and rural roads. The new road classification framework will provide the urban and rural designations, while some existing municipal local roads are recommended to be reclassified to arterial or collector roads; to be adopted in the Official Plan.

The recommended changes to the road classification system, as summarized in Table 20 and depicted in **Schedule 15**, **Schedule 16**, and **Schedule 17** are intimately connected with land use planning, future traffic conditions (refer to **Section 2.5.3**), as well as anticipated future cycling desire lines to support the Ultimate Cycling Plan (refer to **Section 3.4**). For example, rural local roads that were shown to exceed the optimal average daily traffic volume threshold were reclassified to rural collector roads (e.g., Clayton Road and Ramsay Concession 8), or road corridors in urban areas with higher amounts of vehicle traffic where separated cycling facilities may be desired by residents.

As a result, the proposed changes to roadway classification should be amended in the next Official Plan update. These changes were also completed in coordination with the complete streets approach (discussed in **Section 4.2**) to account for active transportation and roadway safety for each road classification category so that municipal geometric design standards support the over-arching policy. The supporting design criteria to accompany the new road classification system have been provided in **Section 4.2.5**.

Future Almonte Expansion

The following road corridors are currently located in the rural areas, but in the general vicinity of future growth areas in Almonte, specifically:

- **Old Almonte Road** between Almonte south boundary and Golden Line Road
- **Country Road** between Appleton Side Road and the southern Almonte boundary
- **Rae Road** between Country Road to Old Perth Road

As part of long-term growth strategy, these road sections may eventually be absorbed into Almonte, in which case they would be expected to become part of the urban road network. The required right-of-way protection limits should reflect the ultimate context, whether urban or rural. It has been assumed for the purposes of this TMP that the above road corridors will eventually be urbanized.

The municipality should adopt the updated road classification system, which introduces collector and arterial classes, as well as urban and rural sub classes.

The municipality should adopt the proposed road reclassifications outlined in Table 20.

Table 20: Summary of Recommended Municipal Road Re-Classifications

Proposed Road Classification	Road	Limits/ Extents
Arterial	Almonte (Urban Roads)	
	Ottawa Street	Appleton Side Road and Martin Street
Collector	Almonte (Urban Roads)	
	Main Street	Martin Street to Mary Street
	Almonte Street	Mary Street to Almonte west boundary
	Country Street ¹	Bridge Street to Almonte south boundary
	Paterson Street ¹	Ottawa Street to Almonte south boundary
	Industrial Drive ¹	Ottawa Street to Appleton Side Road
	Sadler Drive	Ottawa Street to north terminus
	Ramsay Concession 11A ¹	Ottawa Street to Almonte north boundary
	Old Perth Road ¹	County Road 29 to Almonte west boundary
	<i>Old Almonte Road ²</i>	<i>Almonte south boundary to Appleton Side Road</i>
	<i>Country Street and Rae Road ²</i>	<i>Almonte south boundary County Road 29</i>
	Rural Areas (Rural Roads)	
	Blakeney Road	West Blakeney Village boundary to County Road 29
	Clayton Road	County Road 29 to County Road 9
	Ramsay Concession 8	Bennies Corners to Municipal south boundary
	McArton Road	County Road 17 and Golden Line Road
	Old Perth Road	Almonte west boundary to Ramsay Concession 8
	Bennies Corners Road	County Road 29 to Ramsay Concession 8
	Rural Settlement Areas (Rural Roads)	
	Blakeney Road	County Road 17 and west Blakeney Village boundary

Notes:

1. These corridors have sections of rural road or are fully rural roads in Almonte that connect to urban roads. These roads are expected to be urbanized in the fullness of time, meaning the potential right-of-way requirements may be reduced.
2. These corridors are currently rural roads outside the Almonte boundary that traverse future growth areas; there may a long-term outlook where these roads are absorbed into Almonte and urbanized in the fullness of time. In these cases, potential right-of-way requirements may be reduced.

4.2 Complete Streets

Roads play several roles in an urban transportation system; they can act as social places (such as sidewalk patios and benches), they provide access to a variety of uses (such as businesses, parks, schools, residences etc.), and they represent the spine within the system for moving people and goods. Traditionally, the priority for transportation infrastructure investment focused solely on the movement of vehicles. Where these priorities have evolved is in balancing the needs for all users within the road allowance or space, which often requires a municipality to make challenging choices.

“Complete Streets” is a relatively recent concept in the planning and design of road infrastructure that “incorporate the physical elements that allow a street to offer safety, comfort, and mobility for all users of the street regardless of their

age, ability, or mode of transportation.”²² Complete streets come in all shapes and sizes; for example, a quiet local road is expected to accommodate pedestrians, cyclists, and motorists with minimal infrastructure, while higher order roadways often require more space and possibly specialized infrastructure.

Adopting a complete streets philosophy does not necessarily require widespread transformation of the entire road network, but by simply establishing mechanisms that can inform planning and design decisions for all road-related projects. It is about gradual, opportunistic changes over time that improve mobility needs for all residents.

4.2.1 Why Complete Streets?

The vision of the Mississippi Mills TMP calls for an inclusive, accessible, and safe transportation system that supports a high quality of life for all users (refer to **Section 2.7.1**). The general



objectives include promoting sustainable travel modes, improving road safety, emphasizing permeability and connectivity for all users, environmental sustainability, among others. A complete streets strategy is instrumental to achieving this vision and various objectives by improving the comfort and safety of active transportation users and more equitably utilizing the road right-of-way; making it possible to encourage more people to use sustainable modes. The complete streets approach provides a wide range of benefits as compared to traditional street designs, including:²³

- Help reduce heavy traffic and collisions by getting more people cycling, walking, and taking transit.
- Help create safe, livable and welcoming communities.
- Encourage healthy lifestyles by making it easier to walk or bike.
- Help build sustainable communities by reducing pollution caused by traffic.
- Ensure that more people can easily get to stores and businesses.
- Improve the lives of people with mobility impairments or disabilities.

There are many opportunities to link the complete streets approach with broader planning, design, and implementation initiatives in the municipality. Mississippi Mills already has a strong off-street pathway network centered upon the OVRT, which is an ideal foundation for a multi-modal system. The municipality is also well positioned to implement a complete streets approach based on current political momentum and passing of recent policies outlined in **Section 2.1.4**, including their own complete streets policy (2017), which stated “the overriding principle of complete streets is to offer safety, comfort and convenience to all users (i.e. pedestrians, cyclists, motorists and, in the future, transit riders) regardless of their age or accessibility constraints.” Additionally, some county roads within the Almonte have incorporated cycling facilities, such as bike lanes and pedestrian crossovers (PXOs), demonstrating an increased awareness by the county of the needs for all road users and the willingness to collaborate with the municipality to implement these specialized facilities.

The forthcoming complete streets strategy formalizes the commitment to create a more multi-modal transportation network by making roads safer and more comfortable for all users. This strategy is intended to work in tandem with the Active Transportation Strategy (previously discussed in **Section 3.0**). There will be other complementary policies and

²² City of Ottawa, Complete Streets in Ottawa (Infosheet), [https://documents.ottawa.ca/sites/documents/files/documents/complete_streets_en_0.pdf]. Pg 1. Date Accessed: 2024-02-03.

²³ ibid. Pg 2.

strategies touch upon in this TMP, including road safety strategies (refer to **Section 6.3**) like traffic calming - while not a replacement for purpose-built active transportation infrastructure, traffic calming where warranted can make streets safer for all road users and more inviting for vulnerable road users; as well as Transportation Demand Management (TDM) (refer to **Section 6.4**) that provides education and programming strategies that can complement infrastructure additions by encouraging people to try active transportation for at least some of their trips.

4.2.2 Complete Streets Policy Review

As previously noted in **Section 2.1.4**, Mississippi Mills already has a complete streets policy, approved in 2017. The general approach to complete streets within this policy focuses on providing the following elements for designing and maintaining streets with safe access for all users:

- Specify that ‘all users’ shall include pedestrians, bicyclists, transit vehicles and users, and motorists, of all ages (i.e. 8 to 80) and abilities.
- Aim to create a comprehensive, integrated, connected street and inter-community network for all users, not only motorists.
- Include human-scale design considerations.
- Recognize the need for flexibility: that all streets are different and user needs will be balanced.
- Apply to the full right-of-way on all new and retrofit projects; the design, planning, maintenance, and operations.
- Direct the use of the latest and best design standards.
- Direct that complete street solutions fit into the context of the community.
- Establish performance standards with measurable outcomes.

The policy also identified a number of action items and strategies that reflect a complete streets approach:

- New roads will include appropriate facilities for pedestrians, cyclists, and vehicles.
- Pedestrian and cyclist facilities will be added to existing roads when reconstructed.
- Key gaps in the pedestrian and cycling network will be prioritized.
- Provide pedestrian and cyclist crossings of arterials and collectors based on active transportation traffic patterns.
- Maintenance policies that enable safe year-round use of active transportation facilities, in accordance with the municipal Asset Management Plan.
- Planning for future bike and pedestrian routes will be considered during the review of new development applications.

Finally, the policy includes road design criteria/ characteristics for local, collector and arterial roads using a complete streets lens that can be applied to all future road projects. This document provides an excellent starting point to build upon; many aspects of the existing policy will be reused, refined and/ or reimagined to align with the vision and objectives, as well as feedback from stakeholders received over the course of this TMP.

The [City of Ottawa](#) has various policies and guidelines that reflect a complete streets approach and can provide an aspiration for the municipality when it comes to complete streets. Ottawa’s complete streets policies included the following related actions:

- Adopt a complete streets policy for road design, operation, and maintenance,
- Update road design guidelines, standards, and processes to reflect complete streets principles,
- Use multi-modal levels of service (MMLOS) to assess road designs and allocate right-of-way.

This framework outlined how policies were to be implemented, which led to subsequent planning and design guidelines to direct complete streets principles.²⁴



The City of Ottawa *Building Better and Smarter Suburbs Initiative* (2015) addressed the challenge of supporting land efficiency and functionality in new suburban subdivisions, while at the same time improving urban design. Ten (10) strategic directions were recommended, where #10 was the “ensure components of a ‘complete street’ are provided in the ROW,” such as: pedestrian and cycling facilities, on-street parking, trees, and utility/ operational considerations that do not interfere with attributes of complete streets.²⁵

The City of Ottawa *Designing Neighbourhood Collector Streets* (2019) and *Local Residential Streets 30 km/h Design Toolbox* (2021) provides up-to date technical guidelines that demonstrate how to balance space within typical street rights-of-way. The collector street guideline considered walking and cycling, transit amenities, large trees, and low-impact stormwater management features - all while integrating low vehicle speed design.²⁶ These documents can be used as reference for the municipality when implementing the complete streets approach. The focus of the residential street toolbox was to provide a catalogue of different traffic calming measures, and guidance on how to apply traffic calming measures on residential local roads to achieve a 30 km/h operating speed limit.

4.2.3 Complete Streets Framework

General Policies and Integration with Supporting Strategies

The successful adoption of a complete streets philosophy requires a “top-down” approach and implementation, from the early planning process and through the lifecycle of any capital project. Therefore, it must be integrated and synergized with other policies and guidelines that support the transportation system.

Official Plan – The future update to the Official Plan (OP) should strengthen the language regarding the adoption of a complete streets philosophy for the future transportation system, with the goal of achieving greater equity in the transportation system for all road users, regardless of age and ability. The inclusion of a complete streets vision statement that recognizes contemporary best practices would lay the foundation of a holistic complete streets approach.

²⁴ City of Ottawa (2015), Transportation Committee Report. Pg 70.
²⁵ City of Ottawa (2015), Building Better and Smarter Suburbs: Strategic Directions and Action Plan. Pg 48.
²⁶ City of Ottawa (2019), Designing Neighbourhood Collector Streets.

Road User Safety – Municipalities adopting a complete streets approach need to plan for and operate roads that account for the safety of all road users. Figure 17 illustrates a shift from the traditional hierarchy of road users where cars are prioritized to a hierarchy that prioritizes the safety of vulnerable road users. To supplement active transportation infrastructure, traffic calming can be considered, when warranted, to make active modes safer and more comfortable by reducing the operating speed of vehicles along the corridor. A more detailed discussion about the road safety approach, and specific discussion related to traffic calming and speed management strategies in the municipality are provided in **Section 6.3**.

Measuring the Experience of Multiple Road Users – It is necessary to measure road network performance for all road users. This means that mode-specific performance metrics that include active transportation should be considered. This may include recording and cataloguing the number of collisions by mode, field monitoring locations of concerns, public surveys, or expanding the municipal data collection program to include active transportation users.

Land Use Planning – The characteristics of a road should support the area context it is located in. As part of any capital project, distinct land use contexts need to be considered in the complete street approach. There is rarely a “one size fits all” solution, and the complete streets approach should be flexible to competing priorities.

Funding – The incremental cost of considering all modes upfront is less than the cost of having to rebuild or upgrade to add infrastructure for specific modes later. Funding for a complete street is more readily available for new roads in growth areas, where the municipality can leverage developer contributions and/or development charges for new infrastructure to accommodate growth. Implementing a complete streets approach requires opportunistic thinking - from large projects such as road reconstructions, resurfacing and rehabilitation to routine procedures such as traffic signal updates and maintenance activities.

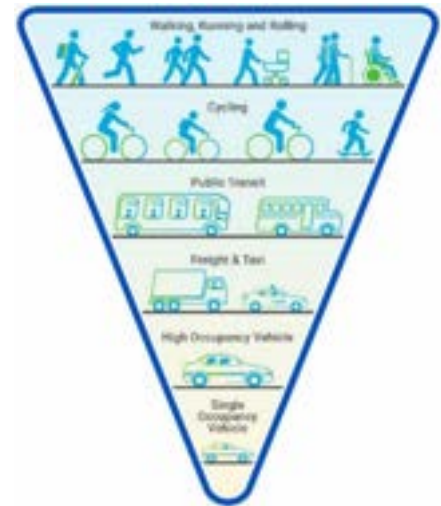
Coordination and Collaboration – The successful adoption of the complete streets approach requires comprehensive “buy-in” from all municipal departments, municipal representatives, and partner jurisdictions. Several key roadways within the municipality are county or provincial roads, which means the implementation of a holistic strategy will require coordination and collaboration with these adjacent municipalities.

Suggested complete streets policy language to be considered in the next Official Plan update:

Adopt a complete streets approach to every new road, road reconstruction and road rehabilitation project. Each project will be planned, designed, constructed, operated, and maintained with the explicit consideration for the needs of road users of all ages and abilities.

It is recognized that not all projects will be able to directly accommodate all road users to the highest level of service. Where constraints exist, planners and designers should demonstrate that the proposed design afforded due consideration to all potential road users, including alternatives for how those users are to be accommodated, such as on alternative parallel routes.

Figure 17: Multi-Modal Hierarchy for Complete Streets



Developing Complete Streets Design Guidelines

A comprehensive review of existing design guidelines and criteria within the existing municipal complete streets policy was completed. While many elements will be consistent with prior efforts, some refinement was necessary to reflect contemporary design standards and best practices. The following sections document this process and culminates in various complete streets policy recommendations and updated design guidelines and criteria.

4.2.4 Design Resources

There is no universal set of design guidelines for complete streets, but unlike many jurisdictions, the municipality developed a complete streets policy with associated design criteria for different roadway classes. Municipalities vary in their approach by developing their own road design standards for different roadway classes, as outlined in the previous section that best reflects the unique needs and desires of their residents and stakeholders.

It is important to recognize the complete streets designs developed for this TMP are intended to be flexible and may be refined or adjusted over time as needs and opportunities evolve. In this eventuality, the municipality can draw on existing guidelines and standards; common resources for complete streets design elements include:

- *Ontario Traffic Manual (OTM) Book 12: Traffic Signals (2012), OTM Book 15: Pedestrian Crossings (2016) and OTM Book 18: Cycling Facilities (2021)*. The OTM Books provide information and guidance to promote uniformity of treatment in the design, application and operation of traffic control devices and systems across Ontario. Book 15 and Book 18 provide guidance specifically on pedestrian and cycling facilities.
- *Geometric Design Guide for Canadian Roads, Transportation Association of Canada (2017)*. The recent TAC release of the updated Geometric Design Guide includes guidance on cross-sectional elements and two chapters dedicated to bicycle and pedestrian planning and design.
- *Canadian Guide to Neighbourhood Traffic Calming, Transportation Association of Canada (2018)*. A common reference for guidance on traffic calming elements such as curb extensions, refuge islands, and other devices that slow traffic.
- *Urban Bikeway Design Guide, National Association of City Transportation Officials (NACTO) (2011)*. NACTO developed this guide as part of its Cities for Cycling initiative to provide cities with state-of-the-practice solutions to create complete streets that are safe and enjoyable for cyclists. It includes descriptions, benefits, applications, design guidance, renderings, images and case studies for bike lanes, cycle tracks (segregated bike lanes), intersections, bicycle signals, and signage and pavement markings.
- **Urban Street Design Guide, NACTO (2013)**. This guide provides direction for improving street design for inclusive, multi-modal urban environments.

4.2.5 Design Approach and Criteria

Various key factors were considered when contemplating design choices for developing new standard and situational cross-sections, such as:

- **Define the Scope** – funding is an important consideration for all municipalities, and it is important to define which corridors within the transportation network should be targeted for the complete streets approach.
- **Define a Vision and Goals** – how will these corridors exemplify the complete streets principles.

- **Analyze Opportunities and Constraints** – how do these competing themes weigh against the vision and goals; opportunities may be prevalent, but must be weighed against constraints, such as right-of-way width.
- **Identify Potential Needs for the Street** – it is essential to understand the how infrastructure considerations differ between different road classes, i.e. arterials, collector, and local streets.
- **Develop Designs that fit the Context** – use the design criteria developed for each road classification as a guide but refine and adapt designs for different street topologies and community priorities. In this vein, corridors within the same road class may have very different design outcomes.

Utilizing this decision-making framework, a strategy was formulated for each road class (i.e. arterial, collector, and local roads) to develop the standard cross-sections, and for each unique corridor for the situational cross-sections.

Over the course of an extensive public consultation process for this TMP the scope, vision/ goals, opportunities/ constraints, and developed designs for all cross-sections were prepared. The following list outlines some important considerations, needs, opportunities, constraints, or desires that were heard through this process and helped inform the overall road design development process:

- **What is the right facility?** The design criteria developed for each road class is a good starting point to help determine what design features should be included on a particular corridor, and in many cases, there is more than one option. For example, different active transportation facility types previously discussed **Section 3.3**.
- **The width of the right-of-way** ultimately determined what design features could fit. There was no desire to displace existing homeowners, even if it achieved the vision for a complete street.
- **What implications were considered?** The TMP first identified the long-term road network needs (refer to **Section 2.5**) that represented the traffic implications if no changes were made to the existing road network, but there are other implications to consider when developing solutions, such as environmental, social, and fiscal. These metrics were taken into account when developing the future road network plan.
- **Competing priorities** within the road space, particularly where right-of-way width was limited, was a common theme during the consultation process. The most challenging conflict was the desire to retain on-street parking where there is no space to accommodate targeted active transportation facilities. The proposed complete streets cross-sections strike a balance between these priorities, in rare occasions where parking is available on both sides of the road, removing parking on one side to create a more equitable space for active modes.
- **Is there flexibility in the design?** YES – there is no one-size fits all solution. The proposed complete streets cross-sections and design guidelines presented in this report represent guideposts that the municipality should aspire to, but course-corrections are certainly possible. The TMP is a high-level planning document, and unforeseen challenges may exist that cannot be perceived at this time. Further, the implementation of many of these proposed projects may be decades away, and flexibility is expected as needs and priorities evolve, and new information is discovered in the fullness of time.

Updated Design Criteria

The current municipal complete streets policy included road design criteria tables for local, collector and arterial roads in three different contexts: urban, rural and village/ hamlets. These tables have been provided in **Appendix J** for reference. The primary goal in reviewing these criteria was to find opportunities to further emphasize sustainable modes of travel, ensure they are inclusive to all road users, and adhere to the contemporary design standards and best practices; thereby supporting the complete streets approach.

Overall, only minor refinements were made to the existing criteria to better define the targets for cycling treatments, greater considerations for rural vehicles, and adhering to updated road design requirements from Canadian Geometric Design Guidelines that were released in 2017 and may not have been incorporated within municipal complete street policy. A summary of the noted changes to the road design criteria is provided below:

- Added peak hour traffic volume “optimal” ranges, with noted exceptions that align with contemporary standards.
- Increased right-of-way requirements for rural roads to reflect updated national standards for slope requirements.
- Increased shoulder widths to better accommodate farm vehicles, cyclists, and pedestrians, addressing specific concerns from stakeholders.
- Removed rural arterial criteria, the rationale is any rural arterial roadway should be under the jurisdiction of the county since they are designed to move regional traffic and heavy trucks; in this case county rural arterial design standards would apply.
- Strengthened language relating to pedestrian and cycling treatments, to further increase equity for sustainable modes, aligning with the TMP vision and objectives.

The updated road design criteria for local, collector and arterial roads are shown in Table 21, Table 22 and Table 23 respectively.

Table 21: Local Road Design Criteria

Characteristic	Rural	Urban	Hamlet/ Village
Role in Road Network	Connects local traffic to their origin-destination locations		
Function	Mainly used for land access, but may be used for movement of through traffic at times		
Optimal Traffic Volumes ^a	Less than 1,200 vehicle per day / Less than 120 vehicles per hour		
Flow Characteristic	Interrupted flow		
Intersection Crosswalks	None	Context specific: highly sensitive crossings	
Traffic Calming Consideration	Limited, context specific	Yes, if concerns are validated ^b	
Target Speed Limit (km/h)	50 - 70	40 ^c - 50	40 ^c - 50
Vehicle Type	Passenger cars, light/medium trucks, and occasional heavy or farm vehicles		
Network Connections	Locals and Collectors		
Road Surface	Paved or Unpaved (Gravel or Surface Treatment)	Paved	Paved or Unpaved (Gravel or Surface Treatment)
Cycling Treatment	Shared streets: local cycling routes may be enhanced with pavement marking and signage. Storm sewer grates aligned perpendicular to travel direction, flush with road surface.		
Pedestrian Treatment	Shoulders	Sidewalk on both sides, if possible, one side at minimum depending on adjacent land use	
Parking Treatment	None	Parking on one or both sides, space permitting	
Right-Of-Way (ROW)	22 m ^d	20 m ^e	

Note: Cross-sections, design treatments and ROW for existing local streets vary and may not meet these guidelines.

- a Exceeding these ranges may not require reclassification or mitigation if local conditions and the context support it.
- b Specific traffic calming measures to consider along local roads to be based on municipal policy, relevant standards, and/ or staff discretion.
- a Posted speeds below 50 km/h should be supported with traffic calming measures (refer to **Section 6.3**).
- b Narrower ROW may be possible with reduced ditch depth, if supported by a drainage study.
- c Narrower ROW may be approved for infill development and constraints exist.

Table 22: Collector Road Design Criteria

Characteristic	Rural	Urban	Hamlet/ Village
Role in Road Network	Acts as a connector between local and residential roads and major arterial roads		
Function	Used for both land access and movement of through traffic		
Optimal Traffic Volumes ^a	Less than 5,000 vehicles per day / less than 500 vehicles per hour	Less than 10,000 vehicles per day / less than 1,000 vehicles per hour	Less than 5,000 vehicles per day / less than 500 vehicles per hour
Flow Characteristic	Interrupted flow - prohibit direct residential frontage where possible		
Intersection Crosswalks	None	At all signalized or large unsignalized intersection, near sensitive uses, and high-volume pedestrian crossings	
Traffic Calming Considerations	Limited, context specific	Yes, if concerns are validated ^b	
Speed Limit	60 - 80	40 ^c - 50	40 ^c - 50
Vehicle Type	All Types; fewer heavy trucks		
Network Connections	Locals, Collectors, Arterials		
Road Surface	Paved or Surface Treatment	Paved	
Cycling Treatment	Paved shoulders on cycling priority routes. May be supported with pavement markings, signage, and limited traffic calming (e.g. flex posts)	Segregated facilities for new or retrofit roads where possible; shared or on-street facilities permitted if justified or constrained supported by pavement marking, signage and traffic calming where appropriate. Storm sewer grates aligned perpendicular to travel direction, flush with road surface, and curb inlet catch basins where bike lanes are present.	
Pedestrian Treatment	Shoulders	Sidewalk or pathway on both sides	Sidewalk on both sides, if possible, one side at minimum depending on adjacent land use
Parking Treatment	Prohibitions or peak hour restrictions may apply		
Right-Of-Way (ROW)	28 m ^d	24 m	20-24

Note: Cross-sections, design treatments and ROW for existing collector roads vary and may not meet these guidelines.

- c Exceeding these ranges may not require reclassification or mitigation if local conditions and the context support it.
- d Specific traffic calming measures to consider along collector roads to be based on municipal policy, relevant standards, and/ or staff discretion.
- a Posted speeds below 50 km/h should be supported with traffic calming measures (refer to **Section 6.3**).
- b Narrower ROW may be possible with shallower ditch depth, if supported by a drainage study.

Table 23: Arterial Road Design Criteria

Characteristic	Rural	Urban	Hamlet/ Village
Role in Road Network	Serves large volumes of traffic from collectors and highways and connect with major destinations or between regions		
Function	Used primarily for movement of through traffic, but can provide some land access		
Optimal Traffic Volumes ^a	There are no rural arterials planned in the municipality. Roads that may be considered rural arterials should be under the jurisdiction of Lanark County; refer to county design guidelines.	10,000-20,000 vehicles per day / 1,000-2,000 vehicles per hour	Not Applicable
Flow Characteristic		Uninterrupted flow, except at major signals and crossings ^b	
Intersection Crosswalks		At all signalized or large unsignalized intersection, near sensitive uses, and high-volume pedestrian crossings	
Traffic Calming Considerations		Yes, if concerns are validated ^c	
Speed Limit		50 - 80	
Vehicle Type		All Types	
Network Connections		Collectors, Arterials, Freeway	
Road Surface		Paved	
Cycling Treatment		Segregated cycling facilities for new or retrofit roads where possible; on-street facilities permitted if justified or constrained supported by pavement marking, signage and traffic calming where appropriate. Storm sewer grates aligned perpendicular to travel direction, flush with road surface, and curb inlet catch basins where bike lanes are present.	
Pedestrian Treatment		Sidewalk or pathway on both sides	
Parking	Prohibitions or peak hour restrictions may apply		
ROW	26 m – 30 m ^d		

Note: Cross-sections, design treatments and ROW for existing arterial roads vary and may not meet these guidelines.

- a Exceeding these ranges may not require reclassification or mitigation if local conditions and the context support it.
- b It is acknowledged that it may not be possible to achieve “uninterrupted flow” along existing urban arterial roads in the municipality. These guidelines would apply to all new arterial roads and when redevelopment of existing arterial road frontages arise.
- c Specific traffic calming measures to consider along arterial roads to be based on municipal policy, relevant standards, and/ or staff discretion.
- d Wider ROW may be considered based on identified needs and area context.

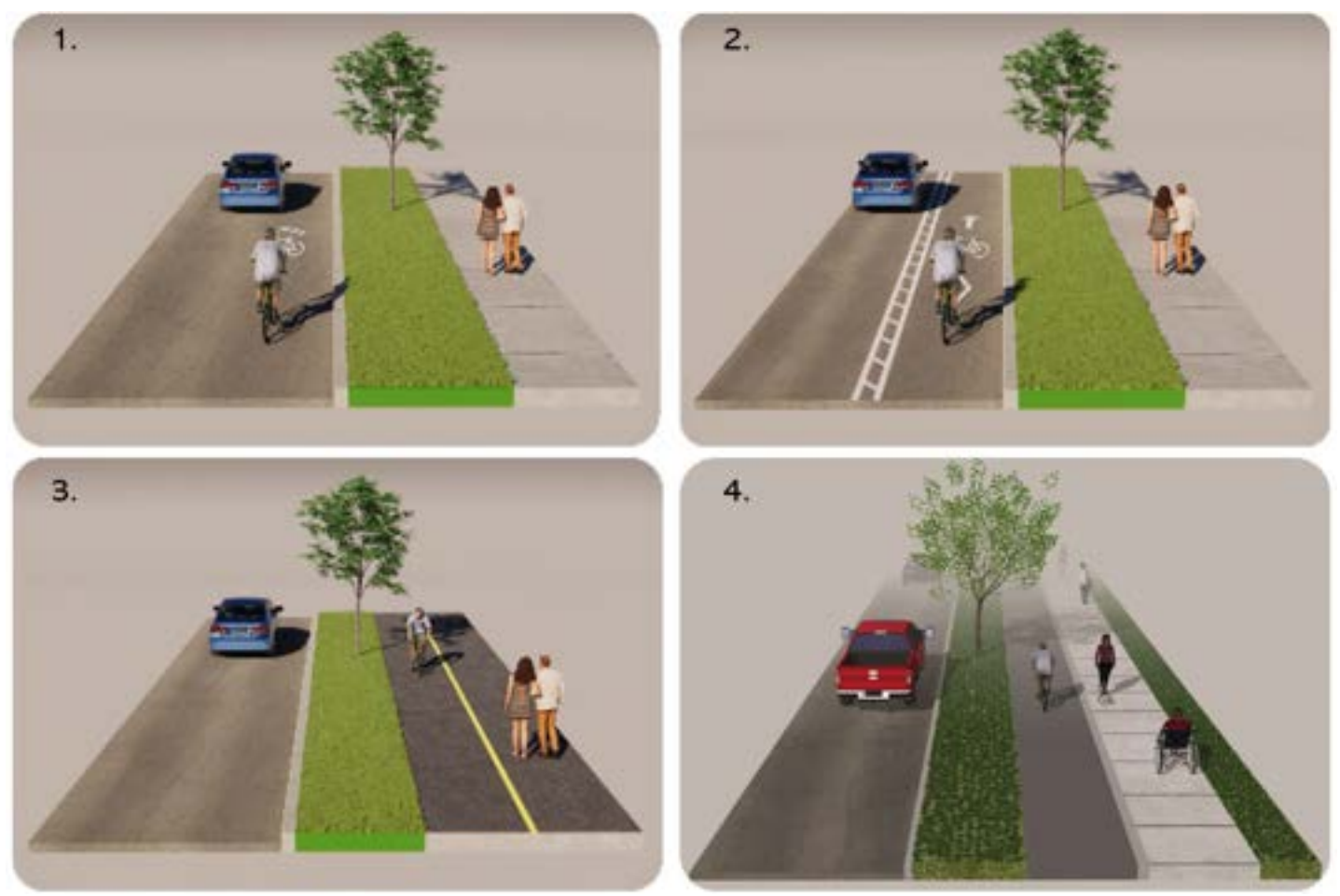
Preferred Cycling Treatments

A summary of different forms of cycling treatments, their merits and challenges were previously discussed in **Section 3.4**. A conceptual view of the different facility options is illustrated in Figure 18. Through the consultation process with the municipality and various stakeholders, the following cycling treatments were applied to the proposed complete street cross-sections:

- The preference amongst stakeholders was to be aspirational and strive to enhance cycling safety and comfort where possible.

- In rural contexts, provide more space to accommodate larger rural vehicles (such as tractors and farm machinery) that often navigate the network, increase safety and comfort for active users since vehicles travel at higher speeds on rural roads.
- In urban contexts, where space is available, separated cycling facilities such as multi-use pathways (MUPs) or cycle tracks should be considered on collector and arterial streets, where vehicle volumes and speeds pose higher risks to cyclists. This design should be applied to all new and retrofit urban road projects.
- MUPs were generally only considered on road sections where parking supply is affected on both sides.
- On-street bike lanes that currently exist should be retrofitted to meet minimum contemporary design standards, unless they are on designated urban local roads, in which case they should be reverted to shared roads.
- When the timing and funding is available, target bike lanes to be upgraded to cycle tracks to maximize cycling safety and comfort.
- Shared roads are preferred on urban local roads, supported by pavement markings and signage if a designated local cycling priority route or cycling volumes warrant them. Traffic calming measures may be considered if vehicle speeds create an unsafe or uncomfortable environment.
- Shared roads should be avoided on collector and arterial roads unless it is demonstrated the environment is safe for active users (e.g., reduced operating speeds, very limited or no truck traffic etc.)

Figure 18: Cycling Facility Options – 1. Shared Roads, 2. Bike Lanes, 3. MUPs and 4. Cycle Tracks



Note: The images above are conceptual and for information purposes. The final design may not match the exact layout as shown.

Additional Considerations

As previously noted, the complete streets strategy is intended to be flexible and subject to adjustment as needs within the municipality evolve over time. One of the key objectives of this TMP is to be fiscally responsible. Therefore, an important aspect of the complete street approach was identifying affordable options, such as minor retrofits projects that may not yield the optimal outcome, but still has tangible benefits to the community in the near-term, in addition to proposing the “ultimate” solution. This approach gives the municipality the discretion and financial flexibility when implementing the complete streets strategy.

There are also instances of existing road contexts that do not fit the typical profile of the documented design criteria, or there is insufficient right-of-way to achieve the desired form outlined in the complete street cross-sections. As previously highlighted, the municipality should expect a gradual transition towards a complete streets approach over time, using lifecycle renewal or planned capital projects to convey the land to meet the desired design criteria. Until such a time when additional right-of-way space can be attained, it is understood that compromises may have to be made to the design criteria and overall corridor design. These nuances are reflected in the *corridor specific cross-sections* developed for the municipality to be considered as retrofit projects, are presented in **Section 4.3.5**, as part of the future road network plan.

4.2.6 Recommended Complete Streets Standard Cross-Sections

The recommended complete streets standard cross-sections for local, collector and arterial roads have been provided in **Appendix K**. The cross-sections represent the optimal form for each road type that reflects the complete streets philosophy. There are no cross-sections for hamlets/ villages as those are typically unique to the context and may have rural or urban characteristics.

It will be to the discretion of the municipality how future roads will be constructed in these areas; they may use the standard cross-sections presented herein directly or as a guide to develop a custom solution. However, it is the responsibility of the municipality to ensure the appropriate studies are completed that demonstrate the proposed design is safe and afforded all due considerations expected of the corridor before permitting any deviations to the recommended standard cross-sections (such as equity, a complete street, accessibility etc.). Highlights of the standard cross-sections are summarized in Table 24.

Table 24: Complete Streets Cross-Section Summary

Road Class	Sub Class	Right-of-Way (Optimal)	Highlights
Local 2-Lanes	Urban	20 m	<ul style="list-style-type: none"> • Typical local road design that can be enhanced for cyclists with pavement markings and signage, and traffic calming measures. • 4.5 m travel lanes, sidewalk on one or both sides, on-street parking on one or both sides.
	Rural	22 m	<ul style="list-style-type: none"> • A wider right-of-way enables wider shoulder provisions that improve safety and comfort for active users, as well as additional space for rural vehicles to navigate.
Collector 2-Lanes	Urban	24 m	<ul style="list-style-type: none"> • 3.5 m travel lanes with separated multi-use pathway (MUP) or cycle track and sidewalk options available, constructed to optimal requirements. • Can accommodate on-street parking on one side.

Road Class	Sub Class	Right-of-Way (Optimal)	Highlights
	Rural	28 m	<ul style="list-style-type: none"> A wider right-of-way enables wider shoulder provisions that improves safety and comfort for active users, as well as additional space for rural vehicles to navigate. It also accounts for updated requirements for ditch designs in national standards.
Arterial 2-Lanes	Urban	26 m	<ul style="list-style-type: none"> 4.25 m travel lanes with separated multi-use pathway (MUP) or cycle track and sidewalk options available, constructed to optimal requirements. Ample boulevard space for landscaping or on-street parking.
Arterial 4-Lanes		30 m	<ul style="list-style-type: none"> 3.75 m travel lanes, with separated multi-use pathway (MUP) or cycle track and sidewalk options available, constructed to optimal requirements. Ample boulevard width for lighting and landscaping Parking should not be permitted on multi-lane urban arterial roads.

4.2.7 Intersection Considerations

Most intersections in the municipality are unsignalized, either stop or yield controlled. As previously discussed, there are currently five (5) traffic control signals and one roundabout in the municipality, all of which are in Almonte.

The following section discusses how the treatment of intersections fits within the complete streets approach and provides some high-level tools and resources to consider when the time comes for intersection upgrades or new intersections to be constructed. Note, the proposed intersection modifications to support the long-term road network plan is discussed in **Section 4.3.7**.

Traffic Control Signals or Stop Controlled Intersections

The municipality should consider more contemporary traffic signal designs and timing plans, that can improve safety and priority of pedestrians and cyclists at intersections. Current and future traffic signals should be reviewed and ensure they are designed to contemporary standards, including the signal timing plans. Some examples of measures that would help improve safety and comfort of active users at these locations include:

- Consider audible features and crossing timers at all signalized intersections.
- Ensure busy unsignalized intersections are assessed using the appropriate warrants for traffic signals and all-way stop control, based on provincial guidelines (*OTM Book 12, 2012*) or local guidelines (e.g., the *multi-way stop sign policy PW-06*).
- Ensure that there is sufficient crossing time for pedestrians. Crossing times should be based on a 1.0 m/s walking speed, but with flexibility to provide walk speed for less than 1.0 m/s in areas where there are more vulnerable users, such as near schools or seniors' residences.
- Prohibiting "right-turns on red" on movements turning into busy crossings, to reduce potential conflicts between vehicles and pedestrians or cyclists.
- Provide an advanced pedestrian phase, where pedestrians are given a head start for 5 seconds and all traffic movements are shown a red signal. This measure requires pedestrian signal heads.

- Consider traffic calming measures to reduce speeds within intersections, such as high visibility crosswalks or reducing curb radii at locations not on designated truck routes. Further discussion on road safety and more specific traffic calming policy is provided in **Section 6.3**.
- Incorporate appropriate design treatments at intersection for safe pedestrian and cycling integration (refer to **Section 3.4.2**).
- Ensure sufficient space is protected at intersections through by-law requirements for corner sight triangles and through the development review process if shown to be required in the supporting Transportation Impact Study (these specific policies are discussed further in **Section 6.8**).

In the City of Ottawa, there is a specialized resource that provides guidance on to how to accommodate pedestrians and cyclists at intersections along complete street corridors: *Protected Intersection Design Guidelines (2021)*. This is a useful guideline to consider when designing new or retrofitting existing intersections.

Ensure pedestrian and cycling priority measures are considered as standard practice at all signalized intersections, and pavement marking and signage requirements for pedestrian and cycling facilities meet contemporary design standards and consider new approaches that enhance the safety of vulnerable users

Roundabouts

Roundabouts are becoming a more common type of intersection traffic control in Canada. Roundabouts have several advantages over traffic signals, including improved traffic safety as they have fewer potential conflict points, lower vehicle speeds and reduced collision severity. Roundabouts also provide aesthetic features and may act as a gateway feature or natural transition point to a community, in addition to reducing environmental impacts through reduced fuel consumption and emissions.

Despite these benefits, roundabouts do have disadvantages including higher space requirements than conventional stop-controlled or signalized intersections, potentially higher construction costs, and may pose a challenge for cyclists and pedestrians with vision or mobility impairments – although there have been advances in this regard, such as the requirement for pedestrian crossovers at crossings.

The Canadian Roundabout Design Guide (CRDG) released in 2017 by the Transportation Association of Canada (TAC) identifies three categories of roundabouts:

- **Mini-roundabout** – A small, low-speed roundabout characterized by a fully traversable centre island and a typical diameter of less than 27m.
- **Single-lane roundabout** – A mid-sized roundabout with single-lane approaches and a single circulatory lane.
- **Multi-lane roundabout** – A roundabout with at least one leg having multiple approach lanes, with a wider circulatory roadway, usually of 2 lanes or more. A variation of the multi-lane roundabout that is increasing in use is the turbo roundabout, which has stricter lane controls, often with the use of raised curbs.

Currently, the municipality has one roundabout located at Ottawa Street and Ramsay Concession 11A, which is a multi-lane roundabout (as depicted in Figure 19).

Many jurisdictions in Canada have adopted policies that require the consideration of a roundabout when a new intersection is being constructed, when a traffic control signal or all-way stop control becomes warranted or capital improvements are planned to alleviate capacity or safety concerns. A policy such as this ensures that roundabouts are given proper consideration as a traffic control option.

Figure 19: Ottawa Street-March Road/ Appleton Side Road-Ramsay Concession 11A Roundabout (Source: Google)



Adopt a policy ensuring roundabouts are considered and evaluated as standard practice in the event of the following:

- Existing intersections where a traffic control upgrade is warranted or being considered.
- New intersections along arterial or collector roads that warrant or may warrant traffic control signals or all-way stop control.
- New intersections along local roads where traffic calming is required.

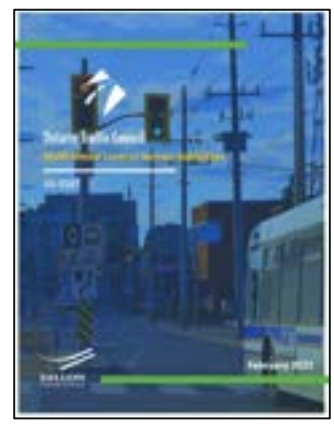
4.2.8 Bridge Considerations

As discussed in **Section 3.5**, there are 21 bridges located throughout Mississippi Mills, with 10 located within the settlement areas and the remaining 11 within the rural areas. Seven of the bridges support pedestrians through the provision of sidewalks or trail infrastructure, with the three trail bridges also supporting cycling. At the time of any bridge renewal consider implementing complete street treatments to support all road users.

4.2.9 Evaluation and Monitoring

The municipality may consider utilizing existing evaluation techniques to better understand how given segments of the road network serve all users. Data for all modes would be collected before and after the implementation of a complete streets project. Performance measurement is an iterative process; it can be used to identify gaps and prioritize improvements and illustrate progress being made on encouraging sustainable modes.

The municipality may consider referring to multi-modal level of service (MMLoS) guidelines from other jurisdictions, which grade the performance of sustainable modes much like vehicles. Performance measures can include lane width, pedestrian crossing distance, and traffic stress experienced by cyclists among others. The province developed



a set of MMLOS Guidelines (2022) as part of their Ontario Traffic Manual series. This process can help identify whether current facilities may need enhancement or additional support to achieve the optimal safety rating based on industry standards.

4.2.10 Maintenance

Another cost consideration for complete streets is ongoing maintenance, particularly in a municipality with regular and substantial snowfall. In addition to being a legislative requirement per Ontario Regulation 366/18 (O.Reg. 366/18) under the Municipal Act, road maintenance plays a significant role in improving the safety of the transportation network and improving mobility for all road users. As previously outlined within the Active Transportation Strategy, **Section 3.8.2** the 2018 update to O. Reg 239/02 includes updates to sidewalk maintenance standards and bike lane maintenance; infrastructure will need to be designed with consideration for these maintenance requirements.

4.2.11 Recommendations

The TMP promotes a complete streets philosophy by treating any transportation design, retrofit and maintenance project as an opportunity to address the needs of various modes of travel. This policy also acknowledges that its applicability is dependent on each local context and sensitive to topographical, technical, or legal considerations. In projects where there are notable constraints, it will benefit from a rich and inclusive consultation process with residents and stakeholders where desired benefits are emphasized and shared with all road users.

The municipality should consider incorporating the following principles and language into the Official Plan:

The aim of complete streets is to accommodate all modes, which requires prioritizing vulnerable road user safety, and pedestrians and cyclists are explicitly considered early in the planning and design phases, rather than as an afterthought.

Adopt a complete streets approach to every new road, road reconstruction and road rehabilitation project. Each project will be planned, designed, constructed, operated, and maintained with the explicit consideration for the needs of road users of all ages and abilities. Neighbourhoods shall be designed with pedestrian/ cycling connections between streets since pedestrian/ cycling facilities are more supportive of sustainable modes.

It is recognized that not all projects will be able to directly accommodate all road users to the highest level of service. Where constraints exist, planners and designers should demonstrate that the proposed design afforded due consideration to all potential road users, including alternatives for how those users are to be accommodated, such as on alternative parallel routes.

A summary of key recommendations is as follows:

- Adopt the complete streets policy suggestions stated in **Section 4.2.11** into the Official Plan, incorporating the established principles and contemporary language.
- Integrate the complete streets approach and thinking in all relevant municipal departments.
- As required per project, collaborate with County of Lanark and external stakeholders to describe this new approach and how best to adopt these new road planning and design processes.
- Adopt the complete streets design criteria and cross-sections developed in **Sections 4.2.5** and **4.2.6** and update any other guidelines and standards to include accommodation for all road users.
- Include a clearly stated complete streets approach in the project charter of all future transportation infrastructure projects (including roads, intersections, bridges etc.).

- Review traffic operational study policies and procedures for all new capital projects and new development sites to ensure that they explicitly consider the safety of all modes, as well as proper pedestrian and cycling accommodations, access, and supporting facilities within and along the surrounding frontage of the proposed development based on minimum maintenance standards. Refer to the recommended Transportation Impact Study (TIS) Framework in **Section 6.6**.
- Ensure pedestrian and cycling priority measures are considered as standard practice at signalized and stop controlled intersections as outlined in **Section 4.2.7**, where applicable.
- Ensure pavement marking and signage requirements for pedestrian and cycling facilities meet contemporary design standards and consider new approaches that enhance the safety of vulnerable users.
- Ensure contemporary roundabouts are considered and evaluated as standard practice.
- Review and update maintenance standards as needed to address all modes.
- Adopt right-of-way protection requirements for updated local and collector road in both urban and rural contexts in the Official Plan and apply them to all new roads and to existing roads when opportunities arise, such as at the time of the lifecycle renewal or as part of a future development/ redevelopment.

4.3 Future Road Network Plan

The following section outlines the development of the long-term road network infrastructure plan, which constitutes new road corridors, road retrofits/ rebalancing, new intersections, and modifications to existing intersections. The outcome represents the culmination of policies and guidelines developed in the preceding sections. The road network plan signifies a long-term commitment to the complete streets approach and promoting equity in the transportation system for years to come.



4.3.1 Road Network Infrastructure Needs

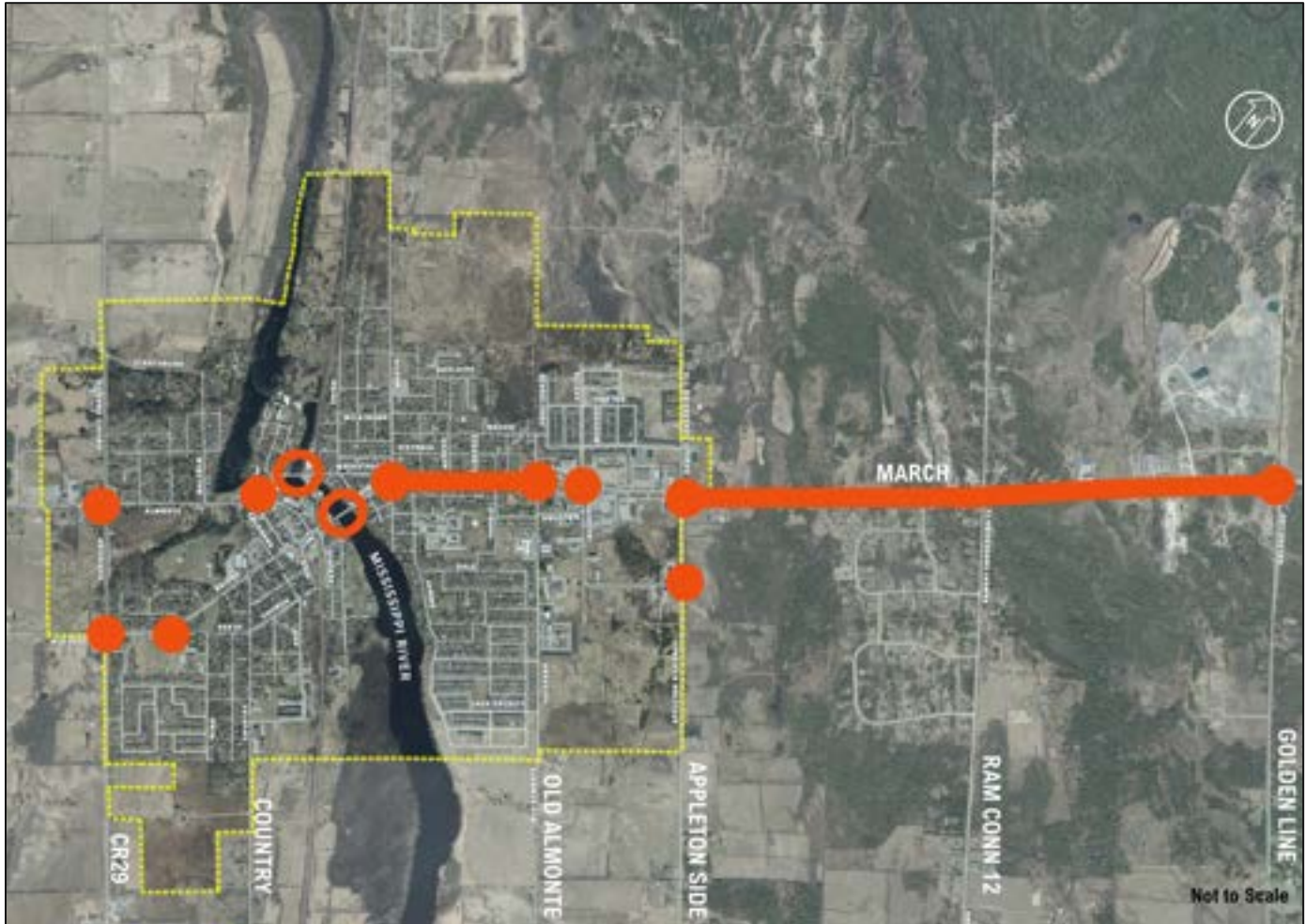
The development of road network infrastructure needs from a long-term traffic operations perspective is summarized in **Section 2.5** and identified in Figure 20, which include:

- Additional corridor capacity along Ottawa Street, Main Street and Almonte Street in Almonte
- Additional capacity across the Main Street and Queen Street bridges in Almonte
- Additional corridor capacity along March Road east of Appleton Side Road
- Additional intersection capacity at various locations in Almonte

Note, the focus of road corridor needs was on higher-order roads, namely collectors and arterials. Local road requirements are best identified as part of the development review process for new subdivisions, a brief discussion on local road requirements provided at the end of **Section 4.3.4**. Overall, there were no significant long-term road network capacity issues found within the rural areas and villages; the existing rural road network is expected to accommodate long-term growth in these areas.

Both the urban and rural road networks within the municipality were also reviewed for potential retrofits or rebalancing to better align more contemporary transportation policies and standards, such as updated active transportation facilities (refer to **Section 3.0**), road classifications (refer to **Section 4.1**), and complete streets (refer to **Section 4.2**).

Figure 20: Identified Road Corridors and Intersections with Long-Term Capacity Needs



4.3.2 Alternative Road Network Infrastructure Solutions

There are various solutions to address the range of future road network infrastructure needs identified within the municipality. In this TMP, the process to identify most appropriate solution to each of the identified needs were based on the following general approaches:

1. Status Quo/ Business as Usual for Infrastructure Improvements - Focus on Reducing Vehicle Travel Demand

Maintaining the status quo as it relates to the current municipal road network is the most cost-effective approach in the short-term, but it has been demonstrated that current infrastructure commitments would not address all medium- and long-term street network needs. While investment in Transportation Demand Management (TDM) initiatives and policies may reduce vehicle travel demand to a degree, it is not likely to create a reduction in traffic volumes significant enough to resolve capacity issues without significant investment and adoption of Active Transportation and Transit modes (refer to **Section 6.1** for further discussion on TDM as a supporting strategy).

Based on current growth projections, auto-driver usage would need to decrease to under 50%, meaning sustainable modes of transportation would need to accommodate at least 50% of person trips in the municipality during peak periods. This outcome is simply not realistic given its geographic and socio-economic context (refer to **Section 2.2** for current socio-economic trends) and current sustainable infrastructure and services available (refer to **Section 2.3** for

discussions of the current transportation system). For the foreseeable future, Mississippi Mills will remain a bedroom community to the City of Ottawa, meaning a notable proportion of residents must travel to Ottawa to work; with the most practical mode choice option being the personal vehicle.

Maintaining this course ensures any existing road network gaps or deficiencies will worsen over time, leading to ad hoc reactions and decisions that are often less effective in addressing the need, and may end up costing the municipality more to reconcile in the fullness of time.

2. Rebalancing the Road Network

Road rebalancing is the act of re-allocating available infrastructure for other purposes, such as reducing pavement width of vehicle travel lanes to accommodate bike lanes or sidewalks. Opportunities to rebalance infrastructure within corridors that have excess road capacity is a low-cost approach to enhance alternative modes of travel and potentially reduce vehicular traffic demand. Enhancing active transportation facilities will also improve safety and efficiency on corridors where vehicles and active users (e.g. cyclists) must share travel lanes, and at intersection crossings. This solution approach is limited to corridors or areas where excess right-of-way and/ or pavement width is available, which was a rare occurrence in the municipality. While there were opportunities to explore rebalancing in the municipality, particularly in Almonte, it alone was not a viable solution to mitigate all the road network infrastructure needs.

3. Optimizing the Road Network

Optimizing the existing road network or otherwise known as Transportation System Management, deals with minor or localized enhancements or expansions to the network that result in better performance for users. These enhancements can be a cost-effective option to accommodate more vehicle demand and potentially extend the service life of the corridor.

The most common form of road optimization is intersection improvements. Busy intersections will often deteriorate before the corridor reaches its functional capacity; intersection improvements can be an effective method to optimize the existing street network. Typical operational improvements include changes to traffic control such as the installation of traffic control signals or signage, adding islands to restrict left-turns and permit only right-in right-out movements, adding auxiliary left- or right-turn lanes, construction of right-turn islands to channelize that movement or prohibiting parking in the vicinity of the intersection, etc.

There were various opportunities to consider location optimization, and while effective for addressing short-term capacity constraints, it alone was also not a viable solution to address all the road network infrastructure needs.

4. Expanding the Road Network

This approach increases the capacity of the road network by expanding the network, either by widening existing roads or by building new roads. In either case, the widening or construction of new roads requires significant capital and operating investment, as well as a comprehensive planning, design, and implementation process. These projects are generally classified as Schedule 'C' projects under the Municipal Class Environmental Assessment (MCEA) process that would confirm the need, solution, environmental impacts, and include a thorough public and stakeholder consultation process.

Widening existing roads will have fewer environmental impacts if they occur in already urban or built-up areas, but there is a greater risk of property impacts, mostly where the width of the right-of-way is insufficient. Many of the older corridors in the municipality are narrow and face numerous challenges and constraints to widen due to the potential

social, community and business impacts where buildings are set very close or directly on the existing property line. Where space is available, widening an existing road corridor can be a viable solution.

Constructing new roads can have various implications ranging from environmental, social, cultural and heritage, cost etc. While the transportation need for new roads was confirmed, there must be further technical studies completed as part of the Municipal Class Environmental Assessment process to review all potential implications and ensure they can be addressed/ mitigated prior to implementation.

4.3.3 Evaluation of Alternative Solution Approaches

Different alternative solution approaches were compared at a conceptual/high-level based on some general criteria, such as potential cost, potential to fully address the future road network infrastructure needs, social implications, and natural environment implications. Following this methodology, the preferred solution approach was determined for each identified need. The criteria for the evaluation were based on three tiers:

- 1. **Optimal: Solution has high potential benefit with acceptable disbenefits** ✓
- 2. **Adequate: Solution has moderate potential benefit with moderate disbenefits** —
- 3. **Constrained: Solution has low potential or no benefit or has severe disbenefits** ✗

To address the identified corridor capacity needs, expanding the road network is needed, as shown in Table 25, but this does not mean the other approaches cannot also be pursued to support the long-term road network.

The amount of traffic growth anticipated in the next 25-years, particularly in Almonte, cannot be reasonably addressed without either widening existing corridors to increase capacity or constructing new corridors to re-direct traffic away from the congested corridors. With this, some of the intersection capacity needs will be addressed by the road network expansion. The supporting analysis for this evaluation is presented in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E**.

Table 25: Evaluation of Alternative Road Network Solutions

Need	Status Quo	Rebalancing Network	Optimizing Network	Expanding Network
Corridor Capacity				
Ottawa Street Main Street Almonte Street	✘	✘	—	✔
	Current plans will not address identified needs. Traffic volumes are too high.	Rebalancing would not address the identified need. Traffic volumes are too high.	Isolated measures provide short-term relief; ineffective long-term. Traffic volumes are too high.	Addresses long-term corridor and bridge capacity but specific solution must overcome notable implications.
March Road	✘	✘	✘	✔
	Current plans will not address identified needs. Traffic volumes are too high.	Rebalancing would not address the identified need. Traffic volumes are too high.	Isolated measures do not address the identified need. Traffic volumes are too high.	Addresses long-term corridor capacity but specific solution must overcome notable implications.

4.3.4 New Road Corridors

A summary of the rationale behind each evaluation result to mitigate the identified corridor constraints has been provided below. The recommended timing of implementation and cost of these projects is outlined in **Section 7.0**.

Ottawa Street, Main Street and Almonte Street Corridors (including Main Street and Queen Street Bridges)

Ottawa Street, Main Street, and Almonte Street form a key road corridor through Almonte. All roads are 2-lane urban roadways under the jurisdiction of Mississippi Mills. The Main Street and Queen Street bridges are also two important crossings over the Mississippi River, with the latter under the jurisdiction of the County of Lanark. These facilities are important in that they connect downtown Almonte and various commercial and employment uses and serve regional/commuter traffic destined to Almonte as well as the City of Ottawa. The long-term traffic analysis showed there will be insufficient capacity along corridor to address long-term vehicle demand without expansion of the road network. The means in which the municipality can expand the corridor had to be evaluated.

There are two choices to expand the road network: **1. Widen the corridor and bridges, or 2. Construct new roads and bridge(s).**

- Widen the corridor and bridges:** Based on the analysis presented in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E**, widening the corridor from 2- to 4-lanes would help address the long-term corridor capacity need, but this option was not preferred due to the significant social impact with widening. As shown in

Figure 21, the right-of-way width throughout the corridor, particularly along Ottawa Street, is quite narrow (roughly 20 m) with no building setback from the property line in several instances (as portrayed in Figure 22).

There are over 70 properties that would be potentially impacted if additional property was to be protected for future widening. In discussions with municipal staff, the public and stakeholders, the social impact of widening this corridor was considered too severe and not viable. Further, increasing capacity of Ottawa Street risks triggering the need to widen the Main Street Bridge as well as the Queen Street bridge in the fullness of time, which adds significant cost to the overall solution option. Therefore, this solution alternative was ruled out.

Figure 21: Right-of-way and Property Fabric along Main Street and Ottawa Street in Almonte



Figure 22: Ottawa Street, facing west at Frederick Street (Source: Google)



- 2. **Construct new roads and bridge(s):** The alternative option to address the identified long-term corridor capacity need is to construct new roadways thereby redirecting long-term vehicle demand and avoid the need to widen the existing corridor. This solution option better aligns with the current Official Plan Section 4.6.1, Objective 14. “Investigate the need for a vehicle by-pass associated with the passage of traffic through the main urban areas of the Municipality.”

Various combinations and lengths of new roadway were considered including new bridge structures to accommodate traffic across the Mississippi River, as highlighted in Figure 23.

Figure 23: Potential New Road Corridor Solutions in or near Almonte



An iterative process was completed to determine the most effective combination of new road and/ or bridge infrastructure to mitigate the long-term road network need at the 25-year horizon, which has been detailed in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E** and depicted in Figure 24. The general results are as follows:

- **Construct a new east-west road corridor** located north of Carss Street that begins at Martin Street and ends at Ramsay Concession 11A. This roadway would be designed as a standard 2-lane urban collector road under the jurisdiction of the municipality (refer to **Section 4.2.6** for recommended complete streets cross-sections). It will serve future growth areas in north Almonte, alleviating the level of vehicle traffic using Ottawa Street.
- **Construct a second east-west corridor** located south of the current Almonte boundary that begins at County Road 29 and ends at Appleton Side Road. As part of this corridor, construct a new multi-modal bridge to connect the corridor across the Mississippi River. This roadway is expected to be designed as a standard 2-lane urban arterial road. The new corridor can be under the jurisdiction of either the county or municipality, since it is a viable alternative truck route, and is expected to be a popular route for both county and Mississippi Mills residents.
- Along both corridors, there will be a need to construct new intersections, pedestrian crossings (e.g., across the Ottawa Valley Recreational Trail), as well as local intersection modifications, such as extending auxiliary turn lane storage lengths or adding auxiliary turn lanes.

It is important to note that the future location, alignment, and design features/ details for the new road corridors will ultimately be assessed and confirmed as part of the Municipal Class Environmental Assessment study prior to implementation.

Figure 24: Technically Preferred New Road Corridors in or near Almonte



There are various **benefits** beyond just traffic operations to constructing new road corridors, as well as **implications** that must be assessed and properly mitigated prior to implementation. A high-level summary of some potential benefits and implications has been provided in Table 26 that helped inform the decision-making process; a full detailed assessment of all implications will be carried out as part of the future Environmental Assessment study of each corridor.

Table 26: Technically Preferred New Road Corridor Implications Summary

Area	Benefit or Implication	Additional Comments
Environmental	<ul style="list-style-type: none"> Provincially significant wetlands may be impacted by north corridor alignment. Floodplains surrounding potential bridge crossing location. Refer to Figure 25 for highlighted corridors overlaid on environmental mapping. 	<ul style="list-style-type: none"> North corridor alignment should be aligned with future development areas within the wetland areas and incorporated accordingly. Floodplain impacts can be reduced with strategic road alignment. Any required floodplain mitigation will increase costs; the EA study will identify the optimal corridor alignment and bridge location that balances costs with various environmental, social, and other implications
Social	<ul style="list-style-type: none"> Social benefit to limiting or reducing vehicular traffic (particularly truck traffic) through downtown Almonte. Few direct property impacts 	<ul style="list-style-type: none"> Potential impacts to existing properties depend on future alignment chosen for each corridor; the intent is to locate new corridors in future growth areas and avoid disruptions to existing residences and businesses
Transportation Policy and Operations	<ul style="list-style-type: none"> Strengthens road network to accommodate long-term vehicle traffic demand. Aligns with current Official Plan policy to reduce vehicle and truck traffic through urban settlement areas. Strengthening the network with these new corridors will reduce the burden on existing corridors experiencing high levels of traffic, such as Martin St, Paterson St, Honeyborne St, etc. 	<ul style="list-style-type: none"> Alternative corridors will reduce long-term traffic congestion along the main travel corridor through Almonte but does not extend beyond March Road. South corridor can be county road that accommodates full load trucks, thereby reducing truck travel through the heart of Almonte.
Local Economy / Tourism	<ul style="list-style-type: none"> Reducing vehicle activity along the main corridor in Almonte may be perceived as a disbenefit to the local economy; the intent is to balance this with increased active transportation specific infrastructure and strategies. Local tourism expected to be unaffected by new corridors; notwithstanding the reduction of vehicle congestion in Almonte. 	<ul style="list-style-type: none"> Temporary disruptions to local tourism and economy during construction of new corridors is expected but can be mitigated with appropriate traffic management plans.
Cultural / Heritage	<ul style="list-style-type: none"> Limited impacts to culture and heritage expected; to be confirmed during the EA study process. 	<ul style="list-style-type: none"> Any findings from archeological and heritage studies will be addressed at the time of implementation.

Area	Benefit or Implication	Additional Comments
<p>Cost</p>	<ul style="list-style-type: none"> New road and bridge construction has a high capital cost. 	<ul style="list-style-type: none"> With fewer property impacts, expropriation costs will be lower; intent is for new road corridors to be located in future growth areas. Significant transportation, social and economic benefits with new corridors. This solution option extends the life and reduces the risk of needing to widen Ottawa Street as well as the Main Street bridge and/or the Queen Street bridge.

Figure 25: Potential Environmental Implications with New Road Corridors



Future Municipal Road Connections

As future growth areas develop, there may be a need to provide new road connections within new subdivisions to the adjacent collector or arterial road network to facilitate access. The need for these road connections will be identified during the individual development application process, and it is the responsibility of municipal staff to approve the appropriate right-of-way and design requirements of these connecting roads.

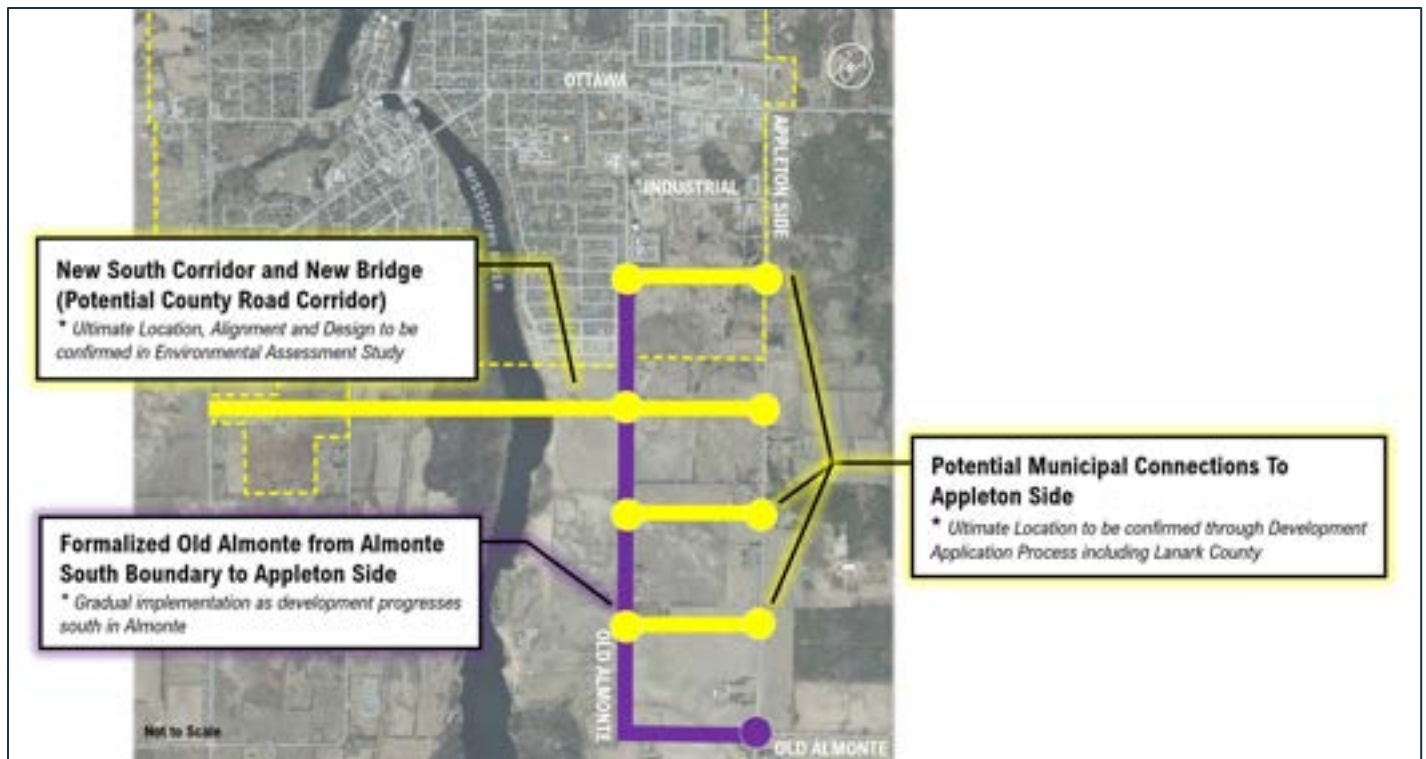
The preparation of transportation impact studies (TIS) in support of subdivision developments near major road facilities should consider relevant policies to ensure sufficient right-of-way is protected and is designed in accordance with relevant standards, such as access management, corner triangles, and design principles outlined in this TMP as well as industry standards. Further guidance on the preparation of TIS studies has been provided in **Section 6.6**. For example,

the municipality should leverage existing unopened road allowances where possible to support future subdivision development, such as the Adelaide Street extension to Honeyborne Street; future road connections to arterial roads should be made by either collector or arterial roads if possible; right-of-way protection should follow recommended standards developed in this TMP; new signalized intersections on arterial roadways should maintain a minimum 215 m separation to any other signalized intersection up to 350 m on roads with a posted speed of 80 km/h. Refer to **Section 6.8** for further discussion on these specific policy considerations.

One future growth area that falls within this purview is depicted in Figure 26. New municipal connections between Old Almonte Road and Appleton Side Road should be considered at optimal intervals as development expands south, akin to Industrial Drive. This approach will help preserve long-term road network resiliency within and surrounding Almonte.

The municipality should ensure any future municipal road connection to collector or arterial roadways triggered by future development are designed according to requirements established in this TMP and/ or relevant industry standards, and appropriate right-of-way is protected.

Figure 26: South Almonte Potential New Municipal Connections



4.3.5 Road Retrofits and Complete Streets

The following section summarizes the recommended long-term road retrofits that reflect a complete streets approach (discussed in **Section 4.2**) that better aligns existing road corridors with contemporary design standards for safety and accessibility. These retrofits support the overall vision and objectives of this TMP, by enhancing active transportation considerations in the road network that ultimately supports a more inclusive, healthy, environmentally sustainable, and economically efficient transportation system, as described in the previous sections in this report.

Most retrofits entail road rebalancing, where gaps in active transportation facilities are filled. In some cases, vehicle travel lanes or excess boulevard space are reduced to widen active transportation facilities for greater comfort and

safety among these users. Other retrofits required unique design solutions to fit the desired facilities within the available right-of-way, and then there were retrofits that triggered additional right-of-way protection or reconstruction of the roadway to meet contemporary standards. A summary of all recommendations is presented in Table 27 with supporting materials provided in **Appendix L**. Following the table there will be a brief discussion of each corridor and the rationale behind the recommendations.

For reference, cross-section concepts have been provided for all retrofit projects in **Appendix K**. The recommended timing for implementation and the estimated cost of these projects is provided in **Section 7.0**. As previously noted, under the 2019 Amendments to the Municipal Class Environmental Assessment process, all road works within the existing right-of-way that do “not increase continuous lanes of travel for vehicles” are considered Schedule A+ projects. Furthermore, “no EA process is required for property purchase. If the proponent acquires property to widen a road allowance through another process (negotiation with owner or planning policies for minimum width of road allowances) then the project to construct within the altered road allowance is A+.” All the noted projects fall under these conditions.

Table 27: List of Road Retrofit Projects in Almonte

Location	Jurisdiction	From	To	Current ROW (m)	ROW Protection (m)	Retrofit Description	Estimated Length (m)	Additional Notes
Ottawa Street	MM	Appleton Side Road	Industrial Drive	32	32	Add MUP on South Side	450	<ul style="list-style-type: none"> Add 3.0 m MUP to fill gap in corridor.
		Industrial Drive	Paterson Street	37	37	Replace Sidewalks with MUPs on Both Sides	230	<ul style="list-style-type: none"> Replace existing sidewalk on both sides with 3.0 m MUP that also accommodates cyclists. Need for new retaining wall on north side. Increases grass boulevard separation.
		Paterson Street	Martin Road	20	20	Widen Bike Lanes and Sidewalk	670	<ul style="list-style-type: none"> Wider ROW not desirable due to property/ social implications. Widens sidewalk from 1.2 m to 1.8 m. Widens bike lanes from 1.0 m to 1.5 m. Reduce travel lanes from 4.0 m to 3.5 m, which still accommodates trucks, but passively reduces speeds.
Queen Street	County	Ottawa Street	Union Street	19	19	Replace Sidewalk with MUP on North Side	200	<ul style="list-style-type: none"> Convert sidewalk to 3.0 m MUP to accommodate both pedestrians and cyclists. Wider ROW not desirable due to property/ social implications. On-street parking on north side will be lost. Hydro pole conflict on south side rules out any modifications on that side. The noted limits include a short section of Martin St S between Queen St and Ottawa St. Cyclists must transition from proposed Queen St MUP to street before crossing bridge; a PXO crossing should be provided to facilitate crossings at Union St (refer to Active Transportation Plan in Section 3.0) Cycle tracks are ultimately preferred for continuity/ easier transition across Queen St bridge for cyclists, but only if priorities for on-street parking change and can be removed on both sides of Queen St.
Queen Street Bridge	County	-	-	-	-	Add Shared Road Pavement Markings and Signage	90	<ul style="list-style-type: none"> Apply standard shared street treatments based on provincial standards. Interim measures until lifecycle renewal of bridge when more elaborate treatments may be considered.
Bridge Street	County	Country Street	Perth Street	26	26	Enhance Sidewalks, Convert Bike Lanes to Cycle Tracks with Vehicle Lane Widening	460	<ul style="list-style-type: none"> Widen existing sidewalk from 1.5 m to 1.8 m. Add new 1.8 m sidewalk on east side. Convert 1.8 m bike lanes to cycle tracks. Widen vehicle travel lanes from 3.3 m to 3.5 m to better accommodate larger trucks. Driveway impacts on west side.
Perth Street	County	Bridge Street	County Road 29	22	22	Enhance Sidewalks, Convert Bike Lanes to Cycle Tracks with Vehicle Lane Widening	290	<ul style="list-style-type: none"> 22 m is current OP protection in this section. Widen existing sidewalk from 1.5 m to 1.8 m. Add new 1.8 m sidewalk on north side. Convert 1.8 m bike lanes to cycle tracks. Widen vehicle travel lanes from 3.3 m to 3.5 m to better accommodate larger trucks. Driveway impacts on north side, ditch constraint on south side. May require investing in underground servicing in narrower sections.
Old Perth Road	MM	County Road 29	Almonte West Boundary	14	14	Widen Shoulders (interim)	250	<ul style="list-style-type: none"> Rural context with limited ROW. Widen paved shoulder to 2.0 m to better accommodate active users, if possible.
					24	Urban Collector Design (ultimate)		<ul style="list-style-type: none"> Fully reconstruct section within Almonte as a standard urban collector road. Insufficient ROW available. Protect 24 m to enable standard 2-lane urban collector road.



Location	Jurisdiction	From	To	Current ROW (m)	ROW Protection (m)	Retrofit Description	Estimated Length (m)	Additional Notes
Martin Street	County	Ottawa Street	Stephen Street	20	20	Widen Bike Lanes (interim)	400	<ul style="list-style-type: none"> Wider ROW not desirable due to property/ social implications. Widen bike lanes from 1.5 m to 1.8 m for improved comfort and safety. Reduce vehicle lane width from 3.8 m to 3.5 m, which still accommodates trucks, but passively reduces speeds.
		Stephen Street	Future North Collector Road	14 – 20	20	Convert Paths to Sidewalks and Add Shared Road Pavement Markings and Signage (interim)	800 ¹	<ul style="list-style-type: none"> Convert asphalt paths to 1.8 m concrete sidewalks. Provide shared road pavement marking and signage to improve cycling comfort and priority. May consider traffic calming or reducing speed limit if needed to further support cycling safety. Protect 6 m on east side of Martin Street, 20 m total where it is currently 14 m ROW to improve corridor continuity.
		Ottawa Street	Future North Collector Road	14 – 20	20	Full Urbanization and Convert Bike Lanes to Cycle Tracks (ultimate)	1,200 ¹	<ul style="list-style-type: none"> Assumes urbanization of entire corridor to provide sufficient space for desired active transportation facilities. Assumes 20 m ROW protected throughout corridor. Convert 1.8 m bike lanes to cycle tracks. Widen Sidewalks from 1.5 m to 1.8 m. Reduce vehicle lane width from 3.8 m to 3.5 m, which still accommodates trucks, but passively reduces speeds. Notable hydro pole conflicts will cause pinch points.
Almonte Street	MM	60 m West of Farm	Malcolm Street	20	20	Add MUP on North Side	120	<ul style="list-style-type: none"> MUP provides improved pedestrian and cycling connectivity to Metcalfe GeoHeritage Park. Reduce westbound travel lane from 4.0 m to 3.5 m, which still accommodates trucks, but passively reduces speeds. Formalizes current informal desire line.
		Malcolm Street	Euphemia Street	27	27	Add MUP on South Side	160	<ul style="list-style-type: none"> Add MUP connection on south side. Existing sidewalk can be maintained. Bend MUP around hydro poles, grading may extend outside right-of-way. South property is municipally owned, so expected to have limited property implications.
		Euphemia Street	County Road 29	20	20	Add MUP on South Side and Widen Sidewalk	310	<ul style="list-style-type: none"> Widen existing sidewalk from 1.5 m to 1.8 m. Optional upgrade to convert parking bay into 1.8 m sidewalk on south side. Extend MUP connection on south side within outer boulevard. South property is municipally owned, so extending MUP outside established ROW may be feasible.
		County Road 29	Almonte West Boundary	25	25	Widen Shoulders (interim)	270	<ul style="list-style-type: none"> Rural context Widen paved shoulder to 2.0 m where possible to better accommodate active users.
Urban Collector Design (ultimate)	<ul style="list-style-type: none"> Fully reconstruct section within Almonte as a standard 2-lane urban collector road. 25 m available ROW is optimal. 							
Ramsay Concession 11A	MM	March Road	Leishman Drive	25 - 27	25 - 27	Add Sidewalk on West Side (affordable ultimate)	550	<ul style="list-style-type: none"> Requires custom drainage solution. Does not provide separated cycling facilities.
						Urban Collector Design on West Side Only (preferred ultimate)		<ul style="list-style-type: none"> Contingent on if storm sewer is needed for drainage and custom drainage solution not possible. Fully reconstruct West Side as standard urban collector road; East Side remains as existing. May consider multi-use pathway on West Side to permit bidirectional cycling if East Side remains as existing. Sufficient ROW to permit standard design.
		Leishman Drive	Future North Collector Road	24 - 26	24 - 26	Urban Collector Design on West Side Only	<ul style="list-style-type: none"> Fully reconstruct West Side as standard 2-lane urban collector road; East Side remains as existing. Existing ROW sufficient to permit standard design. 	



Location	Jurisdiction	From	To	Current ROW (m)	ROW Protection (m)	Retrofit Description	Estimated Length (m)	Additional Notes
Old Almonte Road	MM	Robert Hill Street	Almonte South Boundary	22	22	Add Sidewalk on Both Sides (affordable ultimate)	500	<ul style="list-style-type: none"> Requires a custom drainage solution. Does not provide separated cycling facilities.
						Custom Urban Collector Design (preferred ultimate)		<ul style="list-style-type: none"> If storm sewer is needed for drainage, a custom drainage solution is not possible. Limited to 22 m ROW. Adapt the standard 2-lane urban collector road within narrower right-of-way.
		Almonte South Boundary	Appleton Side Road	20 – 23 (various pinch points)	24 or 28	Double Surface Treatment and/or Paved Road Surface Only (interim)	2,500	<ul style="list-style-type: none"> Double surface treatment to reduce dust and increase durability for increased vehicle traffic. Cheapest solution. Can also pave the surface with Granular A and asphalt. More costly solution to formalize road and largely dependent on geotechnical investigation. In either case, no active transportation facilities. Only viable in interim (short- or medium-term), before future growth areas reach maturity.
						Rural Collector Design (affordable ultimate)		<ul style="list-style-type: none"> Reconstruct the road as standard 2-lane rural collector road. Requires 28 m ROW protection. A more affordable option that provides more vehicle capacity, but it would not be consistent with urban context in the northern corridor (i.e. Paterson Street) and would offer limited active transportation facilities. Municipality may consider this option if urban expansion southward along the corridor slows or stops, no longer necessitating an urban cross-section.
Urban Collector Design (preferred ultimate)	<ul style="list-style-type: none"> Fully reconstruct road as standard 2-lane urban collector road. Requires 24 m ROW protection. This option assumes this section of Old Almonte Road will ultimately become part of the Almonte urban road network, in which case an urban cross-section provides the optimal compete street design to accommodate growth. 							
Appleton Side Road	County	March Road	Almonte South Boundary	27	27 or 29	Add MUP on Both Sides	600	<ul style="list-style-type: none"> Hydro pole conflicts on west side necessitate either relocation of hydro poles to fit the MUP or the county must acquire 2.0 m of property behind the hydro poles on the west side.
Long-Term Considerations – Two Retrofit Scenarios to address March Road constraint								
March Road	County	Appleton Side Road	Golden Line Road	30	TBD	Widen to 4-Lanes	2,900	<ul style="list-style-type: none"> Triggers Schedule 'C' Environmental Assessment Study. Induces more traffic through Almonte, on Ottawa Street. This solution only moves congestion farther east to the City of Ottawa boundary; the city cannot commit to widening their portion of March Road in their long-term plans which limits overall effectiveness. This is a county road and subject to their schedule and funding.
OR								
Old Almonte Road	MM	Appleton Side Road	Golden Line Road	20	28	Full Road Reconstruction	2,900	<ul style="list-style-type: none"> May avoid a Schedule 'C' EA Study, based on 2019 Amended MCEA process. Rural Collector Road Classification Requires 28 m Right-of-Way protection. East side of Golden Line Road is in City of Ottawa jurisdiction; protection of 14 m from centreline on west side within the municipality. Includes wider paved and gravel shoulders for better active transportation and farm vehicle comfort and safety.
Golden Line Road		Old Almonte Road (MM)	Old Almonte Road (Ottawa)				1,300	

Notes: MUP – Multi-Use Pathway, MCEA = Municipal Class Environmental Assessment

1. The length of work estimated up to current Almonte north boundary, to be confirmed during EA Study.

Ottawa Street:

Ottawa Street is a major municipal road corridor used by residents throughout the county to access the various amenities and destinations in Almonte, as well as being an important commuter route to the City of Ottawa. There were limited opportunities to further enhance active transportation along the Ottawa Street corridor between Paterson Street and Martin Street beyond minor adjustments to existing facilities. The reasons were previously discussed in **Section 4.3.4**, Ottawa Street is greatly constrained by limited right-of-way and zero setbacks to the face of several homes and buildings (refer to Figure 27); however, the proposed modifications provide tangible benefits to active users while helping to calm vehicle traffic, which ultimately improves the comfort and safety of all users.

It is our understanding that the municipality previously prepared a landscape plan for Ottawa Street that may be revisited if there is a collective desire and a strategic opportunity to do so, such as the next corridor renewal cycle for the street. Then more progressive options and the potential implications to property may be fully evaluated, such as converting the existing bike lanes to buffered bike lanes or cycle tracks or introducing a multi-use pathway; however, this transition would need to be studied in sufficient detail to properly ascertain potential widening requirements (including at the various intersections within this segment) to ensure the corridor adheres to contemporary safety, accessibility, and best design practices for active transportation integration (refer to **Section 3.4.2**).

Figure 27: Ottawa Street at Mercer Street facing west (Source: Google)



A focused study is recommended to reimagine Ottawa Street as a truly multi-modal corridor and ascertain widening and design requirements to ensure contemporary safety, accessibility and design principles for active transportation facility integration are met throughout the corridor, including intersections.

Queen Street and Queen Street Bridge (County Road and Bridge):

Queen Street is a key spine road under the jurisdiction of the county. Like Ottawa Street, Queen Street provides access to downtown Almonte and various destinations while being a part of the commuter route to the City of Ottawa. One of the key challenges to improve active transportation safety and comfort along the corridor was the provision of parking on both sides of Queen Street, combined with a relatively narrow right-of-way to work with. Unidirectional cycling facilities, such as bike lanes or cycle tracks, while there is space to theoretically accommodate them, would eliminate existing on-street parking on both sides that is of great importance to residents and businesses.

This TMP strikes a balance by removing the existing sidewalk on the west side and replacing it with a multi-use pathway, thereby reducing the impact on parking supply but provide safer cycling connectivity through corridor and to the downtown core in Almonte.

As discussed in **Section 3.5**, the Queen Street bridge is too narrow to continue separated cycling facilities, so cyclists will need to transition to a shared road crossing the bridge. The existing sidewalks on both sides of the bridge are adequate for pedestrians. Therefore, appropriate pavement markings and signage should be provided to ensure drivers are made aware of the shared space with cyclists. It is important to note when vehicle use along the bridge is at its peak, it increases the risk of conflict or collisions with cyclists in the shared space. It will be important for the municipality to monitor the environment and consider speed management/ traffic calming measures along Bridge Street approaching the bridge to reduce vehicle speeds before vehicles cross the bridge.

If the provision of parking on both sides of Queen Street becomes less of a priority in the fullness of time, providing bike lanes on both sides (with eventual transition to cycle tracks in the future) provides better long-term continuity with the Queen Street bridge shared crossing, avoiding the need for a transition from a bi-directional MUP at Union Street (refer to Figure 28). Alternatively, at the time of the Queen Street bridge renewal, the county should consider widening the structure to accommodate both pedestrians and cyclists that is consistent with the corridor, whether it is uni-directional cycle tracks or a multi-use pathway.

Figure 28: Queen Street facing south at Union Street (Source: Google)



Bridge Street (between Country Street and Perth Street) and Perth Street (between Bridge Street and County Road 29) (County Roads):

Both urban road corridors are under the jurisdiction of the county. Unlike the previous corridors discussed, there are fewer geometric constraints to overcome. There is sufficient right-of-way (ranging from 22 m to 28 m) to modify the corridor to provide optimal sidewalk width and cycle track on both sides of the road, while increasing travel lane width to optimally accommodate trucks. This represents the optimal level of active transportation priority along the corridor; however, there will be impacts to some household driveways throughout the corridor; the effective boulevard/ driveway space will be reduced by 1.0 m to 3.0 m in certain locations. In particular, the sections of the corridor with 22 m right-of-way (along Perth Street between Bridge Street and Jamison Street) will experience the greatest impacts since there

is a ditch and culvert on the south side and the proposed modifications may require investing in underground servicing to be realized (refer to image in Figure 29). The sections with 26 m or 28 m will have no issues since they have space to retain ample driveway space and are already fully urbanized.

Figure 29: Perth Street within 22 m ROW section facing west (Source: Google)



Old Perth Road (between County Road 29 and Almonte West Boundary):

Old Perth Road is the extension of Perth Street across County Road 29 and is a municipal road. The available right-of-way west of County Road 29 reduces significantly, to roughly 14 m, as the road transitions to a rural context (refer to Figure 30). Paved shoulders may be considered if there is a desire to improve active transportation comfort and safety in the short-term, but the municipality should protect property within the Almonte limits to enable a full 24 m right-of-way centred on the roadway, to give enough space to construct a standard 2-lane urban collector road in the future.

Figure 30: Old Perth Road at County Road 29 facing west (Source: Google)



Martin Street (County Road):

This road corridor is under county jurisdiction but is an important route in Almonte to access the Almonte District High School and directly connects to Blakeney Village farther north. Martin Street generally has a 20 m right-of-way save for

a roughly 100 m section with only 14 m beginning roughly 45 m north of Brookdale Street, as shown in Figure 31. The road is urban with underground servicing up to Stephen Street, where the existing bike lanes end. Farther north, there is a 165 m section with curb, shared bike pavement markings, and a 1.5 m asphalt path on both sides until Brookdale Street. From this point northward until the Almonte boundary is purely rural with no active transportation facilities.

Within the existing urban section, excess vehicle travel width was reallocated to the existing bike lanes (roughly 0.3 m) to provide greater comfort and safety for users (1.8 m width). Sidewalks were not widened due to potential conflicts with the existing hydro poles. In the fullness of time, when the lifecycle of existing services is reached, and the road needs renewal, wider sidewalks and cycle tracks may be considered along the corridor.

For the currently rural section within Almonte, as development progresses northward into future growth areas, Martin Street is expected to be urbanized and should be designed to match the retrofits accordingly. Once the Almonte boundary is reached, there will be a transition to the paved and gravel shoulders normally found on county roads.

Figure 31: Martin Street Right-of-Way Pinch Point



The municipality should protect an additional 6 m on the east side of Martin Street where it is currently 14 m to ensure a consistent design is maintained through the corridor.

Almonte Street (60m West of Farm Street to County Road 29):

Almonte Street is an important municipal connection between the Main Street Bridge and County Road 29. It provides access to the northwest quadrant of Almonte as well as various destinations including the Metcalfe GeoHeritage Park, and the downtown core at Mill Street.

A 3.0 m multi-use pathway was added along the corridor in two distinct sections. The first short section on the north side of Almonte Street, between Malcolm Street to roughly 60 m west of Farm Street, which field observations confirm is currently being used by residents as an informal route. The second section is on the south side of Almonte Street starting at Malcolm Street to County Road 29. There will need to be a short gap in the multi-use pathway along the church frontage at Malcolm Street, due to the existing guardrail and grade change on the church property. Supporting figures depicting the noted sections of Almonte street are shown in Figure 32.

Once clear of the church, the municipality has some flexibility to choose the type of facilities to provide on the south side of the road corridor that borders Gemmill Park, which is municipally owned. The existing sidewalk could be

replaced with a multi-use pathway to accommodate cyclists in both directions, while the sidewalk on the north side is upgraded to 1.8 m. Alternatively, the municipality may could the extend the existing sidewalk on the south side beyond Euphemia Street to County Road 29, widen it to 1.8 m (along with the north sidewalk), and place a parallel 3.0 m multi-use pathway. With the available space, the multi-use pathway could navigate around any conflicts in the corridor, such as hydro poles, but it may create potential challenges with integration and transition between the pathway and sidewalk.

Figure 32: Almonte Street facing west – Church frontage (left); Informal Pathway (right) (Source: Google)



Almonte Street (between County Road 29 and Almonte West Boundary):

The available right-of-way on this section of Almonte Street is roughly 25 m, where the road transitions to a rural context, as shown in Figure 33. The existing paved shoulders may be increased to 2.0 m if there is a desire to improve active transportation comfort and safety in the short-term, but the municipality should consider reconstructing the road to a standard 2-lane urban collector road as future development progress in this growth area.

Figure 33: Almonte Street at County Road 29 facing west (Source: Google)



Old Almonte Road:

This municipal road corridor is the southern extension of Paterson Street, the latter being a fully urban corridor with a sidewalk on both sides of the road. Old Almonte Road is primarily rural in character and the urban to rural transition occurs at Robert Hill Street, as shown in Figure 34. At this point, services transition to ditches on both sides and the sidewalks are dropped, and a blend of paved and gravel shoulders are introduced. At the Almonte south boundary, the road transitions to a fully rural facility with stone dust surface and gravel shoulders; there are no active transportation facilities within the corridor, as shown in Figure 35.

The current Official Plan protection requirements along Old Almonte Road between Robert Hill Street and the Almonte boundary is 22 m wide, where it reduces further to roughly 20 m wide. The section of Old Almonte Road between Robert Hill Street to the Almonte south boundary requires unique solutions since development has recently progressed and this section of road reconstructed. Two options have been provided to the municipality to address the lack of active transportation facilities. The first is to develop a custom drainage solution to allow sidewalks on both sides to continue between Robert Hill Road and the Almonte boundary. However, if a stormwater sewer is needed to adequately service the road modifications, the alternative option would be triggered whereby the road would be reconstructed as a standard urban collector road (with sidewalk and cycling facilities) but modified to fit within the available 22 m right-of-way.

Figure 34: Old Almonte Road at Robert Hill Street facing south (Source: Google)



The rural section of Old Almonte Road up to Appleton Side Road traverses through future growth areas and there is a choice on how this road will evolve from the current low volume back road connection to an essential neighbourhood connection. The preferred solution is to protect for 24 m right-of-way along the entire road corridor that would fit an urban collector road (refer to **Section 4.2.6** for the recommended urban collector road cross-section). While this option represents the most cost prohibitive choice, it provides the optimal active transportation facilities and maintains continuity through the corridor, including Paterson Street.

A more cost-effective option is to maintain the rural character but protect for 28 m of right-of-way to ensure the road corridor meets the standard rural collector road design (refer to **Section 4.2.6**); however, this solution is not preferred since it is inconsistent with the Paterson Street corridor character and does not provide adequate active transportation facilities.

The municipality may also consider paving Old Almonte Road to improve road conditions and vehicle capacity in the interim, in advance of development within the future growth area. This option will help make Old Almonte Road a more viable alternative route in the short-term to help reduce congestion on Ottawa Street.

Figure 35: Old Almonte Road facing north, rural section south of Almonte Boundary (Source: Google)



Ramsay Concession 11A:

This municipal road corridor begins at Ottawa Street and continues north for roughly 1.7 km, until it transitions to an informal trail. The first 1.2 km is located within Almonte and has a rural design with ditches, paved and gravel shoulders, and no active transportation facilities except for the corners at the Ottawa Street roundabout, as shown in Figure 36. While the 27 m wide right-of-way is adequate to accommodate future active transportation facilities, the section between Ottawa Street and Leishman Drive has already developed on the west side with ditches, shoulders, but no sidewalks or cycling facilities, despite there being sidewalks on all side streets. There are currently no development plans on the east side of the corridor, as it is currently outside the Almonte boundary.

Two separate options were provided to give the municipality financial flexibility on how to improve active transportation along the corridor. The first option represents an interim solution that requires a custom drainage solution, maintaining the existing ditches while adding a sidewalk on the west side of the corridor between Ottawa Street and Leishman Drive. This ensures pedestrians have a separate facility to traverse the corridor, while cyclists would use the existing paved shoulders.

If no drainage solution is possible, an alternative is to reconstruct the west half of the road to an urban cross-section with underground servicing and providing a 3.0 m multi-use pathway that would accommodate both pedestrians and cyclists.

Figure 36: Ramsay Concession 11A at Ottawa Street facing north (Source: Google)



Appleton Side Road (County Road):

Appleton Side Road is a county road beginning at Ottawa Street (across from Ramsay Concession 11A) and continues southward beyond Almonte, through the rural village of Appleton, and ultimately connects to Highway 7. The addition of multi-use pathways is proposed on both sides from Ottawa Street up to the Almonte south boundary – with the option to extend the multi-use pathways farther as development progresses south within Almonte. In the future, the expectation is these facilities would be extended as far as Old Almonte Road to the south, forming a connected active transportation loop with the previously proposed active transportation facilities on Old Almonte Road. The multi-use pathways would also enable access to the Appleton Trail and any future developments that may occur on the east side of the corridor in the future.

Figure 37: Appleton Side Road at Ottawa Street facing south (Source: Google)



March Road (County Road): For Consideration Only

March Road is a 2-lane rural arterial roadway under the jurisdiction of Lanark County and is a critical commuter route used by county residents heading to and from the City of Ottawa. The long-term road network analysis showed there will be insufficient corridor capacity to address the long-term vehicle demand.

While the same process to evaluate the Ottawa Street, Main Street and Almonte Street corridor was applied to March Road, there is no specific recommendation for March Road. This situation is unique since the issue extends beyond the municipal borders into two adjacent municipalities, Lanark County and City of Ottawa, and both jurisdictions, as of summer 2024, are in the process of initiating or competing their own Transportation Master Plans. In discussion with county staff, it is understood they intend to initiate their own TMP in the latter half of 2024, while the current timing for completion of the city TMP is 2025.

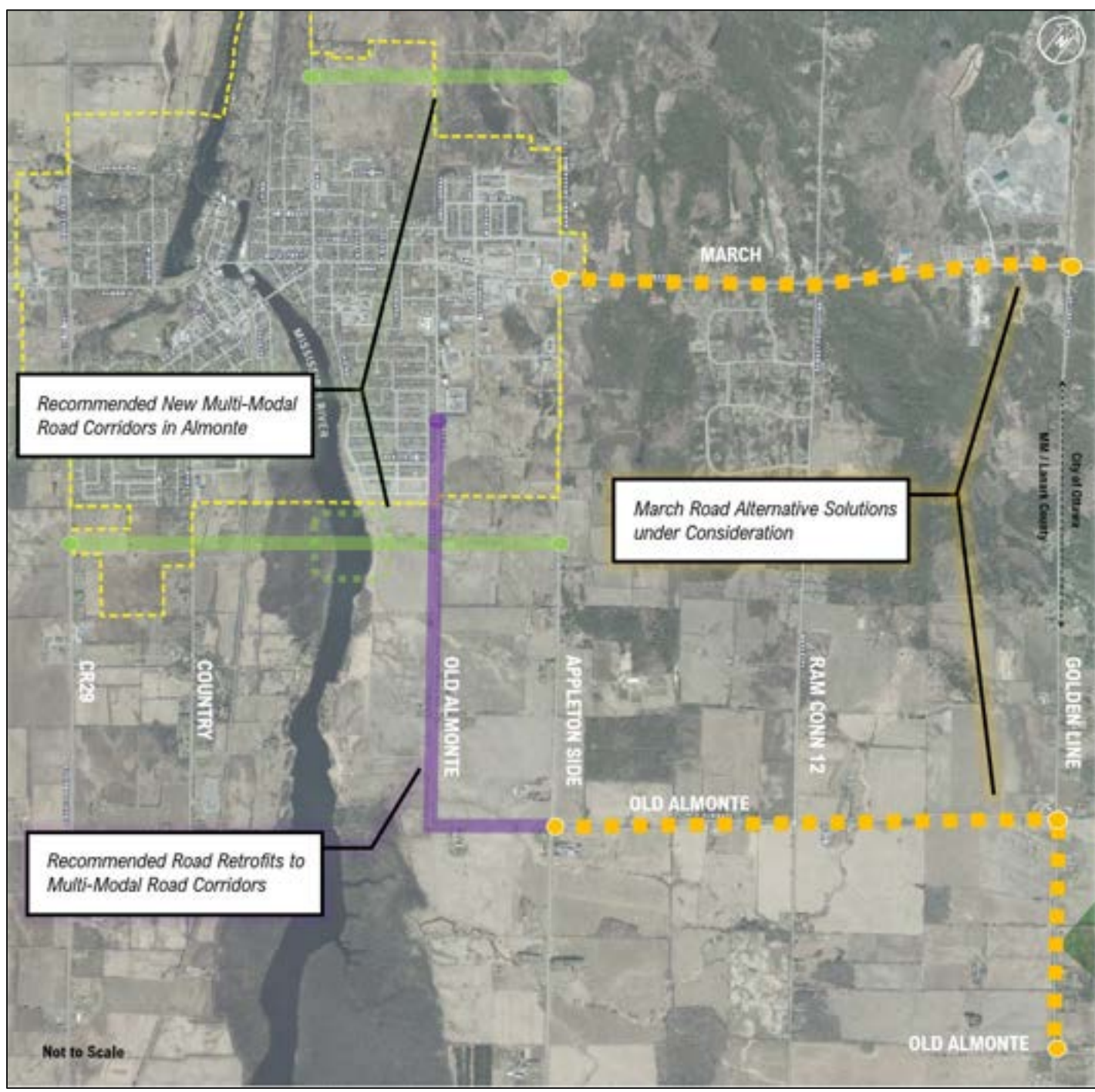
Therefore, the forthcoming information has been presented as **considerations** for the municipality as well as the county and city to help inform future decision-making.

The analysis that informed the following alternative solutions has been detailed in the “Traffic Analysis and Trip Generation Memo” found in **Appendix E**. As seen in Figure 38, there were two potential solutions to address the long-term March Road corridor capacity need: **1. Widen the corridor**, or **2. Formalize an alternative connection**.

1. **Widen the corridor**: This solution option would address the identified long-term corridor capacity need. It benefits from the available right-of-way (roughly 30 m throughout) and would have minimal environmental impacts if implemented; however, there are a number of drawbacks to this option for the municipality:
 - i. March Road is owned by the county up to Golden Line Road, where it transfers to the City of Ottawa; the municipality would have no direct control over the timing and implementation of any modifications.
 - ii. The traffic operational benefit of this solution would be limited to the section that is widened to 4-lanes, then congestion would persist when it transitions back to 2-lanes, limiting the overall benefit to residents. In discussions with city staff (who are currently updating their own Transportation Master Plan), they acknowledge the need for additional capacity along the corridor but confirmed they cannot commit to widening March Road within their long-term plans, as funding is limited, and it is not expected to be a high priority project.
 - iii. Widening March Road to 4-lanes would only increase vehicle use along this corridor, and by extension along Ottawa Street and other road corridors through Almonte. This result is counter to the current Official Plan objective to reduce vehicle traffic through the urban settlement areas in the municipality.

This option is feasible but subject to further coordination and discussion with the two adjacent municipal authorities. Therefore, a secondary consideration was developed that avoided this scenario.

Figure 38: Potential March Road Solutions for Consideration



Notes: The general location, design, and alignment of recommended new road corridors (green lines) as shown are purely conceptual and subject to the future Municipal Class Environmental Assessment study.

2. **Formalize an alternative connection:** This solution provides flexibility for the municipality to help address the long-term capacity need on March Road without relying on coordination and approval by adjacent municipalities. This solution stems on formalizing existing municipal corridors that provide an alternative

route to the City of Ottawa, which is the principal trigger of vehicle traffic demand on March Road. The proposed solution includes:

- Upgrade Old Almonte Road from Appleton Side Road/ County Road 17 to Golden Line Road to a standard rural collector road, protecting for 28 m right-of-way (based on standard cross-sections developed in **Section 4.2.6**)
- Upgrade Golden Line Road from Old Almonte Road (county road) to Old Almonte Road (city road) to a standard rural collector road, protecting for 28 m right-of-way (based on standard cross-sections developed in **Section 4.2.6**)

The proposed alternative route is currently made up of 2-lane rural roads that are unpaved with either stone dust or gravel surface treatments. These conditions are adequate today considering this route is less frequently used, but over time when future growth areas develop and the long-term road network with proposed upgrades are constructed, it will be an effective and likely popular alternative for residents or commuters coming from south and west of Almonte travelling to Ottawa. The proposed upgrades are needed to ensure there is sufficient capacity to accommodate future traffic and to meet contemporary design and safety standards.

As previously noted, the potential solutions to the long-term March Road constraint are not recommendations, but considerations for both the municipality and adjacent municipalities to help inform future discussions and decision-making. An initial outreach between Mississippi Mills, Lanark County and the City of Ottawa has already occurred, and it is expected this discussion will need to be revisited as these adjacent municipalities complete their respective TMPs.

Long-term vehicle capacity on March Road should be re-evaluated as part of future TMP updates, and the municipality should continue to engage with Lanark County and the City of Ottawa on the importance of this corridor as they proceed with their respective TMP updates.

4.3.6 Additional Right-of-Way Protection and Complete Street Considerations

The following section will discuss road corridors within Almonte that were previously reclassified as municipal collector roads in **Section 4.1**, due to their proximity to future growth areas and the potential for increased traffic activity along them, but were purposefully excluded from the road retrofit program for one of two reasons:

1. Separated cycling facilities were not identified as a long-term need in the Ultimate Cycling Plan (refer to **Section 3.4.1**) based on the current outlook, the proximity to parallel routes and general land use context. Shared road facilities were considered adequate. However, when the long-term Road Network Plan is constructed, there may be a desire to add separated cycling facilities if vehicle traffic rises precipitously. Guarding for this potential outcome was considered prudent.
2. There are notable right-of-way constraints within the developed sections, which affect several property owners to accommodate the recommended standard collector road, whether rural or urban (refer to **Section 4.2.6**). The long-term need will be development driven and should be reassessed in future TMP updates.

It is still recommended that the municipality protect for 24 m right-of-way, where applicable along each of the following corridors to ensure there is available space to provide the proper facilities if/ when the need arises and there an opportunity presents itself in the future to evaluate potential enhancements such as a lifecycle renewal of the road or as

part of future development. As previously noted, these road corridors should be re-evaluated in future TMP updates. Further discussion on these specific road corridors is provided below.

The municipality should consider protecting 24 m right-of-way along Country Street, Rae Road (between Country Street and County Road 29), and Paterson Street to fit an urban collector road should long-term development triggers the need for upgraded facilities.

Paterson Street:

An urban municipal road with sidewalk on both sides has a right-of-way that varies between 12 m and 21 m up to Robert Hill Street. There are sections along the corridor where property may be more easily protected, such as institutional lands. Farther south there are notable grade changes that would need extensive mitigation to ensure properties are protected if a standard urban collector road is implemented, as shown in **Error! Reference source not found.**

Figure 39: Paterson Street at Tatra Street facing south (Source: Google)



Country Street:

Country Street is a municipal road that contains both urban and rural contexts. To the north there are curbs, sidewalk and underground servicing that transitions towards Ann Street to overland drainage and ditches with no sidewalks or curbs. The existing right-of-way throughout is approximately 16 m, with isolated sections with roughly 20 m, which is insufficient to accommodate a standard urban collector road that requires 24 m. There are also various properties with buildings located along the property line that would be impacted by retrofit.

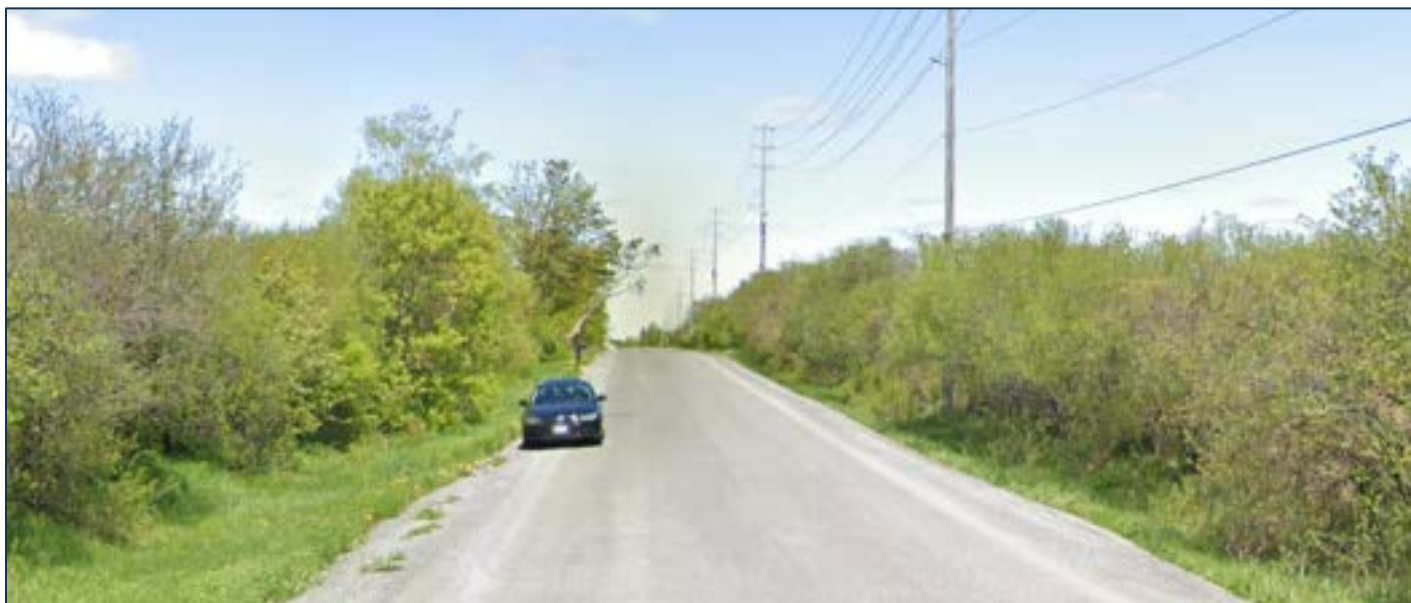
Figure 40: Country Street at Perth Street facing south (Source: Google)



Rae Road (Country Road to County Road 29):

A municipal road roughly 640 m in length is currently rural with gravel shoulders. This road is the extension of Country Street after the 90-degree bend towards County Road 29. There is a long-term outlook where development in Almonte, spurred by the construction of the new south arterial road (refer to **Section 4.3.4**), may trigger the need for an upgraded road facility.

Figure 41: Rae Road at County Road 29 facing east (Source: Google)



4.3.7 Intersection Projects

The following new intersections will be required along the recommended new road corridors. Note that additional intersections may be possible based on future road development.

- New North Collector Road and Martin Street
- New North Collector Road and Ramsay Conn 11A
- New South Arterial Road and County Road 29

- New South Arterial Road and Country Street
- New South Arterial Road and Old Almonte Road
- New South Arterial Road and Appleton Side Road

The supporting traffic analysis suggests the new north collector road intersections will only require stop control, while the new south arterial road intersections will require a traffic control signal, to be confirmed during the Environmental Assessment study process. While the ownership of the new road corridors will be clarified in time, it is expected that both the municipality and Lanark County will coordinate implementation efforts.

Table 28 summarizes the identified intersection modifications needed within the existing road network to properly accommodate long-term vehicle traffic demand. Note that all proposed intersection modifications must be reviewed and confirmed at the time of functional and detailed design, whether that is part of a Transportation Impact Assessment study supporting a development application, the life cycle renewal of the corridor, or as a stand-alone capital project. Conceptual designs of some of the recommended municipal intersection modifications (indicated by an asterisk ‘*’) have been provided in **Appendix M**.

Additionally, there may be other intersection modifications required within the urban road network to properly integrate new or enhanced cycling facilities proposed as part of certain road retrofit projects to support the Ultimate Cycling Plan previously discussed in **Section 3.4**. Each individual project must identify potential intersection needs and incorporate any required modifications as part of the design and implementation process.

Table 28: List of Recommended Intersection Modification Projects

Main Road	Side Road(s)	Jurisdiction	Current Intersection Type	Intersection Modification
March	Appleton Side	County / MM	Roundabout *	<ul style="list-style-type: none"> ▪ Extend west leg median by 60 m. ▪ Extend east leg merge lane to meet current standards. ▪ Review PXO requirements for current traffic volumes. ▪ Widen sidewalk connections on all corners between PXOs. ▪ Review long-term needs at roundabout as part of corridor renewal cycle.
Ottawa	Industrial	MM	Traffic Signal	<ul style="list-style-type: none"> ▪ Review long-term intersection needs as part of corridor renewal cycle, consider options better accommodate cycling facilities.
Ottawa	Paterson	MM	Traffic Signal	<ul style="list-style-type: none"> ▪ Review long-term intersection needs as part of corridor renewal cycle, consider options better accommodate cycling facilities.
Ottawa	Martin	County / MM	Traffic Signal *	<ul style="list-style-type: none"> ▪ Short term realignment to a safer intersection design but triggers minor property impacts. ▪ Review long-term intersection needs as part of corridor renewal cycle, consider options better accommodate cycling facilities.
Bridge	Perth	MM	Stop Control *	<ul style="list-style-type: none"> ▪ Redesign to a standard T-intersection.

Main Road	Side Road(s)	Jurisdiction	Current Intersection Type	Intersection Modification
CR 29	Almonte	County	Traffic Signal	<ul style="list-style-type: none"> Add a Westbound Left-Turn Lane, Northbound Left-Turn Lane, and Eastbound Left-Turn Lane. Incorporate cycling facilities or protect space for future cycling facilities.
CR 29	Perth	County	Stop Control	<ul style="list-style-type: none"> Remove Northbound Right-Turn Lane Signalize intersection. Incorporate cycling facilities or protect space for future cycling facilities.
Almonte	Mill	MM	PXO	<ul style="list-style-type: none"> Monitor safety, consider additional signage. Convert to traffic signal for safety or when triggered by traffic volumes.
Appleton Side	Industrial	County / MM	Stop Control	<ul style="list-style-type: none"> Signalize the intersection.

4.3.8 Rural Road Network Considerations

There were no significant road network vehicle capacity constraints identified in the long-term rural road network, including the rural villages with the exception of March Road, as previously discussed in **Section 2.5.3**.

In **Section 4.2.6**, the recommended complete street cross-sections for rural roads considered contemporary national design standards as well as the unique needs and concerns heard from the rural community during the TMP consultation process. As a result, the new rural local and collector cross-sections include greater right-of-way protection widths, which currently exceeds many existing rural roads. The new right-of-way requirement for rural local roads is 22 m and for rural collector roads is 28 m. The intent is for these new right-of-way protections to be recognized in the Official Plan, and applied as opportunities arise over the next 25 years or beyond.

The rural road corridors that the municipality may consider retrofitting proactively are roadways designated part of the rural cycling network depicted in **Schedule 13**, and discussed in **Section 3.4.3**, to provide greater comfort and safety for cyclists in the rural network.

Moving forward, there may be a need to review existing road connections to the provincial highway network to ensure they have sufficient capacity, like the ongoing Highway 7 improvements at The Pup Patrol/A1 Towing and Ramsay Concession 5A intersection. These provincial highway connections are critical to the social-economic health of all neighbouring municipalities, including Mississippi Mills, and should be enhanced as needed to support growth.

Right-of-way protection requirements for rural local and collector roads should be adopted in the Official Plan and applied to all new rural roads and to existing rural roads when opportunities arise, such as at the time of the lifecycle renewal or as part of a future development.

The municipality should work with adjacent municipalities and MTO to improve and/ or expand road connections with nearby provincial highways where appropriate to support long-term growth.

4.4 Summary of Recommendations

It is recommended Mississippi Mills adopt the various road network infrastructure proposals presented in this section to support the vision and objectives outlined in this TMP (**Section 2.7**). Note, the recommended timing of implementation for all noted projects is addressed in **Section 7.0**.

The recommended road network plans constituting new road corridors and intersections, road retrofits, and intersection modifications for the interim (including both 5-year and 15-year horizons) and the ultimate (25-year horizon) scenarios have been provided in **Schedule 18** and **Schedule 19** respectively.

Road Classifications

- Adopt the updated road classification system, which introduces collector and arterial classes, as well as urban and rural sub classes.
- Adopt the proposed road reclassifications outlined in Table 20.

Complete Streets

- Adopt the complete streets policy suggestions stated in **Section 4.2.11** into the Official Plan, incorporating the established principles and contemporary language.
- Integrate the complete streets approach and thinking in all relevant municipal departments.
- As required per project, collaborate with County of Lanark and external stakeholders to describe this new approach and how best to adopt these new road planning and design processes.
- Adopt the complete streets design criteria and cross-sections developed in **Sections 4.2.5** and **4.2.6**, as well as update any other guidelines and standards to include accommodations for all road users.
- Include a clearly stated complete streets approach in the project charter of all future transportation infrastructure projects (including roads, intersections, bridges etc.).
- Review traffic operational study policies and procedures for all new capital projects and new development sites to ensure that they explicitly consider the safety of all modes, as well as proper pedestrian and cycling accommodations, access, and supporting facilities within and along the surrounding frontage of the proposed development based on minimum maintenance standards. Refer to the recommended Transportation Impact Study (TIS) Framework in **Section 6.6**.
- Ensure pedestrian and cycling priority measures are always considered as standard practice when constructing new or retrofitting signalized and stop controlled intersections.
- Ensure pavement marking and signage requirements for pedestrian and cycling facilities meet contemporary design standards and consider new approaches that enhance the safety of vulnerable users.
- Ensure contemporary roundabouts are considered and evaluated as standard practice.
- Review and update maintenance standards as needed to address all modes.
- Adopt right-of-way protection requirements for updated local and collector road in both urban and rural contexts in the Official Plan and apply them to all new roads and to existing roads when opportunities arise, such as at the time of the lifecycle renewal or as part of a future development/ redevelopment.

New Roads

- Include a 24 m right-of-way protection requirement in the next Official Plan update to construct a new municipal road corridor between Martin Street and Ramsay Concession 11A in north Almonte. Additionally:

- The road shall be designed as a 2-lane Urban Collector Road standard (refer to **Section 4.2.6** for cross-section).
- A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.
- Include a 26 m right-of-way protection requirement in the next Official Plan update to construct a new arterial road corridor between County Road 29 and Appleton Side Road in south Almonte. Additionally:
 - The road shall be designed as a 2-lane Urban Arterial Road standard (refer to **Section 4.2.6** for cross-section).
 - A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.
 - Engage Lanark County staff if there is a desire to upload the corridor to county jurisdiction.
 - There would be three distinct sections/ phases for this project:
 - Southwest Connection: County Road 29 to Country Street
 - Southeast Connection: Old Almonte Road to Appleton Side Road
 - River Crossing Connection: Country Street to Old Almonte Road, includes road connections, possible embankment, and new bridge structure over the Mississippi River.
- Review the need for future municipal road connections to the collector or arterial road network triggered by future development. Ensure appropriate traffic studies are completed to identify the appropriate road classification, right-of-way protection requirements, and they adhere to policies and standards outlined in the TMP and/ or relevant industry standards.
- The municipality should work with adjacent municipalities and MTO to improve and/ or expand road connections with nearby provincial highways where appropriate to support long-term growth.

Road Retrofits

- Implement the complete streets retrofit projects specified in Table 27.
- Coordinate with Lanark County on any complete streets retrofit project specified in Table 27 located on county roads.
- Adopt right-of-way protections where required to support retrofit projects as specified in Table 27.
- A focused study is recommended to reimagine Ottawa Street as a truly multi-modal corridor and ascertain widening and design requirements to ensure contemporary safety, accessibility and design principles for active transportation facility integration are met throughout the corridor, including intersections.
- Consider protecting 24 m right-of-way along Country Street, Rae Road (between Country Street and County Road 29), and Paterson Street to fit a standard urban collector road in case long-term development triggers the need for upgraded facilities.
- Long-term vehicle capacity on March Road should be re-evaluated as part of future TMP updates including the two mitigation scenarios outlined in this TMP. The municipality should continue to engage with Lanark County and the City of Ottawa on the importance of this corridor as they proceed with their respective TMP updates.

Intersections

- Complete the recommended intersection modifications within municipal jurisdiction outlined in Table 28.
- Coordinate with Lanark County to complete the required intersection modifications within county jurisdiction outlined in Table 28.
- Take the opportunity to improve pedestrian and cycling facility integration in all future intersection projects if feasible.

5.0 PUBLIC TRANSIT AND RIDESHARING STRATEGY

Public transportation is an essential need for many residents. Although not offered as frequently in smaller municipalities, public transportation is becoming more common in these settings while being economically sustainable given the appropriate size and supply of services. For some, having accessible public transportation is a choice, but for many, it is a necessity; people who cannot drive based on their age or financial means, and seniors or a person with a disability who are unable to drive themselves. There are many examples of barriers to driving that leave the community isolated if there are no available forms of public transportation available.



The following section will review potential transit and ridesharing strategies, building upon existing services offerings (refer to **Section 2.3.2**) and recent examples from other rural or smaller municipalities in the province.

5.1 Relevant Policies and Possible Refinements

Current transit policies within Mississippi Mills can be found in the *Mississippi Mills Community Official Plan (2018)* and the *Lanark County Sustainable Communities Official Plan (2012)*. The transit options are discussed at a high-level; encouraging the municipality to support interregional connections, such as investigating public transit links with the City of Ottawa, identifying car-pool and park and ride locations, and working with other jurisdiction and the county to coordinate commuter and park shuttle services.


The *Community Plan for Safety and Well-Being (2018)* report was prepared jointly by Lanark County and the Town of Smiths Falls delves further into the subject by highlighting the “lack of affordable and consistent rural transportation” as a major concern in the county and developed a mandate to improve conditions and opportunities for transit. Several recommendations including potential pilot projects, establishing a transit committee, ridership targets and leveraging public funds and technology. This foundation has led to some success through the Ride the LT program operated by Lanark Transportation – which will be discussed further in this section.


Despite this progress, there is a lack of focus within municipal policies to build upon the county report. Local service considerations or support for vulnerable user groups with limited mobility or those wishing to use more sustainable and affordable options. Furthermore, there is no consideration for how active transportation will be integrated with transit if/when services resume in the future. Considerations must include the requirement for all future developments or redevelopments to properly connect to and support transit service where applicable, filling gaps in the active transportation network to connect to transit services, providing adequate transit support facilities (such as wayfinding, benches, shelters etc.), and ensuring transit facilities meet contemporary accessibility standards.


5.2 Examples from Other Smaller Municipalities

There have been various transit system trials in other small to mid-sized municipalities in recent years that are worth noting. It is important to keep in mind that each municipality is unique and what succeeds in one area does not necessarily translate to success in another. Nevertheless, these examples can serve as inspiration in the near-term, and if an opportunity arises in the long-term, the municipality may consider integrating into the TMP:

- Corridor 11 Bus:** This is a 125km bus loop in Muskoka that extends from Huntsville to Orillia, which transfer to the LINX connection leading to the City of Barrie. The service is priced based on distance travelled, allowing for cheaper fares for people travelling shorter distances. Tickets can be pre-purchased and reserved or can be bought directly from the bus operator. This route has major attraction destinations, such as shopping centers, hospitals, and colleges. One of the major difficulties noted within the “Accelerating Rural Transportation Solutions Report”²⁷ is connecting riders from outlying areas to transit stops. There are noted similarities between Muskoka and County of Lanark, with a number of smaller municipalities connected by a single service. The key difference the City of Barrie provides a sizeable population to provide sustained ridership for the service, which the County lacks.


- Belleville ‘BT Let’s Go’:** The City of Belleville launched a ‘transit on demand’ network which allows riders to request transit services between two locations. Users use their smartphones, computers or can call to request transit services. This service is operated by a third-party provider (Pantonium Inc.). The platform uses a dynamic software which routes the transit services to pick up other on demand requested users, thus forming a rideshare or shared taxi like program within a transit service.²⁸


- Innisfil Transit - UBER Partnership:** In 2017, a public-private partnership was formed in the Town of Innisfil, Ontario with Transportation Network Company UBER. The town subsidized UBER rides with a flat rate of \$3 - \$5 for travel to specific community hubs or a \$5 discount to travel to specific destinations in town. Ryerson University prepared a study assessing the program’s performance²⁹; in the 3-year study period (May 2017 to Feb 2020), over 220,000 trips were taken on Innisfil Transit. These trips cost approximately \$17 each with the rider paying an average of \$7 per trip and the town paying an average of \$10 per trip. The total cost of the program to the town during the study period was \$2.2 million, slightly higher than what the two-bus fixed-route system was estimated to cost (\$1.8 million based on \$610k annually over 3 years); however, these costs are not directly comparable, as the current service provides coverage across all of Innisfil, as opposed to the proposed bus routes that would have only provided access to those within direct walking distance to the bus stops along the route. The potential disbenefit of providing this type of program is it may not necessarily reduce vehicle trips and may in fact increase vehicle travel within the municipality and county due to its convenience and relative affordability; however, this form of service has significant upside if used for specific destinations, in specific contexts, such as special events or to support a more conventional transit system for



²⁷ <https://www.niagaraknowledgeexchange.com/wp-content/uploads/sites/2/2015/01/2014-Accelerating-Rural-Transportation-Solutions-Case-Studies.pdf> [Pg 28]. Date Accessed: 2023-06-14.

²⁸ <https://www.niagaraknowledgeexchange.com/wp-content/uploads/sites/2/2015/01/2014-Accelerating-Rural-Transportation-Solutions-Case-Studies.pdf>. 37. Date Accessed: 2023-06-14.

²⁹ Innisfil Transit System Performance. Sweet, Mitra, and Benaroya. Ryerson University. Toronto, ON. Jan 2021. Retrieved from: https://innisfil.ca/wp-content/uploads/2021/04/innisfil_uber_report_20210112.pdf.

the “first mile and last mile” of the trip. It could also be tailored such that the subsidy benefit increases with more passengers.

4. **Brockville to Cardinal “River Route”**: The City of Brockville initiated a public transit pilot project in August 2021 that is intended to connect four municipalities: Brockville, Augusta, Prescott and Edwardsburg/ Cardinal. The two-hour loop includes 11 stations, with six routes per weekday from 5:30am to 5:30pm. The service was provided in response to



needs for an “intra-community transit system” that utilizes Highway 2.³⁰ The fare structure permits one-way tickets for \$5 and a book of 10 tickets for \$40, and tickets on the River Route are transferable to the Brockville transit system (with certain exceptions) at no extra cost. The River Route is a good example of the potential or aspiration for the Ride the LT service currently offered in Carleton Place and Perth for establishing an intra-County commuter route that captures adjacent municipalities, including the City of Ottawa, and enables transfers to the OC Transpo network.

5. **Township of Russell – “Russell Transpo”**: The Township of Russell, which includes local municipalities such as Russell, Embrun and Limoges, is located approximately 40km southeast of the City of Ottawa and had a combined population of approximately 16,500 residents in 2017 and is expecting continued growth. The Township is best described as a “bedroom community”, meaning that a large portion of the population lives, but does not work there. Approximately 72% of working population is employed in Ottawa. Since 2008, the Township of Russell has offered transit service (under the moniker of “Russell Transpo”) from Embrun and Russell to Ottawa/ Hull during weekday peak periods. The service provides direct transit options for commuters working in Ottawa/ Hull, and is not intended to serve local trips within the Township. The service is operated by a private company under a fixed-fee contract, with fare revenue going to the Township. The Township also receives other forms of revenue such as sponsorship programs (bus shelter and bus advertisements). Ticket sales, scheduling, and customer service are managed by the Township.



In 2018, the Township prepared a Transit Feasibility Study that reviewed the existing transit service and how it could look in the future.³¹ The following discussion is based on the findings of this study.

Russell Transpo operates a single route (Route #528), which has different options during peak periods: two depart/ arrive in Russell via Embrun to/from Ottawa/Hull and two that depart/arrive in Embrun via Russell to/from Ottawa/ Hull. The routes take between 70 to 82 minutes in one direction. The service provides real time tracking

³⁰ River Route public transit launches Aug 30, connecting Seaway communities from Cardinal to Brockville. Vandermeer. <https://ottawa.ctvnews.ca/river-route-public-transit-launches-aug-30-connecting-seaway-communities-from-cardinal-to-brockville-1.5564532>. CTV News. 2021. Date Accessed: 2023-03-25.

³¹ Township of Russell Transit Feasibility Study. Steer Davies Gleave. Township of Russell Economic Development Department. May 2018.

of buses and WIFI service on the buses. The cost for a single ride fare is \$15, for a 10 ticket booklet is \$102 and \$245 for a monthly pass (\$176 for monthly student pass). Monthly pass holders are eligible to transfer onto the OC-Transpo (City of Ottawa bus/ LRT network) and STO (Ville de Gatineau bus network) services at no extra cost. It is noteworthy that approximately 7% of monthly pass users tapped their cards on OC-Transpo and STO buses on a regular basis, meaning that the majority of riders relied solely on the Russell Transpo buses. Additionally, survey respondents noted they would stop using the service if a transfer was required and responded very positively to the fact that the route was very direct. The proportion of costs for a monthly pass compared to a single fare ticket is significantly lower than the average ratio of a monthly pass to a single fare for other municipalities, making getting a monthly pass more attractive.

Given the demographic of the Township's "bedroom community", attractive monthly passes and an integrated network to major employment areas in Ottawa/ Hull, the Russell Transpo transit system has become a reliable transportation option for commuters to and from Ottawa/ Hull. Between the years of 2013 and 2017, ridership has remained fairly consistent with approximately 73,000 trips taken per year. Russell Transpo has been successful in reducing the quantity of subsidies required to operate the system, providing the highest revenue to operating cost ratio of any local transit agency in Ontario, and indicates that Russell Transpo operates at a high level of financial efficiency. The system pays a flat yearly service contract expense which is paid in great part by fare revenue (~60% to 70%), partially by other revenues such as gas tax funding (~20% to 25%) and only a small portion by Township subsidies (~5% to 15%).

Given the low density setting for the Township, with approximately 85% plus of the population living in single detached homes, the implementation and use of Park and Ride facilities has artificially created higher density hubs with locations for buses to pick up and drop off large percentage of commuters at a single stop rather than having many small stops causing delays to the route and increasing operation costs. There are currently four Park and Ride facilities including two in Russell, one in Embrun and one in Vars. The Embrun park and ride alone accounts for approximately 30% of all ridership and it is estimated that Park and Rides are operating at approximately 75% of capacity, suggesting that they are well utilized.

Overall, the Russell Transpo service provides an excellent commuter transit system for the municipality. Key elements that contribute the success of this service:

- **Provide direct service:** the majority of Russell Transpo riders do not require a transfer at their destination stop, and the majority of survey respondent would discontinue using the service if a transfer was required.
- **Strategic pricing:** providing a monthly fee that is significantly lower than the proportional cost of a single ticket, to encourage frequent use and sustained ridership.
- **Leverage revenue:** look for other revenue sources, such as bus shelter advertising, in addition to public sources.
- **Provide a quality service:** despite Russell Transpo having over 1-hour one-way travel time, ridership remains stable. This is a testament to the quality of the experience for riders. Prioritizing comfort, such as real-time tracking and WIFI service, is critical to maintaining customer loyalty.
- **Park and Ride:** the Township of Russell strategically placed Park and Ride locations at central and accessible locations within local municipalities to create artificial density and reduce the number of stops along the route.

5.3 Future Considerations and Upcoming Trials

5.3.1 Lanark Transportation

As previously discussed in **Section 2.3.2**, Lanark Transportation (LT) is a non-profit association that operates within the county and provides a service called “Ride the LT” within Lanark County, Carleton Place and Perth, the latter was only recently introduced after the COVID-19 pandemic. LT staff shared that the new Perth route has been highly successful and prompted the discussion of extending services in other locations within the county. For specific appointments, LT does offer scheduled on-demand service for seniors or the physically challenged to attend medical appointments, which is a separate service to the Ride the LT service.

LT is in the process of studying the potential of extending the Ride the LT program to Mississippi Mills with routes from surrounding areas into Clayton, Pakenham and Almonte. Based on the latest conversations with LT in April 2024, routes could include once a week into Almonte for shopping from surrounding areas and from Pakenham via Almonte to Carleton Place once a month for shopping. Note that the routes and schedules are still being refined and subject to funding availability in 2024. Potential bus stop locations in the municipality should target more vulnerable users or demographics that are statistically more reliant on affordable travel options (e.g., low-income or seniors housing), and strategic destinations where amenities and public facilities can be easily access.

The following locations in the municipality are being considered for the expanded Ride the LT service.

Clayton

- 124 Linn Bower Lane, Clayton (seniors’ apartments)
- Clayton General Store - public central stop in the village

Pakenham

- 178 Five Arches Drive, Pakenham (seniors’ apartments)
- Country View Retirement Home - 4676 Dark’s Side Road, Pakenham (retirement & assisted living)
- Pakenham Library -128 MacFarlane St, Pakenham – public amenities, including Stewart Community Centre and within 150 m of County Road 29 and the Pakenham commercial core.

Almonte

- Country Haven - 333 Country St, Almonte (retirement and assisted living)
- 375 Country St. Almonte (seniors’ apartments)
- Almonte Old Town Hall - 14 Bridge St. Almonte – downtown core, near Mill St
- Fairview Manor - 75 Spring St. Almonte (assisted living)
- Orchardview - 219 Paterson St. Almonte (retirement and assisted living)
- Highway Commercial Area (area surrounding Ottawa/Industrial intersection) – access to large commercial uses, various services and pharmacies (e.g., Independent Grocer, Shoppers Drug Mart, Royal Bank etc.)

Ensure the future expansion of the Lanark Transportation Ride the LT service into the municipality prioritizes bus stop locations for those with the greatest need (e.g., seniors, low income) to promote greater equity and inclusivity in the transportation system.

5.3.2 County of Lanark Corridor Loop

The three largest towns within Lanark County include Carleton Place, Smith Falls and Perth, with Mississippi Mills/Almonte trailing as fourth most populated municipality. Different loop routes between the towns have been considered, with a loop between the Town of Carleton Place, the Town of Smith Falls, and the Town of Perth providing a potential opportunity for a transit service-loop that offers riders the option to take the bus in the direction which offers the shortest connection to their destination. The loop would take approximately 90 minutes between the three towns. If Mississippi Mills/Almonte was added to the loop, it will increase the loop time to approximately 2 to 3 hours per loop. In a study “Rural Transportation Issues and Options for County of Lanark”³², and in conjunction with studies conducted for Clarence-Rockland, CUTA and Temiskaming Shores, project that operating a 60-service hour per week (10 hrs/day Monday to Friday and 5 hrs/day Saturday and Sunday) would cost approximately \$1.0-1.5 million a year. These operating costs could be in part subsidized by the gas tax, shared by the municipalities, and recovered through fare fees. The study projects an annual ridership of over 700,000 rides, though it warns that it may take several years and to be truly successful, it would need to be supported by local feeder services.

5.3.3 Intra-County Service to Ottawa

Mississippi Mills is within a 45-minute drive of downtown City of Ottawa and draws over half of employed residents from the municipality. These commuters predominantly drive along, and targeting these commuters to shift their mode of travel would substantially increase the viability of a potential county-operated transit system.

Expanding the County of Lanark Corridor Loop to the City of Ottawa provides a regional system that connects various towns and a large city, such as the City of Barrie provides for the Corridor 11 Bus service or the River Route that connects to the City of Brockville transit system (refer to **Section 5.2**). Integrating with the OC Transpo system, at least to the LRT station on the Confederation Line (currently Moodie Station as part of Stage 2, but ultimately at Palladium Station as part of Stage 3) or even further to downtown Ottawa to reduce the need for transfers, would be essential to attract commuters by reducing transfer times and overall travel time.

Figure 42 illustrates possible drop off locations for an Intra-County service to Ottawa. At minimum, Terry Fox Station should be considered as the route terminus, with future Moodie LRT Station providing even better service eliminating one transfer for commuters headed to downtown Ottawa.

³² Rogers, N. & Leitch R. Rural Transportation Issues and Options for County of Lanark. Sonoptic Media & Communications. 2016. 28.

Figure 42: Future Stage 2 LRT Expansion in Ottawa (2026) and Potential Connectivity to Mississippi Mills



5.3.4 Demand Responsive Transit (DRT)

DRT has seen widespread expansion recently, particularly in the wake of COVID-19 and the subsequent financial pressures facing transit systems world-wide. Service providers have to adapt to changing expectations and the enhanced mobility competitors that now exist from Transportation Network Companies, such as Uber, to capture more users, provide more convenience, while maintaining affordability. The advent of emerging technologies now enables rural municipalities with larger regional transit networks to provide more efficient and cost-effective service by utilizing smartphone connectivity and computer algorithms to optimize routing, meaning fewer buses and lower capital costs. While this level of sophistication is currently aspirational, LT have made strides in the last decade towards a more demand responsive transit system, facilitating specialized trips predominantly for medical appointments, seniors, and accessible purposes, utilizing a traditional dial-a-ride system. In 2017, the LT engaged Pantonium Inc. to optimize their dispatch and on-boarding service to great success.³³ This partnership provides the LT the ability to upscale their



³³<https://pantonium.com/onboarding-pantonium-dispatch-software-case-study/>. Date Accessed: 2023-11-03.

service to more sophisticated offerings within the Pantonium platform, such as a fully optimized, on-demand transit service, similar to the Belleville DRT system.

5.3.5 Ridesharing and Carpooling

There is growing momentum for affordable travel options in the absence of a commuter transit service – particularly for those who travel longer distances and do not own a vehicle. The county’s recent inclusion into the [Community Carpool](#) program, offered by the Frontenac Transportation Services is a notable step in the right direction. This option is needed to fill this gap, since existing services such as Ride the LT service provided by Lanark Transportation and more specialized service such as Carebridge are primarily focused on service within the county and/ or only provided to seniors or adults with disabilities.



The municipality should be strongly promoting these alternative services to residents and businesses, while proactively engaging with each operator to find ways to support or expand service if the demand warrants it. There may also be informal carpool arrangements that already exist, or those provide through 3rd party platforms, such as CarpoolWorld. For example, the municipality may consider providing incentives to municipal employees or coordinate partnerships with local businesses to help reduce single occupant vehicle use. These options are further discussed under Transportation Demand Management, in **Section 6.4**. Another the means of supporting these types of services is through designated park and ride lots that when strategically place, provides a convenient meeting location for those sharing a vehicle. Further discussion on park and rides is provided in the following section.

5.3.6 Park and Rides

Although park and ride facilities require the end user to operate a vehicle, it does offer those commuters the means to meet and rideshare/ carpool for longer distance trips or for future transit riders to access transit service thereby reducing the cost of extending service lines to more remote areas of the municipality.

The municipality should continue to collaborate with the county to find ways to increase rideshare/ carpool and transit service opportunities (as discussed in the previous sections) and as demand grows, investigate opportunities to provide more park and ride locations to support these offerings and along potential future transit stops. In terms of transit operations, the benefit of a park and ride facility is they artificially increase the density by capturing larger numbers of commuters at a single stop.

As previously shown in Figure 43, there are park and ride facilities located within 15- to 25-minute drive of Almonte, but none currently within the Almonte boundaries. The municipality should consider a strategically placed park and ride in Almonte to extend the reach of these services to passengers/ riders from across the municipality and county. Underutilized public parking lots within Almonte may be considered, or leasing agreements with larger private parking lots – but the important factor is it is located in close proximity of the transit stop (particularly for accessible considerations).

5.3.7 Transit Facilities and Access

A critical element to transit service is the supporting infrastructure, such as transit stop benches, staging area, shelters etc. If or when transit service returns to the municipality (such as the potential expansion of the Ride the LT service into

Almonte), it will be important to ensure all existing and future transit stops should also be directly connected to the pedestrian network, meet accessible design standards (AODA), provide adequate shelter, and be properly maintained for all seasons. These requirements would extend to all future developments, ensuring they eliminate barriers to access municipal transit infrastructure in the development plan.

5.4 Summary of Recommendations

The reality of providing a local transit system within the municipality is likely out of reach based on the geographic and economic challenges, particularly in the aftermath of the COVID-19 pandemic. The disadvantage of a large service area the size of the municipality makes the provision of more specialized forms of transit more costly, because it can result in longer average trip lengths to serve door-to-door trips; however, the door will always be open to revisit this option, as the municipality grows and matures, population density and employment increases, and as stakeholder input, political will, and funding opportunities arise in the fullness of time. The feasibility of a transit system that spans adjacent municipalities can be realized. An example to aspire to is the Township of Russell commuter service, “Russell Transpo” that has had success operating an affordable commuter transit service to the City of Ottawa, previously discussed in **Section 5.2**).

A common topic for rural transportation or transportation in smaller municipalities is facilitating a **service to people rather than a people to service** approach by providing smaller ‘feeder services’ that connect the outskirts to more populated centres and higher order transit systems (typically the traditional fixed route systems). Feeder services can also take advantage of lower startup and operating costs, and act as pilot programs using more contemporary and innovative approaches such as demand responsive transit, rideshare/ carpool services, or other private service providers (e.g. UBER) thereby reducing risks. For instance, the Ride the LT service operated by Lanark Transportation is unique as it has both on-demand options, but still provides a limited fixed schedule service to the main urban centres in the county. Another possibility if there is sufficient demand to support it is providing specific chartered shuttle service between institutional campuses (e.g. Algonquin College Ottawa Campus to Perth Campus) with stops enroute in Almonte and other key areas, akin to the service provided by Carebridge Community Support for the elderly and people with disabilities.

Eventually, these feeder services could link with the established transit systems, such as a resurrected daily commuter transit service to Ottawa, or hypothetical County of Lanark Corridor Loop or County of Lanark-OC Transpo partnered service. In the meantime, the municipality should remain committed to supporting the revival long-distance commuter transit service, local services (e.g., Ride the LT service from Lanark Transportation and Carebridge), and established ridesharing/ carpool programs such as Community Carpool (operated by Frontenac Transportation). Demand for these services, particularly for intra-county trips including appointments, shopping, hospital visits and other regular needs among the most vulnerable users, which has started to return to pre-pandemic levels.³⁴ Chief among these services is to extend transit service into Mississippi Mills settlement areas such as Almonte and Pakenham, for which initial discussions have already taken place. The municipality must look for innovative ways to improve the quality of service and as important, facilities and access to future service, which all help maintain and grow ridership over time. A summary of key transit and ridesharing recommendations is as follows:

³⁴<https://www.toronto.com/news-story/10187552-lanark-transportation-may-have-to-return-mesh-trips-as-demand-returns-to-pre-pandemic-levels/>. Date Accessed: 2023-11-03.

- As the transit landscape evolves after COVID-19, it will be essential for the municipality to be proactive and leverage opportunities to support and promote more affordable options for its residents. The municipality may consider developing on its own or in collaboration with adjacent municipalities a transit feasibility study to assess in detail the type of transit service(s) would best suit the municipality and how much it may cost. Any future transit decisions should always be made with the lens of equity and inclusivity – targeting users with the greatest need and would benefit most from future services, such as seniors and low-income families.
- Engage or continue engagement with OC Transpo, Lanark Transportation, and private transit operators (e.g., Leduc Bus Lines Ltd.) to revive commuter transit between the City of Ottawa and the various municipalities in the county. If a future commuter transit service becomes a reality, the municipality should focus on the following:
 - Extend transit service into Almonte with sufficient stops to capture most households within reasonable walking distance.
 - At minimum, the service route should have a final stop at Moodie LRT Station in Ottawa, which is the western-most station of the Stage 2 Confederation West LRT line, but strive to extend the route to downtown Ottawa, if possible, to reduce the number of transfers.
 - Consider a 2- or 3-weekday schedule to start, aligning with the peak travel days to Ottawa, so to maximize ridership and reduce operating costs.
 - Consider a park and ride lot in Almonte on the west side of the Mississippi River, preferably near or along the proposed south road corridor to extend the capture area of the future transit service. The preferred location should attempt to reduce vehicle travel into or through downtown Almonte.
- Continue engagement with Lanark County and/ or Lanark Transportation (LT) to:
 - Expand the Ride the LT service into Almonte.
 - Investigate and support future opportunities to expand Ride the LT service if demand warrants it, such as Pakenham or any future growth areas in the municipality.
 - Collaborate with LT service for major/ special events in the municipality; strive to make transit a viable option by prioritizing it over single-occupant vehicles.
 - Support the LT on-demand service and look for opportunities to expand it for the most vulnerable users.
- Incorporate the carpool, rideshare and commuter transit supporting policies and measures:
 - Provide the appropriate transit supporting infrastructure at all bus stop locations that meet contemporary design standards (e.g., AODA). Furthermore, ensure all bus stops are connected to the municipal sidewalk network, and connecting sidewalks are maintained year-round.
 - Engage with Lanark County to create new carpool focused park and ride facilities.
 - Continue pursuit of opportunities to increase rideshare and carpool options and access for residents.
 - Investigate options to promote and incentivize municipal employees and the local business community to increase carpool, rideshare and transit ridership, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Ensure all future developments and capital projects in Almonte consider carpool, rideshare, and transit supportive infrastructure or measures, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Consider specialized transit-oriented development policies and measures in the “Downtown District” (as discussed in **Section 3.8.1**) that support transit use, such as designated shuttle pickup/ drop off areas in lieu of on-street parking during special events, reduce parking minimums for medium density developments, or other strategies and measures. Refer to the TDM Strategy in **Section 6.4** for further details.

6.0 SUPPORTING POLICIES AND STRATEGIES

Infrastructure investment alone is often insufficient to make lasting positive improvements to people's travel experience; there must be a coordinated effort at all levels, including how high-level policies are written, whether new procedures or standards are required, and the types of strategies or programs needed to support the various infrastructure plans. New policy suggestions and policy amendments have already been discussed in this TMP that support the various infrastructure plans; the following section outlines other policies and strategies the municipality should consider to help achieve the TMP vision and objectives.



6.1 Equity and Inclusivity

Equitable and inclusive transportation aims to provide people with the ability to complete trips comfortably, safely, with dignity, and in a reasonable time, whether they own a vehicle or not. Achieving an equitable and inclusive transportation network requires the following:

- Transportation that is safe and secure for all people.
- Equitable distribution of benefits and costs resulting from transportation decisions.
- All people can access the opportunities that would enable them to effectively participate in society³⁵.

In terms of safety, a Canadian study investigating the average amount of people killed or seriously injured in a motor vehicle collision, per 10,000 by age between 2013 and 2023 found that in a motor vehicle collision:

- Pedestrians were 100 times more likely than motor vehicle users to be killed or seriously injured, and
- Compared to pedestrian adults, seniors are almost twice as likely to be killed or seriously injured³⁶.

The following are suggested policies and action items the municipality may consider adopting in recognition of the importance of equity and inclusivity in transportation.

- Apply an “equity lens” to transit and transportation planning.
- Promote healthy communities through transportation planning.
- Design streets for all people including equity-deserving groups.
- Continue to pursue affordable housing near transit stations and along major corridors with frequent transit routes.
- Investigate shuttle program to assist vulnerable user groups in reaching key destinations and amenities.

6.2 Treaty and Indigenous Rights Holders Considerations

Consultations with the Indigenous groups were conducted by Municipal Staff and included information packages, follow up emails and meetings. As a result of the consultation in the creation, it was recommended that Indigenous Groups be referred to as Treaty and Indigenous Rights Holders, and that the following policies be included in the Transportation Master Plan:

³⁵ Ministry of Transportation. (2024, May 30). *Transportation Planning in Ontario through the Lens of Equity: System Planning Office, User Policy Office Ontario Ministry of Transportation*. [PowerPoint Slides]. TAC Symposium on Equity in Transportation, Transportation Association of Canada.

³⁶ Hoxha, L. (2024, May 30). *Equity Audit Analyses of Transportation Capital Programs: Case Study: Local Geometric Safety Improvements (LGSi) Program*. [PowerPoint Slides]. TAC Symposium on Equity in Transportation, Transportation Association of Canada.

- “The Municipality will consult with Treaty and inherent Indigenous rights holders in preparation of capital Municipal infrastructure construction and maintenance projects. Consultations shall occur at an early stage to allow substantial time for meaningful communications. The Municipality shall engage in consultation which includes the identification of culturally significant land and traditional harvesting areas as well as preferred archaeological practices and procedures and receiving knowledge on archaeological significant areas”; and
- “The Municipality shall complete archeological studies for all land disruptive projects, including projects that are not identified by legislation or regulation as needing archaeological studies or lands deemed to be heavily disturbed and possibly exempt from study. Land disruptive projects, initiated by the Municipality, within 300m of a water body will include a Stage 2 Archeological Assessment.”

Indigenous Groups shall be referred to as “Treaty and Inherent Indigenous Rights Holders” within the Transportation Master Plan and incorporate the requested policies relating to treaty and inherent Indigenous rights holders’ consultation, culturally significant land protections, and archeological practices and procedures.

6.3 Road Safety

This section will provide guidance on specific road safety measures within the municipality. These measures are meant to supplement the Active Transportation Strategy, and the complete streets approach previously discussed in **Section 3.0** and **Section 4.2** respectively.



6.3.1 Governing Road Safety Policies

In reviewing different road safety policies and programs in Ontario and worldwide, Road Safety Plans emerge as the foremost contemporary approach to road safety intervention. These plans have various titles or monikers, such as Road Safety Strategy or “Vision Zero”, but they have a singular focus: to **eliminate all deaths and serious injuries on roads** through education, enforcement, engineering, evaluation, and engagement. This approach is embedded within Canada's Road Safety Strategy 2025 (“Towards Zero”) and has been adopted by many Canadian municipalities.

Safety policies typically include the goal of zero fatal and serious injury collisions by a specific timeframe, through which a detailed Action Plan lays out specific steps, timelines, and priorities to achieve this goal. The development of an Action Plan requires recommendations to be based on a solid understanding of fatal and serious injury collisions within a jurisdiction, thus a robust database, in addition to input from the broader community and stakeholders is essential. Important themes often include Safe Speeds, Safe Vehicles, Safe Roads, and Safe Drivers.

This TMP recognizes the importance of these principles in the planning and design of the future transportation system in the municipality, particularly as they relate to **safe speeds** and **safe roads**, which is the focus of the following sections. As the municipality grows and conditions warrant it, a comprehensive Road Safety Plan (or “Vision Zero” equivalent policy) that expands on the topics identified in this TMP should be considered and supported by an expanded data set, such as detailed collision reports from the Ontario Provincial Police (OPP).

The municipality may consider developing, in the fullness of time, a comprehensive Road Safety Plan (or a “Vision Zero” equivalent policy) that builds upon recommendations in this TMP, including additional policies, programs, and guidelines to reduce road fatalities and serious injuries in the municipality.

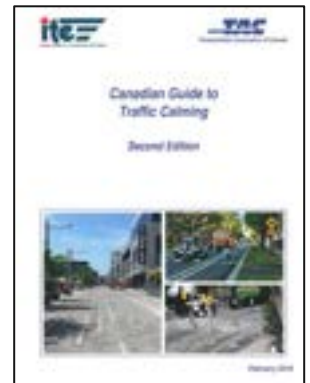
6.3.2 Traffic Calming and Speed Management Policies

“Traffic calming” is a colloquial term for the process of matching driver behaviour to the road environment through a combination of roadway design features, especially relating to the reduction of vehicle speeds to improve safety for all road users.

Transportation Association of Canada

The *TAC Canadian Guide to Traffic Calming* (2018) is a detailed reference document that provides guidance for when, where, why, and how to plan, implement and maintain roadway traffic calming measures in various contexts. The purpose of the guide is to reinforce consistency in traffic calming principles/ application across Canada, but local jurisdictions are given leeway to adapt the guide to best reflect local characteristics and conditions unique to their area. The reference also includes a detailed “toolkit” of measures, where the advantages, disadvantages and general costs are provided.

This document is an important reference used by many municipalities to develop municipal speed management and traffic calming policies.



Lanark County

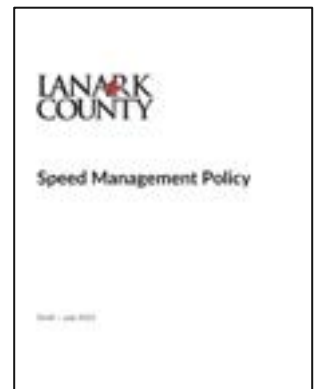
In 2023, Lanark County developed a draft speed management policy to “support the municipality in identifying locations experiencing excessive speeding by motor vehicle drivers and provide guidance on the application of speed management measures, including speed limit changes and traffic calming initiatives.”³⁷ Additionally, this policy “incorporates best practices in speed management (including traffic calming) with local context to provide an appropriate, efficient, and flexible framework for addressing speed and traffic-related inquiries received by the County.”

This policy is comprehensive and is an ideal reference for the municipality to base a future update to their own speed management policy (discussed further below). It provides the regulatory framework for speed limits, guidance in determining appropriate posted speed limits on both urban and rural county roads, it develops a speed management program that outlines a process to review public requests for speed management measures, as well as tools that the county may choose to respond to these requests. In the end, the goal is to “promote consistency in the application of speed limits, reduce the variation between operating speeds and posted limits, and provide a structured process for considering changes to the roadway environment to promote speed limit compliance.”

The policy also includes costs for various traffic calming measures, as well as applicability along different road contexts, much like the corresponding TAC guidelines.

Mississippi Mills

The municipality has a *Policy for Traffic Calming and Speed Management on Municipal Roads* adopted by Council in 2010. It includes a general framework that centres upon three stages: Initiation, Evaluation, and Implementation, to



³⁷ Lanark County, Speed Management Policy – Draft, Lanark County, ON, 2023

respond to concerns raised by the public (designated the “initiator”). There is also a requirement for “close communication between all stakeholders and the municipality” to resolve issues to the satisfaction of all involved.³⁸

The initiation stage involves validating the public concern through data collection and a preliminary assessment using two “warrant” procedures, one related to safety and the other technical requirements. In addition to these warrants, “consideration is also be given to volume of pedestrian and cyclist traffic, as well as other safety concerns.” If either warrant is triggered, the process advances to evaluation, otherwise the initiator will be informed the concern does not meet the criteria for intervention.

The evaluation stage involves the municipality collecting new data at the identified problem location(s) and engaging with police to ascertain if there is a history of aggressive or erratic driving behaviour in the area. The key criteria to be met in the evaluation is the **85th percentile speed**; and if the following thresholds are met, a staff report will be presented to Council recommending the initiation of a traffic calming study:

- Posted speed is less than 80 km/h and the 85th percentile speed is 15 km/h over the posted speed limit, or
- Posted speed is 80 km/h and the 85th percentile speed is 20 km/h over the posted speed limit.

The final stage, implementation, involves the development of the traffic calming study and implementation of any interventions, whether physical or non-physical measures. The plan provides a list of applicable traffic calming measures that may be considered in the municipality.

The key step at this stage is a household survey circulated directly to those affected within the area of concern, and before an implementation plan can proceed, two criteria must be met:

- A survey response rate of at least 50 + 1% of all affected households; and,
- The survey results must show at least 50 + 1% of responded are in favour of the plan.

In 2023, a staff report titled “*Traffic Calming and Public Safety Review and Options*” was presented and adopted by the Committee of the Whole. The report documented the status of road safety policy and highlighted the need to provide additional considerations for speed management and traffic calming in the municipality, in light of growing public concerns.³⁹ This report puts forward a number of traffic calming measures for approval by Council to provide staff with the means to respond accordingly to public concerns with road safety. The measures are stratified into four different focus areas:

1. Traffic-light-controlled intersections
2. Community Safety Zones
3. Urban Residential Traffic Calming
4. Traffic Calming on Rural Gravel Roads

The collection of measures includes both physical (road narrowings and gateway features etc.) and non-physical (speed limit reductions and introducing community safety zones etc.); and some measures that reflect contemporary accessibility requirements (accessible pedestrian signals and push buttons etc.). The benefits and disbenefits of various types of physical traffic calming measures can be found in either the county’s draft policy or the TAC guideline.

³⁸ Council Resolution, Policy for Traffic Calming and Speed Management on Municipal Roads, Mississippi Mills, ON, February 16, 2010.

³⁹ Mississippi Mills, Staff Report: Traffic Calming and Public Safety Review and Options, Mississippi Mills, ON, 2023

Needs and Opportunities

The preceding policies provide an excellent foundation for a speed management policy but lacks more recent innovations and best practices that have emerged in these fields. In addition to the TAC Traffic Calming Guide (2018) and county draft policy (2023), there are additional supplementary guides released after the 2010 municipal policy that can also help inform speed management and traffic calming policies, including:

- TAC: Speed Management Guide, (2016)
- TAC: Geometric Design Guide for Canadian Roads, (2017)
- Ontario Traffic Manual (OTM) Book 5: Regulatory Signs (2021)

Updating the 2010 municipal policy will ensure there is consistency in the application of traffic calming throughout the municipality.

The municipality should build upon the Traffic Calming and Public Safety Review and Options staff report and prepare a comprehensive update to the Policy for Traffic Calming and Speed Management (2010) that aligns with the draft Lanark County Speed Management Policy (2023) and current industry best practices, such as the TAC: Canadian Guide to Traffic Calming (2018).

6.3.3 Specific Issues

What We Heard

The consultation process, including the online community survey and two rounds of public and stakeholder engagement, yielded the following key themes as it relates to road safety in the municipality.

- General concern with vehicle speeding throughout the municipality, particularly on the following roads:
 - Almonte: Robert Street, Malcolm Street, Paterson Street, Honeyborne Street, Queen Street, Bridge Street, Ottawa Street, Main Street and Almonte Street.
 - Rural roads: Clayton Road, Ramsay Concession 8, and Country Street.
- Desire for lower speed limits (such as considering 40 km/h zones on interior streets) and increased enforcement.
- Desire for traffic calming measures on main streets through rural settlement areas, such as speed indicator signs at the entrance to Clayton and Pakenham.

Review of Recorded Speed Data

Mississippi Mills and Lanark County provided historic speed data for various roads within the municipality. Roads that have received speeding concerns were reviewed, specifically the 85th percentile speeds in comparison to the posted speed limit. Based on the data, the 85th percentile vehicle travel speeds at counted locations were found to exceed the posted speed limit on Clayton Road, Ottawa Street, Almonte Street, and some sections of Ramsay Concession 8. All remaining areas of concern showed 85th percentiles speeds within the posted speed limit. It is important to note that in some cases the data used in this analysis are years old and represent limited sample size – further investigations with up-to-date information are needed to validate these public concerns.

There is, however, sufficient supporting data to recommend the municipality collect new data along these corridors (including vehicle speeds, vehicle traffic volumes and collision data from the provincial police - OPP), and follow the procedures outlined in municipal and county speed management policies to review the need for mitigation and identify the appropriate interventions if the findings herein are validated.

The municipality should collect new speed data along Clayton Road, Ottawa Street, Almonte Street and Ramsay Concession 8 to validate public concerns and respond accordingly, following the procedures outlined in municipal and county speed management policies.

Rural Traffic Calming

The application of traffic calming in rural municipalities has advanced in recent years, reflecting the importance of managing safety in rural areas. According to a national road safety study commissioned by Transport Canada, “between 2011 and 2020, single-vehicle collisions made up roughly 51% of all fatal collisions...around 65% of fatal collisions happened on rural roads.”⁴⁰

Based on feedback received during the consultation process and review of existing policies previously discussed, there are some important themes and areas of concern the municipality should be aware of as it responds to future public concerns in the rural areas and villages.

- The municipality has a capable data collection program that can gather vehicle traffic and speed data along road corridors. These tools should be used to validate public speeding concerns, as part of the response process outlined in the county speed management policy.
- The speed “transition zone” between a rural and urban context can, without proper design, be particularly vulnerable to traffic safety concerns. Vehicles travelling at speeds which are appropriate for the rural context (i.e. > 80 km/h) may instinctively carry that speed through the transition zone into the urban context, before becoming aware of the need to slow down. Several measures can help signal this change in context earlier:
 - Surface treatments (transverse rumble strips)
 - Pavement markings (speed limit change ahead)
 - Signage or speed-feedback devices
- The county speed management toolbox contains extensive guidance on the appropriate usage of various measures which could be applied as “gateway” features for speed transition zones.
- Identify and target vulnerable rural “transition zones” (where a road transitions from a fully rural context to the context of a settlement area) for enhanced traffic calming, particularly “gateway features” that emphasize to the driver the change in setting, following best practice as defined by the Lanark speed management policy or other relevant guidelines. Some possible candidate locations include:
 - Martin Street N / County Road 17 (north of Carss & south of Rosebank)
 - Country Street (south of Ann)
 - Old Almonte Road (south of Jack Dalgity)
 - Blakeney Road / County Road 17 (east of Martin)
 - Wilson Street (south of Snedden)
 - River Road (north of Hilcrest & south of Hill)
 - County Road 29 (both sides of Pakenham)
 - Waba Road (west of Ottawa Valley Recreation Trail)

⁴⁰ Ministry of Transport, Road Safety in Canada 2020, Ottawa, ON, 2022

The municipality should consider rural traffic calming measures in “transition zones” and other areas of concern following current municipal policy and supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

The municipality should engage Lanark County to review speed management and traffic calming options along county roads within settlement areas, such as County Road 29 within Pakenham, applying the processes outlined in the Lanark County Speed Management Policy (2023).

Community and Stakeholder Feedback Process

A critical element in the speed management and traffic calming process is engagement with the relevant public and stakeholders (such as the community potentially affected by interventions, Lanark County if area of concern overlaps with county roads and relevant municipal departments). Oftentimes, there will be competing priorities and interests when considering the implications of speed management and traffic calming measures, for example, one of the more effective means of reducing speeds along an urban corridor is vertical deflection measures (e.g., speed humps) but these have significant implications to emergency service vehicles where time is of the essence in saving lives.

The municipality’s 2010 speed management and traffic calming guideline outline a general framework for evaluating and engaging the public and stakeholders but lacks specificity. A more comprehensive community engagement process is outlined in both the county policy and the TAC guidelines, which should be adopted when considering what type of traffic calming measure(s) are considered in response to a validated public concern.

Public and stakeholder engagement is essential before any speed management or traffic calming measures are implemented; the established processes in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018) should be incorporated into municipal policy.

Reducing Operating Speed

A common request heard throughout the TMP consultation process when discussing safety is reducing posted speed limits in the municipality. The current default speed limit on all municipal roads is set to 50 km/h based on the Highway Traffic Act. The current practice is to respond to public road safety concerns as they arise, applying the 2010 Traffic Calming and Speed Management policy (supplemented by the 2023 Traffic Calming and Public Safety Review and Options staff report).

Contemporary best practice for urban speed management is to be more proactive where possible. For example, on December 11, 2019, Ottawa City Council approved a Strategic Road Safety Action Plan update that established: “all new local residential streets, constructed within new developments, or when reconstruction occurs on local residential streets, be designed for a 30 km/h operating speed.” This Council decision led to the creation of various supporting design guidelines targeting vehicle operating speeds and safety on residential local roads, such as the city’s Local Residential Streets 30 km/h Design Toolbox (refer to the complete streets discussion in **Section 4.2.2** for further detail about this policy).

The subsequent update to design guidelines is a critical component to the overall policy since research has shown that **posted speed limit signage alone has limited real impacts on driver behaviour without regular enforcement and/ or other**

physical features to support the lower speed limit.^{41 42} Making changes to the roadway design, such as implementing traffic calming measures, is thus necessary to achieve sustained benefit if reduced speed limits are to be applied.

The recent municipal staff report regarding traffic calming and public safety echoed the importance and need for better tools within the municipal traffic calming program, and the opportunity is ripe for the municipality to consider more proactive approaches to address road safety concerns. There are also financial and resource implications to adopting more aggressive speed management and traffic calming policies, such as additional equipment, signage, and maintenance. It will be important for the municipality to balance the public need with financial sustainability.

The municipality may consider a [reduced target operating speed on urban local roads](#) if there is data-driven evidence of systemic road safety concerns related to speeding on urban local roads in the municipality, sufficient public and community support, buy-in by relevant municipal departments, and general acceptance by external stakeholders to initiate such a policy. If approved, updated municipal road design guidelines would be required, such as the City of Ottawa 30 km/h Design Toolbox, that identifies approved traffic calming measures to support the target operating speed on urban local roads, which would become the standard for all future local road projects by the municipality as well as in new developments. Applicants would be required to assess and design all urban local roads in accordance with this policy. This holistic approach to managing vehicle speeds ensures there is more consistency of road attributes within the municipality and is more likely to ensure compliance.

An alternative to a universal reduced target operating speed is to assess and identify candidate neighbourhoods within the municipality for speed limit reductions, designated “Neighbourhood Speed Zones” as part of an update to the 2010 Traffic Calming and Speed Management policy by adapting the evaluation and decision-making process outlined in the corresponding county policy and/ or TAC guideline. This policy would also be supplemented by updated design guidelines that feature approved traffic calming measures and would be applied to future growth areas within the neighbourhood, where applicable.

The municipality should consider a reduced target operating speed policy on municipal urban local roads (such as 40 km/h) if there is data-driven evidence vetted by relevant municipal departments, broader stakeholder acceptance, and sufficient community and public support.

Alternatively, the municipality may consider identifying candidate neighbourhoods for reduced operating speed limits and approved traffic calming measures, designated “Neighbourhood Speed Zones,” using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

School Zones and Community Safety Zones

Under the Highway Traffic Act, the municipality has the authority to designate two types of “zones” for heightened safety and enforcement emphasis, including:

⁴¹ Effects of raising and lowering speed limits on selected roadway sections, FHWA, Publication No. FHWA-RD-9 7-084, Jan 1997.

⁴² Mannering, F. (2009). An empirical analysis of driver perceptions of the relationship between speed limits and safety. Transportation Research Part F: Traffic Psychology and Behaviour, 12(2), 99-106.

- **School Zones** indicates to motorists that they should reduce their speeds at certain times because they are entering an area where school children are present; and
- **Community Safety Zones (CSZ)** inform drivers they are entering an area the community has deemed paramount to the safety of its children/citizens. These sections of roadway are typically near schools, day care centres, playgrounds, parks, hospitals, senior citizen residences and may also be used for collision-prone areas within a community. Traffic-related offences committed within these zones are subject to increased fines through a special designation under the Highway Traffic Act. The CSZ warrant comprises the following four justifications:
 - Areas of Special Consideration (areas around sensitive uses such as schools, seniors' residences, playgrounds, and parks, etc.)
 - Identified Safety Concern (based on collision history and risk assessment)
 - Locations where other applicable measures were not successful (i.e. continued underperformance of a road segment following implementation of other traffic calming interventions)
 - Ability to enforce (i.e. resources are available, CSZ is of a manageable size)



6.3.4 Recommendations

The following summary of key recommendations for the municipality that are intended to enhance and support safety in the transportation system for existing and future residents:

- Consider developing in the fullness of time, a comprehensive Road Safety Plan (or a “Vision Zero” equivalent policy) that builds upon recommendations in this TMP, including additional policies, programs, and guidelines to reduce road fatalities and serious injuries in the municipality.
- Build upon the Traffic Calming and Public Safety Review and Options staff report and prepare a comprehensive update to the Policy for Traffic Calming and Speed Management (2010) that aligns with the draft Lanark County Speed Management Policy (2023) and current industry best practices, such as the TAC: Canadian Guide to Traffic Calming (2018).
- Public and stakeholder engagement is essential before any speed management or traffic calming measures are implemented; the established consultation processes in the draft Lanark County Speed Management Policy (2023) or TAC: Canadian Guide to Traffic Calming (2018) should be incorporated into municipal policy.
- Collect new speed data along Clayton Road, Ottawa Street, Almonte Street and Ramsay Concession 8 to validate public concerns and respond accordingly, following the procedures outlined in municipal and county speed management policies.
- Investigate potential for rural traffic calming measures in “transition zones” (defined in **Section 6.3.3**) using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018), in collaboration with Lanark County where appropriate.
- Engage Lanark County to review speed management and traffic calming options along county roads within settlement areas, such as County Road 29 within Pakenham, applying the processes outlined in the Lanark County Speed Management Policy (2023).
- Consider a reduced target operating speed policy of 40 km/h on all municipal urban local roads if there is data-driven evidence vetted by relevant municipal departments, broader stakeholder acceptance, and sufficient community and public support.
- Alternatively, consider identifying candidate neighbourhoods for reduced operating speed limits and approved traffic calming measures, designated “Neighbourhood Speed Zones,” using current policy supplemented by

processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

6.4 Transportation Demand Management

Transportation Demand Management (TDM) refers to an approach and philosophy that focuses on creating a more sustainable transportation system – with a specific objective of reducing single occupant vehicle trips (SOV). TDM has a wide lens that includes transportation planning and design elements.

There generally three approaches to addressing SOV trips: 1. Removing Trips, 2. Reducing Trips, or 3. Shifting Trips.

Removing trips eliminates the need for the trip at all. For example, working from home can greatly reduce the vehicle kilometres travelled.

Reducing trips means converting a personal vehicle trip to a sustainable mode of travel. For example, people taking transit or cycling in lieu of a car, this is the most common form of TDM.

Shifting trips aims to shift vehicle trips away from peak times to non-peak times, to reduce the stress on the road network during the peak periods that may offset costly infrastructure investments.

There are many aspects of a TDM strategy that will vary based on the size, scale, and complexity of the municipal transportation system. The following section will provide some a preliminary framework that fits within the Mississippi Mills context. In time and with continued growth, the municipality may consider commissioning a TDM specific study that will outline a comprehensive program to expand upon the TDM framework developed herein.

6.4.1 Needs and Opportunities

There are a wide range of benefits from adopting TDM, including:

- **It reduces traffic congestion** - and in turn reduces greenhouse gas emissions that contribute to climate change. TDM synergizes with the 2023 Lanark County Climate Action Plan (refer to **Section 6.7** for more information).
- It promotes healthy lifestyles, which leads to more active and vibrant communities.
- **It is financially sustainable** – expanding road infrastructure is extremely costly to build and maintain compared to active transportation facilities.
- **It is environmentally sustainable** – expanding road infrastructure can cause significant disruptions to the natural environment and local ecosystems.

With recent changes in the work-from-home landscape, there is a strong desire amongst residents to commute less and choose employment opportunities closer to home or are accessible by more affordable means. TDM will be integral to incentivize and leveraging the evolving choices of where people work.

6.4.2 TDM Toolbox

Before considering specific TDM measures, the municipality would first need to commit to sustainable infrastructure and policies, otherwise the effectiveness of any TDM measures will be limited, such as:



1. Implement the Active Transportation Strategy as well as adopting all the active transportation supporting policies, such as the complete streets approach.
2. Implement the Transit Strategy; be prepared to leverage opportunities to incentivize transit or ridesharing/ carpooling if/ when transit service returns to the municipality.
3. Adopt land-use policies to encourage more mixed-use development and higher density, in addition to policies to strengthen requirements for sustainable policies for new developments within the development review process (such as requiring permeability and connectivity of active transportation facilities, following complete streets approach to road design in new subdivisions etc.).

Table 29 outlines some opportunities the municipality may consider that will leverage the recommended investments in sustainable infrastructure (such as the Active Transportation Strategy outlined in **Section 3.0**). In time, the municipality may consider developing its own TDM Plan that offers a broader, more focused range of options in the long-term that balances the use of its transportation infrastructure for all users. The TDM program would be adopted through policy included in the Official Plan. It may be supplemented with guidance and/ or policy supporting TDM initiatives in secondary plans, public health initiatives, active transportation plans, transit plans, etc.

The municipality should investigate the initiatives outlined in the TDM Toolbox (Table 29) to leverage investments in active transportation and a potential future with a return of transit service to the municipality.

Table 29: Transportation Demand Management Toolbox

Measure	Description	Barriers to Implementation
Marketing and Outreach	<p>Marketing is needed to educate residents and increase awareness of travel choices.</p> <ul style="list-style-type: none"> Consider using social media to promote national initiatives such as “The Commuter Challenge” (www.commuterchallenge.ca), “Walk to School” (www.saferoutestoschool.ca) and “Bike to Work” (www.smartcommute.ca). Consider public awareness programs such as that provided by Share the Road (www.sharetheroad.ca). Leverage social media and online resources to provide updates and information on new pedestrian and cycling infrastructure as improvements are made. 	Low
TDM in Development Site Design	<p>As previously discussed in the Active Transportation and Transit and Ridesharing Strategies, it is crucial that all future development sites are designed with all users in mind, particularly the most vulnerable. Ensure recommendations relating to active transportation connectivity and permeability, accessibility, transit access and transit supporting facilities/ amenities are all integrated and considered in the development review process for all future development and re-development applications.</p>	Low
Ridesharing and Carpooling	<p>Ridesharing (or carpooling) encourages residents to drive together to work/ school, increasing the average vehicle occupancy and reducing traffic congestion. Ride-share programs have the potential to greatly increase the convenience of ridesharing as they provide a convenient way for users to connect and find rideshare/carpool/vanpool partners; however, there will need to be a high user rate for these programs to be useful.</p> <p>Lanark County recently joined the Rural Frontenac Community Services <i>Community Carpool</i> Program, which is a volunteer program that also includes the counties of Frontenac and Lennox and Addington. The municipality should build upon this momentum by actively promoting this program through all outlets where possible. Additional considerations include:</p> <ul style="list-style-type: none"> Consider promoting other ride-share programs to help connect passengers and drivers (e.g. Carpoolworld.com, RideShare.com or RideShark.com). Engage with “Community Ride Share Connection Lanark County” on Facebook or other regional offerings to increase adoption. Work with Lanark County to expand the number of park and ride lots tailored for ridesharing and carpooling in the municipality. Consider carpool priority parking spaces in all municipal lots. 	Low to Medium
Active and Safe Routes to School Programs	<p>Active and Safe Routes to School is a nationwide program that encourages walking and cycling to and from school. One of the recommendations of the County of Lanark TMP was to develop an Active and Safe Routes to School program in both Almonte and Pakenham.</p> <ul style="list-style-type: none"> Liaise with the County to implement the Active and Safe Routes to School program within Almonte and Pakenham. Prioritize the implementation of sidewalks and other safety measures in and around schools, as appropriate. This may include prioritizing linking sidewalk gaps around schools should funding become available, prohibiting parking, or hiring school crossing guards. 	Medium
TDM Coordinator Position	<p>Should the municipality have an interest in implementing their own curated TDM program, there would need to be a central coordination point for the TDM Program. A part-time Transportation Coordinator (working 3-days a week) would liaise with relevant staff department directors, establish a TDM budget, manage and collect relevant data including staff or public surveys, manage incentives, and monitor and evaluate impacts of the program. This position can be integrated with an existing staff position but is integral to the success of any TDM program.</p>	Medium to High
Special Event Transportation Management and Workplace Programs	<p>TDM is often most effective when targeted at specific areas, such as special events or the workplace.</p> <ul style="list-style-type: none"> Consider encouraging the use of alternative modes of transportation to concerts, festivals, and other special events. For example, the municipality may provide a bike valet service, priority carpool parking, or special transit shuttles. Consider working with large employers to implement TDM program in the workplace, for example, by allowing flexible working hours, allowing employees to work from home (telework), or providing bicycle racks and change rooms for employees who commute by active modes. 	Low to Medium

Measure	Description	Barriers to Implementation
<p>Implementation of TDM in the Development Application Process</p>	<p>Implementing TDM in the land development and approvals process is an important factor in realizing the full benefits of TDM.</p> <ul style="list-style-type: none"> Consider including TDM in the development application review process through a policy that requires specific developments to identify TDM supportive measures they are committed to. Consider a policy that requires larger businesses to provide cycling supportive facilities, e.g. safe indoor parking and storage, easy access bike stalls, lockers, e-bike/ scooter charging, showers, change rooms, and a repair station. Adopt the TDM policies within the Official Plan and Zoning By-Law. <p>The City of Ottawa TDM Policy, which includes a TDM Checklist is an excellent guide to adapt to MM as part of the development application process.</p>	<p>Low to Medium</p>
<p>Bikeshare and e-Scooter-share Programs</p>	<p>Bikeshare and e-scooter-share programs provide a service in which bikes or electric scooters (e-scooters) are made available to users for short-term rentals. A program with stations available at different locations throughout the municipality would provide an alternative option for local mobility within the municipality and help reduce traffic congestion. It is also noted that e-scooter sharing has gained noted popularity in recent years, such as in the City of Ottawa.</p> <p>Bikeshare programs are less common but are becoming increasingly popular in the wake of COVID-19. Mississippi Mills loans out bikes during the summer season from the Almonte Old Town Hall location for visitors and residents to use. The Town of Carleton Place recently revitalized their own bike share program that includes 4 new bikes located at Carleton Place & District Chamber of Commerce office, available to anyone for a flat fee.⁴³ E-scooters have been allowed on Ontario roads as a pilot project since January 1, 2020. Municipalities that wish to allow e-scooters on their roads, must first pass a by-law. A framework for such municipalities is available on the Ontario Ministry of Transportation website.</p> <ul style="list-style-type: none"> Consider expanding the current bikeshare program to Pakenham. Consider commissioning a study to assess the potential viability of an expanded bike-share or e-scooter program from a regional context – where bikes can be shared across the county. The program would involve partnerships with the County and other municipalities (e.g. Perth or Smiths Falls). If an e-scooter-sharing program is deemed viable, the municipality may consider allowing e-scooters on multi-use pathways in addition to roadways and the OVRT. If the municipality wishes to proceed further with an e-scooter-sharing program, a potential service provider that the municipality may consider is Bird Canada. This provider is currently in use by several other Canadian cities including the City of Ottawa. 	<p>Medium to High</p>
<p>Priority Carpool Parking</p>	<p>The municipality may consider dedicated parking spots that are reserved only for carpools and vanpools that will prioritize these modes over single-occupant car trips. This may be implemented in all staff parking lots, and designated spaces should be clearly marked with signage in the parking lots or through a priority reservation system. Allocating, enforcing and potentially cost-splitting carpool parking can be challenging, so beginning with a small number of spaces and gradually increasing as the tracking system is developed is recommended.</p>	<p>High</p>
<p>Support Work from Home or Flexible Operations</p>	<p>The municipality should consider supporting all initiatives that encourage working from home amongst its staff, this expands to various areas such as incentives, equipment, viable home internet speeds and infrastructure. For those that must commute by personal vehicle, the municipality may consider flexible operations or hours, such that trips or shifts do not all start and end at the same time, which puts greater stress on the road network.</p>	<p>Medium to High</p>
<p>Strategic Parking Pricing</p>	<p>To reduce the incentive to drive, the municipality may consider introducing daily parking charges for employees and in municipal parking lots. Increasing parking rates can also provide a new revenue source to support the ongoing costs of the TDM program. Additional revenue should be reinvested in the TDM program to provide or subsidize administration, incentives, and education.</p>	<p>High</p>

⁴³ <https://visit.carletonplace.ca/cycling>. Date Accessed: 2024-04-15.

Measure	Description	Barriers to Implementation
<p>Incentives for Sustainable Travel</p>	<p>To support municipal staff in choosing to use a sustainable mode of travel (i.e. carpool, walk, roll or bike) employees may be granted a daily cash incentive (e.g., \$2 per day) that can be added to their biweekly paycheques. By offering cash instead of a subsidy or other measure, this provides the most value and flexibility for employees and is a highly attractive incentive. However, an incentive like this would set a very costly precedent, especially considering most staff are likely commuting using their personal vehicle. This measure is best combined with a strategic parking pricing policy that provides additional revenue to balance the expense of this incentive.</p>	<p>High</p>
<p>Modify Parking Rates in the “Downtown District” of Almonte</p>	<p>For a full description and discussion related to the introduction and rationale for developing an Almonte “Downtown District” Designation – refer to Section 3.8.1</p> <p>The municipality sets vehicle and bicycle parking rate requirements in the Zoning By-Law, where the requirements apply to different regions within the municipality. For Almonte in particular, vehicle parking rates are required at a rate of 1 per dwelling units for single and townhouse units and 1.2 per dwelling unit for low-rise apartments. Non-residential units such as office and retail require a rate of 1.8 and 2.5 per 100 m², respectively. For bicycles, the same parking rates apply throughout the municipality, with 0.5 per dwelling unit for residential land uses and 1 per 250 m² for office and retail uses.</p> <p>The municipality can reduce people’s reliance on personal vehicle use and reduce the need for vehicle parking spaces in popular public areas by instituting an area-specific policy that targets parking rate requirements. This may apply specifically to the new “Downtown District” in Almonte, to encourage more active modes and reduce vehicle friction travelling to and from the downtown area. This new policy would only affect future developments or re-developments.</p> <p>Targeted reductions or the outright removal of vehicle parking minimums has gained popularity in recent years since it has been demonstrated to be an effective means of dissuading vehicle use. For example, the City of Ottawa in their latest draft New Official Plan and Zoning Bylaw, has eliminated minimum vehicle parking requirements city-wide, and introduced maximums in designated areas. The rationale being the market will dictate how much parking is needed, which helps reduce costs for developers while encouraging more sustainable modes of travel. However, this policy must be supported with viable alternatives for users, such as transit or a well-developed and connected active transportation network. This option should also be supplemented with other area-specific policy suggestions, as outlined in Section 3.8.1.</p> <p>To offset the vehicle parking requirement, an increase in bicycle parking requirements is recommended. For example, increase bicycle parking rates to 1 per dwelling unit and 1 per 150 m² of retail or office space, with a reduction in minimum vehicle parking spaces to 0.5 per dwelling unit and 1 per 100 m² of office and retail use.</p>	<p>Medium to High</p>



6.5 Goods Movement



The movement of goods plays a central role in supporting local industry and business in Mississippi Mills but requires oversight and management as heavy vehicle traffic often affects the safe use of roads by pedestrians and cyclists. Large trucks generate various forms of pollution, from air quality, noise, and vibration on roads.

Designated truck routes are defined to limit truck traffic to specific roadways except for the purposes of local deliveries and/or specify load restrictions to prohibit truck traffic on roads as needed; both solutions are enacted through municipal bylaws.

As discussed in **Section 2.3.3**, the municipality has a general restriction of 5 tonnes per axle on all municipal roads between February 27 until May 31 or when deemed suitable to lift the restrictions. Most large or heavy truck traffic travels primarily on county or provincial roads within the municipality, the rare exception being Ottawa Street in Almonte.

6.5.1 Goods Movement and Complete Streets

The TMP recommends the municipality adopt the complete streets approach to planning, designing, operating, and maintaining the transportation network (refer to **Section 4.2**). Balancing the needs of all road users, particularly with a renewed focus on pedestrians and cyclists, can pose challenges for goods movement. This section provides guidance on how to balance the needs of freight movement with the need to safely accommodate pedestrians and cyclists on the road network.

The interaction between complete streets principles and goods movement generally occurs in two locations: on truck corridors adjacent to industrial areas and commercial main streets that generate truck traffic as well as pedestrian and cyclist activity. In the former locations, the Ministry of Transportations Freight Supportive Guidelines contain several recommendations to manage the needs of trucks and vulnerable road users. These include:

- Limiting the number of cycling corridors that overlap with higher volume truck corridors;
- Planning an off-street bike path where cycling routes and truck routes overlap;
- Implementing marked bike lanes and signs where cycling routes and truck routes overlap, and an off-road facility is not possible; and
- Ensuring that truck access points are well signed with cyclist-oriented signage.

Main street commercial areas present other challenges. While not typically high-volume goods movement corridors, commercial and retail uses generate a lot of delivery traffic. Delivery traffic often conflicts with active transportation users. For example, delivery vehicles may illegally park in cycling lanes or spaces to make deliveries. In cases where road space is a constraint for making deliveries, drivers may temporarily park unlawfully, resulting in fines for the delivery company and temporary congestion on the roadway.

Several strategies can be used to manage deliveries on commercial main streets. These include:

- Providing designated on-street loading areas where off-street loading facilities are not possible.
- Ensuring that new developments provide off-street loading facilities.
- Working with local businesses to understand their delivery needs.
- Providing education and enforcement of appropriate delivery procedures.

The county truck route network should be revised to include the recommended new south road corridor between County Road 29 and County Road 17, to reduce the impact of truck traffic on local commercial businesses and public spaces in Almonte.

6.6 Transportation Impact Study Framework

A Transportation Impact Study (TIS) is an important document supporting the development review process; it evaluates a variety of transportation issues and implications related to a proposed development and identifies solutions to mitigate them. The intent of this document is to accompany a development application (for either a Plan of Subdivision or Site Plan Control) to inform the approving authority of what transportation-related requirements or conditions should be applied to the applicant prior to granting approval.

The following TIS framework applies to development sites that impact municipal infrastructure. If the impacts are expected to extend to adjacent jurisdictions, such as Lanark County, the province, or other municipalities; it is the responsibility of the applicant to coordinate and confirm the submission requirements with all other jurisdictions.

It is important to emphasize that the following discussion represents a guideline, and any aspect is subject to change at the discretion of municipal staff depending on the unique circumstances at the time of reviewing a development application. Any requests to deviate from the TIS framework requires documented approval from municipal staff.

The municipality should adopt the TIS Framework in Section 6.6 and apply it to all future development applications.

Transportation Impact Study “Tiers”

A TIS is not a “one-size fits all” document – the local context, size, location, and magnitude of change proposed by the development will dictate the scope of the analysis and documentation. In most cases, a TIS is expected to include at least the following:

- Assessment of development site adherence to relevant transportation policies, within the Official Plan, by-laws, and municipal design standards,
- Review of active transportation connectivity as well as site permeability, and
- Review of vehicular access, and internal and external vehicle circulation (including emergency vehicles considerations).

Additional analysis and documentation, such as those listed below, may be triggered for larger developments or sites located in more sensitive contexts.

- Estimate future multi-modal demand from the development site (e.g., drivers, active or transit users),
- Forecast future transportation conditions (such as planned infrastructure or future background vehicle traffic growth or ongoing development applications),
- Evaluate intersection(s) and/ or corridor(s) within an established study area, in both existing and future conditions,
- Assessment of active transportation network infrastructure along the frontage of the development site,
- Assessment of potential for speeding, “cut-through” traffic, or any other road safety issues and identify possible mitigation,
- Coordination with county or provincial staff if transportation implications extend to county roads or provincial highways, and,

- Develop solutions to all identified implications (such as off-site intersection modifications).

The TIS framework identifies three “tiers” of submission requirements, which ensure the effort and review process befit the complexity and potential transportation implications of various types of development proposal.

- **Tier 1: Low Impact Development** – It is acknowledged that some development proposals are benign, such as a residential property owner subdividing a lot to add a single new residential unit, resulting in little to no impact to the municipal transportation network. In these cases, the suggested TIS deliverable may be reduced to a technical memo format that only summarizes the development proposal and local transportation context.

A Tier 1 TIS submission may still be required to demonstrate the development proposal adheres to all relevant policies and standards (for example, in a site plan control application, ensure all vehicle types such as emergency vehicles, and people can safely circulate within the site) and may include a discussion of possible risks in the adjacent transportation system (for example, if there is a known safety concern or there is a gap in the active transportation network along the development frontage). Generally, no road network operational analysis or forecasting of future traffic conditions is needed, or a requirement for TIS may be waived by municipal staff.

- **Tier 2: Moderate Impact Development** – This tier of TIS reflects the more common development proposal, one that is expected to impact the nearby road network and is a moderate traffic generator (such as a new commercial building, or a small residential subdivision). These development proposals are large enough in scale and may propose new local road connections or minor modifications to the adjacent municipal road network to support the site. For example, developing an existing greenfield and proposing new driveway accesses or intersection accesses along its frontage.

For a Tier 2 TIS, forecasting of development traffic and future traffic conditions is expected, in addition to the development site review for adherence to municipal policies and design standards. For example, any new local roads proposed within a new subdivision should be designed to the recommended complete street cross-sections (as outlined in **Section 4.2.6**); reviewing the need for easements to support active transportation permeability; providing treatments for the extension of local cycling route(s) into the site (as outlined in **Section 3.4**). If the development proposal is located on a county road or within the Ontario Ministry of Transportation (MTO) permit controlled area (refer to **Section 2.1.2**), approval of the scope of work should be confirmed and approved by respective approving authority.

- **Tier 3: High Impact Development** – The highest tier of TIS reflects the most traffic intensive development proposals. These are considered “regional” destinations (drawing residents county-wide or beyond) and are expected to trigger a high number of person trips (for example, a large residential subdivision or a large commercial retail store). In these cases, there may be a need to construct new collector and local roads as well as multiple new intersections and/ or pedestrian crossing facilities to support the site.

These types of developments are typically unique, complex, and rare; municipal staff will need to exercise discretion whether a particular site triggers a Tier 3 TIS and what information is required to confidently accept that all traffic implications can be mitigated before approving the development proposal. Detailed analysis will be expected to support this type of development. The differences between a Tier 2 and Tier 3 TIS may be subtle; the key tasks may not change, but a Tier 3 TIS would demand a greater breadth of analysis, such as a larger study area, more future horizons to forecast, or requiring a separate analysis scenario for different phases of development to ensure the long-term transportation implications have been properly captured.

Transportation Impact Study Triggers

“Triggers” have been created to guide municipal staff on the suggested “Tier” of TIS needed to support different types of development proposals.

The primary attribute that influences the TIS Tier is the size and scale of the development. A small development that generates very few vehicle trips is more likely to trigger a Tier 1 TIS, and a very large and traffic intensive development more likely to trigger a Tier 3 TIS. The general guideline is shown in Table 30. For non-residential developments, two different statistics have been provided under Tier 1, where if either metric is met triggers a Tier 2 submission.

Table 30: General Guidelines when Considering TIS Tier

Land Use Type	Tier 1	Tier 2	Tier 3
Single Family Homes	< 40 units	For larger development proposals, at least a Tier 2 TIS is recommended.	A Tier 3 TIS should be required if the proposed development has any of the following attributes: <ul style="list-style-type: none"> • A major commercial box store or outlet, and the tenant is a known major regional destination, e.g. Costco, Walmart, or Canadian Tire, generating significant person trips. • A large residential subdivision or medium-high density development with more than 500 units. • A development that may pose significant traffic and social disturbance, such as a large industrial site or distribution centre that will generate a high number of new trucking or transport activity. • Any specific concerns or issues, identified either by municipal or county staff that warrants additional analysis, broader scope or expanded study area.
Multi-Unit Homes	< 80 units		
Office	< 40 employees, or < 3,500 m ²		
Industrial	< 80 employees, or < 5,000 m ²		
Restaurant/ Coffee Shop ¹	< 13 employees, or < 100 m ²		
Destination Retail	< 9 employees, or < 1,000 m ²		

Note:

1 – Development proposal must not include a drive-thru – otherwise, a Tier 2 TIS should be considered.

A separate set of requirements that relate to the location of the development and geographical context will also be considered. These metrics are reflected as questions, and any “yes” response triggers that element to be incorporated into the TIS, regardless of tier. The triggers for location and context are shown in Table 31.

Note that provisions for transit elements were included despite there not being transit service in the municipality at the time of writing this TMP. The provision is meant to reflect a future where transit service is provided in the municipality, whether by Lanark Transportation or a private commuter service to the City of Ottawa.

Transportation Impact Study Trip Generation References

As per industry standard, the latest Institute of Transportation Engineers (ITE) Trip Generation Manual and Handbook should be used as the default references for trip rates. However, it should be noted that the ITE Manual is known to be vehicle focused due to datasets and studies dating back to the 1980s. Therefore, vehicle trip rates are less likely to reflect contemporary transportation systems that include more developed transit corridors or are supported by a well-developed active transportation network. In these circumstances, engineering judgement should be applied to properly

factoring ITE vehicle trips using first principles and applying a more reasonable mode share to reflect local conditions. Alternatively, it is encouraged amongst consultants to develop custom trip rates by collecting own traffic data at a similar proxy site, of similar type, size and scale if possible.

Table 31: TIS Location and Context Triggers

Location or Context	Trigger	Additional Considerations for Large Development Sites (Tier 3)
Is the site located within 300 m of a traffic signal or roundabout?	If the response to any of these questions is “YES” – the TIS submission should provide supporting analysis and discussion about potential opportunities, identified risks, and recommend mitigation or supporting enhancements related to each occurrence if necessary.	<ul style="list-style-type: none"> • If the development site was not considered within the assumed growth areas in the TMP, identify future road network needs to support the site, and how it can be integrated with road network strategy in the TMP. • Expand the study area as needed to cover all potentially impacted intersections, within reason. Confirm if new traffic signals or additional modifications are needed in the municipal road network. • Ensure new municipal road connections, if needed, adhere to municipal policies and design standards and review intersection design needs, including potential for intersection widening to address specific issue(s). • Expanding municipal cycling routes into the development site, with required treatments where appropriate, and providing expanded cycling supporting facilities (e.g., secure bike lockers, shower facilities etc.) • Identify existing safety concerns and potential concerns within the development site and identify mitigation options; apply speed management and traffic calming processes. • Ensure the development site provides optimal active transportation permeability and connectivity.
Is the site accessing an arterial road or a road with an 80 km/h posted speed limit?		
Is the site proposing a new access to the municipal road network?		
Are there deficiencies or gaps in the active transportation network along the frontage of the site?		
Are there known or identified safety concerns along the frontage of the site?		
Is there a transit stop and/ or transit service provided along the frontage of the site?		

Transportation Impact Study Analysis Criteria

The following section outlines the analysis criteria to support the road network evaluation, which applies only to Tier 2 or Tier 3 submissions. There are three primary metrics used to assess road network capacity: average delay, volume to capacity ratio (v/c ratio) and vehicle queue.

The average delay is the average amount of time a vehicle waits at the location during the analysis period, while the v/c ratio represents the comparison of vehicle demand to available capacity. The vehicle queue is the length of stopped vehicles at an intersection or roundabout approach during the analysis period.

The intersection capacity analysis should be completed using industry standard software, based on the Highway Capacity Manual (HCM), specifically:

- Trafficware Synchro v11 and SimTraffic for unsignalized and signalized intersections, and
- SIDRA v9 for roundabouts

These analytical programs provide outputs for all three required metrics. The default factors in each program may be used, but the analyst may apply engineering judgement and field observations to alter baseline factors if calibration is deemed necessary. Any changes to default parameters must be documented in the TIS. Table 32 and Table 33 provide the road network analysis criteria based on delay and v/c ratio, which were also used in the existing and future road network evaluations in this TMP.

Table 32: Delay Level of Service (LOS) Criteria

Criteria	LOS	Traffic Control Signals (seconds)	Roundabouts (seconds)	Stop or Yield Sign (seconds)
Acceptable	A	≤10	≤10	≤10
	B	> 10 and ≤ 20	> 10 and ≤ 20	>10 and ≤ 15
	C	> 20 and ≤ 35	> 20 and ≤ 35	>15 and ≤ 25
	D	> 35 and ≤ 55	> 35 and ≤ 50	>25 and ≤ 35
Periods of Congestion	E	> 50 and ≤ 80	> 50 and ≤ 70	>35 and ≤ 50
Extended Periods of Congestion	F	> 80	> 70	> 50

Table 33: Volume to Capacity (v/c) Ratio Criteria

Criteria	Volume to Capacity Ratio
Acceptable	0 to 0.60
	0.61 to 0.70
	0.71 to 0.80
	0.81 to 0.90
Approaching Capacity	0.91 to 1.00
Exceed Theoretical Capacity	> 1.00

If the road network analysis yields acceptable results, with either a Level of Service D or better and a v/c ratio of less than 0.91, no further analysis is needed.

A Level of Service E or v/c ratio approaching 1.00 is still operating within capacity but is an indication to the municipality that the location will be sensitive to increasing vehicle demand.

A Level of Service F or v/c ratio greater than 1.00, the applicant should consider road network mitigation, whether physical modifications or signal timing adjustments to increase capacity, and/ or specialized strategies (such as TDM) to reduce vehicle use.

The final metric to consider at intersections or roundabouts is vehicle queue. Queue length estimates are provided in both Synchro and Sidra as either the 50th or 95th percentile. Typically, the 95th percentile queue is the output that informs storage lane design requirements.

The road network analysis should demonstrate the 95th percentile queue, particularly within auxiliary turn-lanes, does not exceed available storage length.

When completing a screenline or corridor analysis, the analyst needs only evaluate the v/c ratio. The forecasted peak hour demand should be compared with industry standard hourly capacity of the road, and apply the same criteria as shown in Table 33.

The evaluation criteria presented above should not be considered rigid; a LOS F or a v/c ratio > 1.00 represent a single factor and should not immediately lead to auto-centric infrastructure modifications or enhancements. That approach risks costly infrastructure, overdesigning the road network that induces further vehicle use and directly affects the safety and comfort of pedestrians and cyclists. The municipality must always consider the overall context and the complete street approach (refer to **Section 4.2**); investigate sustainable approaches to address traffic implications and consider potential social or safety implications against the vehicle operational performance.

Transportation Impact Study Checklist

Table 34 provides a general checklist intended to guide the preparation of a TIS based on the identified Tier.

Table 34: TIS Guidelines Checklist by Tier

TIS Task	Tier 1	Tier 2	Tier 3
Development Design Review			
Vehicle Circulation	Review turning templates for all vehicle types, including emergency vehicles and trucks where appropriate.		
AT Circulation	N/A	Review permeability and connectivity of active transportation facilities within the site.	
Site Access Design Review	Review new vehicle driveway or intersection access locations, their orientation and design to ensure they adhere to municipal by-laws and design standards e.g., spacing, corner clearances, sight triangles.		
New Roads	N/A	Ensure all new roads are designed according to the corresponding recommended complete street cross-section (refer to Section 4.2.6)	
Analysis Parameters			
Study Area Network	Frontage only	Frontage plus locations that might be impacted by development site traffic.	
Development Phasing	N/A	Single Phase (“Buildout”) if anticipated within 10-years	At least one “interim” scenario if multiple phases anticipated or if buildout anticipated beyond 10-years
Analysis Horizons	N/A	Existing and Buildout Years	Existing, Interim ¹ , Buildout, Buildout plus 5 years ²

TIS Task	Tier 1	Tier 2	Tier 3
Analysis Periods	N/A	Morning and Afternoon peak commuter hour, or Peak hour of land-use if applicable e.g. weekend peak hour for retail or church etc.	
Future Background Traffic	N/A	Forecast future background vehicle traffic on the road network at each time horizon. Incorporate known development applications and/ or apply a general growth rate on study area roads where it is deemed appropriate.	
Future Site Traffic	N/A	Forecast anticipated trips by driver, passenger, transit, pedestrian, and cyclists,	
Road Network Analysis			
Screenline/ Corridor Analysis		N/A	<p>Consider a screenline or corridor analysis to determine if the road network has sufficient redundancy to accommodate site traffic. This is particularly important if the site is located near a vehicle bridge or constrained area in the road network and expanding capacity is challenging and/ or costly.</p> <p>If the site is located outside the assumed growth areas in the TMP, provide discussion on how recommendations can be integrated with long-term road network strategy.</p>
Intersection Capacity Analysis	N/A ³	Assess capacity of all existing and new intersections or roundabouts within the approved study area according to the analysis parameters.	
Off-site Roadway Modifications	N/A	Document any modifications to address off-site road network deficiencies, and anticipated timing of each modification. Identify if property requirements or custom design solutions are triggered – design drawings may be required to properly assess broader implications.	
Sustainable Network Review			
Pedestrians	Ensure any existing facility is not impacted.	Identify gaps or deficiencies in the municipal active transportation network within the approved study area and ensure the development site design addresses the needs along the frontage(s).	
Cyclists	Address gap or deficiency along development site frontage(s).	If there is a local cycling priority route along the development site frontage(s), ensure there is appropriate integration with the development site.	

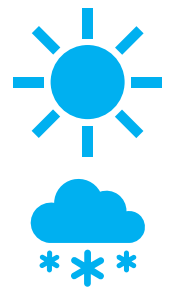
TIS Task	Tier 1	Tier 2	Tier 3
Transit		Consider new or relocation of bus stops if a transit service route operates along the development site frontage(s) and ensure the development site design provides direct pedestrian connections to the nearest bus stops along the service route.	
Safety Review			
Collision Analysis	Review historical collision data within approved study area (if available) and if there is a discernable pattern of vehicle collisions, or at least 1 fatality or serious injury ⁴⁴ within the prior 7 years, provide a discussion on the risks, potential triggers, and possible mitigation.		
Speeding or Short-cutting	N/A	Assess the risk of vehicle speeding or short-cutting within approved study area. Request and review historical speed data from the municipality if available.	
Policy Review			
Parking Requirements	Ensure vehicle and bike parking requirements adhere to municipal by-laws. Provide rationale if vehicle or bicycle parking variance is requested that identifies any risks or implications related to the variance and potential mitigation, for example vehicle parking infiltration on neighbouring streets or insufficient bike accommodations for future residents.		
TDM	N/A	Review needs and opportunities for Transportation Demand Management measures to reduce single occupant vehicle use. Refer to Section 6.4 for further discussion on TDM options to consider during development review.	

Notes:

- 1 - There may be multiple “interim” scenarios prior to buildout.
- 2 - If the buildout year is beyond the 10-year horizon, the submission may waive the buildout plus 5-year horizon requirement.
- 3 - If a new intersection is proposed in the development plan, consider a Tier 2 TIS or include the intersection analysis requirements in a Tier 1 TIS.

6.7 Climate Change

The federal Climate Change Plan challenges municipalities to reduce greenhouse gas (GHG) emissions and increase and protect GHG sinks through action on transportation, land use planning and education; strategies include:



- Growth and settlement policies which direct most development to full serviced urban areas.
- Urban design that promotes compact and mixed-use development, energy efficiency, reduces automobile travel and increases walking and cycling.
- Rural design that promotes energy efficiency and the protection of natural features.
- Tree retention and protection of significant forest cover; and,
- Protection of natural heritage resources, such as wetlands.

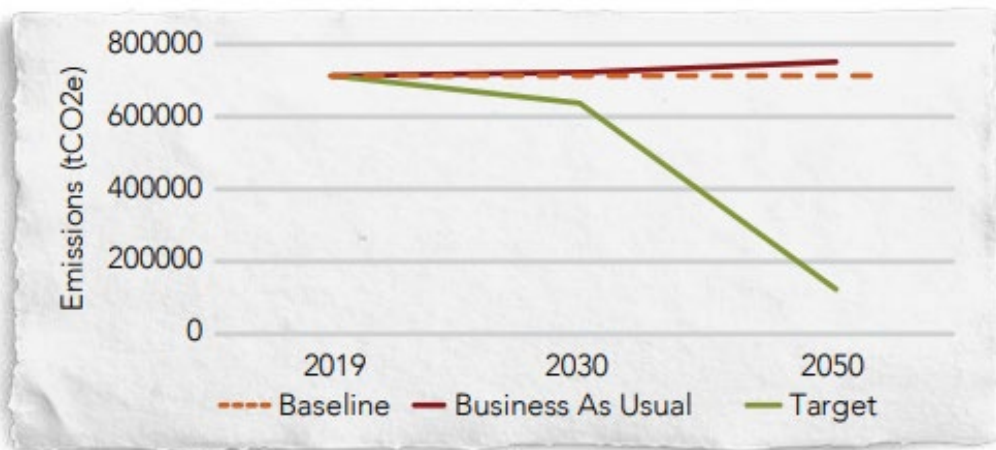
⁴⁴ Generally, an injury resulting from a motor vehicle collision is considered a serious injury when it requires medical attention or hospitalization. There is also a more specific definition found in the Ontario Occupational Health and Safety Act, Section 51.

The 2016 TMP did not include any specific messaging related to climate change and transportation, which represents an opportunity to reinforce the distinct need for climate change mitigation and adaptation strategies at all levels of government.

Since publication of 2016 TMP, Lanark County has adopted their own Climate Action Plan in 2023, which provides valuable guidance for Mississippi Mills on potential goals and actions towards “achieving emission reductions while ensuring the resilience of our local communities.”⁴⁵ The county action plan divides its objectives between two target groups, “Corporate” and “Community.” Corporate greenhouse gas emission sources include corporate buildings, vehicles, water and sewage, and waste. Community sources of greenhouse gas emissions include stationary energy (residential, commercial, institutional, and industrial), transportation, and waste.

The emphasis in the Lanark County Plan is the critical importance of addressing transportation-related emissions, which account for > 60% of all county-wide “community” emissions.

Figure 43: Lanark County Community Baseline, BAU and Target Emissions Chart (Figure 9 of LCCAP)



6.7.1 Recommendations

It is recommended the municipality consider adopting the following climate change policies and strategies:

- Acknowledge in the Official Plan the risks posed by climate change to human health and the environment, the role of transportation in greenhouse gas emission and the climate, and the need for actionable mitigation/ adaptation strategies.
- Apply a climate change and emissions lens during the planning and evaluation of all future municipal transportation projects and in the development review process to limit the increase of vehicle emissions, such as applying strategies to reduce single-occupant vehicle use (refer to TDM Strategy in **Section 6.4**), adopting the complete streets approach, ensure the design of future development sites prioritize the movement of pedestrians and cyclists.
- Consider adopting Goals 1.1, 1.2, 1.4, and 1.5 of the *Lanark County Community Climate Action Plan* that target community transportation emissions in the Official Plan or in a Mississippi Mills specific Climate Action Plan, if developed.

⁴⁵ Lanark County, Lanark County Climate Action Plan: A Climate Change Mitigation Strategy. Lanark County, ON, 2023.

- Consider adopting the county community emission reductions targets, for which transportation is the largest emitting-group within from community sources.
 - 10% below 2019 levels by 2030
 - 80% below 2019 levels by 2050
- The monitoring program within the county Climate Action Plan involves an expansion of staff in related departments, frequent reporting of direct emissions data and key performance indicators. The municipality should consult with the county on the degree to which monitoring data will be able to be delineated by municipality, and request that Mississippi Mills-specific data be provided.

6.8 Specific Policies

Municipal staff requested a review of specific policies as part of the TMP. The following section outlines suggestions for potential additions or amendments to existing policies the municipality may consider. The purpose of this review and subsequent recommendations are to ensure the vision and objectives of this TMP are supported and local policies enable the efficient planning, design, and implementation of transportation infrastructure.

The municipality should adopt the relevant policy statements and language below to support the development review process, identify appropriate right-of-way protection requirements, and ensure consistency in the application of design standards and guidelines in all future development sites.

Additional Local Road or Intersection Widening:

As previously discussed in **Section 4.2**, the TMP recommends the municipality adopt the complete streets approach, including the recommended design criteria and cross-sections for both urban and rural local roads. All new or retrofit projects on local roads should strive to align with this policy, which includes the potential need to protect the additional land for road right-of-way to accommodate the desired facilities.

In situations where the existing right-of-way on local roads do not meet the optimal width and there are significant constraints or challenges to protect the optimal right-of-way, a custom solution may be considered. While not optimal, all efforts should be made to provide tangible benefits to road users.

The municipality may require dedication of land for road right-of-way widening for any road that intersects with a highway, arterial, or collector road, in proximity of the intersection. The extent of right-of-way widening to be required will be established by approved municipal road design guidelines and construction standards or a transportation study and a functional design of the associated intersection that addresses the need for additional intersection-related features such as roundabout components, turning lanes, transit facilities, pedestrian sidewalks or other pedestrian facilities, cycling facilities, traffic signals, street lighting and medians, and AODA compliance components.

The municipality may require dedication of land for road right-of-way widening where a Transportation Impact Study indicates that there is a need for a dedicated turn lane or lanes into or from a proposed development. This may occur in situations such as large developments or redevelopments along arterial or collector roadways and is necessary to maintain the land required to provide pathways, landscaping, utility corridors and other facilities planned for the road right-of-way.

Corner Sight Triangles:

The conventional rationale for corner sight triangles is to provide additional stopping sight distance to drivers approaching an intersection in the event of an errant vehicle entering from the cross-street. They have also realized benefit to accommodate supporting infrastructure or landscaping needed at intersection corners, such as cycling and transit facilities or pedestrian amenities.

The Mississippi Mills Comprehensive Zoning By-Law #11-83, Section 6.4.1 under General Provisions - Corner Lots on Municipal Streets requires for a minimum 6m x 6m corner triangle for any “detached, duplex, semi-detached or triplex dwelling located on a corner lot” that limits obstructions to sight lines of the driver (as shown Figure 44). For all other development, the required corner sight triangle “will be determined through the “Site Plan Control Approval process.”

In section 6.4.3 of the Zoning By-law, for corner lots on county or provincial roads, the requirement increases to “30 m from the point of intersection of the street lines” with exceptions for “towns, villages or cities as defined in the Highway Traffic Act, the provisions of Section 6.4.1 would apply.”

To better align with the complete streets approach recommended in this TMP, the municipality should reserve the right to increase corner sight triangle requirements along any road within the municipality (particularly in more dense urban areas such as Almonte and Pakenham). The following policy statement or similar language may be considered within the Official Plan:

The municipality will require dedication of land for road right-of-way widening to provide corner triangles at intersections. Depending on the location and type of roads involved and the type of intersection, the length of the side of a corner triangle will vary in the general range of 3 m to 10 m. The municipality will determine the requirements for each corner triangle based on engineering requirements. Corner triangles may be waived or reduced when intersection requirements can be fulfilled and where the provision of such triangles would result in reduction of the building envelope in certain locations, notably minor intersections or in the Downtown District. Where a right-of-way widening at an intersection result in a reduction of an existing corner triangle, the municipality will determine whether a new corner triangle is required.

Note, corner triangles need not be equilaterals, reflecting the different characteristics of each intersecting roadway. The City of Ottawa has recently adopted new corner triangle requirements using this approach, as shown in Figure 45. Requests for deviations from municipal requirements must be supported by analysis and documentation; for development sites, these may be incorporated as part of the Transportation Impact Assessment submission (refer to **Section 6.6** for a discussion related to the recommended TIA framework).

Figure 44: MM Zoning Bylaw Corner Lot Sight Triangle Requirements

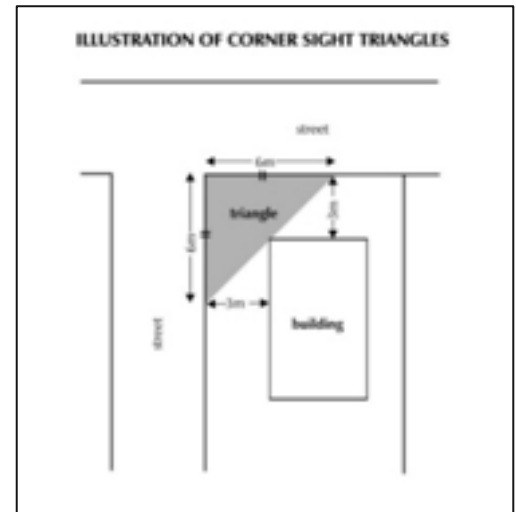
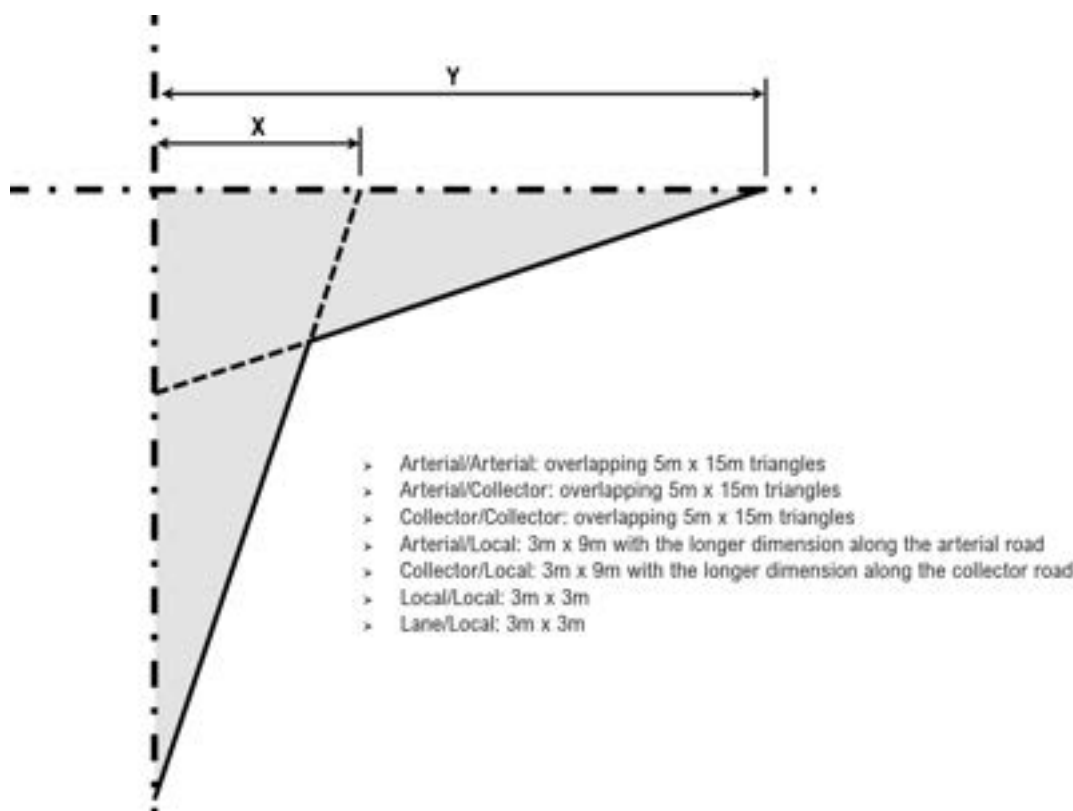


Figure 45: City of Ottawa Draft Corner Triangle Dimensions



Access Management and Intersection Spacing:

Access management practices and intersection spacing requirements are critical to ensuring the road network functions properly and affords the desired safety and comfort for all users. Access management relates to the placement and treatment of private driveways along a road corridor. Generally, along high speed and vehicle volume corridors, private driveways should be restricted, and vehicles should be directed to adjacent municipal roads and intersections to access the main corridor. Intersection spacing relates to the separation distance between intersections.

Access management and intersection spacing characteristics are reflected in the complete street design criteria (refer to Table 21, Table 22, and Table 23) under “Flow Characteristics.” Local roads should have “interrupted flow” meaning greater friction along the corridor such as driveways and intersections, and the design and posted speed limit of the road reflects these conditions. Collector roads also experience “interrupted flow” but with slight deviations in the design requirements to reflect generally higher speeds and vehicle volumes on the corridor. For example, separated or segregated cycling facilities should be provided rather than having cyclists share the road with vehicles, and direct residential frontage should be prohibited since the tightly spaced driveways create greater friction and conflict with cycling facilities and corridor vehicle operations.

Arterial roads should strive to maintain “uninterrupted flow, except at major signals and crossings” thereby maintaining the efficient flow of vehicles and accommodating higher speeds. This approach increases network capacity, reduces congestion, and provides a safer environment for all road users. There can be exceptions for certain types of uses, such as commercial properties or gas stations located at the corners of intersections whose frontages may be constrained. In these situations, restricting vehicle movements to “right-in right-out” only should be considered, unless a transportation study can demonstrate there is safe solution to permit all movements.

According to the Ontario Traffic Manual Book 12 (2012), traffic control signals and/ or pedestrian signals should target a minimum 215 m separation for roads posted at 60 km/h, and up to 350 m for roads posted at 80 km/h. The TAC Geometric Design Guidelines for Canadian Roads (2017) suggests general minimum spacing of intersections: 200 m on arterial roads and 60 m on collector roads and local roads. On divided arterial roads, a right-in right-out access without a median opening may be permitted at least 100 m (measured between the closest edges of pavement) from an adjacent all movement intersection.

These are general targets based on typical intersection design elements; spacing requirements should be confirmed during the initial planning phases of any future capital road project or in the Transportation Impact Assessment (TIA) submission in support of a development application (refer to **Section 6.6** for a discussion related to the recommended TIA framework).

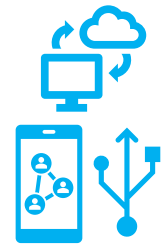
Unopened Road Allowances and Easements:

Existing unopened road allowances or easements should be protected wherever possible, particularly within growth areas in the municipality where it is deemed integral to enable new municipal road connections for traffic in future subdivisions or developments as was previously discussed in **Section 4.3.4**. For example, the Adelaide Street extension to Honeyborne Street is an existing unopened road allowance that is an important future connection to support anticipated development in the heart of Almonte. Even in situations where the original need for the protected space changes, there may still be an opportunity to repurpose for public use, such as an active transportation corridor or public amenity space that benefits the greater community. It is ultimately to the discretion of the municipality on how these spaces should be prioritized. The long-term planning and maintenance of unopened road allowances or easements should be reviewed amongst relevant municipal departments and reflected in future Official Plan amendments.

Private Roads

The TMP primarily governs the planning, design, operations, and maintenance of publicly owned roadways. The municipality has drafted a *Limited Service Residential and Private Roads Interim Control By-law Study* (2023) that outlines the characteristics of private roads, the process for creating and maintaining them. One recommendation was for the municipality to include private roads within their road network hierarchy map (in other words, the road classification system) in the Official Plan, which has been adopted in this TMP. The report also recommends the municipality “require an update to the Site Plan Control By-law that adds development of private roads to the list of development types that is subject to Site Plan Control and agreements. This is to highlight the requirement that private roads will only be approved when there is a formal process for maintenance and liability of the roads.” Therefore, in the event a private road is assumed by the municipality, it must meet the acceptable standards for road construction. The municipal policy *PW-05* sets the minimum design standards for the assumption of private roads. There are also the recommended local road design requirements and cross-sections developed in this TMP provided in **Sections 4.2.5** and **4.2.6**. It will be to the discretion of the municipality on the design requirements to be met when assuming a private road, as certain provisions such as servicing, utilities or on-street parking may not be needed, and a custom design/ cross-section may be acceptable.

6.9 Emerging Technology



Technology has always influenced how people move and how municipalities develop as digital technology rapidly evolves it is having a substantial impact on urban transportation. Technology is making new forms of shared mobility possible and changing the way existing forms of shared mobility operate. The challenge for municipalities is to proactively manage new technology and shared mobility so that they have a positive impact on transportation trends and the municipality more broadly. This section describes emerging technology and its relationship with shared mobility, details the opportunities and risks for Mississippi Mills, and proposes areas for further exploration.

- **Smartphone Applications and Related Software:** New programs are enabling users to access real-time transportation information (such as next bus arrival times) and mobility services (such as ridesharing or bike sharing). Software also enables mobility service providers to be able to provide their services efficiently. For example, new technology enables ridesharing providers to automatically assign drivers to trips and determine the route between destinations and intermediary pick-up/ drop-off points.
- **Electric Vehicles (EVs):** Vehicles that operate entirely on electricity or, in the case of a hybrid vehicle, alternate between conventional fuel and electric power improve fuel economy and reduce emissions.
- **Big Data:** Big Data applications seek to overcome the disadvantages of traditional data collection techniques by leveraging the proliferation of location-based devices (smartphones, smartwatches etc.) and vehicle navigation technology, which track a user's location by the minute. Municipalities across North America have begun to utilize these applications to monitor and evaluate multi-modal travel behaviour to better understand mobility trends of the user that can be used to support predictive analytics.

Changes to Mobility

The terms shared mobility and Mobility as a Service (MaaS) are used extensively in transportation planning to refer to the convergence of new technology and transportation. The following definitions were developed by Metrolinx in the 2041 Regional Transportation Plan (RTP):

- **Shared Mobility:** A type of new mobility that refers to a broad set of transportation services and business models that are shared among users, such as bike-sharing, car-sharing, micro-transit, ride-sourcing, and ridesharing.
- **Mobility as a Service (MaaS):** A new mobility technology that describes the integration of various transport services including public transit, bike or car-sharing, taxis, ride-sourcing and other forms of shared mobility that are bundled together and consumed on a subscription basis or on demand to meet the needs of individuals.

There is also an emerging technology termed micromobility.

- **Micromobility:** A term to describe the emerging electric and power-assisted mobility technologies such as e-scooters and e-bikes, intended to overcome some of the shortcomings associated with the traditional vehicle, such as long commuter distances, navigating through hilly terrains and along varying surface treatments, and travelling with heavy loads. This ultimately lessens the amount of exertion required for cycling and provides an alternative mode of transportation to seniors and users with limited mobility.

It is important to note that many of the services noted above predate the widespread use of the internet and smartphones. Bike sharing systems have been in widespread use in the province since the mid-1990s and demand responsive transit (i.e. dial-a-ride) has been in operation in Lanark County for years through the Ride the LT program;

however, new technology has changed the way that services are delivered and accessed, and new technology-enabled business models have empowered more private sector service provision.

Changes to Monitoring and Evaluation

Advancements in wireless and data storage technology enable new monitoring and evaluation services that can help us glean people’s travel information and system performance in real-time down to the minute. While our traditional data collection tools are familiar and intuitive, they’re also time-consuming and expensive. Conventional tools were designed to collect data about yesterday’s transportation systems and behaviors – not the fast-changing travel patterns we see today. That means transportation planners today face a far more complex transportation reality than their predecessors did, and their jobs are more challenging than ever. The proliferation of smartphone technology and “always on” applications has made vast amounts of user location information available to gain insights into “hidden” information about residents, which led to the moniker of “Big Data.” One of the most important benefits of Big Data to the transportation industry is that you can spend less time collecting data and more time optimizing transportation plans. Two ways that Big Data differs from most traditional resources:

1. They can measure current travel behavior accurately, precisely, and comprehensively.
2. They take less time and effort to collect.

That means that once you have the information you need, the actual use of Big Data for transportation projects is similar to using traditional data sources.

6.9.1 Planning for the Future

As noted, the challenge for municipalities will be managing the fast pace of changes occurring in the technology fields and anticipating their impacts on mobility. An agile municipality can adapt quickly and effectively to the changing landscape of mobility. This means being open and receptive to new technologies, but not without proper oversight, community consultation or risk mitigation.

Opportunities

Shared mobility services can provide access to active transportation, reducing reliance on private car trips and potentially extending the reach of conventional transit service. Municipalities around the globe have embraced bike sharing systems to increase access to bikes and encourage the use of more sustainable modes. Some municipalities are also embracing the rise of shared e-scooter services that enable users to access electric scooters via their smartphones. Services that encourage active travel are a positive feature of the shared mobility landscape.

Electric vehicles have become more commonplace on Canadian roads in the past decade and trends suggest continued growth that can help achieve climate change objectives.

Monitoring and Evaluating transportation systems has traditionally relied exclusively on manual travel surveys and traffic counts. The greatest disadvantage of these methods is the low sample size, making transportation planning and design decisions based on a small set of data. Three examples of vendors that have been used in the City of Ottawa are: StreetLight Data Inc., Strava Inc., and Eco-Counter.

Streetlight is a software application that provides detailed travel information that would traditionally be too inefficient and costly to obtain manually. StreetLight harvests data from onboard GPS units and mobile apps with location-based services to determine multi-modal traffic patterns in a specified area. Use cases include, turning movement counts, origin-destination analysis, speed analysis, vehicle routing, and trip speed/duration/length metrics. The amount of data available is vast, allowing the user to conduct analysis for a specific time of year, month, week, and day. This makes it a powerful validation tool that can be used to support various capital projects, safety programs, and traffic management strategies; in addition to a support tool for the long-term monitoring of the TMP implementation plan – more on this in **Section 7.5**.



Strava is an application used to track and record running and cycling trips via GPS. It is tailored for individual to analyze their activities with various metrics such as distance and elevation among others. Strava allows access to heatmapping data that shows levels of demand amongst its users for free, but with a fee it provides greater resolution at the street level. Key drawbacks of this application are many of its features require a subscription and the platform allows users to deny sharing of their trip activity, which reduces the saturation rate and sample size for analysis. However, on popular recreational trails, such as the OVRT, where there are many users, it can provide a strong indication of origin and destination trends at the regional level.



Eco-Counter provides a suite of counting devices capable of capturing multi-modal counts (pedestrian vs cyclist vs vehicle) and direction of travel data along pathways and roadways. Counter technologies include the Pyro Evo Box, which uses infrared sensors to register user counts and distinguish direction of travel, Pneumatic Tube counters used to count vehicles and cyclists by direction, and Mobile MULTI's which use both infrared sensors and pneumatic tube counters to distinguish between cyclists and pedestrians and direction of travel. These counter types are best suited for seasonal data collection, between the months of April and October, given their long battery lifespan and portability. Winter data can be collected using the Pyro Evo Boxes. Furthermore, all data is automatically transmitted and is accessible via the Eco-Visio web-based dashboard and is an excellent complement to the traditional data collection programs that are generally vehicle focused.



Risks

The major risk with the advancements in technology is they will actively detract from goals and objectives centered on encouraging sustainable mobility and reducing private car trips, while simultaneously bringing benefits to individual users. These risks include:

- **Shared mobility**
 - Induced Demand - Ridesharing services (such as Uber and Lyft) can enable relatively inexpensive and convenient car trips that may otherwise have been made by a sustainable mode or not made at all, contributing to increased traffic congestion and greenhouse gas (GHG) emissions.
 - Future Planning - Presents a potential hindrance to future transit adoption or expansion in the municipality and County.
- **Mobility as a Service (MaaS)**

- Equity - Include lack of access for residents with low-income and disabilities relating to financial and physical barriers.
- Equity - Underrepresentation of vulnerable groups within Big Data used for monitoring and evaluation, potentially leading to further disparities in transportation planning within the municipality.
- **Micromobility**
 - Accessibility - Without a solid regulatory framework and effective and enforceable policies in place, e-scooters may litter sidewalks and other public spaces, creating significant problems for accessibility.
- **Big Data**
 - These sources do not fully eliminate the need for traditional surveys or counts. For example, Streetlight is intended to be a strong alternative to these typical data collection methods but calibrating the Streetlight results with traditional counts in areas with lower samples or underrepresented may be required. An annual subscription may come at a higher cost than traditional data collection approaches.

6.9.2 Recommendations

If the inherent risks are managed, emerging technologies present tremendous opportunities to reduce the reliance on private vehicles. Shared mobility services (e.g. bike share or e-scooters) can foster increased active transportation use; technology is also improving the ease of use of transit. Carsharing platforms and ridesharing companies are enabling families to go car-free, reducing the total number of private vehicles on the road network. Big Data will enable affordable real-time monitoring of travel behaviour to a degree that is impossible using conventional data collection techniques. To better prepare for the emergence of new technologies, it is recommended the municipality:

- Continue to explore opportunities to expand electrified vehicle supportive infrastructure within the municipality.
- Investigate the opportunities to improve and expand shared mobility use and adoption – in tandem with the TDM program (previously outlined in **Section 6.4**), such as bikesharing and e-scooter programs and technology.
- Investigate alternative and innovative methods of providing transit service as technology enables more efficient options, such as demand-responsive approaches.
- Investigate opportunities to utilize Big Data platforms (such as Streetlight Data Inc. and Strava Inc.) and other data service providers to better monitor and assess multi-modal transportation network performance.

6.10 Summary of Recommendations

It is recommended Mississippi Mills adopt the specific policies and supporting strategies outlined in this section to support the vision and objectives outlined in this TMP (**Section 2.7**).

Equity and Inclusion:

- Strive to achieve greater equity and inclusivity in the planning, designing, operating, and maintenance of the transportation system through the suggested policies and action items outlined in **Section 6.1**.
- Refer to Indigenous Groups are “Treaty and Inherent Indigenous Rights Holders” within the Transportation Master Plan
- Consult with Treaty and Inherent Indigenous Rights Holders, at an early stage to allow for substantial time for meaningful communication, in preparation of capital Municipal infrastructure construction and maintenance projects. Consultation shall include the identification of culturally significant land and traditional harvesting areas as well as preferred archaeological practices and procedures and receiving knowledge on archaeological significant areas.

- Complete archeological studies for all land disruptive projects, including projects that are not identified by legislation or regulation as needing archaeological studies or lands deemed to be heavily disturbed and possibly exempt from study. Land disruptive projects, initiated by the Municipality, within 300m of a water body will include a Stage 2 Archeological Assessment.

Road Safety, and more specifically Speed Management and Traffic Calming:

- Consider developing in the fullness of time, a comprehensive Road Safety Plan that builds upon recommendations in this TMP, including additional policies, programs, and guidelines to reduce road fatalities and serious injuries in the municipality.
- Build upon the Traffic Calming and Public Safety Review and Options staff report and prepare a comprehensive update to the Policy for Traffic Calming and Speed Management (2010) that aligns with the draft Lanark County Speed Management Policy (2023) and current industry best practices, such as the TAC: Canadian Guide to Traffic Calming (2018).
- Public and stakeholder engagement is essential before any speed management or traffic calming measures are implemented; the established consultation processes in the draft Lanark County Speed Management Policy (2023) or TAC: Canadian Guide to Traffic Calming (2018) should be incorporated into municipal policy.
- Collect new speed data along Clayton Road, Ottawa Street, Almonte Street and Ramsay Concession 8 to validate public concerns and respond accordingly, following the procedures outlined in municipal and county speed management policies.
- Investigate, in collaboration with Lanark County where appropriate, potential rural traffic calming measures in “transition zones” using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).
- Engage Lanark County to review speed management and traffic calming options along county roads within settlement areas, such as County Road 29 within Pakenham, applying the processes outlined in the Lanark County Speed Management Policy (2023).
- Consider a reduced target operating speed policy on municipal urban local roads (such as 40 km/h) if there is data-driven evidence vetted by relevant municipal departments, broader stakeholder acceptance, and sufficient community and public support.
- Alternatively, consider identifying candidate neighbourhoods for reduced operating speed limits and approved traffic calming measures, designated “Neighbourhood Speed Zones,” using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

Transportation Demand Management:

- Investigate the initiatives outlined in the TDM Toolbox in **Section 6.4** to leverage investments in active transportation and a potential future with a return of transit service in the municipality.

Goods Movement:

- Engage with Lanark County to adjust the county truck route network to include the recommended new south road corridor between County Road 29 and County Road 17 (Appleton Side Road), to reduce the impact of truck traffic to local commercial businesses and public spaces in Almonte.

Transportation Impact Studies in support of Development Applications:

- Adopt the Transportation Impact Study (TIS) Framework outlined in **Section 6.6** and apply it to all future development applications.

Climate Change:

- Acknowledge in the Official Plan the risks posed by climate change to human health and the environment, the role of transportation in greenhouse gas emission and the climate, and the need for actionable mitigation/ adaptation strategies.
- Apply a climate change and emissions lens during the planning and evaluation of all future municipal transportation projects and in the development review process to limit the increase of vehicle emissions, such applying strategies to reduce single-occupant vehicle use (TDM), adopting the complete streets approach, ensure the design of future development sites prioritize the movement of pedestrians and cyclists.
- Consider adopting Goals 1.1, 1.2, 1.4, and 1.5 of the Lanark County Community Climate Action Plan that target community transportation emissions in the Official Plan or in a Mississippi Mills specific Climate Action Plan (if developed).
- Consider adopting the county community emission reductions targets, for which transportation is the largest emitting-group within from community sources.
 - 10% below 2019 levels by 2030
 - 80% below 2019 levels by 2050
- Consult with Lanark County on the degree to which monitoring data will be able to be delineated by municipality, and request that Mississippi Mills-specific data be provided.

Specific Policies:

- Adopt the relevant policy statements and language suggested in **Section 6.8** to support the development review process, ensure consistency in the application of contemporary design standards and guidelines in all future development sites.

Emerging Technology:

- Continue to explore opportunities to expand electrified vehicle supportive infrastructure within the municipality.
- Investigate the opportunities to improve and expand shared mobility use and adoption – in tandem with the TDM program (refer to **Section 6.4**), such as bikesharing and e-scooter programs and technology.
- Investigate alternative and innovative methods of providing transit service as technology enables more efficient options, such as demand-responsive approaches.
- Investigate opportunities to utilize Big Data platforms (such as Streetlight Data Inc.) and other data service providers to better monitor and assess transportation network performance.

7.0 IMPLEMENTATION PLAN AND COST

Committing to undertake the actions identified in this TMP is integral to achieving the objectives and realizing the vision for the Municipality of Mississippi Mills. The following section summarizes the specific actions, capital investments, and a recommended time frame for each investment.



7.1 Total Capital Investment

Conceptual order-of-magnitude capital cost estimates (Engineering D Level) for each recommended project was developed based on typical unit costs (2024 Canadian dollars), recent construction pricing, and industry standard contingency factors.

The estimated cost to construct the 25-year build-out of recommended infrastructure projects developed in this TMP (including required specific Municipal Class Environmental Assessment Schedule 'C' studies) is approximately \$254 million or \$10.1 million per year over the next 25 years. Of this total, road network infrastructure projects represented the lion's share at roughly \$237 million, which comprises roughly \$2.9 million allocated to studies or projects to be implemented in the short-term horizon (5-year); over \$72 million allocated to projects in the medium-term horizon (15-year); and over \$162 million allocated to projects in the long-term horizon (25-year).

Cost Sharing

The total estimated cost includes projects on roads under the jurisdiction of Lanark County. In these cases, there is expected to be some cost sharing considerations. For example, the current practice is that all active transportation infrastructure costs on county roads are the responsibility of the municipality. In this case, the municipality provided general cost split assumptions that was applied to road projects on county roads. In some cases, the split was 80% Mississippi Mills and 20% Lanark County, and others it was split 50% to each municipality.

Once these cost split factors were applied, the estimated total municipal cost for all recommended infrastructure projects came to approximately **\$200.4 million** or **\$8.0 million per year** over the next 25 years. When broken down, the short-term projects cost roughly \$7.1 million, the medium-term projects cost roughly \$48.6 million, and the long-term projects cost roughly \$144.7 million. The total cost reflects approximately \$183.3 million in road related projects (including new roads, road retrofits that bundle active transportation facilities, and intersection enhancements) and \$17.1 million in active transportation specific projects. The estimated costs will be reviewed and revised accordingly during the detailed design process, and timing of these infrastructure investments will be further refined through the municipal annual capital budgeting process. The following sections will breakdown the different elements in further detail that made up the total cost estimate.

DC Eligibility

Certain road infrastructure projects are eligible for inclusion in the Development Charge (DC) By-Law calculation since they are triggered by future growth. The DC process is governed by the Development Charges Act, 1997, S.O. 1997, c. 27. All new road corridors were considered eligible, while only some road retrofits met the criteria. Intersection modifications that include new traffic control signals and/ or new intersections as part of new road corridors were also considered eligible.

The DC eligibility status of all projects should be verified as part of future DC By-Law updates. It is recommended that Lanark County review DC eligibility for proposed works under county jurisdiction as part of their upcoming TMP update.

7.2 Active Transportation Network Implementation Plan

The active transportation (AT) network implementation plan consists of specific active transportation projects categorized into three separate time horizons with estimated Class 'D' cost estimates, as shown in Table 35.

- Short-term (5-year)
- Medium-term (15-year)
- Long-term (25-year)

The AT plan consists of a mix of facilities ranging from shared use roads or neighbourhood bikeways to multi-use pathways to cycle tracks and sidewalks as described in **Section 3.4.1**. The implementation timing considered urgency of need (e.g. safety, locations near schools) that included input received from stakeholders and municipal staff, and general costs where more affordable projects can easily be advanced for quicker implementation,

These projects are all categorized as Schedule 'A+' projects. Under the 2019 Amendments to the Municipal Class Environmental Assessment (MCEA) process, all road works within the existing right-of-way that do "not increase continuous lanes of travel for vehicles" are considered Schedule A+ projects. Furthermore, "no EA process is required for property purchase. If the proponent acquires property to widen a road allowance through another process (negotiation with owner or planning policies for minimum width of road allowances) then the project to construct within the altered road allowance is A+."

The AT plan also includes a pedestrian facility gap program that is provided in Table 36, which defines the locations to fill or enhance pedestrian facilities based on priority. The pedestrian priority system was previously outlined in **Section 3.3.1**, consisting of Low, Medium, and High priorities, reflecting the sensitivity and urgency of each location.

The proposed AT implementation plan is intended to be used as a guide, where the actual timing being may be dependent on available funding and opportunities. As the cost of implementing the plan will be lower when undertaken in conjunction with other infrastructure projects, it may be necessary to adjust the timing and priority of projects to take advantage of opportunities that arise. Proposed road retrofits discussed in the Road Network Strategy (**Section 4.3.5**) would fill any existing pedestrian and cycling recommendations along the respective corridors. As such, the AT costs have already been accounted for within the Road Network Implementation Plan (discussed in the next section) and omitted here. The Active Transportation Network Implementation Plan, including the Pedestrian Facility Gap Program and Interim and Ultimate Cycling Plans are shown in **Schedules 9** through **14**.

Adopt the Active Transportation Network Implementation Plan, including the pedestrian facility gap program, as outlined in Section 7.2, and in Tables 35 and 36.

Table 35: Active Transportation Specific Projects with Estimated Costs

Specific Active Transportation Enhancements	Short-Term	Medium-Term	Long-Term
Local Cycling Routes (Various) - Signage and Pavement Markings	\$220,000	-	-
Almonte & District Community Centre Pathway Connection - New MUP	\$210,000	-	-
Cameron St. OVRT Connector - Formalize Pathway Connection	\$15,000	-	-
Menzie-North Pathway - New MUP	-	-	\$965,000
Ottawa St. Commercial Area Pathway Connector (North) - New MUP	\$195,000	-	-
Ottawa St. Commercial Area Pathway Connector (South) - New MUP	-	\$250,000	-
Greystone Trail Local Route Connector - New MUP	-	\$85,000	-
Frank Davis St. MUP - New MUP	\$500,000	-	-
Industrial Dr. MUP (West/South) – New MUP	\$870,000	-	-
Industrial Dr. MUP (North) – New MUP	\$75,000	-	-
R Tait McKenzie P.S. Pathway - New MUP	\$205,000	-	-
Holy Name Mary Catholic School Pathway - New MUP	\$205,000	-	-
Harold St. Linear Park - New MUP	\$270,000	-	-
Pakenham Beach - OVRT Connector	\$110,000	-	-
Five Arches Community Housing - Pathway Connector	\$115,000	-	-
Veterans Memorial Walkway – MUP Enhancement	\$130,000	-	-
Thomas St. OVRT - Connector	\$15,000	-	-
Cameron St. OVRT - Connector	\$25,000	-	-
Peterson St. OVRT - Connector	\$25,000	-	-
PXO Type B – Country Street and Bridge Street	\$50,000	-	-
PXO Type B – Industrial Drive	\$50,000	-	-
PXO Type B – Queen Street (at Union Street)	-	-	\$50,000
TOTAL	\$3,285,000	\$335,000	\$1,015,000
Specific Active Transportation Enhancements Total Costs	\$4,630,000		

General Costing Assumptions:

1. Costs are in 2024 CAD and rounded up to nearest \$5,000.
2. Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/ or recent contract unit prices.
3. Estimates based on conceptual sections – costs to be confirmed during detailed design.
4. Property impacts were not costed - value needs to be reviewed on a case-by-case basis by municipal staff.

Table 36: Pedestrian Facility Gap Program with Estimated Costs

Pedestrian Facility Gaps	Priority	Estimated Length (m)	Overall Cost
Pedestrian Facilities Gaps - Urban Context (sidewalk)	High	950	\$820,000
	Medium	3,690	\$3,215,000
	Low	3,800	\$3,315,000
	Gaps Filled within Road Retrofits	6,890	
Pedestrian Facilities Gaps - Rural Context (paved shoulder)	High	1,330	\$1,160,000
	Medium	0	-
	Low	4,540	\$3,955,000
Total Costs (assuming all priority projects)			\$12,465,000
Medium/ High Priority Costs (not including Low Priority projects)			\$5,195,000

Refer to Schedules 9 and 10 for supporting map, and Appendix I for comprehensive list.

General Costing Assumptions:

1. Costs are in 2024 CAD and rounded up to the nearest \$5,000.
2. Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/or recent contract unit prices.
3. Estimates based on conceptual sections – costs to be confirmed during detailed design.
4. Property impacts were not costed – value needs to be reviewed on a case-by-case basis by municipal staff.
5. Cost estimate for sidewalks in rural contexts assumed a redesign of the existing road drainage was not required. If a custom solution is not possible, the implementation may need to be deferred until the lifecycle renewal of the road.

7.3 Road Network Implementation Plan

The road network implementation plan outlines the recommended timing and high-level (Engineering Class ‘D’) cost estimates for road network projects within three general categories:

- New Road Corridors found in Table 37 (refer to **Section 4.3.4**)
- Road Retrofits that reflect a complete streets approach found in Table 38 (refer to **Section 4.3.5**)
- Intersection Projects found in Table 39 (refer to **Section 4.3.7**)

The project schedule was grouped by time horizons (5 year, 15-year, and 25-year), similar to the AT network implementation plan in **Section 7.2**.

The recommended new road corridors are essential components of the ultimate road network plan to mitigate the various implications that come with long-term growth; primarily increased traffic and heavy trucks travelling through Almonte (discussed in **Section 4.3.4**). The combined cost of these projects represents nearly \$125 million in investment to construct over 4 km of new road in Almonte, including a new multi-modal bridge over the Mississippi River. All recommended new road corridors are expected to follow the Municipal Class Environmental Assessment (MCEA) process as Schedule “C” projects, and a budget estimate has been included to complete these studies.

The recommended road retrofits reflect a gradual transition of existing corridors to incorporate a complete streets approach, adapting contemporary design practices that exemplify the vision and objectives developed in this TMP. Hence, most of the investment in retrofits are to be implemented by the long-term, 25-year horizon; roughly \$100

million of the \$107 million total budget estimate. As previously noted, road projects that do not require property acquisition do not trigger a Schedule 'C' project under the Municipal Class Environmental Assessment process.

There are certain retrofit situations that have more than one solution option. For example, an urban road corridor may have insufficient right-of-way space to fit new active transportation facilities without a custom drainage solution. If a custom drainage solution is not feasible, a reconstruction of the roadway to the standard urban cross-section would be needed. For the purposes of providing a “worst-case” budget envelope for recommended retrofit projects, the optimal/higher cost solution is reflected in the total cost calculation. For example, cycle tracks are shown as the ultimate cycling facility on collector or arterial roads, but multi-use pathways may be considered if the context and desires warrant them at implementation.

Table 40 also includes cost estimates for two potential solution options to address long-term capacity needs on March Road, for information purposes only. The ultimate decision of whether to proceed with either solution or a different solution will be made as part of a future TMP update. In the meantime, further coordination with Lanark County and the City of Ottawa is needed; a fulsome discussion on this specific corridor is provided in **Section 4.3.5**. The information provided for these two solution options is intended to help inform these future discussions and provide a baseline to work from in future TMP updates.

Finally, intersection enhancements have been recommended to address local safety concerns as well as potential long-term capacity constraints (discussed in **Section 4.3.7**). The overall costs represent roughly \$6 million over the course of the 25-year planning period.

The municipality should adopt the Road Network Implementation Plan, as outlined in Section 7.3, and in Tables 37, 38 and 39.

Table 37: New Road Infrastructure Implementation Plan with Estimated Costs

Road Corridor	Assumed Municipal Ownership	From	To	Road Class ^a	Assumed Length ^b	Short-Term	Medium-Term	Long-Term	
New Northeast Corridor	MM	Martin Street	Ramsay Concession 11A	2-Lane Urban Collector	1.4 km	MCEA Study to assess implications, confirm alignment and design requirements and cost. ^c Est. \$300,000	\$32,550,000	-	
New Southeast Corridor	MM or County (To Be Confirmed)	Old Almonte Road	Appleton Side Road	2-Lane Urban Arterial	680 m	MCEA Study to assess implications, confirm alignment and design requirements and cost. ^c Est. \$700,000	\$16,150,000	-	
		Bridge E limit	Old Almonte Road	2-Lane Urban Arterial	450 m (including increased geotechnical factor for floodplain)		-	\$8,350,000	
New Southwest Corridor (assumes embankment)	MM or County (To Be Confirmed)	County Road 29	Country Street	2-Lane Urban Arterial	680 m	MCEA Study to assess implications, confirm alignment and design requirements and cost. ^c Est. \$700,000	\$16,150,000	-	
		Country Street	Bridge W Limit	2-Lane Urban Arterial	800 m (including increased geotechnical factor for floodplain)		-	\$15,100,000	
South bridge crossing (no embankment – shore to shore)	MM or County (To Be Confirmed)	-	-	Multi-Modal Bridge 2-Lane Urban Arterial	160 m (assumed shoreline to shoreline distance)		-	\$35,050,000	
Total Cost: All Projects by Horizon							\$1,000,000	\$64,850,000	\$58,500,000
Total Cost							\$124,350,000		
Cost of projects expected to be on MM roads, by Horizon							\$300,000	\$39,000,000	\$39,750,000
Cost of projects expected to be on Lanark County roads, by Horizon							\$700,000	\$25,850,000	\$18,750,000

Notes: MCEA = Municipal Class Environmental Assessment

- a The road class is based on the recommended complete street cross-sections (refer to **Section 4.2.6**)
- b Assumed length based on a linear alignment, with a factor considering floodplain implications. The MCEA study will confirm the preferred alignment based on technical evaluations and adjust costs accordingly.
- c MCEA study costs will be 100% responsibility of assumed municipal owner.

General Costing Assumptions:

1. All costs in 2024 CAD and rounded up to nearest \$50,000.
2. New road infrastructure with possible Lanark County ownership was split as follows: 20% MM / 80% county.
3. New road infrastructure assumed under MM ownership: 100% MM.
4. Risk factors and contingency include Engineering Costs, Municipal Internal Costs, Utilities, Property, Miscellaneous Soft Costs, Geo-Technical, AODA Compliance, Phasing of Implementation, Species at Risk and Project Mitigation, Approvals, Federal and Provincial Environmental Assessments.
5. Property Costs assumed at 10% of construction value.
6. Underground Utility Costs (Storm, Sanitary, Water) assumed based on standardized factors.
7. Geotechnical factors applied based on unknown soil conditions (equal parts soils, rock, peat, etc.).
8. All options assume sidewalk and cycle track. Alternative multi-use pathway option would reduce cost by roughly \$ 400/m.
9. Large embankment costs expected for roadways approaching bridges - not estimated at this time.
10. Significant low-lying material for Southwest Bridge - not considered within estimate.

Table 38: Retrofit Street Network Implementation Plan with Estimated Costs

Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Ottawa Street	MM	Appleton Side Road	Industrial Drive	Add MUP on South Side	450	No	-	-	\$610,000
		Industrial Drive	Paterson Street	Replace Sidewalks with MUPs on Both Sides	230	No	-	-	\$620,000
		Paterson Street	Martin Road	Widen Bike Lanes and Sidewalk	670	No	-	-	\$1,460,000
Queen Street	County	Ottawa Street	Union Street	Replace Sidewalk with MUP on North Side	200	N/A	-	-	\$270,000
Queen Street Bridge	County	-	-	Add Shared Road Pavement Marking and Signage	90	N/A	Nominal Cost - approximately \$100/m	-	-
Bridge Street	County	Country Street	Perth Street	Enhance Sidewalks, Convert Bike Lanes to Cycle Tracks with Vehicle Lane Widening	460	N/A	-	-	\$2,390,000
Perth Street	County	Bridge Street	County Road 29	Enhance Sidewalks, Convert Bike Lanes to Cycle Tracks with Vehicle Lane Widening	290	N/A	-	-	\$1,510,000
Old Perth Road	MM	County Road 29	Almonte West Boundary	Widen Shoulders (interim)	250	No	\$390,000	-	-
				Urban Collector Design (ultimate)		Yes	-	-	\$5,670,000

Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Martin Street	County	Ottawa Street	Stephen Street	Widen Bike Lanes (interim)	400	N/A	60,000	-	-
		Stephen Street	Future North Collector Road	Convert Paths to Sidewalks and Add Shared Road Pavement Markings and Signage (interim)	800 ^c	N/A	-	870,000	-
		Ottawa Street	Future North Collector Road	Full Urbanization and Convert Bike Lanes to Cycle Tracks (ultimate)	1,200 ^c	N/A	-	-	\$6,230,000
Almonte Street	MM	60 m West of Farm	Malcolm Street	Add MUP on North Side	120	No	-	\$210,000	-
		Malcolm Street	Euphemia Street	Add MUP on South Side	160	No	-	\$220,000	-
		Euphemia Street	County Road 29	Add MUP on South Side and Widen Sidewalk	310	No	-	\$760,000	-
		County Road 29	Almonte West Boundary	Widen Shoulders (interim)	270	No	\$420,000	-	-
				Urban Collector Design (ultimate)		Yes	-	-	\$6,120,000
Ramsay Concession 11A	MM	March Road	Leishman Drive	<i>Add Sidewalk on West Side (requires custom drainage solution) Provided for information only; not included in the final cost.</i>	550	Yes	\$1,700,000	-	-
				Assuming custom drainage solution not possible: Urban Collector Design with MUP - West Side Only		Yes	-	-	\$4,850,000
		Leishman Drive	Future North Collector Road	Urban Collector Design with MUP - West Side Only	650 ^c	Yes	-	-	\$5,740,000

Road Corridor	Jurisdiction ^a	From	To	Retrofit Description	Estimated Length (m)	DC Eligible ^b	Short-Term	Medium-Term	Long-Term
Old Almonte Road	MM	Robert Hill Street	Almonte South Boundary	Add Sidewalk on Both Sides (requires custom drainage solution) <i>Provided for information only; not included in the final cost.</i>	500	Yes	\$3,100,000	-	-
				Assuming custom drainage solution not possible: Reconstruct as custom Urban Collector Road (22 m ROW)		Yes	-	-	\$9,890,000
		Almonte South Boundary	Appleton Side Road	Double Surface Treatment (Short-Term) Paved Road Surface (Medium-Term) <i>Provided for information only; not included in the final cost.</i>	2,500	No	\$1,000,000	\$7,370,000	-
				Rural Collector Design (affordable ultimate) <i>Provided for information only; not included in the final cost.</i>		Yes	-	-	\$42,630,000
		Urban Collector Design (preferred ultimate)		Yes	-	-	\$56,630,000		
Appleton Side Road	County	March Road	Almonte South Boundary ^d	Add MUP on Both Sides (assumes property acquisition possible)	600	N/A	-	\$1,750,000	-
Total Cost: All Projects by Horizon							\$870,000	\$3,810,000	\$101,990,000
Total Cost							\$106,670,000		
Cost of projects on MM roads, by Horizon							\$870,000	\$3,810,000	\$95,760,000
Cost of projects on Lanark County roads, by Horizon							\$0	\$0	\$6,230,000

Notes: MUP = Multi-Use Pathway

- a Despite road jurisdiction, active transportation facilities on county roads are still the responsibility of the municipality.
- b DC eligibility was not considered for road retrofits on county roads.
- c The location of the Future North Collector Road has been estimated to prepare the cost estimate but will be confirmed during the Municipal Class Environmental Assessment process.
- d The proposed enhancements should eventually be extended to the Future South Road Corridor and potentially farther south depending on how development proceeds in Almonte. The estimated cost reflects work only up to the current Almonte boundary.

General Costing Assumptions:

1. All costs in 2024 CAD and rounded up to nearest \$10,000.
2. Full reconstruction/ retrofits on Lanark County roads were assumed to be 100% county responsibility. AT specific retrofits on Lanark County roads were assumed to be 100% MM responsibility.
3. Risk factors and contingency include Engineering Costs, Municipal Internal Costs, Utilities, Property, Miscellaneous Soft Costs, Geo-Technical, AODA Compliance, Phasing of Implementation, Species at Risk and Project Mitigation, Approvals, Federal and Provincial Environmental Assessments.
4. Property Costs assumed at 10% of construction value.
5. Underground Utility Costs (Storm, Sanitary, Water) assumed based on standardized factors.
6. Geotechnical factors applied based on unknown soil conditions (equal parts soils, rock, peat, etc.).
7. All options assume sidewalk and cycle track. Alternative multi-use pathway option would reduce cost by roughly \$ 400/m.
8. Large embankment costs expected for roadways approaching bridges - not estimated at this time.
9. Significant Low-lying material for Southwest Bridge Connection - Not considered within estimate.
10. Double Surface Treatment includes gravel shoulder and roundings. Cost provided by MM staff directly at \$162/m with a 100% contingency.

Table 39: Recommended Intersection Enhancements with Estimated Costs

	Intersection Enhancements	Short-Term	Medium-Term	Long-Term
1	March Road/ Appleton Side Road Roundabout:			
1a	<i>Short-term Roundabout Enhancements (not including PXO enhancements)</i>	\$670,000		
1b	<i>Enhance PXO Crossings at Roundabout (e.g. signals or new signage etc.)</i>	To be reviewed for safety, accessibility, and best design practices as part of future Ottawa Street renewal plan. Property implications expected.		
2	Ottawa Street/ Industrial Drive Long-term intersection design			
3	Ottawa Street/ Paterson Street Long-term intersection design			
4	Ottawa Street/ Martin Road Intersection:			
4a	<i>Ottawa Street/ Martin Road long-term intersection design</i>			
4b	<i>Short-term Realignment of Martin St. S to Queen St. for safety</i>	\$330,000		
5	Bridge Street/ Perth Street Redesign for safety		\$500,000	
6	CR29/ Almonte Street - adjust auxiliary lanes		\$410,000	
7	CR29/ Perth Street - new traffic signal & remove NBR channel		\$1,260,000	
8	Almonte Street/ Main Street/ Mill Street - convert PXO to signal		\$970,000	
9	Appleton Side Road/ Industrial Drive - new Traffic Control Signal ^a			\$900,000
10	Old Almonte Road/ Appleton Side Road - new Traffic Control Signal ^a			\$900,000
11	<u>New Unsignalized Intersections:</u> ^a New North Road Corridor @ Martin St, Ramsey Concession 11A	Included in new road costs		
12	<u>New Signalized Intersections:</u> ^a New South Road Corridor @ CR29, Country, Old Almonte, Appleton Side, OVRT Old Almonte Road @ Appleton Side	Included in new road costs		
Total Cost: All Projects		\$1,000,000	\$3,140,000	\$1,800,000
Total Cost		\$5,940,000		
Cost of projects on MM roads, by Horizon		\$670,000	\$2,300,000	\$900,000
Cost of projects on Lanark County roads, by Horizon		\$330,000	\$840,000	\$900,000

Notes: PXO = pedestrian crossover

^a Considered DC Eligible

General Costing Assumptions:

1. Costs are in 2024 CAD and rounded up to nearest \$10,000.
2. Cost share estimate for intersections located on both MM and county roads were split 50/50.
3. Unit Prices derived from City of Ottawa 2023 Spec Code Listing unit rates and/or recent contract unit prices.
4. Estimates based on a conceptual desktop review. Some concepts were prepared and provided in Appendix M.
5. In some cases, intersection modification costs were estimated based on modifications to only part of the intersection.
6. Property Impacts were not costed - value should be reviewed on a case-by-case basis by staff.

Table 40: Long-Term Considerations – Two Retrofit Scenarios for March Road with Estimated Costs ^a

Road Corridor	Jurisdiction ^b	From	To	Retrofit Description	Estimated Length (m)	Short-Term	Medium-Term	Long-Term
March Road	County	Appleton Side	Golden Line	Widen to 4-Lane Rural Arterial Review the need for additional Right-of-Way, currently 30 m	2,900	Subject to MCEA Study if chosen. Est: \$300,000	-	\$68,150,000
OR								
Old Almonte Road	MM	Appleton Side	Golden Line	Full Road Reconstruction 2-Lane Rural Collector Protect for 28 m Right-of-Way	2,900	Subject to MCEA Study if chosen. Est: \$500,000	-	\$49,550,000
Golden Line Road		Old Almonte (MM)	Old Almonte (Ottawa)		1,300		-	\$22,200,000

Notes: MCEA = Municipal Class Environmental Assessment.

^a This table has been provided for information purposes only; it is not part of the recommended implementation plan and estimated costs have not been included in the total cost calculation.

^b Despite road jurisdiction, active transportation facilities on county roads are still the responsibility of the municipality.

General Costing Assumptions:

- All costs in 2024 CAD and rounded up to nearest \$10,000.
- Full reconstruction/ retrofits on Lanark County roads were assumed to be 100% county responsibility. AT specific retrofits on Lanark County roads were assumed to be 100% MM responsibility.
- Risk factors and contingency include Engineering Costs, Municipal Internal Costs, Utilities, Property, Miscellaneous Soft Costs, Geo-Technical, AODA Compliance, Phasing of Implementation, Species at Risk and Project Mitigation, Approvals, Federal and Provincial Environmental Assessments.
- Property Costs assumed at 10% of construction value.
- Underground Utility Costs (Storm, Sanitary, Water) assumed based on standardized factors.
- Geotechnical factors applied based on unknown soil conditions (equal parts soils, rock, peat, etc.).
- All options assume sidewalk and cycle track. Alternative multi-use pathway option would reduce cost by roughly \$ 400/m.
- Large embankment costs expected for roadways approaching bridges - not estimated at this time.
- Significant Low-lying material for Southwest Bridge Connection - Not considered within estimate.

7.4 Potential Funding Sources

Implementation of the TMP will require significant investment from the municipality with additional funding support from contributing partners including the Federal, Provincial and Regional governments and other key stakeholders. The municipality should take advantage of these opportunities to increase funding to support various facets of the TMP.



7.4.1 Federal Funding

- **Investing in Canada Infrastructure Program (ICIP):** \$33 billion in funding to communities with a focus on the following targeted funding streams: Public Transit, Green Infrastructure, Community and Recreation, Rural and Northern Communities, and a temporary COVID-19 Resiliency Stream. For projects funded through these streams, the Government of Canada will invest up to 40% for municipal and not-for-profit projects in the provinces.
- **Canada Community-Building Fund (previously, the Federal Gas Tax Fund):** Permanent funding program providing upfront, bi-annual payments to provinces, to in turn distribute to municipalities for local infrastructure priorities. Funding is ~\$2 billion yearly. Funds can be invested across [18 project categories](#) to address local priorities. Active transportation infrastructure such as sidewalks, bike lanes, and multi-use paths are eligible for funding under this initiative.
- **Permanent Public Transit Program:** \$3 billion per year for public transit, starting in 2026/2027, providing predictable funding for increasing mobility options through public transit initiatives. This program is broken down into three application-based funds: ⁴⁶
 - Rural Transit Solutions Fund – “supports locally-driven transit solutions for rural and remote communities, with flexibility for different local transit system innovations from fixed route to on-demand services to ride-shares.”
 - Zero Emission Transit Fund – “supports public transit and school bus operators plan for electrification, supports the purchase of 5,000 zero emission buses and build supporting infrastructure.”
 - Active Transportation Fund – “invests in projects that build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges, in addition to supporting active transportation planning activities.”

7.4.2 Provincial Funding

- **Provincial Gas Tax Program:** The program provides long-term funding to reduce congestion, support economic growth and improve the overall quality of life of municipal residents. Since the program began in 2004, more than \$3.7 billion in funding has been allocated to Ontario municipalities.
- **Infrastructure Ontario (IO):** IO offers a Loan Program that provides long-term financing to public sector clients to help renew infrastructure. IO loans have been used by several Ontario municipalities to revitalize roads and bridges, build recreational facilities, and improve the overall mobility of municipal residents.
- **Ontario Trillium Foundation (OTF):** The OTF is an agency of the Government of Ontario, and one of Canada’s leading granting foundations. The goal of OTF is to build healthy and vibrant communities throughout Ontario through

⁴⁶ Government of Canada. <https://www.infrastructure.gc.ca/transit-transport/index-eng.html>. Date Accessed: May 12, 2025.

investments in community-based initiatives. Key priority outcomes for OTF grants include high quality programming and infrastructure to support physical activity.

- **Ontario Community Infrastructure Fund (OCIF):** Provides grants for small, rural, and northern communities. Communities do not need to apply for the funding but will need to provide planning and reporting documents to receive the grants.
- **Tourism Development Fund (TDF):** Cost-sharing program providing non-capital funding to projects that encourage tourism in Ontario. Funding may be used for initiatives such as new cycling maps, cycling tours and bikeshare visitor offers.

7.4.3 Regional/ Local Funding

- **County of Lanark:** Proposed infrastructure located on roads and lands under the jurisdiction of Lanark County should be fully or partially funded through the county's capital budget and other available funding sources. Capital projects are identified on an annual basis which includes the construction and rehabilitation of road and active transportation projects. The construction and maintenance of active transportation enhancements on county roads are typically excluded from county capital budgets, but if they are completed at the same time as a roadway project (such as a renewal), there is an opportunity to achieve cost efficiencies.
- **Local:** Other sources of funding may include development charge, local business donations and local charity events.

7.4.4 Other

- **Federation of Canadian Municipalities Green Municipal Fund (GMF):** The GMF provides funding for municipal environmental initiatives that improve air, water, and soil, and reduce greenhouse gas emissions. Funding is available to all Canadian municipal governments and their partners for eligible projects. Grants are also available for various planning studies and pilot projects.
- **TD Friends of the Environment Foundation Grant:** The Foundation supports a wide range of environmental initiatives, with a primary focus on environmental education and green space programs. Eligible projects include schoolyard greening, park revitalization, community gardens, park programming and citizen science initiatives.

The municipality should leverage all available funding sources from all levels of government and other sources (such as Development Charges) to support the implementation of the TMP's recommendations.

7.5 TMP Monitoring

A monitoring program will allow the municipality to track both the efficacy of the TMP implementation plan and how it is shaping the way people and goods travel within and through Mississippi Mills. The TMP recognizes that the municipality already possesses knowledge, expertise, and equipment within their existing data collection program, which already captures traffic volume, vehicle class, and speed data. This wealth of information should be categorized and organized in a way that relevant information can be extracted and expanded upon, such as traffic trends and patterns to help inform future transportation infrastructure decision making. A key example is vehicle speed data, which is an integral part of contemporary traffic calming and speed management policy, needed to validate public concerns.

The following additional performance indicators should be tracked on an annual basis if possible, reflecting the shift towards a multi-modal system, more data beyond vehicle centric metrics is needed.

- Percentage of infrastructure plans implemented, including New Roads, Road Retrofits, and Active Transportation infrastructure.
- Cycling and pedestrian usage at strategic locations on the Cycling Priority Routes to assess demand and capacity of active transportation network (e.g., along the OVRT through settlement areas).
- Transit ridership and service hours on local and regional services (ex. Ride the LT which is predicated on transit service returning to the municipality).
- Intersection turning movement counts at any identified location for future modifications, or locations with perceived congestion concerns.
- Collision detailed reports including the number of vehicles/pedestrians/cyclists, type impact, and severity.
- Survey of residents' travel behaviour (Canadian Census).

Much of the data required to track these metrics are accessible from existing sources, such as the municipality's existing data collection program, transit service operators or the OPP. In some cases, additional data collection may be necessary. For example, information of residents' travel behaviour must be collected from the Canadian Census database, and intersection turning movement counts cannot be captured by the municipality's automated traffic recorders and road tubes, these are traditionally captured by people manually counting vehicles, people, trucks, and cyclists that travel through an intersection.

The following list of specific locations should be monitored throughout planning horizons, in collaboration with Lanark County where applicable:

- Ottawa Street between Martin Street and Ramsay Concession 11A
- March Road between Ramsay Concession 11A and Golden Line Road (consider requesting/ sharing respective March Road information with the City of Ottawa)
- Potential PXO crossing locations:
 - Almonte Street (150m east of Malcolm)
 - Main Street (at Maude Street)
 - Country Street (at Perth Street)
 - Paterson Street (~200m south of Morton)
 - Appleton Side Road (at Greystone Trail)
- Intersection operations and safety at:
 - Ottawa Street/ Martin Street
 - Ottawa Street/ Menzie Street
 - Ottawa Street/ Industrial Avenue
 - Ottawa Street/ Ramsay Concession 11A (roundabout)
 - Ottawa Street/ PXO west of Ramsay Concession 11A
 - Martin Street/ Queen Street
 - Perth Street/ Bridge Street
 - County Road 29/ Perth Street
 - County Road 29/ Almonte Street

The municipality should develop a monitoring program to track both the progress and impact of implementing the TMP's recommendations.

7.6 Future TMP Updates

The development of TMP has considered the likely trajectory of the municipality over the course of the next two decades, but as Mississippi Mills changes over time, the TMP will need to be updated to reflect the new realities that may not have been contemplated in this plan. During these reviews, key questions need to be asked: [Has growth occurred as expected?](#) [Have travel patterns shifted in a way that was not anticipated?](#) [Has technology changed the face of local mobility in a major way?](#)

The TMP should be updated at regular intervals to ensure that its underlying assumptions continue to apply. The Municipal Class Environmental Assessment process recommends a review of master plans every five years. Regularly updating the TMP ensures that it remains relevant and useful in guiding Mississippi Mills for decades to come.

The TMP should be reviewed every five years or when deemed necessary, to determine if the original assumptions and recommendations continue to apply or if an update is required.

8.0 SUMMARY OF TMP RECOMMENDATIONS

The municipality's commitment to the following recommendations will support the stated vision and objectives of the TMP and address the various transportation needs for Mississippi Mills, which have been reiterated below:

Contemporary themes and priorities to incorporate into the Official Plan and relevant policy documents.

- Sustainable Transportation
- The “Complete Streets” Philosophy
- Respecting the unique needs of Urban and Rural areas
- Universal Accessibility
- Equity and Inclusivity
- Environmental Stewardship
- Affordability and Economic Sustainability

The growth and evolution of active transportation as a main mode of transportation.

- Promote and prioritize active modes (walking, rolling and cycling) in all facets of transportation planning and design including:
 - recognize the importance of active transportation early in the planning stage of all future development or redevelopment projects.
 - incorporate pedestrian and cycling facilities in new municipal road design standards.
 - strive to update minimum design criteria for pedestrian and cycling facilities to optimal targets based on contemporary industry standards where appropriate for the municipality.
 - develop a pedestrian facility gap program to ensure existing gaps and deficiencies are filled in the fullness of time.
- Provide guidance on active transportation integration at intersections and crossings, according to contemporary standards.
- Strengthen the requirements within the development review process to maximize the comfort, safety and convenience of pedestrians and cyclists when designing a site.

Strategic expansion of the road network to manage anticipated growth.

- Develop a road network plan that addresses the anticipated long-term capacity issues with utmost regard for social, environmental, and economic implications.
- Develop new municipal road design criteria and standards that incorporate the complete streets approach.
- Refine the road classification system to better distinguish between and respect the unique needs found among urban and rural roads.
- Develop a road network plan that recognizes the importance of mobility to the urban and rural economy; the unique needs of agriculture industry and their vehicles; and protecting built-up areas from the undue impacts of traffic growth, particularly through Almonte and the rural villages.
- Identify funds and mechanisms required to support recommended projects.
- Coordinate needs on county roads to support growth within the municipality.

Encourage and support the resurgence of transit and ridesharing/ carpooling opportunities.

- Leverage opportunities to bring transit service to the municipality through existing partners and private operators and explore avenues to synergize future transit service with adjacent municipalities, such as Lanark Transportation and OC Transpo.

- Investigate affordable travel options, such as ridesharing and carpooling to improve equity within the transportation system, particularly for the most vulnerable users, such as the elderly and low-income individuals/ families.
- If/ when local or commuter-oriented transit service resumes in the municipality, ensure contemporary guidelines and standards for treatment and design of transit facilities are followed (e.g. bus pads, bus shelters, and seating).
- Ensure the development review process includes provisions and considerations for future transit service, and all future developments provide adequate connections and accommodations within the development design of a site to support transit riders.
- Consider opportunities to provide supporting transit infrastructure if/ when transit service returns to the municipality, such as new park and ride lots at locations that promote greater ridership.

Identify new or expand upon existing policies, strategies, and programs to support the vision and objectives, the needs of the municipal staff, the desires of the public and stakeholders, and the various infrastructure recommendations identified in the TMP.

- | | |
|--------------------------------------|-------------------------|
| ▪ Equity and Inclusivity | ▪ Specific Policy Needs |
| ▪ Transportation Demand Management | ▪ Goods Movement |
| ▪ Road Safety | ▪ Maintenance |
| ▪ Development Review Traffic Studies | ▪ Emerging Technologies |

Based on various needs and opportunities outlined above, an intensive evaluation process occurred that included extensive public and stakeholder consultation and lead to the following list of recommendations for the Mississippi Mills TMP.

ACTIVE TRANSPORTATION (SECTION 3.0)

To encourage and support the municipality’s long term active transportation system, the following recommendations have been developed.

Walking, Rolling and Cycling

To improve the travel experience of pedestrians, accessible users, and cyclists it is recommended that the municipality:

- Revise current municipal design standards such that sidewalks are provided on both sides of new or reconstructed urban collector and arterial roads.
- Sidewalks should be provided on at least one side of urban local roads. Some judgement can be exercised in the application of this recommendation, but for the majority, a sidewalk shall be provided on at least one side of the road. However, a sidewalk may not typically be required for a “cul-de-sac” or similarly limited, low-volume local road. Sidewalks should typically only be constructed on cul-de-sacs where they are determined to improve pedestrian network connectivity, such as where there is a pedestrian through-link at the end of the cul-de-sac.
- Adopt a 1.8 m sidewalk width with 1.5 m only considered acceptable in constrained situations.
- Consider sidewalk widths greater than 1.8 m where appropriate, such as the “downtown district” (discussed further in **Section 3.8.1**) or segments with high pedestrian volumes.
- Expand the policy for sidewalk construction related to development to include requirements for sidewalks on roads not directly related to, fronting, or within the development. Where development activity occurs that *creates* a new gap in the pedestrian network (i.e. creates potential demand for pedestrian connectivity where it does not currently exist), the onus to fill that gap should fall to the developer.

- Adopt the priority system for filling in the sidewalk network gaps discussed in **Section 3.3.1** and identified by **Schedule 9** and **Schedule 10**.
- Consider developing a detailed Pedestrian Crossing Policy and Standards, to be integrated with an updated Sidewalk Policy.
- Implement pedestrian crossovers (PXOs) at noted locations with immediate needs, and consider implementing PXOs at candidate locations, outlined in **Section 3.3.2**.
- Adopt and implement the Interim Cycling Plan identified by **Schedule 11**; and consider augmenting the local cycling network with traffic calming measures where appropriate.
- Adopt and implement the Ultimate Cycling Plan identified by **Schedule 12**.
- Leverage the lifecycle renewal opportunities of the existing roads within the Ultimate Cycling Plan to include recommended cycling interventions within the scope of the renewal project.
- Adopt the Rural Cycling System shown by **Schedule 13**; at the renewal of municipally owned roads and bridges identified on this network, consider the provision of minimum 2.0 m paved shoulders on both sides of the road, in accordance with the recommended standard Rural Cross-Sections (refer to **Section 4.2.6**).
- As development proceeds in the rural areas and villages, look for opportunities to connect to the OVRT to further strength the municipal trail system and economic development.
- Engage with Lanark County to accelerate the provision of widened paved shoulders on Tatlock Road, Clayton to Bellamy Mills; and Wolf Grove Road, Christian to Ramsay Concession 8; and integrate active transportation facilities on bridges at the time of renewal/ rehabilitation.
- Update the relevant Official Plan sections and associated Zoning By-law relating to minimum bicycle parking requirements, as described in **Section 3.4.4**.
- Undertake a review of bike parking supply at all municipal public facilities and key commercial areas (such as downtown Almonte, Ottawa Street between Paterson Street and Appleton Side Road, and downtown Pakenham).
- Consider a rebate program for businesses to assist in the purchase and installation of bicycle parking.

Accessibility

To support equitable access and inclusivity for all people, including the most vulnerable road users, it is recommended the municipality:

- Consult with the Accessibility Advisory Committee to set a minimum standard for the provision of rest areas (i.e. a bench every 300 m on pathways and trails, and every 500 m along major roadways).
 - The new rest area standard should be integrated into an updated Sidewalk Policy, tying the provision of rest areas to the implementation of new or reconstructed pedestrian facilities, and.
 - Also cover the provision of shade. Rest areas should be placed with regard for the position of new and existing trees, where possible; or, where not possible, consideration should be given to the provision of shade structures.
- Ensure sidewalks, curbs and PXOs meet provincial accessibility standards (AODA) for all street construction or re-construction work, and Accessible Pedestrian Signals be provided where new pedestrian signals are being installed or existing pedestrian signals are being replaced.
- Require accessibility reviews be incorporated in re-development and new development projects in the Official Plan, including accessible connections between the municipality's active transportation facilities and all future development/ redevelopment projects, including buildings, parks, and open spaces.
- Consider the implementation of AODA compliant accessible on-street parking spaces in downtown Almonte along Mill Street, Bridge Street, and Brae Street; and in Pakenham along County Road 29.

Active Transportation on Bridges

To overcome the barrier presented by the Mississippi River and promote a more connected active transportation network, it is recommended the municipality:

- Consider providing separated active transportation facilities as part of any new vehicle bridge or at the time of renewal of any existing vehicle bridge in Almonte.
- Look for opportunities to bundle an active transportation bridge facility with other capital projects crossing the Mississippi River, such as a servicing extension.
- Plan to incorporate improved active transportation facilities at the next renewal of the Queen Street, Almonte Street, and Main Street bridges over the Mississippi River, and coordinate with Lanark County where required.

Recreational Trails

The following recreational trail recommendations should be considered by the municipality:

- Coordinate with Lanark County to explore options for paving all or portions of the OVRT within the Almonte urban boundary.
- Coordinate with Lanark County to explore options for resurfacing of rural sections of the OVRT, using a less dust-prone surface material.
- Review and evaluate warrants for improved facilities where the OVRT crosses major roadways, considering for instance the need for PXO's or other controlled/ semi-controlled crossing types.
- Implement the new recommended OVRT pathway connections in Pakenham (outlined in **Section 3.4.3**) and continue to look for opportunities to create new connections throughout the municipality that improve the usability, connectivity of the OVRT, reinforcing its role as an active transportation spine.
- Require that future multi-unit development occurring within 250 m of the OVRT property limits provide a direct active transportation connection to the OVRT, or otherwise prove the connection is not feasible.
- Ensure new recreational trail corridors adhere to provincial accessibility standards (AODA) and industry best practices.
- Require any new recreational trails to have a minimum width of 3.0 m, and only permitting a minimum 2.4 m width in constrained conditions.
- Ensure new recreational trails consider the standards outlined in **Section 3.6.2**.
- Improve trail safety, usability by installing pedestrian lighting along the OVRT through Almonte, and at OVRT access points, in accordance with the municipality's illumination By-law No. 03-62.
- Coordinate with the Ontario Snowmobile Federation and OPP to identify alternative routes for motorized vehicles to the OVRT through settlement areas.
- If public concerns and incident rates or severe injuries/ fatalities rise over time, initiate a study to review existing and potential future ATV and snowmobile policies and safety strategies within the municipality.

Community Education and Promotion

To encourage participation and retention of active users as well as leverage the investments recommended in the Active Transportation Plan, it is recommended the municipality:

- Develop a targeted advertising strategy to promote and educate users on the social, health, mental, economic, and environmental benefits of active transportation, which is coordinated with the municipal website, social media, and newsletters, and targets the following unique users identified in **Section 3.7.1**.

- Apply for the “Bicycle Friendly” community designation once some of the active transportation recommendations have been implemented.
- Celebrate Bike Month through various events identified in **Section 3.7.1**.
- Establish a municipal active transportation advisory committee to coordinate a public engagement strategy and provide input on future active transportation interventions.
- Work with the public and relevant stakeholders to facilitate a coordinated strategy across municipal agencies identified in **Section 3.7.1**.
- Update corporate materials on all Mississippi Mills branded outlets to highlight up-to-date cycling opportunities in the municipality.
- Investigate bike and e-bike rebate programs to support the uptake of bicycling.
- Include bicycle repair workshops to support promotional and education programs.

Additional Active Transportation Supporting Policies

It is recommended the municipality consider the following additional supporting active transportation policies:

- Adopt a special “Downtown District” designation along Bridge Street (Country Street to Water Street) and Mill Street (Main Street to Bridge Street) in recognition of the unique character and importance of the downtown area as a tourist and local destination, with exclusive policies that further prioritize active modes over vehicles.
- Consider adopting the suggested policies and action items listed in **Section 3.8.1** for the new Almonte “Downtown District” designation.
- Update the *Road Inspection and Maintenance Policy – PW 07* and *Sidewalk Policy – PW 10* to expand the winter maintenance program include multi-use pathways and trails to school and consider including multi-use pathways and cycle tracks along Class 1 routes in Almonte, as well as pathway connections to the OVRT, to provide year-round cycling and recreational trail access.
- As a condition of development approval, require the proponent demonstrate how their development will connect to the long-term pedestrian and cycling networks, and ensure they adhere to provincial accessibility standards (AODA)
- Within the Official Plan and Zoning By-law more specifically incorporate the concept of “permeability”, or the extent to which a transportation network permits the movement of people on foot or bike.
- As a condition of development approval, identify a maximum block-length for subdivision developments that requires a “shortcut” between parallel streets be provided where a block is above this limit.
- Seek opportunities through infill development or other renewal processes, to improve active transportation network permeability by providing pathway connections through available public rights-of-way, easements, or joint use agreements.⁴⁷
- Identify local roads which are vulnerable to traffic infiltration from future developments (see: Malcolm Street, King Street) and consider options such as full or partial vehicle access closures which maintain access for active modes.

⁴⁷ Joint Use Agreements provide terms for the sharing of the cost and responsibilities associated with the use, maintenance and repairs of these shared facilities.

ROAD NETWORK (SECTION 4.0)

The following recommendations relate to the long-term road network plan and policies to support the contemporary design approaches with an emphasis of developing a multi-modal transportation system. Concepts such as complete streets and safety are important foundational elements of the overall strategy.

Road Classifications

- Adopt the updated road classification system, which introduces collector and arterial classes, as well as urban and rural sub classes.
- Adopt the proposed road reclassifications outlined in Table 20 and depicted in **Schedules 15, 16 and 17**.

Complete Streets

- Adopt the complete streets policy suggestions stated in **Section 4.2.11** into the Official Plan, incorporating the established principles and contemporary language.
- Integrate the complete streets approach and thinking in all relevant municipal departments.
- As required per project, collaborate with County of Lanark and external stakeholders to describe this new approach and how best to adopt these new road planning and design processes.
- Adopt the complete streets design criteria and cross-sections developed in **Sections 4.2.5 and 4.2.6** and update any other guidelines and standards to include accommodation for all road users.
- Include a clearly stated complete streets approach in the project charter of all future transportation infrastructure projects (including roads, intersections, bridges etc.).
- Review traffic operational study policies and procedures for all new capital projects and new development sites to ensure that they explicitly consider the safety of all modes, as well as proper pedestrian and cycling accommodations, access, and supporting facilities within and along the surrounding frontage of the proposed development based on minimum maintenance standards. Refer to the recommended Transportation Impact Study (TIS) Framework in **Section 6.6**.
- Ensure pedestrian and cycling priority measures are always considered as standard practice when constructing new or retrofitting signalized and stop controlled intersections as outlined in **Section 4.2.7**.
- Ensure pavement marking and signage requirements for pedestrian and cycling facilities meet contemporary design standards and consider new approaches that enhance the safety of vulnerable users.
- Ensure contemporary roundabouts are considered and evaluated as standard practice.
- Review and update maintenance standards as needed to address all modes.
- Adopt right-of-way protection requirements for updated local and collector road in both urban and rural contexts in the Official Plan and apply them to all new roads and to existing roads when opportunities arise, such as at the time of the lifecycle renewal or as part of a future development/ redevelopment.

New Roads

- Include a 24 m right-of-way protection requirement in the next Official Plan update to construct a new municipal road corridor between Martin Street and Ramsay Concession 11A in north Almonte. Additionally:
 - The road shall be designed as a 2-lane Urban Collector Road standard (refer to **Section 4.2.6** for cross-section).
 - A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.

- Include a 26 m right-of-way protection requirement in the next Official Plan update to construct a new arterial road corridor between County Road 29 and Appleton Side Road in south Almonte. Additionally:
 - The road shall be designed as a 2-lane Urban Arterial Road standard (refer to **Section 4.2.6** for cross-section).
 - A Schedule 'C' Municipal Class Environmental Assessment Study will be required to confirm the corridor design, alignment, mitigation, and costs prior to implementation.
 - Engage Lanark County staff if there is a desire to upload the corridor to county jurisdiction.
 - There would be three distinct sections/ phases for this project:
 - Southwest Connection: County Road 29 to Country Street
 - Southeast Connection: Old Almonte Road to Appleton Side Road
 - River Crossing Connection: Country Street to Old Almonte Road, includes road connections, possible embankment, and new bridge structure over the Mississippi River.
- Review the need for future municipal road connections to the collector or arterial road network triggered by future development. Ensure appropriate traffic studies are completed to identify the appropriate road classification, right-of-way protection requirements, and they adhere to policies and standards outlined in the TMP and/ or relevant industry standards.
- The municipality should work with adjacent municipalities and MTO to improve and/ or expand road connections with nearby provincial highways where appropriate to support long-term growth.

Road Retrofits

- Implement the complete streets retrofit projects specified in Table 27.
- Coordinate with Lanark County on any complete streets retrofit project specified in Table 27 located on county roads.
- Adopt right-of-way protections where required to support retrofit projects as specified in Table 27.
- A focused study is recommended to reimagine Ottawa Street as a truly multi-modal corridor and ascertain widening and design requirements to ensure contemporary safety, accessibility and design principles for active transportation facility integration are met throughout the corridor, including intersections.
- Consider protecting 24 m right-of-way along Country Street, Rae Road (between Country Street and County Road 29), and Paterson Street to fit a standard urban collector road in case long-term development triggers the need for upgraded facilities.
- Long-term vehicle capacity on March Road should be re-evaluated as part of future TMP updates including the two mitigation scenarios outlined in this TMP. The municipality should continue to engage with Lanark County and the City of Ottawa on the importance of this corridor as they proceed with their respective TMP updates.

Intersections

- Complete the recommended intersection modifications within municipal jurisdiction outlined in Table 28.
- Coordinate with Lanark County to complete the required intersection modifications within county jurisdiction outlined in Table 28.
- Take the opportunity to improve pedestrian and cycling facility integration in all future intersection projects if feasible.

Schedules 18 and 19 depict the recommended Interim and Ultimate Road Networks that incorporate the various road projects noted above.

PUBLIC TRANSIT AND RIDESHARING (SECTION 5.0)

The following recommendations relate to transit and ridesharing strategies to promote and foster more equitable and affordable travel options in the municipality.

- As the transit landscape evolves after COVID-19, it will be essential for the municipality to be proactive and leverage opportunities to support and promote more affordable options for its residents. The municipality may consider developing on its own or in collaboration with adjacent municipalities a transit feasibility study to assess in detail the type of transit service(s) would best suit the municipality and how much it may cost. Any future transit decisions should always be made with the lens of equity and inclusivity – targeting users with the greatest need and would benefit most from future services, such as seniors and low-income families.
- Engage or continue engagement with OC Transpo, Lanark Transportation, and private transit operators (e.g., Leduc Bus Lines Ltd.) to revive commuter transit between the City of Ottawa and the various municipalities in the county. If a future commuter transit service becomes a reality, the municipality should focus on the following:
 - Extend transit service into Almonte with sufficient stops to capture most households within reasonable walking distance.
 - At minimum, the service route should have a final stop at Moodie LRT Station in Ottawa, which is the western-most station of the Stage 2 Confederation West LRT line, but strive to extend the route to downtown Ottawa, if possible, to reduce the number of transfers.
 - Consider a 2- or 3-weekday schedule to start, aligning with the peak travel days to Ottawa, so to maximize ridership and reduce operating costs.
 - Consider a park and ride lot in Almonte on the west side of the Mississippi River, preferably near or along the proposed south road corridor to extend the capture area of the future transit service. The preferred location should attempt to reduce vehicle travel into or through downtown Almonte.
- Continue engagement with Lanark County and/ or Lanark Transportation (LT) to:
 - Expand the Ride the LT service into Almonte.
 - Investigate and support future opportunities to expand Ride the LT service if demand warrants it, such as Pakenham or any future growth areas in the municipality.
 - Collaborate with LT service for major/ special events in the municipality; strive to make transit a viable option by prioritizing it over single-occupant vehicles.
 - Support the LT on-demand service and look for opportunities to expand it for the most vulnerable users.
- Incorporate the carpool, rideshare and commuter transit supporting policies and measures:
 - Provide the appropriate transit supporting infrastructure at all bus stop locations that meet contemporary design standards (e.g., AODA). Furthermore, ensure all bus stops are connected to the municipal sidewalk network, and connecting sidewalks are maintained year-round.
 - Engage with Lanark County to create new carpool focused park and ride facilities.
 - Continue pursuit of opportunities to increase rideshare and carpool options and access for residents.
 - Investigate options to promote and incentivize municipal employees and the local business community to increase carpool, rideshare and transit ridership, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Ensure all future developments and capital projects in Almonte consider carpool, rideshare, and transit supportive infrastructure or measures, as outlined in the TDM Strategy (refer to **Section 6.4**).
 - Consider specialized transit-oriented development policies and measures in the “Downtown District” (as discussed in **Section 3.8.1**) that support transit use, such as designated shuttle pickup/ drop off areas in lieu

of on-street parking during special events, reduce parking minimums for medium density developments, or other strategies and measures. Refer to the TDM Strategy in **Section 6.4** for further details.

SUPPORTING POLICIES AND STRATEGIES (SECTION 6.0)

The following recommendations relate to supporting policies and strategies that will supplement the infrastructure recommendations so to ensure the financial investments are leveraged to their fullest potential.

Equity and Inclusion:

- Strive to achieve greater equity and inclusivity in the planning, designing, operating, and maintenance of the transportation system through the suggested policies and action items outlined in **Section 6.1**.

Treaty and Indigenous Rights Holders Considerations

- Indigenous Groups shall be referred to as “Treaty and Indigenous Rights Holders” within the Transportation Master Plan
- Consult with Treaty and Inherent Indigenous Rights Holders, at an early stage to allow for substantial time for meaningful communication, in preparation of capital Municipal infrastructure construction and maintenance projects. Consultation shall include the identification of culturally significant land and traditional harvesting areas as well as preferred archaeological practices and procedures and receiving knowledge on archaeological significant areas.
- Complete archeological studies for all land disruptive projects, including projects that are not identified by legislation or regulation as needing archaeological studies or lands deemed to be heavily disturbed and possibly exempt from study. Land disruptive projects, initiated by the Municipality, within 300m of a water body will include a Stage 2 Archeological Assessment.

Road Safety, and more specifically Speed Management and Traffic Calming

- Consider developing in the fullness of time, a comprehensive Road Safety Plan (or a “Vision Zero” equivalent policy) that builds upon recommendations in this TMP, including additional policies, programs, and guidelines to reduce road fatalities and serious injuries in the municipality.
- Build upon the Traffic Calming and Public Safety Review and Options staff report and prepare a comprehensive update to the Policy for Traffic Calming and Speed Management (2010) that aligns with the draft Lanark County Speed Management Policy (2023) and current industry best practices, such as the TAC: Canadian Guide to Traffic Calming (2018).
- Public and stakeholder engagement is essential before any speed management or traffic calming measures are implemented; the established consultation processes in the draft Lanark County Speed Management Policy (2023) or TAC: Canadian Guide to Traffic Calming (2018) should be incorporated into municipal policy.
- Collect new speed data along Clayton Road, Ottawa Street, Almonte Street and Ramsay Concession 8 to validate public concerns and respond accordingly, following the procedures outlined in municipal and county speed management policies.
- Investigate potential for rural traffic calming measures in “transition zones” (defined in **Section 6.3.3**) using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018), in collaboration with Lanark County where appropriate.

- Engage Lanark County to review speed management and traffic calming options along county roads within settlement areas, such as County Road 29 within Pakenham, applying the processes outlined in the Lanark County Speed Management Policy (2023).
- Consider a reduced target operating speed policy of 40 km/h on all municipal urban local roads if there is data-driven evidence vetted by relevant municipal departments, broader stakeholder acceptance, and sufficient community and public support.
- Alternatively, consider identifying candidate neighbourhoods for reduced operating speed limits and approved traffic calming measures, designated “Neighbourhood Speed Zones,” using current policy supplemented by processes and procedures outlined in the draft Lanark County Speed Management Policy (2023) and TAC: Canadian Guide to Traffic Calming (2018).

Transportation Demand Management

- Investigate the initiatives outlined in the TDM Toolbox in **Section 6.4** to leverage investments in active transportation and a potential future with a return of transit service in the municipality.

Goods Movement

- Engage with Lanark County to revise the county truck route network to include the recommended new south road corridor between County Road 29 and County Road 17 (Appleton Side Road), to reduce the impact of truck traffic to local commercial businesses and public spaces in Almonte.

Transportation Impact Study Framework

- Adopt the Transportation Impact Study (TIS) Framework outlined in **Section 6.6** and apply it to all future development applications.

Climate Change

- Acknowledge in the Official Plan the risks posed by climate change to human health and the environment, the role of transportation in greenhouse gas emission and the climate, and the need for actionable mitigation/ adaptation strategies.
- Apply a climate change and emissions lens during the planning and evaluation of all future municipal transportation projects and in the development review process to limit the increase of vehicle emissions, such as applying strategies to reduce single-occupant vehicle use (refer to TDM Strategy in **Section 6.4.**), adopting the complete streets approach, ensure the design of future development sites prioritize the movement of pedestrians and cyclists.
- Consider adopting Goals 1.1, 1.2, 1.4, and 1.5 of the Lanark County Community Climate Action Plan that target community transportation emissions in the Official Plan or in a Mississippi Mills specific Climate Action Plan (if developed).
- Consider adopting the county community emission reductions targets, for which transportation is the largest emitting-group within from community sources.
 - 10% below 2019 levels by 2030
 - 80% below 2019 levels by 2050
- Consult with Lanark County on the degree to which monitoring data will be able to be delineated by municipality, and request that Mississippi Mills-specific data be provided.

Specific Policies

- Adopt the relevant policy statements and language suggested in **Section 6.8** to support the development review process, identify appropriate right-of-way protection requirements, and ensure consistency in the application of design standards and guidelines in all future development sites.

Emerging Technology

- Continue to explore opportunities to expand electrified vehicle supportive infrastructure within the municipality.
- Investigate the opportunities to improve and expand shared mobility use and adoption – in tandem with the TDM program (previously outlined in **Section 6.4**), such as bikesharing and e-scooter programs and technology.
- Investigate alternative and innovative methods of providing transit service as technology enables more efficient options, such as demand-responsive approaches.
- Investigate opportunities to utilize Big Data platforms (such as Streetlight Data Inc. and Strava Inc.) and other data service providers to better monitor and assess multi-modal transportation network performance.

IMPLEMENTATION PLAN AND COST (SECTION 7.0)

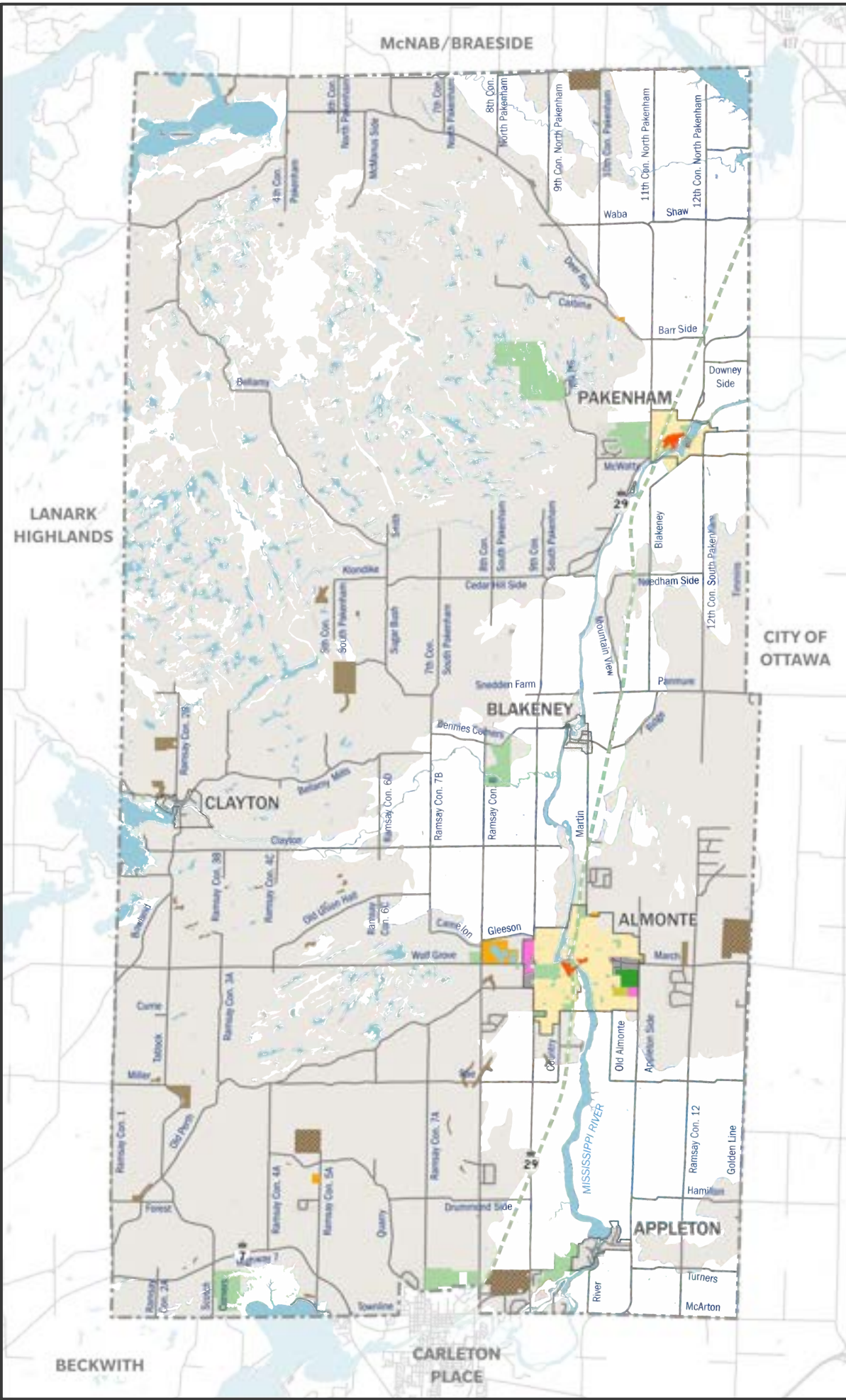
The estimated total municipal cost for all recommended projects is approximately **\$200.4 million** or **\$8.0 million** per year over the next 25 years. The vast majority, over 70% of the total municipal capital investment is recommended by the 25-year/ long-term horizon, reflecting a gradual and fiscally responsible approach towards achieving the long-term vision of the municipal transportation system. The following recommendations relate to implementation plan and estimated costs developed in this TMP.

- Adopt and implement the Active Transportation Network Implementation Plan, including the pedestrian facility gap program, as outlined in **Section 7.2**, and in Tables 35 and 36.
- Adopt and implement the Road Network Implementation Plan, as outlined in **Section 7.3**, and Tables 37, 38 and 39.
- Leverage all available funding sources from all levels of government and other sources (such as Development Charges) to support the implementation of the TMP's recommendations, as outlined in **Section 7.4**.
- Develop a monitoring program to track both the progress and impact of implementing the TMP recommendations, as outlined in **Section 7.5**.
- Review the TMP every five years or when deemed necessary, to determine if the original assumptions and recommendations continue to apply or if a comprehensive update is required.

TRANSITION PAGE

The Municipality of Mississippi Mills: Transportation Master Plan

SCHEDULES



Transportation Master Plan

**Schedule 1:
Official Plan Land Use**

LEGEND

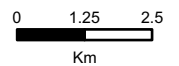
- Municipal Boundary
- Settlement Area Boundary

Land Use

- Residential
- Residential - Community
- Parkland and Open Space
- Downtown Commercial
- Business Park
- Industrial
- Rural
- Rural Settlement Area and Hamlet
- Highway Commercial
- Aggregate - Pit
- Aggregate - Quarry
- Waste Disposal

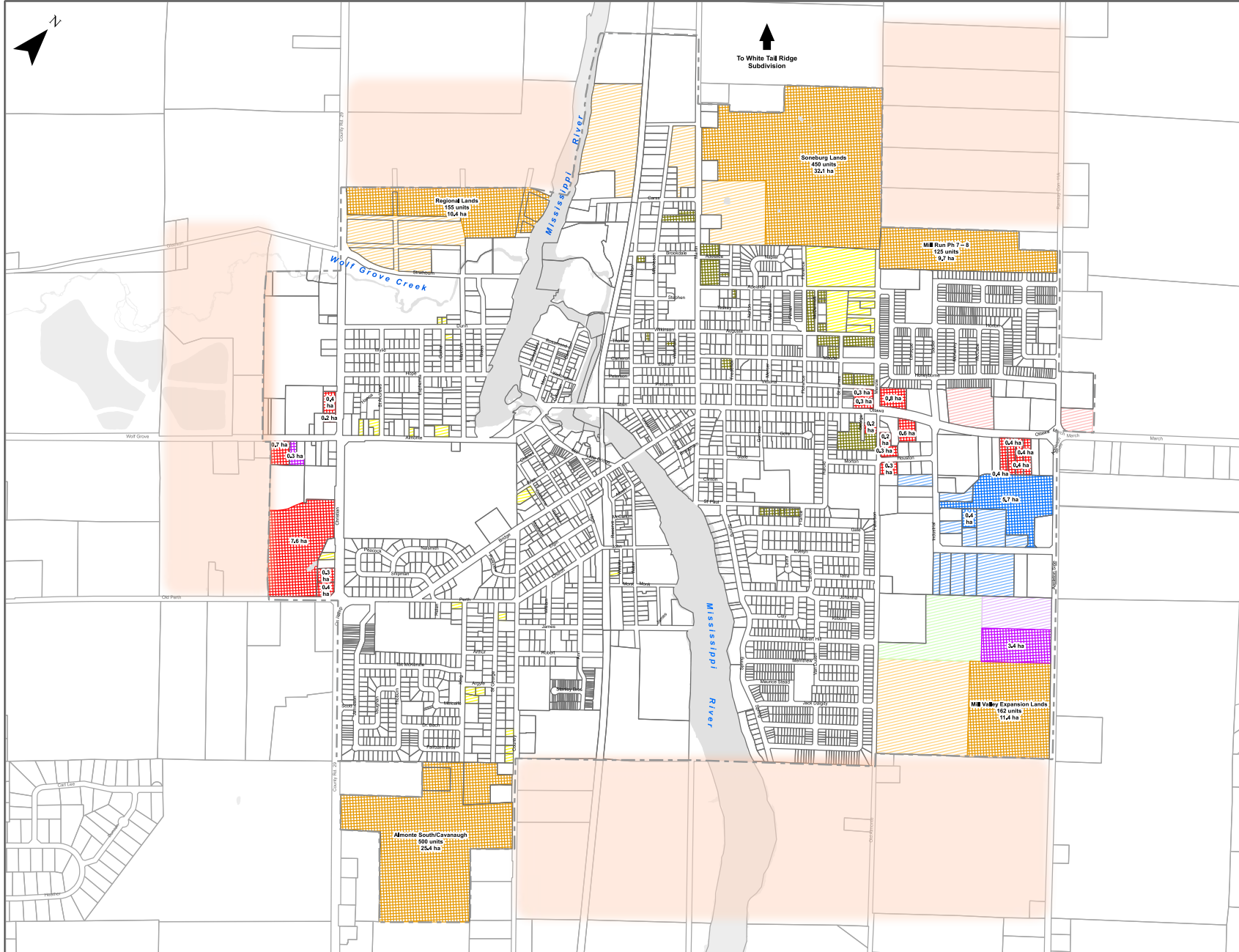
Other Features

- Ottawa Valley Recreational Trail



November 2024





Mississippi Mills 2048
Our Community, Our Future

Transportation Master Plan

**Schedule 2:
Future Growth Areas
and Land Uses - Almonte**

Legend

Almonte Boundary

5 Year - Short-Term

- Intensification (Infill, Subdivisions)
- Residential - Greenfield
- Residential - Community Facility
- Business Park
- Commercial
- Industrial

15 Year - Medium-Term

- Intensification (Infill, Subdivisions)
- Residential - Greenfield
- Residential - Community Facility
- Business Park
- Commercial
- Industrial

25 Year - Long-Term

- Potential Future Growth Areas

Notes: 25 Year horizon land uses include residential, industrial and business park. Precise locations of land uses to be confirmed in future Official Plan updates

Source: Municipality of Mississippi Mills Almonte Ward Water and Wastewater Infrastructure Master Plan Update, July 2023. J.L. Richards

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Transportation Master Plan

Schedule 3: Existing Active Transportation Network - Almonte

LEGEND

 Almonte Boundary

Active Transportation Facility


 Pedestrian Pathway

 Sidewalk

 Bike Lane - Both Sides

 Recreational Trail


 Multi-Use Pathway


 Ottawa Valley Recreational Trail

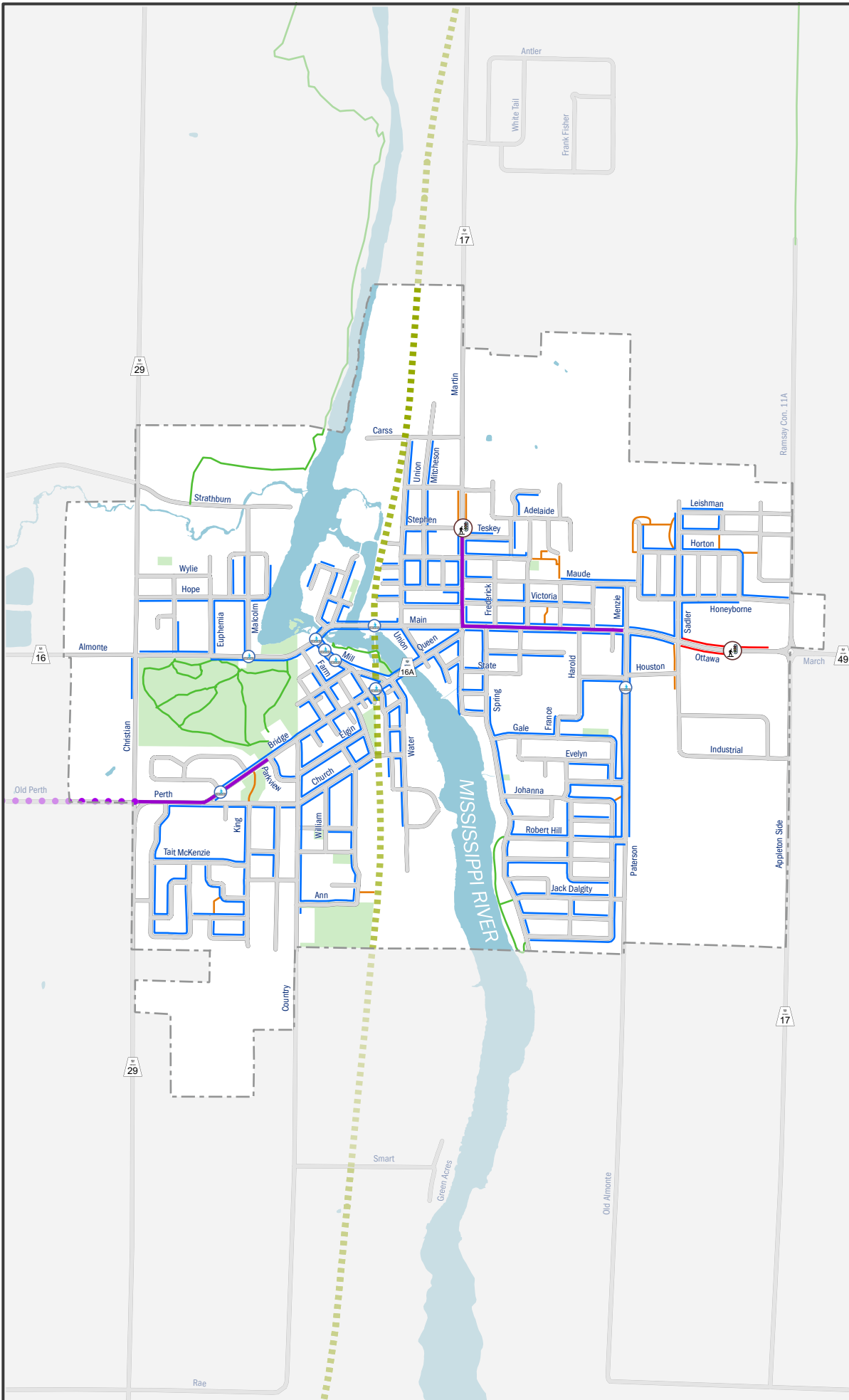
 Signalized Pedestrian Crossing

 PXO

Other Features

 Parkland and Open Space

 Scenic or Historic Road

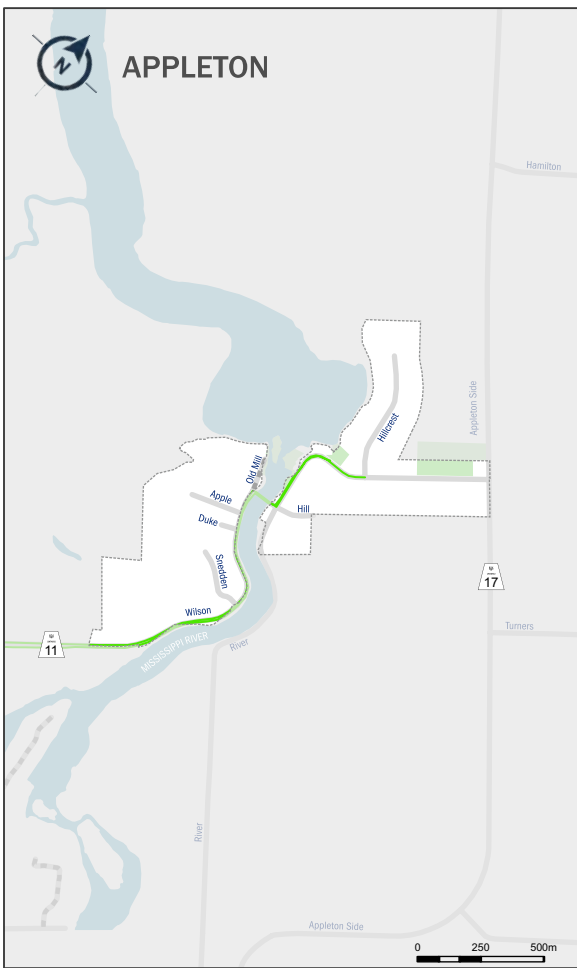


November 2024

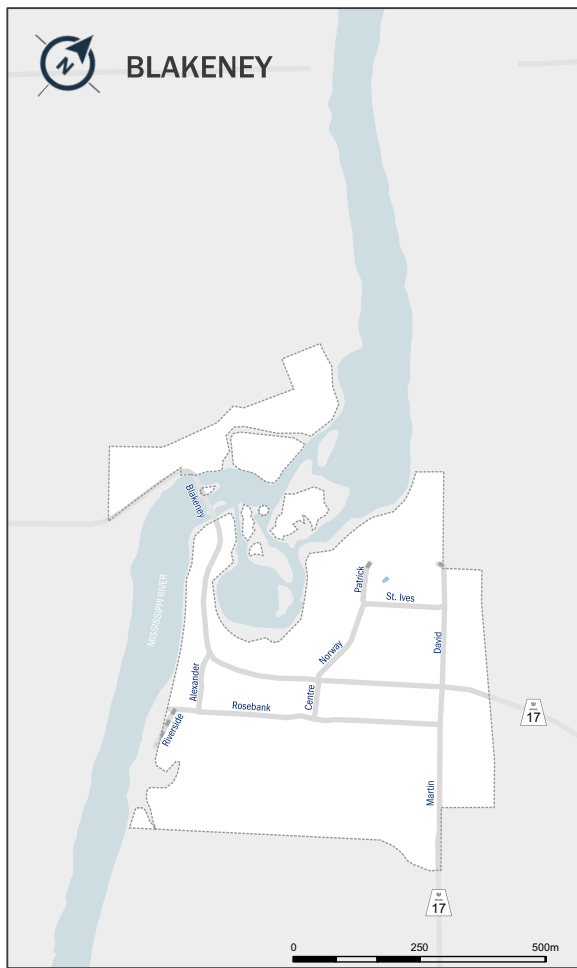




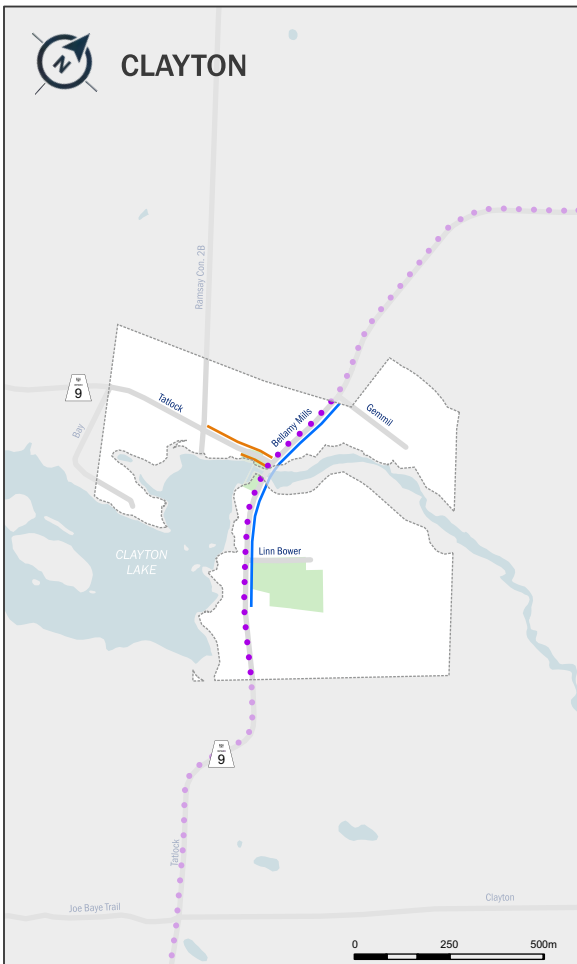
APPLETON



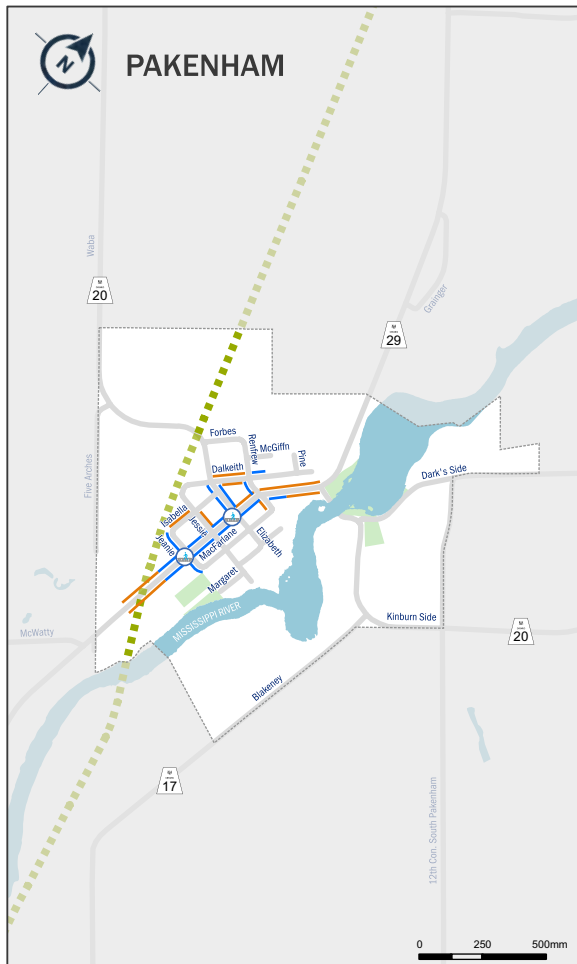
BLAKENEY



CLAYTON



PAKENHAM



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Our Community, Our Future

Transportation Master Plan

Schedule 4: Existing Active Transportation Network - Rural Villages

LEGEND

Village Boundary

Active Transportation Facility

Pedestrian Pathway

Sidewalk

Recreational Trail

Ottawa Valley Recreational Trail

PXO

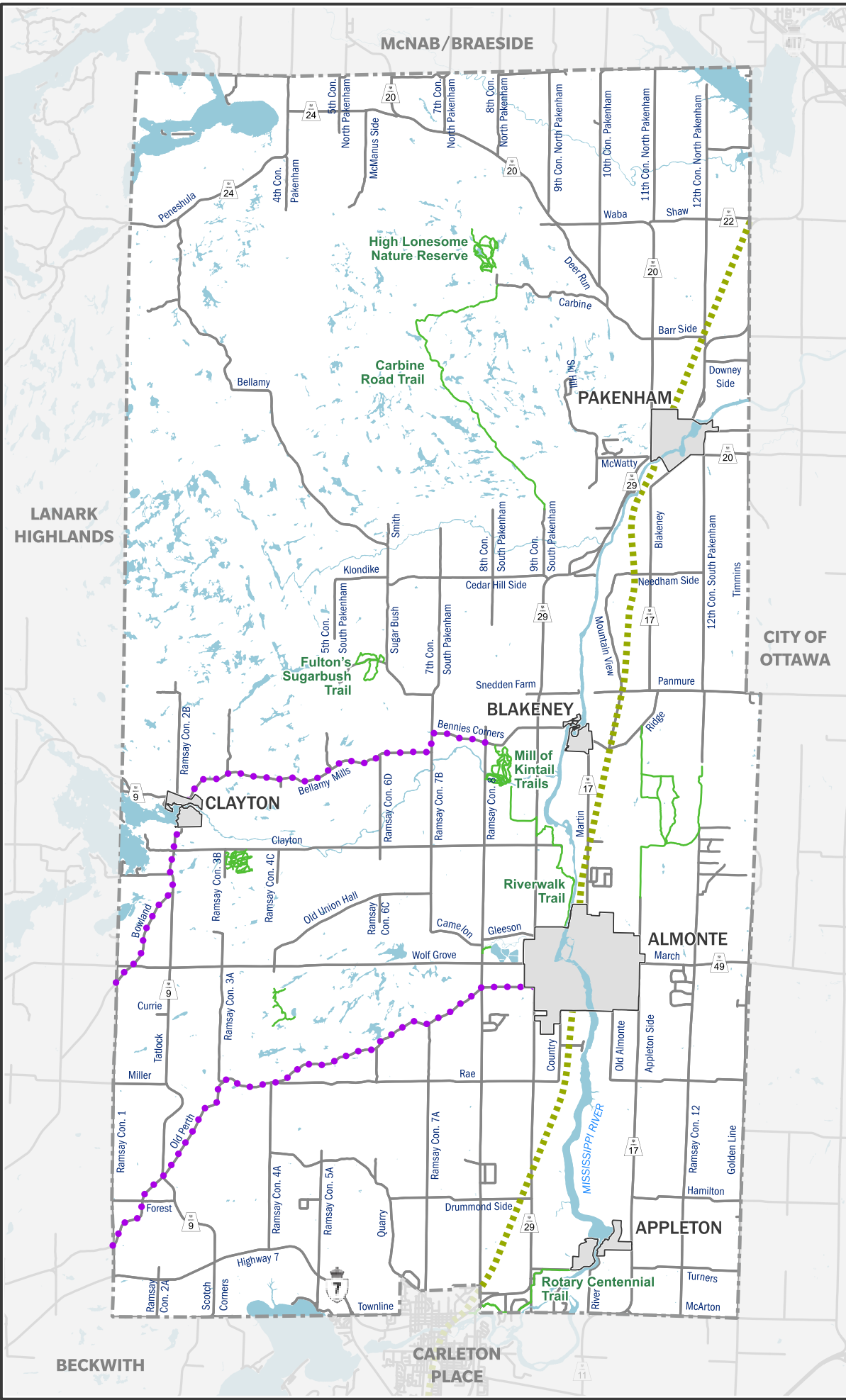
Other Features

Parkland and Open Space

Scenic or Historic Road

November 2024





Transportation Master Plan

Schedule 5:
 Existing Trail Network - Rural Areas

LEGEND

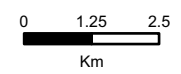
- Municipal Boundary
- Settlement Boundary

Trail Network Facility

- Recreational Trail
- Ottawa Valley Recreational Trail

Other Features

- Scenic or Historic Routes



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Transportation Master Plan

Schedule 6:

Existing Road Network - Almonte

LEGEND


 Almonte Boundary

Road Network Designation


 Municipal Road

 County Road

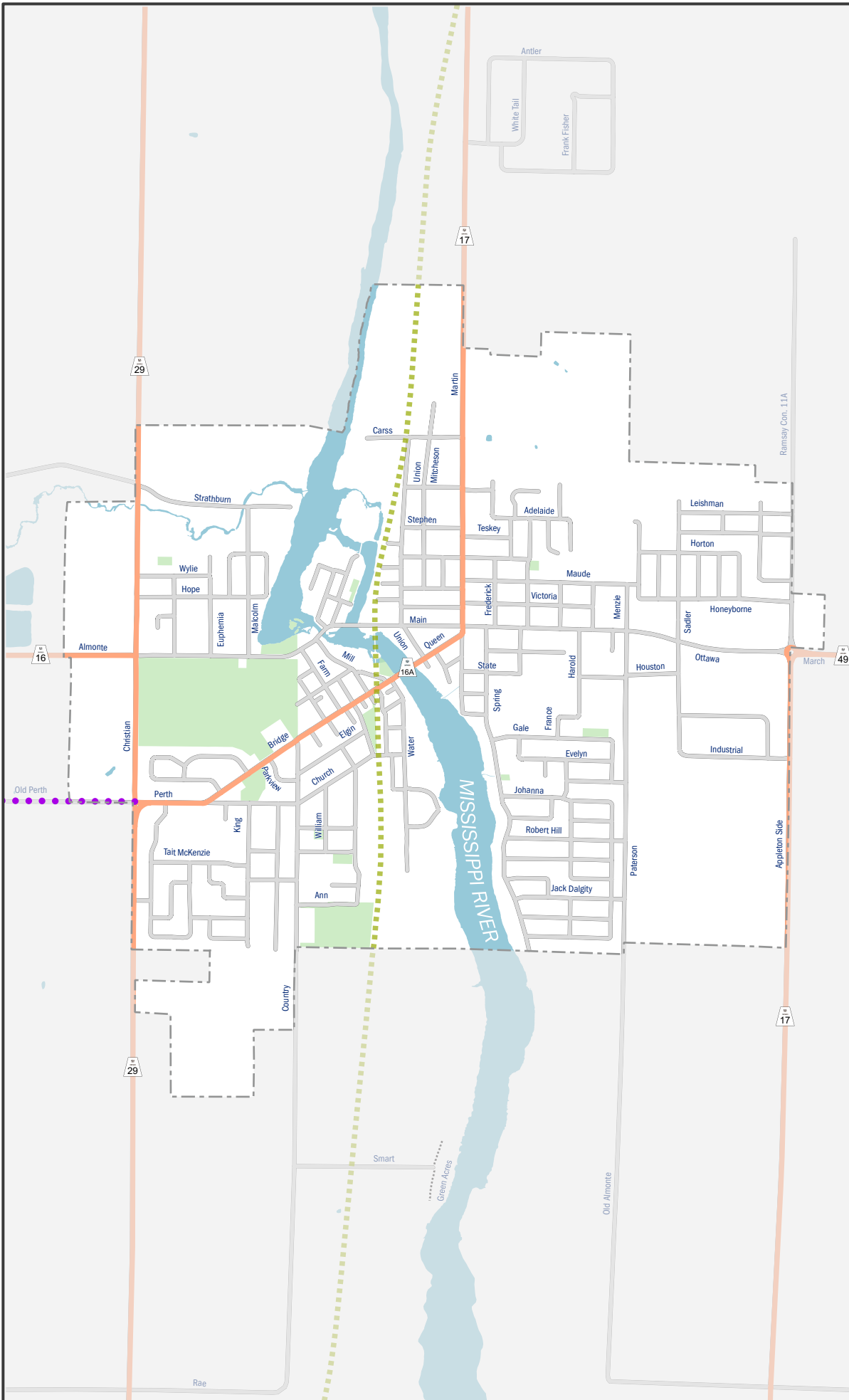
 Private Road

 Scenic or Historic Road

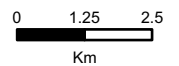
Other Features

 Parkland and Open Space

 Ottawa Valley Recreational Trail



Note: All municipal roads are classified as Local Roads in the Official Plan

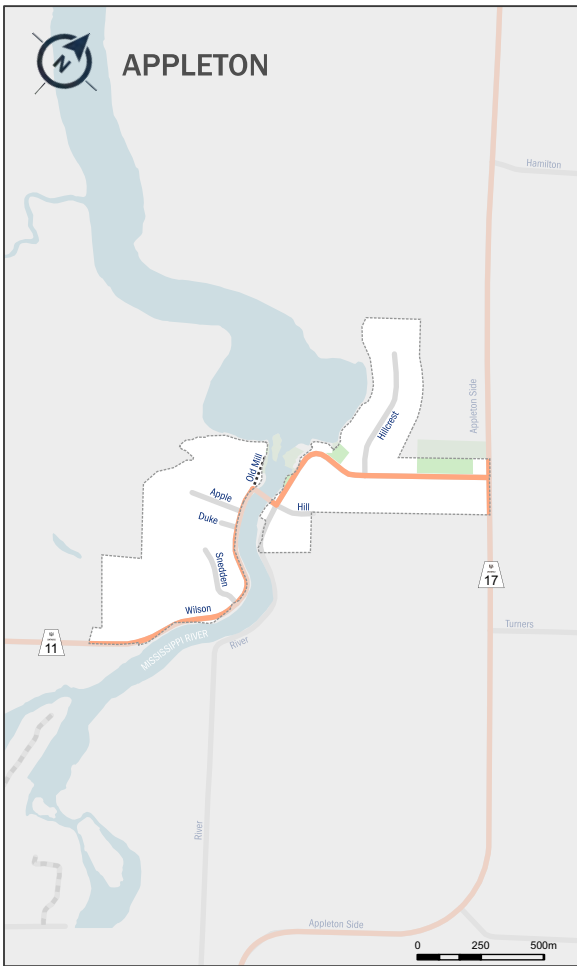


November 2024

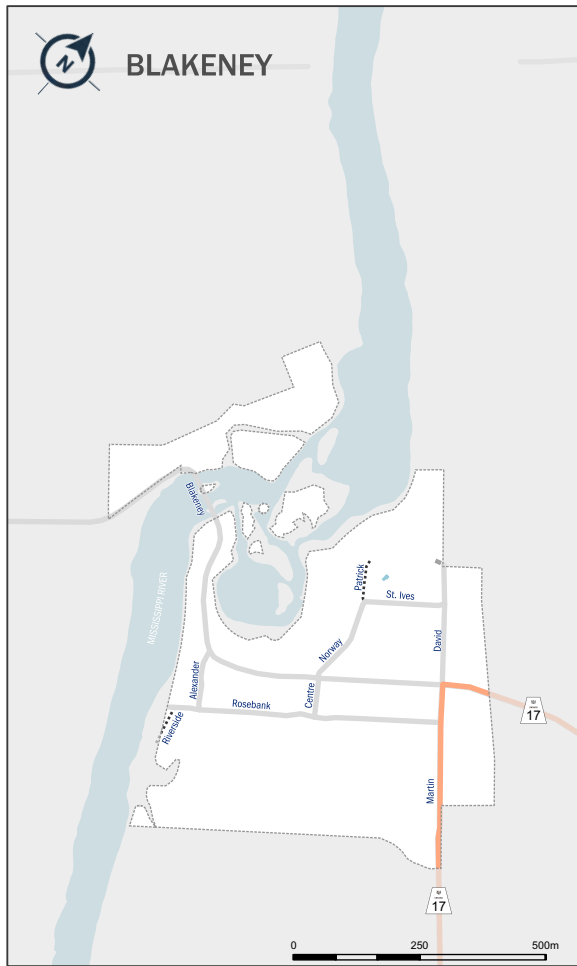




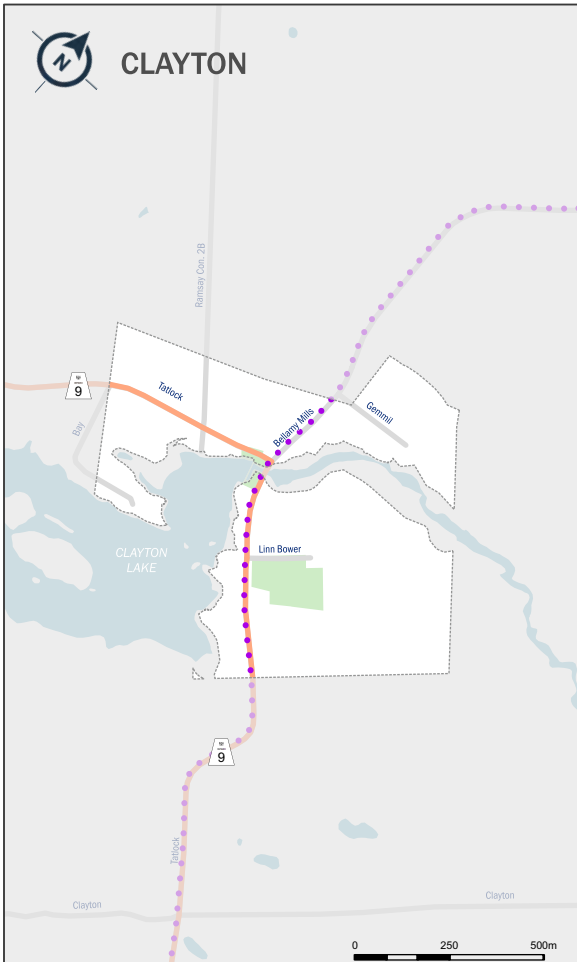
APPLETON



BLAKENEY



CLAYTON



PAKENHAM



Mississippi Mills 2048
Our Community, Our Future

Transportation Master Plan

Schedule 7: Existing Road Network - Rural Villages

LEGEND

Village Boundary

Road Network Designation

Municipal Road

County Road

Private Road

Scenic or Historic Road

Other Features

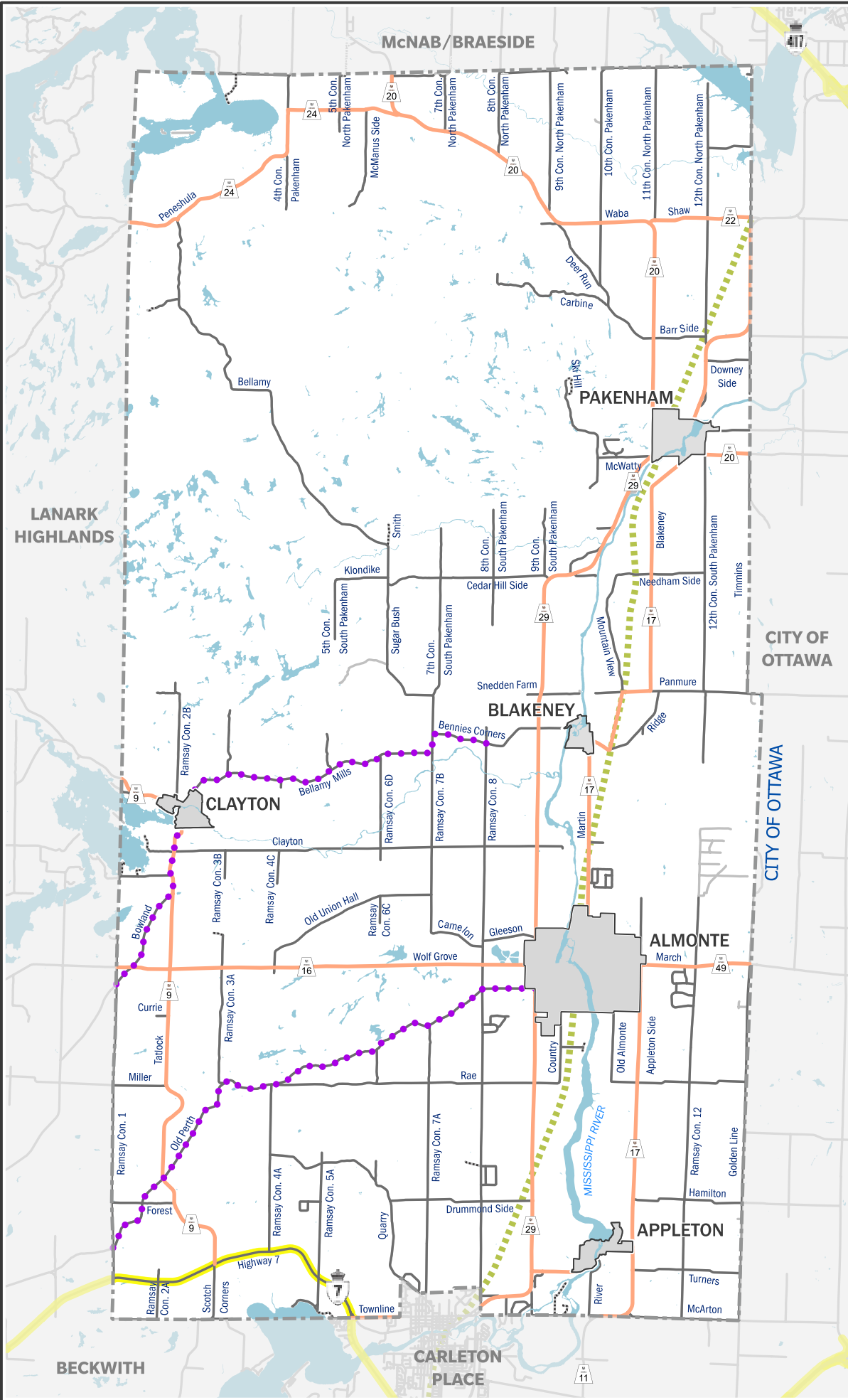
Parkland and Open Space

Ottawa Valley Recreational Trail

Note: All municipal roads are currently classified as local roads in the Official Plan

November 2024













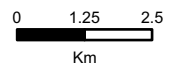
Transportation Master Plan

**Schedule 8:
 Existing Road Network - Rural Area**

LEGEND

-  Municipal Boundary
-  Settlement Boundary
- Road Network Designation**
-  Municipal Road
-  County Road
-  Provincial Highway
-  Private Road
-  Scenic or Historic Road
- Other Features**
-  Ottawa Valley Recreational Trail

Note: All municipal roads are classified as Local Roads in the Official Plan



November 2024



Transportation Master Plan

Schedule 9: Pedestrian Facility Gap Program - Almonte

LEGEND

Almonte Boundary

Sidewalk Gap Priority

- High Priority - Urban Context
- Medium Priority - Urban Context
- Low Priority - Urban Context
- High Priority - Rural Context
- Low Priority - Rural Context
- Gap will be filled by Recommended Road Retrofit Project

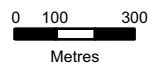
Other Features

- Parkland and Open Space
- Ottawa Valley Recreational Trail

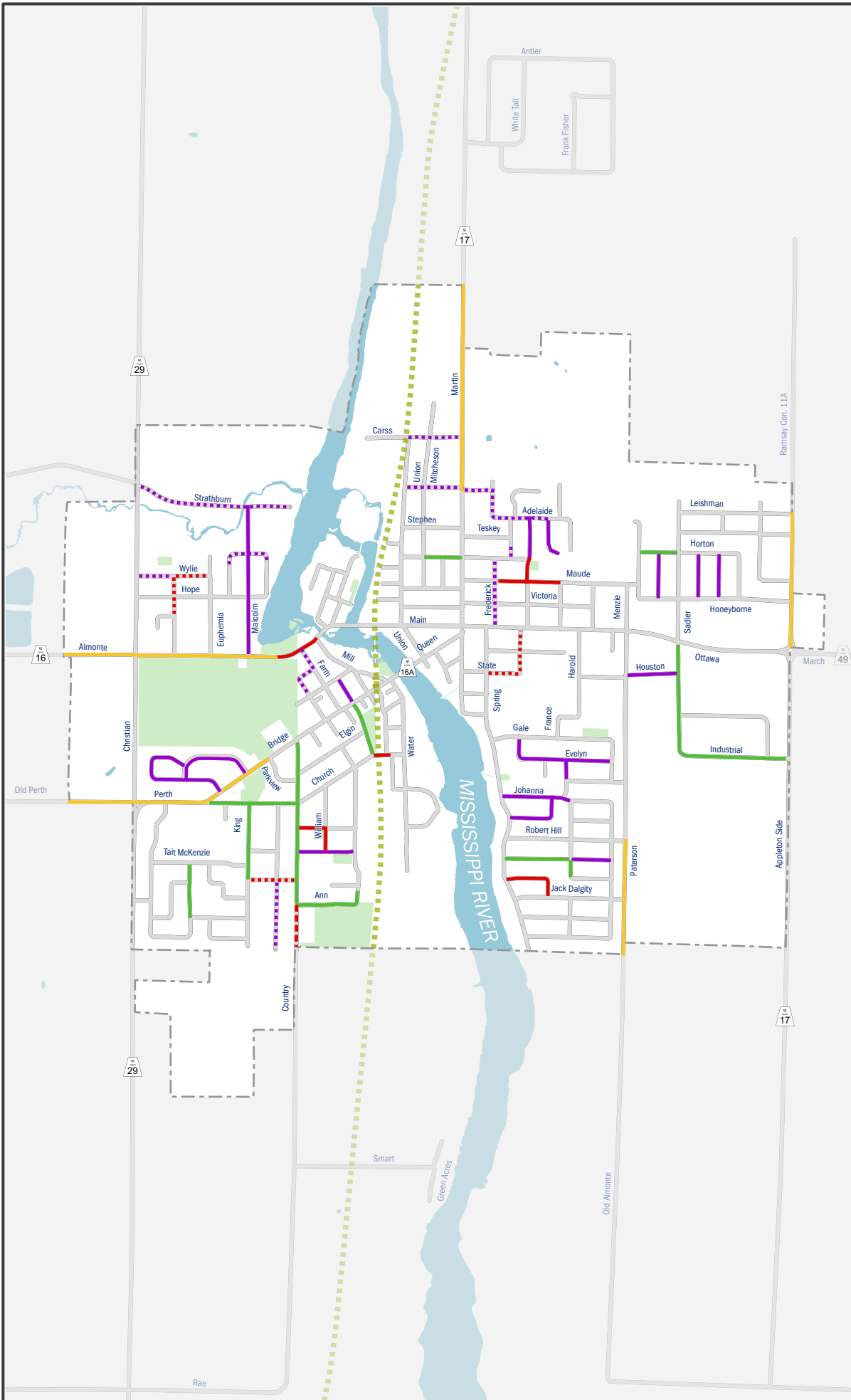
Note:
Urban Context indicates the inclusion of curb, underground servicing infrastructure and in some cases sidewalks.

Rural Context does not contain curbs, normally has overland and ditch drainage, and may include gravel or paved shoulders.

Refer to Appendix H for specific sidewalk gap program details, including linear length, one or both sides, limits, etc.



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Transportation Master Plan

**Schedule 10:
Pedestrian Facility Gap Program
- Pakenham**

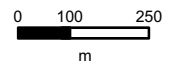
LEGEND

- Village Boundary
- Sidewalk Gap Priority**
 - Medium Priority - Urban Context
 - High Priority - Rural Context
 - Low Priority - Rural Context
- Other Features**
 - Parkland and Open Space
 - Ottawa Valley Recreational Trail



Note:
Urban Context indicates the inclusion of curb, underground servicing infrastructure and in some cases sidewalks.

Rural Context does not contain curbs, normally has overland and ditch drainage, and may include gravel or paved shoulders.



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Transportation Master Plan

Schedule 11: Interim Cycling Plan - Almonte

LEGEND

Almonte Boundary

Cycling Enhancement

Existing Multi-Use Pathway

Existing Bike Lane - Both Sides

Local Route Designation - Shared Road Treatments

New Cycle Track - Both Sides

New Multi-Use Pathway

New or Enhanced Multi-Use Pathway - Off-Road

New Bike Lane - Both Sides

Other Features

Downtown District Area

Parkland and Open Space

Ottawa Valley Recreational Trail

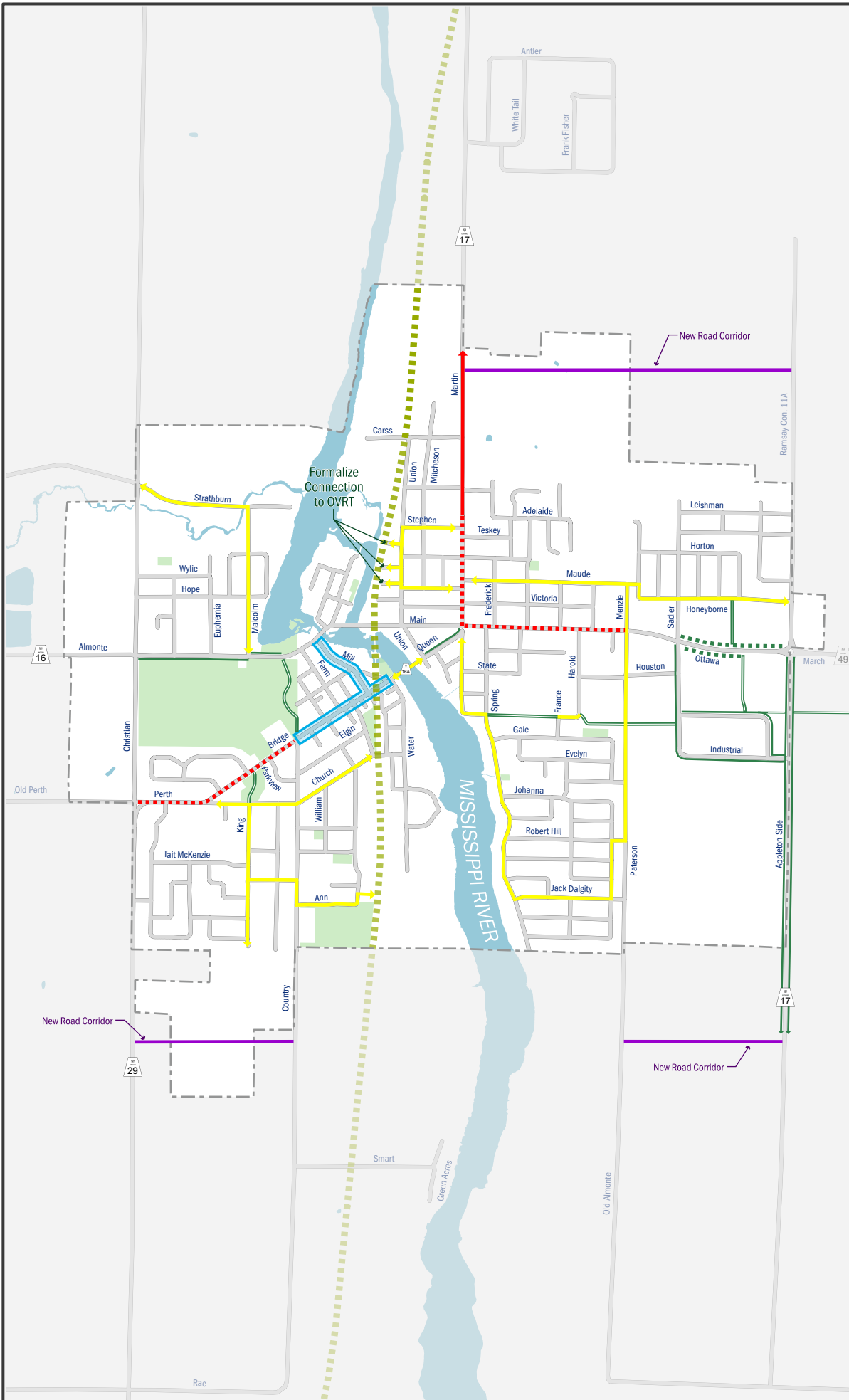
Notes:
Downtown District Area is a unique designation that does not include dedicated cycling facilities but specialized treatments and policies to encourage cycling to, within and through the downtown area, for users of all ages and abilities (refer to **Section 3.8.2** for more detail).

Shared road treatments include cycling supportive pavement markings and signage.

The location and alignment of new road corridors are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.



November 2024



Transportation Master Plan

Schedule 12: Ultimate Cycling Plan - Almonte

LEGEND

 Almonte Boundary

Cycling Enhancement

 Existing Multi-Use Pathway

 Existing Bike Lane - Both Sides

 Local Route Designation - Shared Road Treatments

 New Cycle Track - Both Sides


 New Multi-Use Pathway

 New or Enhanced Multi-Use Pathway - Off-Road

 New Bike Lane - Both Sides

Other Features

 Downtown District Area

 Parkland and Open Space

 Ottawa Valley Recreational Trail

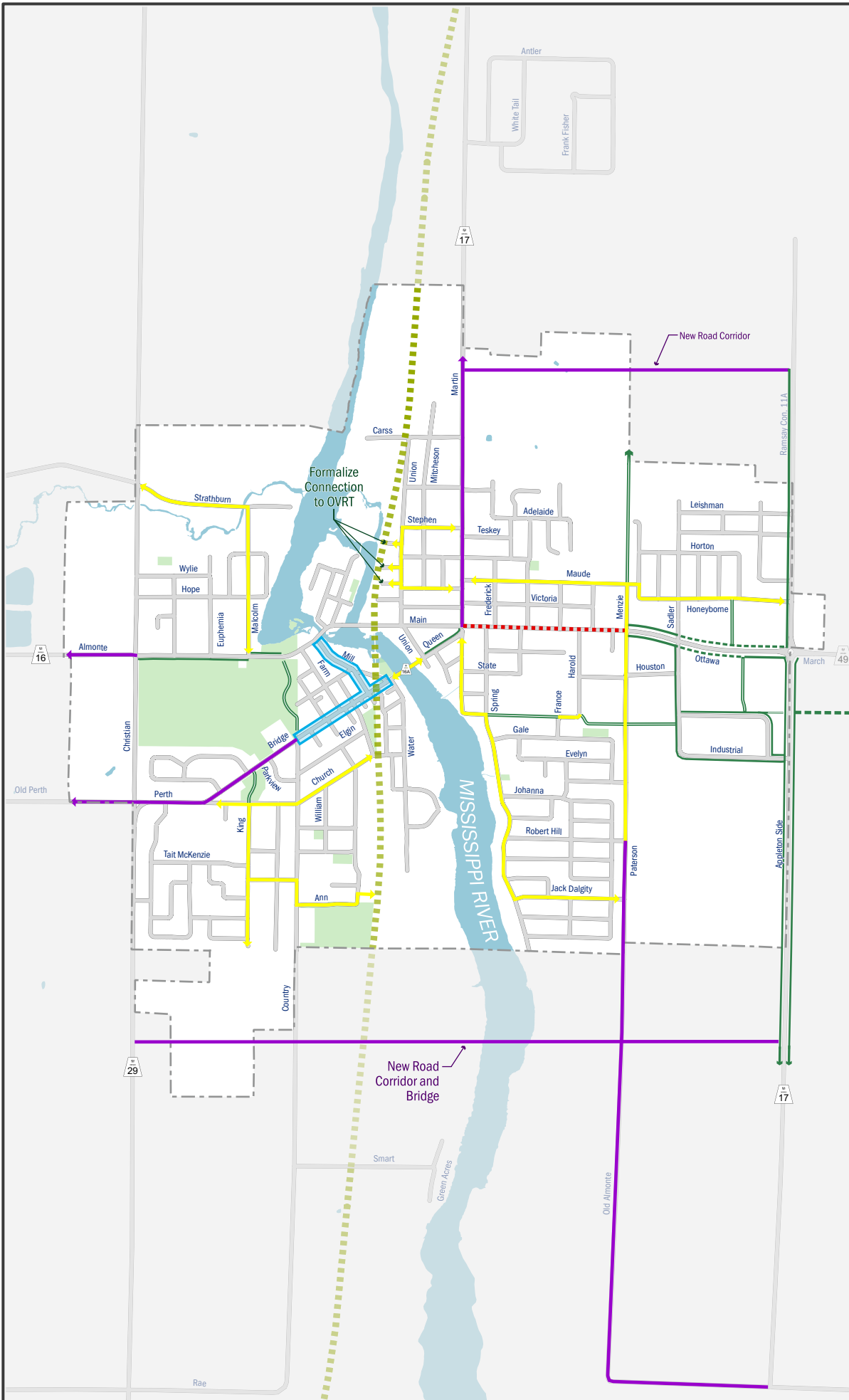
Notes:
Downtown District Area is a unique designation that does not include dedicated cycling facilities but specialized treatments and policies to encourage cycling to, within and through the downtown area, for users of all ages and abilities (refer to **Section 3.8.2** for more detail).

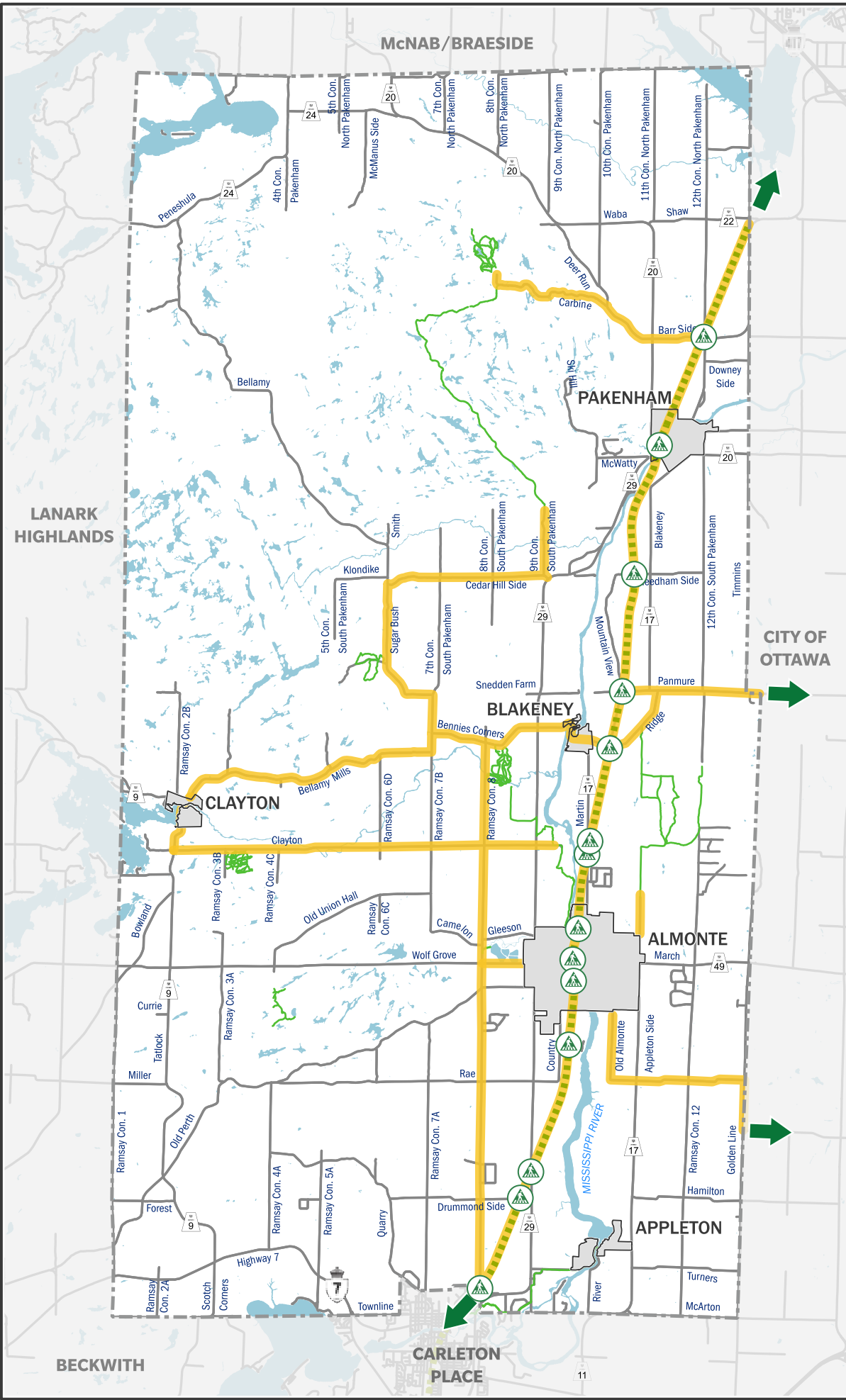
Shared road treatments include cycling supportive pavement markings and signage.

The location and alignment of new road corridors are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.



November 2024





Transportation Master Plan

**Schedule 13:
 Rural Cycling System**

LEGEND

Municipal Boundary

Settlement Boundary

Rural Cycling System

Cycling Route

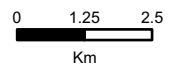
Recreational Trail

Ottawa Valley Recreational Trail

Inter-Regional Cycling Connection

Other Features

OVRT Crossing Locations



November 2024



Transportation Master Plan

Schedule 14:
 Interim Cycling Plan - Pakenham


LEGEND

 Village Boundary

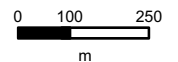
Cycling Enhancement

 New or Enhanced Multi-Use Pathway - Off-Road

Other Features

 Parkland and Open Space

 Ottawa Valley Recreational Trail



November 2024



Transportation Master Plan
Schedule 15:
Road Classifications - Almonte

LEGEND

Almonte Boundary

Road Hierarchy

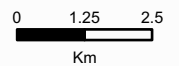
- Municipal Arterial
- Municipal Collector
- Municipal Local
- County Road
- Private Road
- Scenic or Historic Road
- Future Collector

Other Features

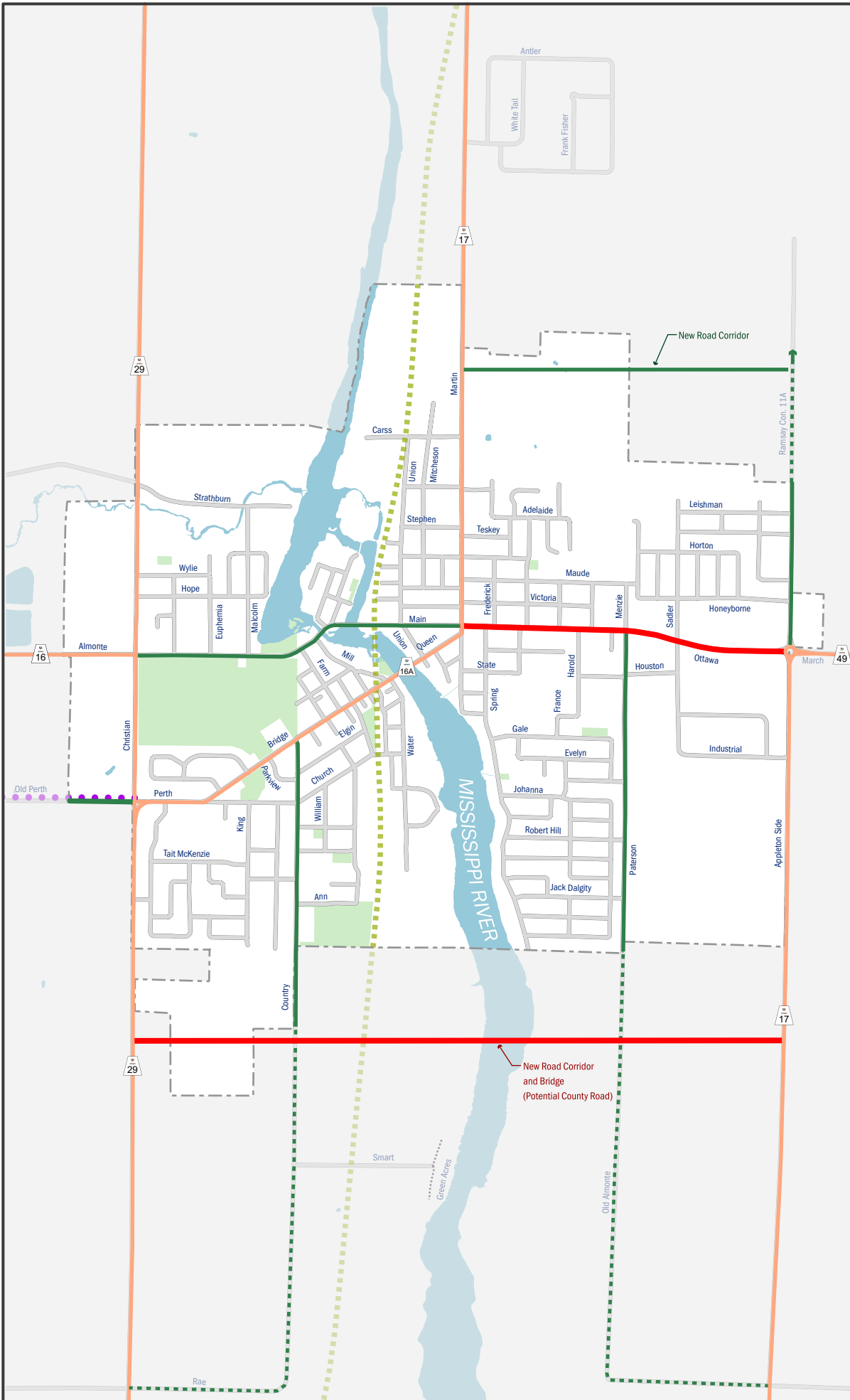
- Parkland and Open Space
- Ottawa Valley Recreational Trail

Notes:
"Future Collectors" are currently rural local roads located in the rural municipality but traverse future growth areas. There may be a long term outlook where these roads are absorbed into Almonte and urbanized in the fullness of time. This will be confirmed in future Official Plan and TMP updates.

The location and alignment of new road corridors are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.

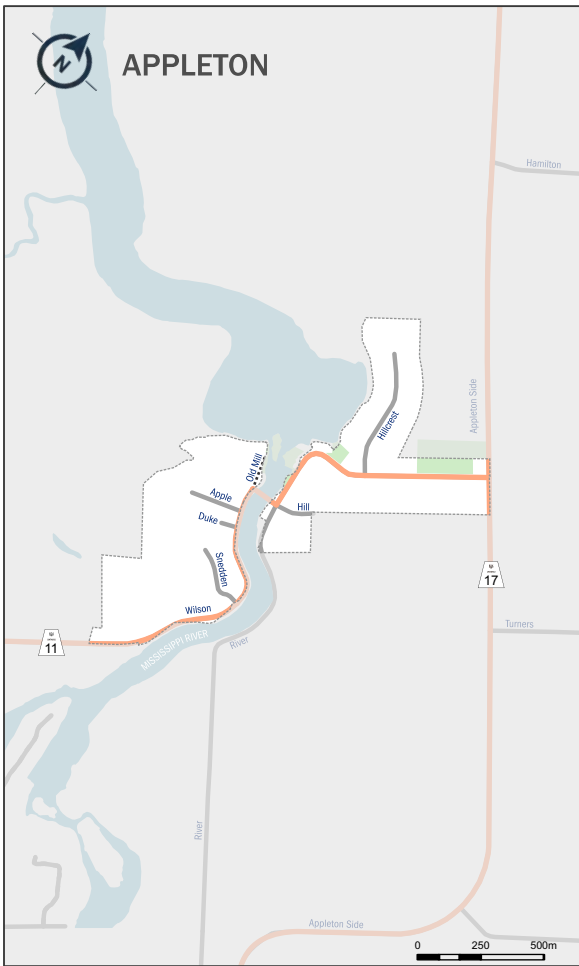


November 2024

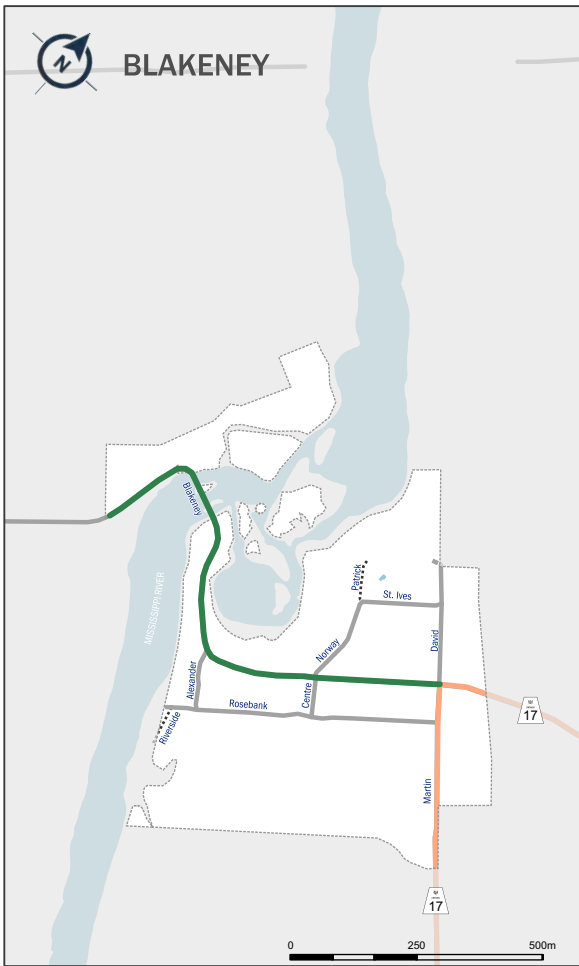




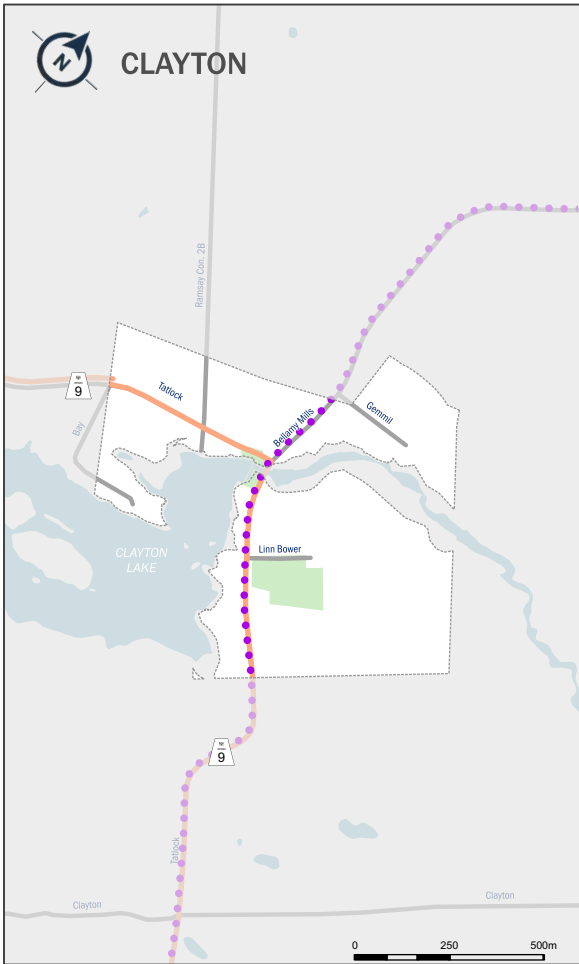
APPLETON



BLAKENEY



CLAYTON



PAKENHAM



Mississippi Mills 2048
Our Community, Our Future

Transportation Master Plan

Schedule 16: Road Classifications Network - Rural Villages

LEGEND

Village Boundary

Road Hierarchy

Municipal Collector

Municipal Local

County Road

Private Road

Scenic or Historic Road

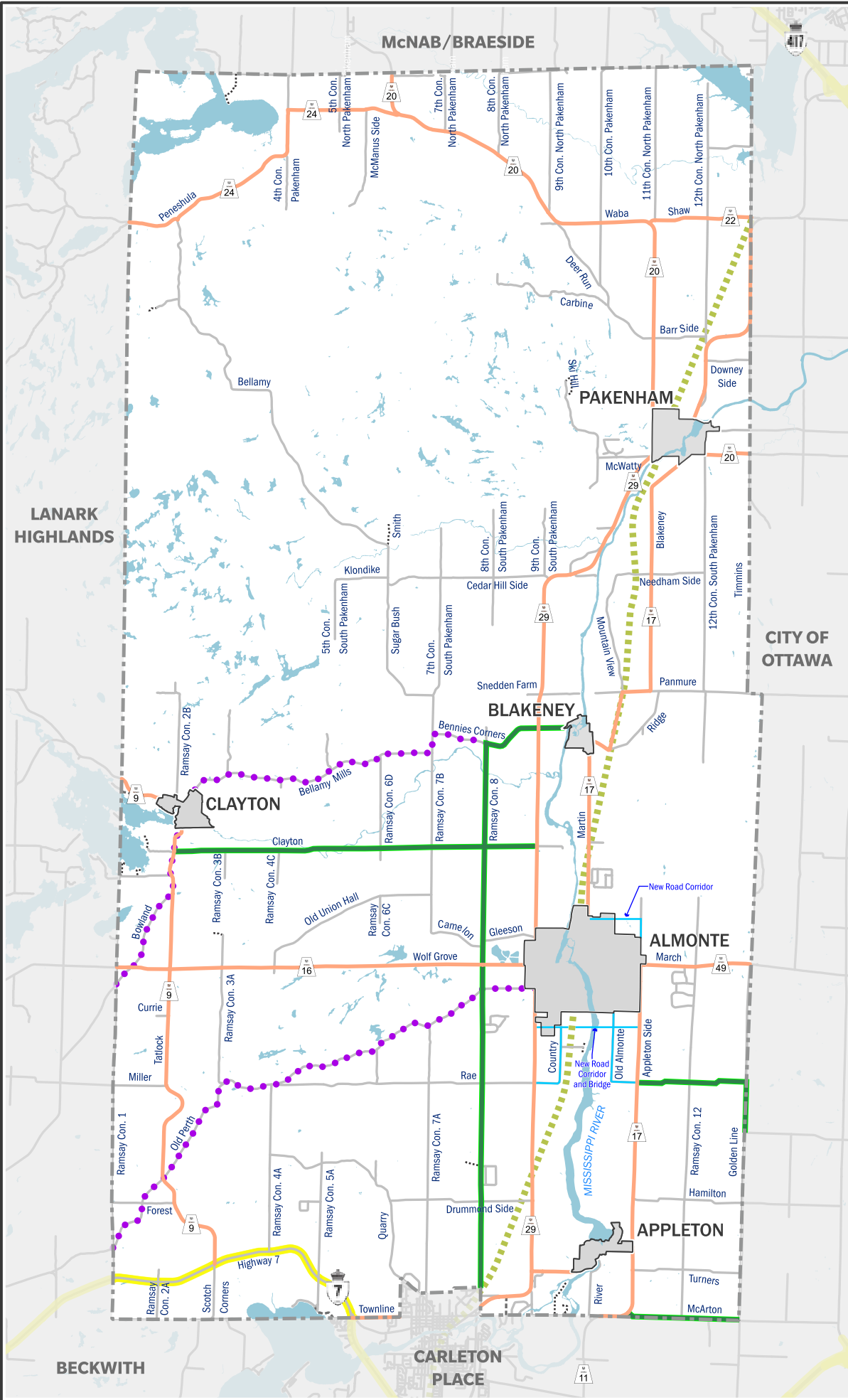
Other Features

Parkland and Open Space

Ottawa Valley Recreational Trail

November 2024





Transportation Master Plan
Schedule 17:
Road Classifications - Rural Areas

LEGEND

- Municipal Boundary
- Settlement Boundary

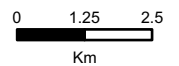
Road Hierarchy

- Municipal Collector Road
- Municipal Local Road
- County Road
- Provincial Highway
- Private Road
- Scenic or Historic Road
- Future Urban Collector or Arterial Road

Other Features

- Ottawa Valley Recreational Trail

Notes:
The location and alignment of new road corridors are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.



November 2024



Transportation Master Plan
Schedule 18:
Interim Road Network - Almonte

LEGEND

- Almonte Boundary
- Municipal Road
- County Road

Short Term Horizon (5 Years)

- Retrofit - Widen Shoulders
- Retrofit - Reduce Vehicle Lane Width for Wider Bike Lanes
- Add Sidewalk on One or Both Sides (Assumes Custom Drainage Solution)
- Bridge Enhancement (Shared Road Treatments)
- Intersection Modification

Medium Term Horizon (15 Years)

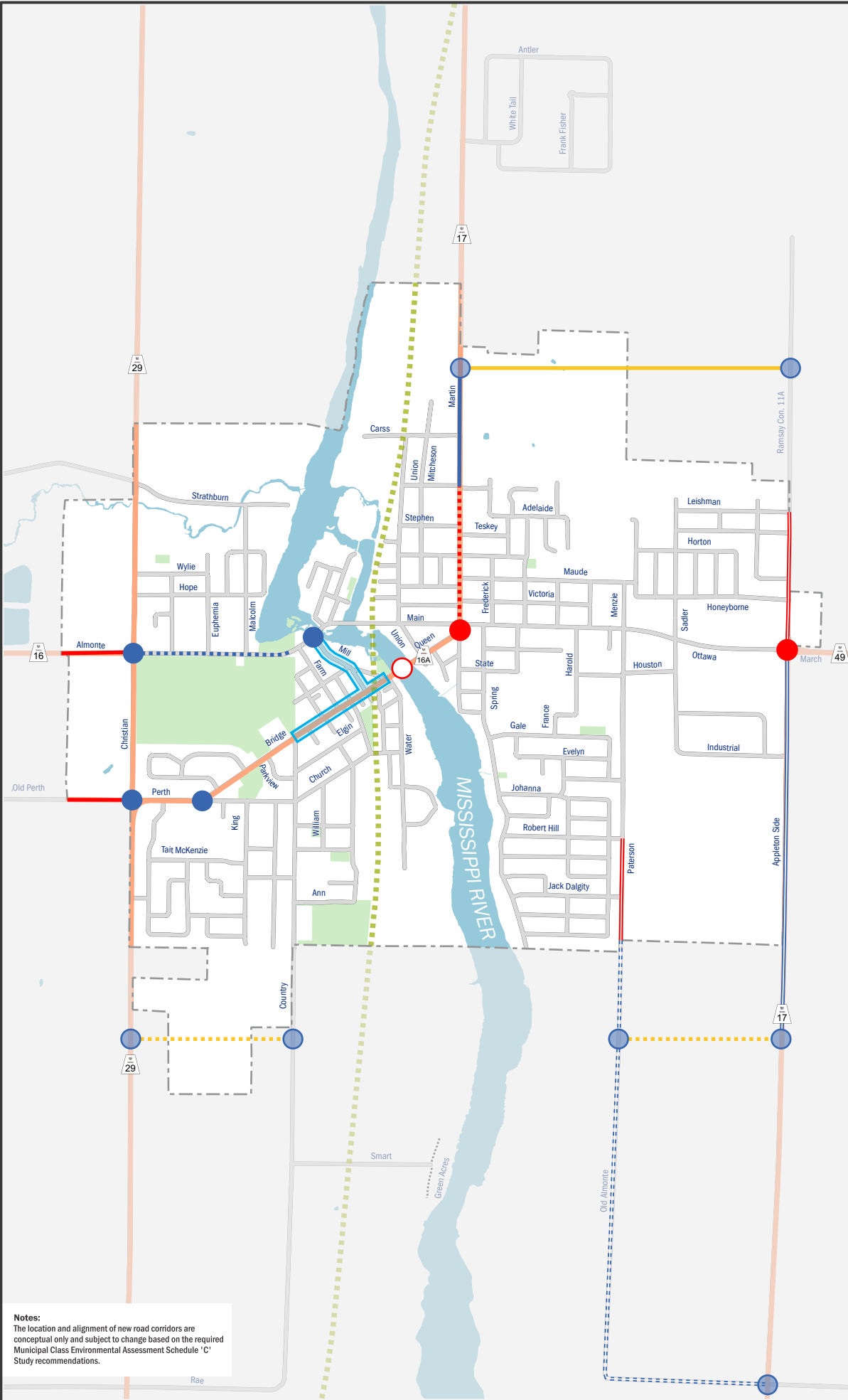
- Upgrade Paths to Sidewalks with Shared Road Treatments
- Retrofit - Reduce Vehicle Lane Width to Add Multi-Use Pathway on One Side and Widen Sidewalk where applicable
- Retrofit - Add Multi-Use Pathway on Both Sides
- Retrofit - Double Surface Treatment or Pave Road Surface
- New 2-Lane Urban Collector Road
- New 2-Lane Urban Arterial Road
- Intersection Modification
- New Intersection

Other Features

- Parkland and Open Space
- Downtown District Area
- Ottawa Valley Recreational Trail



November 2024



Notes:
The location and alignment of new road corridors are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.

Transportation Master Plan
Schedule 19:
Ultimate Road Network - Almonte

LEGEND

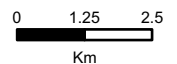
- Almonte Boundary
- Municipal Road
- County Road
- Maintain Interim Enhancements

Long Term Horizon (25 Years)

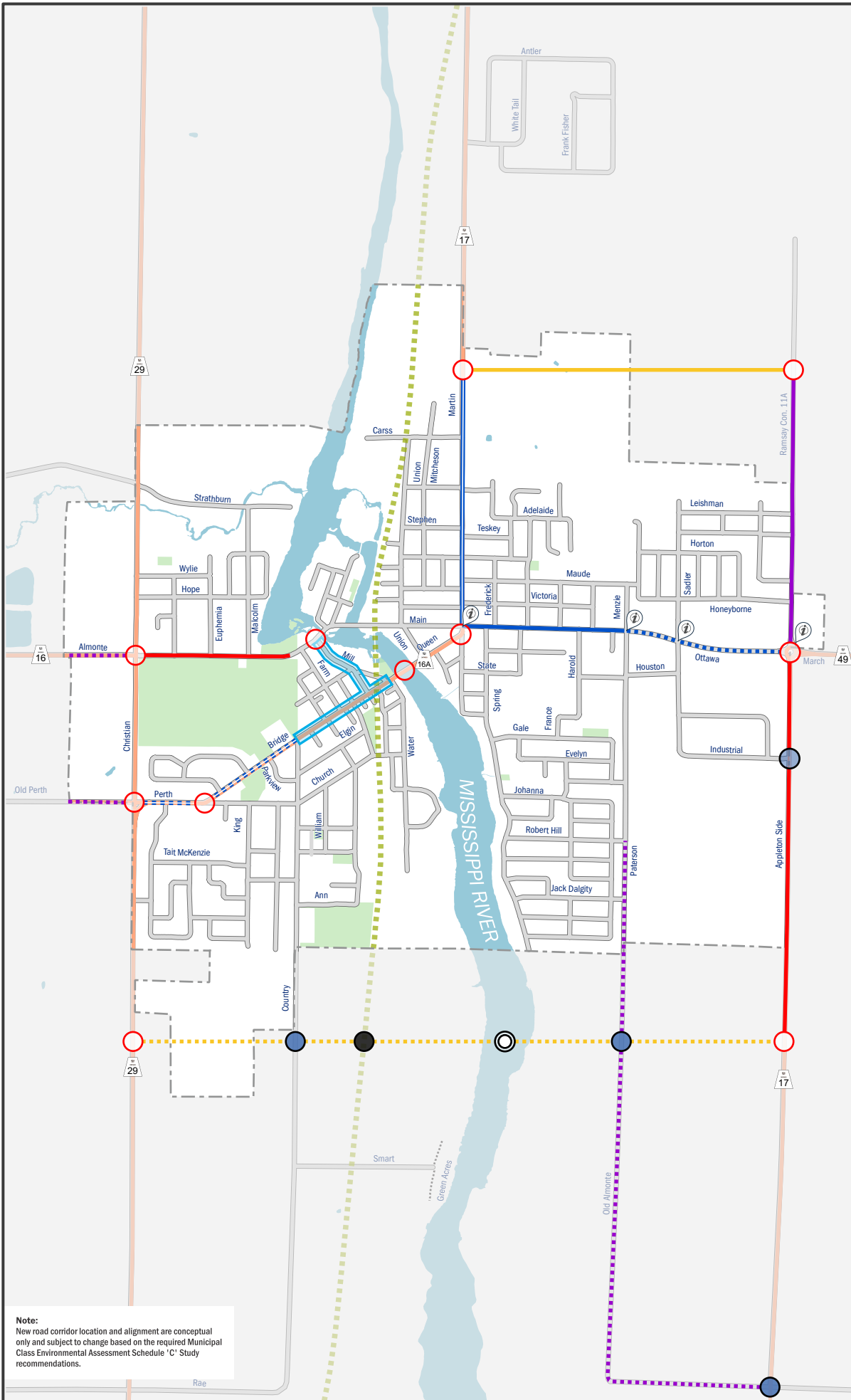
- Retrofit - Add Multi-Use Pathways on One or Both Sides and Replace Sidewalks where applicable
- Retrofit - Reduce Travel Lane Width for Wider Bike Lanes and Sidewalks
- Retrofit - Reduce Travel Lane Width for Cycle Tracks with Widened Sidewalks where applicable
- Retrofit - Increase Travel Lane Width, add Cycle Tracks and Wider Sidewalks on Both Sides
- Full Road Reconstruction (2-Lane Urban Collector Road)
- Partial Road Reconstruction - West Side Only (2-Lane Urban Collector Road)
- New 2-Lane Urban Collector Road
- New 2-Lane Urban Arterial Road
- New Multi-Modal Bridge
- Intersection Modification
- New Crossing
- Review Property Implications for Proper Cycling Integration, Safety and Accessibility

Other Features

- Parkland and Open Space
- Downtown District Area
- Ottawa Valley Recreational Trail



November 2024



Note:
New road corridor location and alignment are conceptual only and subject to change based on the required Municipal Class Environmental Assessment Schedule 'C' Study recommendations.

The Municipality of Mississippi Mills: Transportation Master Plan

APPENDICES

Appendix A

Consultation Summary Report



Municipality of Mississippi Mills
Transportation Master Plan
Final Draft Consultation Summary Report

July 2024

**Municipality of Mississippi Mills
Transportation Master Plan**

Consultation Summary Report

Prepared for:



Municipality of Mississippi Mills
3131 Old Perth Road
Almonte ON, K0A1A0

Prepared by:



Parsons Inc.
100-1223 Michael Street North
Ottawa ON K1J 7T2

July 2024

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Appendix A Comment Tracker
Appendix B Project Notifications
Appendix C Stakeholder Working Group Meeting Notes
Appendix D Indigenous Consultation Report
Appendix E Community Transportation Survey Results
Appendix F Public Consultation Materials

1.0 Introduction

In 2023, the Municipality of Mississippi Mills initiated the process of updating the 2016 Transportation Master Plan (TMP). The TMP is the Municipality's high-level strategic planning document for guiding the planning, expansion, and management of its multi-modal transportation systems for the next 25 years. The update comes to address and respond to unprecedented population growth and evolving travel behavior, and to ensure better alignment with other municipal planning projects. Additionally, the update provides an opportunity for proactive thinking, anticipating community needs, and preparing for emerging trends in transportation solutions.

The TMP update commenced in February 2023 and was completed by the summer of 2024.

1.1. Consultation Overview

This report provides a summary of the multi-faceted consultation initiatives conducted throughout the course of the Master Planning Process.

The strategy for consultations has been developed as a broad and accessible program to include the following:

- Project Management team meetings;
- Workshops with technical experts;
- Public Information Centres;
- Letters and emails; and
- Project website.

1.2. Municipal Class Environmental Assessment

The TMP update is being conducted in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process (October 2000, as amended in 2001, 2011, 2015, and 2023) following "Approach #1", which is an approved process under the *Environmental Assessment Act*. This process will include consultation with the public and stakeholders, consideration of reasonable alternative solutions and a high-level assessment of the effects on the environment at the network level.

2.0 Consultation Methods

A variety of methods will be employed to communicate and obtain feedback on the draft TMP; these are discussed below.

2.1. Stakeholder List

A list of stakeholders for the study was created and updated throughout the study. It was composed of technical representatives from the Municipality and adjacent municipalities, Provincial agencies, and public interest groups. Members of the public could also request to be added to the contact list for the study to receive updates throughout the study process.

2.2. Website

A website for the Project was created via the Municipality's central website and part of the "MM 2048 Projects Umbrella" whereby a number of master plans/policy documents for the Town were all being updated at the same time. The website for the TMP is: <https://www.mississippimills.ca/en/how-we-go.aspx>. Information was posted as well as a link provided for the public to subscribe to notifications.

2.2.1. Community Transportation Survey

A community transportation survey was available between March 16, 2023 and April 14, 2023 to gather public feedback on a variety of transportation-related topics, understand local transportation opportunities and concerns, and identify potential solutions. Surveys were accessed via the project website or through requests for physical copies. Notification of the survey was sent via emails to the stakeholder list for the study as well as notifications and reminders placed on the Town’s website, Facebook page and newsletter.

2.3. Project Email

Emails received throughout the study process were received through the Town’s communications coordinator for MM 2048. Comments received outside of Public Consultation periods were tracked and tabulated in a ‘Comment Tracker’ provided in **Appendix A**.

2.4. Notifications

Notifications were sent out by a variety of means, including Emails, newspaper advertisements and letters. Notifications sent out during the study are provided in **Appendix B**.

2.4.1. Notice of Commencement

The Notice of Commencement was sent out via email to identified stakeholders on March 21, 2023 along with an invitation for the opportunity to participate in a special Stakeholder Working Group for the project (**Table 1**).

The Notice of Commencement was also published in the March 16, 2023 and March 23, 2023 editions of the Canadian Gazette.

Table 1: Stakeholders Receiving Notice of Commencement in March 2023

Stakeholder	Name
Almonte Hospital	Randy Shaw
Carebridge Community Support	Robert Eves
Carleton Place & District Chamber of Commerce	Jacie Kavanaugh
Catholic District School Board of Eastern Ontario	Bonnie Norton
City of Ottawa	Jennifer Armstrong
Lanark County	Terry McCann; Sean Derouin; Julie Stewart; Megan Benson
Lanark Transportation Association	Marilyn Bird
Leeds Grenville Lanark District Health Unit	Joseph Reid; Danielle Shewfelt; Elaine Murkin
Ministry of Citizenship and Multiculturalism (MCM)	Karla Barboza; Joseph Harvey
Ministry of the Environment, Conservation and Parks (MECP)	Jon Orpana; Tracy Hart
Ministry of Municipal Affairs and Housing (MMAH)	Michael Elms; David Nanton
Ministry of Natural Resources and Forestry (MNRF)	Adam Kennedy
Ministry of Transportation (MTO)	Stephen Kapusta
Mississippi Valley Conservation Authority (MVC)	Sally McIntyre; Matt Craig; Jacob Perkins
Ontario Provincial Police	Robert Croth
Pakenham Business and Tourism	Matthew Dobry
Student Transportation Eastern Ontario	Marc Gosset
Town of Carleton Place	Guy Bourgon

Town of Perth	Grant Machan
Township of Beckwith	Cassandra McGregor
Township of Drummond/North Elmsley	Scott Cameron
Township of Lanark Highlands	Chad Kean
Upper Canada District School Board	Peter Bosch

2.5. Public Information Centres

Two, in-person Public Information Centres (PICs) were held during the study process at key milestones on April 13, 2023 and January 18, 2024. The PICs included information boards, question and answer periods, and an opportunity to complete comment sheets virtually or in-person. More details regarding the PICs are found in **Section 5.0** and **Section 6.0**.

2.6. Stakeholder Working Group Meetings

Two Stakeholder Working Group meetings were held throughout the study process at key milestones to discuss and hear feedback from key stakeholders. Project notification emails were sent out to confirm participation and identify correct representatives from agencies, organizations and Town departments. The meetings were held virtually on MS Teams and consisted of a presentation by the study team and informal follow-up discussions.

Table 2 provides dates and a summary of the key points discussed during each meeting held. Detailed notes are provided in **Appendix C**.

Table 2: Stakeholder Working Group Meeting Discussion Summary

Date	Agenda	Feedback Received
April 11, 2023 10:00 – 11:00am	<ul style="list-style-type: none"> Background of TMP Existing conditions Review of 2016 TMP Needs and opportunities Open discussion Next steps 	<ul style="list-style-type: none"> Themes of healthcare and supporting aging populations and considerations for accessibility, active transportation, safety, and public transportation Gradual return to pre-COVID levels of transit use and introduction of a low-income rider subsidy Advocacy for active transportation; better facilities and improved access to amenities Commuters to and from the Ottawa and reducing the number of vehicle trips Potential for municipal park and rides Avenues to increase visitors from Ottawa with increased use of public transit Updates to the County TMP to occur later this year; to include paving shoulders March Road and opportunities to reduce demand through working with the City of Ottawa Maintenance and upkeep policies
December 13, 2023 10:00am – 12:00pm	<ul style="list-style-type: none"> Progress update Background Roads Active transportation Transit and ridesharing Potential policies Open discussion 	<ul style="list-style-type: none"> Collaboration between the Municipality and adjacent municipalities Consideration for climate change adaptations Ongoing consultation with appropriate Provincial agencies

3.0 Indigenous Consultation

Indigenous Communities were consulted throughout the Master Planning process. Communities identified to consult with were provided by the MECP and included:

- Algonquins of Pikwakanagan First Nation
- Mohawk Council of Akwesasne
- Algonquins of Ontario

- Ottawa Region Métis Council
- Métis Nation of Ontario
- Shabot Obaadjiwan First Nation
- Alderville First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Mississaugas of Scugog Island First Nation
- Kawartha Nishnawbe

A summary report of Indigenous consultation is provided under separate cover, prepared by the Township and can be found in **Appendix D**.

4.0 Community Transportation Survey

A Community Transportation Survey was available in March and April 2023 for members of the public to complete online or by physical copy. The survey contained 21 questions ranging from personal travel choices, demographics to general thoughts/concerns and opportunities to provide additional comments and to be added to the public stakeholder list for project updates. A total of 159 completed surveys were received, with additional surveys and responses received following PIC #1. The results of the survey are provided in **Appendix E**.

5.0 Public Information Centre #1

The first in-person PIC was held on April 13, 2023 at the John Levi Community Centre at 182 Bridge Street in Almonte from 2:00pm until 7:30pm. 169 people signed into the consultation event. Information boards and study team members were available to answer questions throughout. Consultation materials presented are provided in **Appendix F**.

The information boards presented included:

- Welcome
- TMP Background
- TMP Study Context
- Existing Rural Transportation Network
- Existing Road Network
- Existing Active Transportation Network
- Existing Travel Trends
- Historic Trends
- Reviewing Aspects of the 2016 TMP
- Needs and Opportunities
- Opportunities for Healthy and Age Friendly Transportation
- Share Your Thoughts
- Next Steps

5.1. Notification

Notification of the first PIC event and subsequent consultation period was provided on the study website as well as in issues of the Carleton Place/Almonte Canadian Gazette on March 9, 16 and 23, 2024. Notifications can be found in **Appendix B**.

5.2. Summary of Public Information Centre Feedback

Feedback received from the first PIC and during the first consultation period was examined and tabulated to better understand the comments and concerns. A total of 15 comments and 77 written comments in the form of sticky notes were received during the PIC, as well as 11 emails received following the consultation event. The following are the most frequently discussed topics, in order of frequency by theme (**Table 3**).

Comments received outside each round of consultation events are included in a Comment-Tracking worksheet that, in addition to this summary, is documented in **Appendix A**.

Table 3: PIC #1 Comment-Questionnaire/Email Tabulation

Frequency	Comments/Concerns
15	Concern regarding traffic speed.
12	Request for better pedestrian infrastructure and its maintenance.
11	Support for use of traffic circles, stop signs, and traffic calming measures.
10	Concern for current and future traffic congestion issues.
10	Request for implementing a transit system.
7	Request for better bike lanes infrastructure and maintenance.
6	Need for more transportation options, specifically for older individuals.
5	Desire for park and ride facilities.
5	Support for the preservation of historic structures and areas.
4	Concern for active transportation user safety.
3	Concern for road extensions and their impacts on surrounding areas.
3	Request for improved road maintenance.
2	Request for longer crosswalk time intervals.
2	Support for restricting motorized vehicles on the Ottawa River Valley Trail.
2	Provided feedback for reporting.
2	Interest in updates and remaining informed during the TMP project.
2	Suggestions to improve access to the Ottawa Valley Rail Trail.
1	Concern regarding potential bridge location.
1	Support for introducing a car share program.
1	Need for additional bridges within the Municipality.
1	Desire to see lack of parking addressed.
1	Support for the use of small electric vehicles on smaller streets.
1	Concern related to traffic noise.
1	Support for on-street parking restrictions.

Frequency	Comments/Concerns
1	Support for an Almonte Bypass road.
1	Provided information regarding commonly used bike paths.
1	Interest in materials supporting the TMP.
1	Support for implementing rideshare options.

6.0 Public Information Centre #2

The second in-person Public Information Centre (PIC) was held on January 18, 2024 at the John Levi Community Centre at 182 Bridge Street in Almonte between 2:00pm and 8:00pm. Information boards and study team members were available to answer questions throughout. 85 people signed in to the consultation event. Consultation materials presented are provided in **Appendix F**.

The information boards presented included:

- Welcome
- Progress to Date
- Background
- Villages and Rural Road Network
- Almonte Road Network
- Property Implications to Road Widening
- Property Implications with New Road Corridors
- Significant Wetland Implications with New Road Corridors
- Potential Ottawa St Capacity Solution
- Potential March Rd Capacity Solutions
- Potential Short-Term Enhancements
- Active Transportation (AT) Network
- Villages and Rural Active Transportation Network
- Almonte Active Transportation Network
- Draft Complete Streets Standard Urban Cross-Sections
- Potential Corridor Specific Enhancement Alternatives
- Transit and Ridesharing
- Potential Supporting Strategies/Policies Being Developed
- Share Your Thoughts
- Next Steps

6.1. Notification

Notification of the second PIC event and subsequent consultation period was provided through various means. Physical advertisements of the event included: printings in the December 22, 2023 and January 11, 2024 issues of the Community Voice local newspaper; postings outside of the John Levin Community Centre on January 8, 2024; postings on community boards at the Pakenham and Almonte Library and Municipal offices on January 3, 2024; and promotions from the mayor during the January 16, 2024 Council meeting. Digital advertisements of the event included: public postings to the Municipality’s Facebook and Instagram pages on January 3 and 9, 2024; a Facebook and Instagram ad campaign beginning January 9, 2024; emails to the study mailing list including previous PIC attendees and those who wished to be included on January 11, 2024 as well as a follow-up email providing links to materials on February 2, 2024; and notices on the Municipal website on January 3, 2024. Notifications can be found in **Appendix B**.

6.2. Summary of Public Information Centre Feedback

Feedback received from the second PIC and during the second consultation period were examined and tabulated to better understand the comments and concerns. A total of 13 comments and 69 written comments in the form of sticky

notes were received during the PIC, as well as 2 emails received following the consultation event. The following are the most frequently discussed topics, in order of frequency by theme (**Table 4**).

Comments received outside each round of consultation events are included in a Comment-Tracking worksheet that, in addition to this summary, is documented in **Appendix A**.

Table 4: PIC #2 Comment-Questionnaire/Email Tabulation

Frequency	Comments/Concerns
9	Concern for safety of pedestrians along busy streets with poor condition or lack of sidewalks and increasing pedestrian infrastructure.
8	Concern for cyclists safety and need for more/improved cycling infrastructure.
8	Call to reduce traffic speeds and implement traffic calming measures.
6	Concern regarding Honeyborne extension.
6	Desire for more commercial development and services.
5	Support for proposed traffic diversion alignments.
4	Appreciation for PIC and planning approach.
4	Concern for traffic congestion resulting from future residential development.
4	Support for paving and widening/improving AT infrastructure and widening shoulders along roads
4	Support for proposed short-term enhancements, especially for the traffic circle.
3	Concern for specific proposed road extensions.
3	Concern for social and environmental transportation impacts.
3	Desire for more parking downtown.
3	Support for separating AT and motorized vehicles.
3	Support for improving AT pathway surfaces and infrastructure.
2	Concern for playground safety.
2	Concern for regarding additional costs associated with infrastructure.
2	Support for improved consultation with rural land owners.
2	Support for improving private vehicle alternative transportation mode options.
2	Support for implementing a transit system which integrates with other transportation modes.
2	Unsupportive of potential road widening of Ottawa Street.

Frequency	Comments/Concerns
1	Support for road widening to address potential traffic congestion.
1	Appreciation for existing bicycle paths.
1	Call to bring back specific community events.
1	Call to provide parks and walkways along river.
1	Concern for lack of progress updating pedestrian crosswalks.
1	Concern for impact of developments on parks and greenspace.
1	Does not agree with providing additional streetlights.
1	Need for providing Almonte bypasses to accommodate growing population.
1	Note requesting cluster lot development clarity.
1	Question regarding consideration of flooding in future planning.
1	Question regarding role of watercrafts in transportation.
1	Suggestion for providing structures to protect cars in parking lots.
1	Support for removing on-street parking along certain locations.
1	Support for road widenings to accommodate all motorized vehicle types.

7.0 Appendices

Appendix A Comment Tracker

Appendix B Project Notifications

Appendix C Stakeholder Working Group Meeting Notes and Presentations

Appendix D Indigenous Consultation Report

Appendix E Community Transportation Survey Results

Appendix F Public Consultation Materials

Appendix A: Comment Tracker

Project Comment Tracker

Date (dd/mm/yyyy)	From	Organization/ Association	Comment Summary	Response Date	Response
27/03/2023	Karen Cook	Ministry of Natural Resources and Forestry	Provided a form letter response to the notice of commencement. Replied they would not be attending the working group and that they would like to be included in project information circulation	N/A	N/A
29/03/2023	Jon Orpana	Ministry of the Environment, Conservation and Parks	Provided a form letter response to the Notice of commencement. Included preliminary comments regarding the project notice and a list of Indigenous Communities with which to consult.	N/A	N/A
12/04/2023	Joseph Harvey	Ministry of Citizenship and Multiculturalism	Provided a form letter response to the Notice of Commencement. Initial advice regarding the project, and noted that administration of the Ontario Heritage Act was transferred from the Ministry of Tourism, Culture and Sport to the Ministry of Citizenship and Multiculturalism.	N/A	N/A
05/05/2023	Ken McRitchie	Public	Proposed alignment for a potential pedestrian footbridge to be included in the new TMP.	05/05/2023	Noted that the suggested alignment is in consideration and that results would be presented at the subsequent open house.
07/06/2023	Trevor McKay	Novatech	Stated interest in being kept up to date with project as it relates to their ongoing development applications in the area.	N/A	N/A
14/07/2023	Lloyd Strachan	Public	Seeking availability of reports/documents for the transportation section of MM2048.	17/07/2023	Noted the project was in the analysis and evaluation phase, and provided time frame for next engagement event.
17/07/2023	Lloyd Strachan	Public	Posed questions regarding mitigating transportation related climate change impacts within the municipality.	09/08/2023	Provided overview of sustainability within the TMP review and identified additional resources for ongoing climate change initiatives within the municipality.
04/01/2024	Tarique Kamal	Ministry of Transportation	Stated that improvements to Highway 7 were being reviewed, noting no decisions at the time. Also provided info for a MTO Project Engineer to be included in future discussions.	01/08/2023	Confirmed that the individual was added to the stakeholder list.

Appendix B Project Notifications



Phone: 613-256-2064
1-888-779-8666
www.mississippimills.ca

Municipal Matters
March 16, 2023



HOW WE GROW NOTICE OF OFFICIAL PLAN AMENDMENT & ZONING BY-LAW AMENDMENT APPLICATIONS

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The **Water & Wastewater Master Servicing Plan (MSP)** is a critical roadmap for the ongoing development and management of the municipal water and wastewater infrastructure, including treatment plants, reservoirs, pumping stations, and pipes for the continued prosperity and growth.

The TMP and MSP studies are being conducted in accordance with the Master Planning process as outlined in the Municipal Engineers Association MCEA (October 2000, amended 2007, 2011, 2015 and 2023), an approved process under the Ontario Environmental Assessment Act. The TMP and MSP will follow "Approach #1" of the Master Planning process, which introduces the project background and scope. A second Public Information Centre will be held later in the year to review alternative solutions, evaluation criteria and the preferred solution.

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Event Details:

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6:00 p.m. to 7:30 p.m. – Presentation and Boards, Consultants and Municipal Staff

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Pamela.Whyte@Parsons.com
613-738-4160

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mbuchanan@richards.ca
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IMPACTING YOUR
COMMUNITY

Ashley Kulp/Metroland
North American Maple Syrup Council Maple Hall of Fame member Ray Bonenberg prepares to tap a sugar maple at Thompsonstown Maple Products in Clayton March 11. Thompsonstown hosted the provincial first tapping to kick off the maple season.

MAPLE SYRUP PRODUCERS TALK 'FALSE SPRING' AS SEASON BEGINS

ASHLEY KULP
akulp@metroland.com

Of their 2,900 trees, one sugar maple at Thompsonstown Maple Products has an especially sweet history.

"The tree we're tapping today, there's a good chance that it was tapped by our ancestors likely 150 years ago," said Ray Thompson, owner of the Clayton sugar bush that hosted the provincial first tapping March 11 to kick off the

maple syrup season. That 100-year-old maple also has the distinction of being tapped by several North American Maple Syrup Council Maple Hall of Fame members, including Lanark County maple pioneer

Marion Paul in 2001. Pembroke's Ray Bonenberg, inducted in 2020, did the honours on March 11. Later in the week, Thompson expected fellow hall of famers Dave

See CLAYTON, page 8

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Municipal Matters
March 23, 2023

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613-738-4160

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Consultant Contact:
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mbuchanan@jrichards.ca
343-804-5349

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NOTICE OF PUBLIC MEETING FOR OFFICIAL PLAN AMENDMENTS & ZONING BY-LAW AMENDMENT APPLICATIONS

TAKE NOTICE that a Public Meeting will be held on **Thursday, January 18, 2024, 2:00 p.m. to 8:00 p.m.** to consider a proposed Official Plan Amendments and Zoning By-law Amendment under Sections 22 and 34 of the Planning Act, R.S.O. 1990, Chapter P.13. **The public meeting will be held as a part of the MM2048 public information centre meeting being held on January 18, 2024, at 82 Bridge Street, John Levi Community Centre.**

Please be advised that the Municipality of Mississippi Mills has initiated the following Official Plan Amendments and Zoning By-law Amendment request (details below):

The Municipality of Mississippi Mills has initiated Zoning By-law Amendment Z-05-23, and Official Plan Amendment OPA 32. The purpose and intent of the Official Plan Amendment application and Zoning By-law Amendment application is to implement amendments to the Community Official Plan and Zoning By-law which result from Provincial legislative changes. The applications affect all properties within the Municipality of Mississippi Mills.

The Municipality of Mississippi Mills has also initiated Official Plan Amendment OPA 33. The purpose and intent of to update the Community Official Plan policies to implement

changes to the policies related to Cluster Lot Subdivisions and Private Roads. The applications affect all properties within the Municipality of Mississippi Mills.

IF YOU WISH TO ATTEND THE MEETING IN-PERSON, there is no need to register ahead of time. Staff will be in attendance for the duration of the public meeting to hear your comments and answer any questions. **IF YOU WISH TO PROVIDE WRITTEN COMMENTS**, please provide written comments to the assigned Planner using the contact details noted below under **HOW WE GROW**.

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or public body is not entitled to appeal the decision.

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IF YOU ARE THE OWNER OF A BUILDING WITH SEVEN (7) OR MORE RESIDENTS, it is requested that you post this notice in a location visible to all of the residents.

ADDITIONAL INFORMATION about this application is available on the Municipality's web page. For more information about this matter, including information about appeal rights, contact the assigned planner: mknight@mississippimills.ca



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The Municipality of Mississippi Mills has reached an important milestone in the ongoing Municipal Class Environmental Assessment (MCEA) process for the Transportation Master Plan and Water and Wastewater Master Servicing Plan.

Both Master Plan projects have completed Phase one of the MECA process. Phase 1 is the problem and opportunity identification phase. Our Consultants compiled the feedback from the first public information center and gathered additional information from review agencies and Municipal staff to identify problems and opportunities related to Municipal infrastructure.

Now the Consultants have begun working on Phase 2 of the MECA process. Phase 2 is used to identify alternative solutions to address the problems or opportunities by taking into consideration the existing environment, and establish preferred solutions taking into account public and review agency input. The upcoming Public Information Center is an important part of Phase two of the MECA process and is an opportunity for residents of Mississippi Mills to provide input to the project team with regards to the evaluation and selection of alternative solutions. The outcomes of Phase 2 will dictate what projects are completed in the Municipality for years to come.

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We Look Forward to Seeing You!

Appendix C Stakeholder Working Group Meeting Notes

Mississippi Mills Transportation Master Plan Stakeholder Working Group #1

MEETING NOTES

Project No.: 478568

Date/Time of Meeting: Tuesday, April 11, 2023 - 10:00-11:00 am

Location: MS TEAMS Virtual Meeting

ATTENDEES:

Name	Department/Company	Email
TMP Study Team		
Austin Shih	Parsons Inc.	Austin.Shih@parsons.com
Sarah Rogers	Parsons Inc.	Sarah.Rogers@parsons.com
Jake Berube	Parsons Inc.	Jake.Berube@parsons.com
David Shen	Municipality of Mississippi Mills	dshen@mississippimills.ca
Robert Smith	Municipality of Mississippi Mills	smithr@mississippimills.ca
Working Group Members		
Calvin Murphy	Municipality of Mississippi Mills	CMurphy@mississippimills.ca
Chelsea Snyder	Carleton Place and District Chamber of Commerce	Chelease.Snyder@rbc.com
Cory Smith	Municipality of Mississippi Mills	csmith@mississippimills.ca
Jacob Perkins	Mississippi Valley Conservation Authority	jperkins@mvc.on.ca
Joseph Harvey	Ministry of Citizenship and Multiculturalism	joseph.harvey@ontario.ca
Joe Reid	Leeds Grenville and Lanark District Health Unit Student	joseph.reid@healthunit.org
Mark Gosset	Transportation Eastern Ontario	marc.gosset@steo.ca
Marilyn Bird	Lanark Transportation Association	ed@lanarktransport.com
Michael Rikley-Lancaster	Chair of Mississippi Mills Heritage Committee and Executive Director and Curator of the Mississippi Valley Textile Museum	m.rikley-lancaster@mvtm.ca
Randy Shaw	Almonte General Hospital	rshaw@agh-fvm.com
Terry McCann	Lanark County	roads@lanarkcounty.ca
Tiffany Maclaren	Municipality of Mississippi Mills	tmaclaren@mississippimills.ca
Max Walker	City of Ottawa	max.walker@ottawa.ca

Absentees:

Sean Derouin
Julie Stewart

Lanark County
Lanark County

SDerouin@lanarkcounty.ca
jstewart@lanarkcounty.ca

Item No.	Description/Comments	Action Item	Date (dd/mm/yy)
1.0	Introductions		
1.1	Austin led the group through a roundtable introductions Project Managers for the Mississippi Mills TMP: Mississippi Mills – Robert Smith, C.Tech Parsons – Austin Shih, P.Eng		
1.2	Austin Shih gave a presentation, noting that this Stakeholder meeting is the first of two planned meetings. The purpose of this meeting is to provide an introduction to the TMP and an opportunity for initial input. Austin noted that the TMP is following the MCEA process, “Approach 1”, which will complete Phases 1 and 2 of the MCEA process, identifying Problems & Opportunities, presenting alternative solutions and present technically preferred solutions. The presentation included: <ul style="list-style-type: none"> • Existing Travel Trends • Historic Travel Trends • Existing Rural Transportation Network • Existing Active Transportation Network • Reviewing Aspects of the 2016 TMP • Needs and Opportunities • Opportunity for Health and Age Friendly Transportation 	INFO	
2.0	Discussion – What are the most important issues		
2.1	Randy Shaw noted that his overall theme being health care, promotion of health in the community, supporting aging population and seniors, including maintaining transportation connection as they age. Indicated 4 major topics: <ol style="list-style-type: none"> 1. Accessibility, design of MUP, trails and sidewalks. Mobility devices/aids, not often safe to walk due to winter thaw, which needs to be reflected in the design 2. Active Transportation, promote people to be more active and maintain their health, includes cycling as well as waterway activities (canoeing/kayaking), and providing rest areas in and surrounding Almonte. 3. Safety, relates to Accessibility, road crossings, lighting, traffic calming and speed management. 4. Public Transportation – Connection for seniors that is affordable. 		
2.2	Austin asked Marilyn to expand on public transportation, to gain a sense for current demand and plans for Lanark Transportation Association, noting the objective to serve the aging population. Marilyn noted that transit trips are slowly returning to pre-COVID levels in terms of number of rides, where in March 2023 they exceeded the 2019 pre-COVID number of trips. Highlight a subsidy for low-income riders, their		

Item No.	Description/Comments	Action Item	Date (dd/mm/yy)
	<p>cost is subsidized for local appointment or external appointment. Started a once a week shopping service in Perth with a modified-fixed-route. Hoping to start a similar service in Mississippi Mills to Almonte, starting likely Summer 2023.</p>		
2.3	<p>Joe Reid, Health Unit, reflected what Randy had commented on. Advocate for more active transportation. Suggest a goal to change the model share to get around via active transportation or public transit. Preferred separate pedestrian and cycling facilities. Also important to strive for equity, improved active transportation infrastructure can provide better access to amenities.</p>		
2.4	<p>Max Walker provided input regarding commuters to and from Ottawa. The City's goal is to reduce the number of vehicle trips into the City and promote the use of transit. Inquired about the use of and availability of park and rides to entice individuals to use public transit. Could the numbers behind the origin-destination data be provided?</p> <p>Austin noted that the numbers are affected by the pandemic, so their absolute value needs to be scrutinized while the distribution remains relevant. Austin noted that there is not a municipal park-and-ride or rideshare, its otherwise organized via Facebook, so there is a gap.</p> <p>Max asked to also consider City of Ottawa park and rides. The City is undertaking a planning and policy review regarding park and rides, so are likely going to return to gather input from surrounding communities in a couple months. Other items, regarding road widenings in a rural/urban MM context. (What is not DC eligible?) How does the TMP dovetail with a planning framework?</p> <p>David noted there are several MP studies ongoing, deferred to David.</p> <p>David noted that they are coordinating several studies for a 2048 strategic plan and framework, including TMP, SWM, DC charges, community services, solid waste strategic, economic development plan and may include urban planning such as the OP. We have created a webpage, a link will be circulated.</p> <p>https://www.mississippimills.ca/en/mm2048.aspx</p>		
2.5	<p>Austin read the following comment from the chat:</p> <p>Michael Rikely-Lancaster (MM Heritage) Comment - <i>"Maybe add incentives for people to work from home? I am unsure if I am way off here...I would love to also see ways of getting people here from Ottawa to Mississippi Mills who do not have access to vehicles...to come shop/ visit our fabulous destination, like museums."</i></p> <p>Austin noted there are limits to what the municipality can do to incentivize working from home, as it's largely to the discretion and policies of the employer. He also noted that that public transit between Almonte/MM and Ottawa can be explored, including examining ride sharing opportunities.</p>		

Item No.	Description/Comments	Action Item	Date (dd/mm/yy)
	David Shen, thanked Michael, goal to attract more people from areas like Ottawa. Noted a number of disciplines are involved in this efforts, including the Downtown renovation.		
3.0	Discussion Question – Road Network		
3.1	<p>Austin – County Road network in the broader Municipality, are we seeing any notable congestion, any notable pinchpoints, or insights in the road network plans in the coming years.</p> <p>Terry noted that an update to the County TMP is planned later this year, County Road 49/March Road needs improvements, Asset Management Plan is being finalized for the next few years, ongoing work on all County Roads with the biggest aside from Bridge and March, Appleton Side Road has been reasonably upgraded (no plans), CR29 in the next 10 -years needs upgrades. County is paving all shoulders, not bicycle lanes but cycling is an advantage as well as maintenance to eliminate shoulder grading. Active Transportation is also benefitted. Bridge work that is ongoing on the Blakely Bridge (Township Road), including a sidewalk discussion. Bridge work in Pakenham at 5 arches, at this point the structure will not change.</p> <p>Park and Rides, MTO has one off of Highway 7 at Appleton Side Road, should be considered on major commuter corridors.</p> <p>Austin noted that it would be important to have an understanding of potential March Road improvements (in collaboration with City of Ottawa as well) and also look at opportunities to reduce demand along this busy corridor.</p> <p>Terry indicated that March Road is the busiest road, also requires involving the City of Ottawa in the discussions.</p> <p>Austin noted MTO upgrades to the ramp terminals to improve capacity.</p>		
3.2	<p>Cory Smith noted that there is a strong interest on policy on when it is appropriate, and not appropriate, to be put in place. Balance with maintenance and upkeep. Winter maintenance is important. Policies are important for when and where these items are appropriate, including warrants and triggers.</p> <p>Austin noted that the TMP is a long term plan, with implementation of many of these ideas are not likely to take place in the short term, but depend on future strategic planning for implementation.</p>		
6.0	Conclusion		
6.1	Austin summarized some next steps in the TMP; the feedback received today will be considered. There is a public information centre for the TMP scheduled on Thursday April 13 th , the next planned working group is expected in the fall of 2023. Any further questions, comments or discussion is welcome and any stakeholder may reach out to the project managers for more information and to provide feedback over the course of this project. Austin concluded the meeting.		

Distribution: All.

The next meeting will be in Q4 of 2023.

Notes distributed Thursday, April 13, 2023. Errors and omissions in these notes must be provided to Austin Shih/Sarah Rogers within 5 business days, otherwise the notes will be taken as a true and accurate record of the proceedings.

Distribution: all listed members of the Working Group.



Transportation Master Plan

Thank you for participating in the first of two planned Stakeholder Working Group meetings for the **Mississippi Mills Transportation Master Plan (TMP)**.

The purpose of this first Working Group meeting is to introduce the TMP and provide an opportunity for invitees to provide initial thoughts, comments, and concerns.

Your role will be to represent the interests of your department, agency or group and share knowledge of your area of expertise.

The TMP is a high-level strategic document that guides the planning, expansion, and management of the multi-modal transportation system to its planning horizon.

The Municipal Class Environmental Assessment (MCEA) Process

The TMP will follow the Master Planning process as outlined in the Municipal Engineers Association Municipal Class Environmental Assessment (EA) following "Approach #1."



List of Participants

TMP Project Managers:

- Robert Smith, C.Tech – Mississippi Mills
- Austin Shih, P.Eng – Parsons

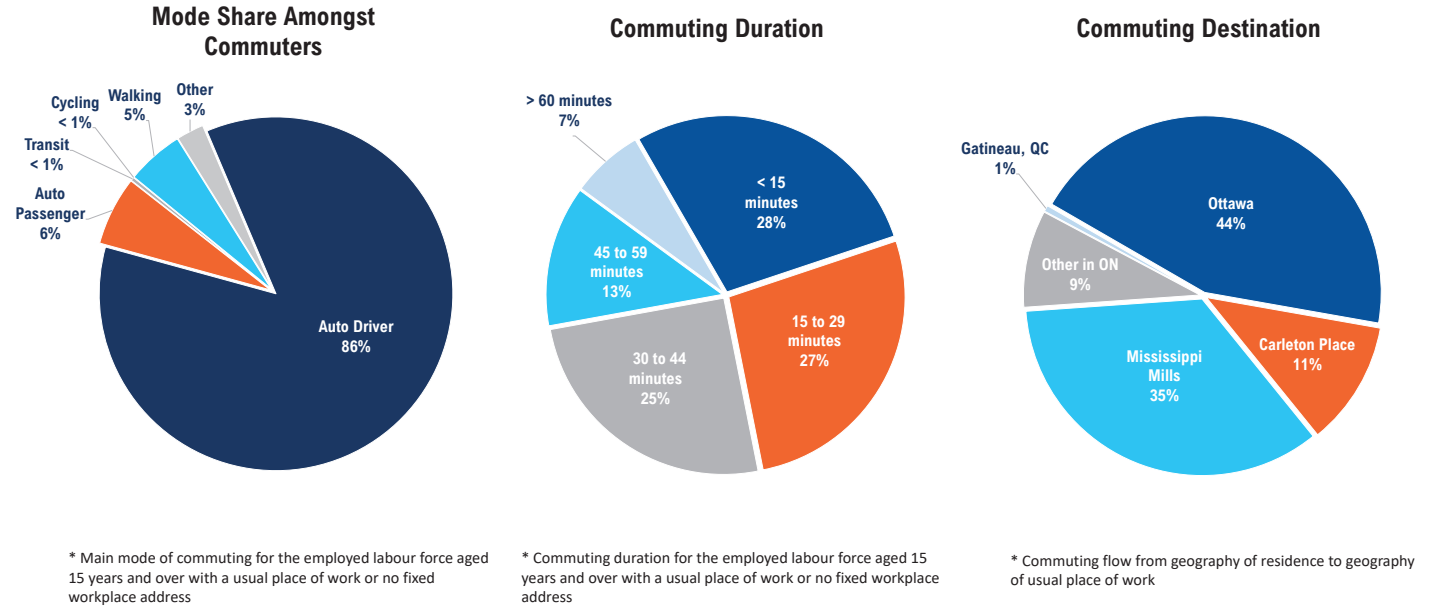
Working Group Affiliations:

- | | |
|--|---|
| <ul style="list-style-type: none"> • Mississippi Mills • Lanark County • City of Ottawa • MTO • Lanark Transportation Association • Almonte Hospital • LGLDHU | <ul style="list-style-type: none"> • UCDSB • CDSBEO • STEO • Carebridge Community Support • CP and District Chamber of Commerce • Destination Almonte |
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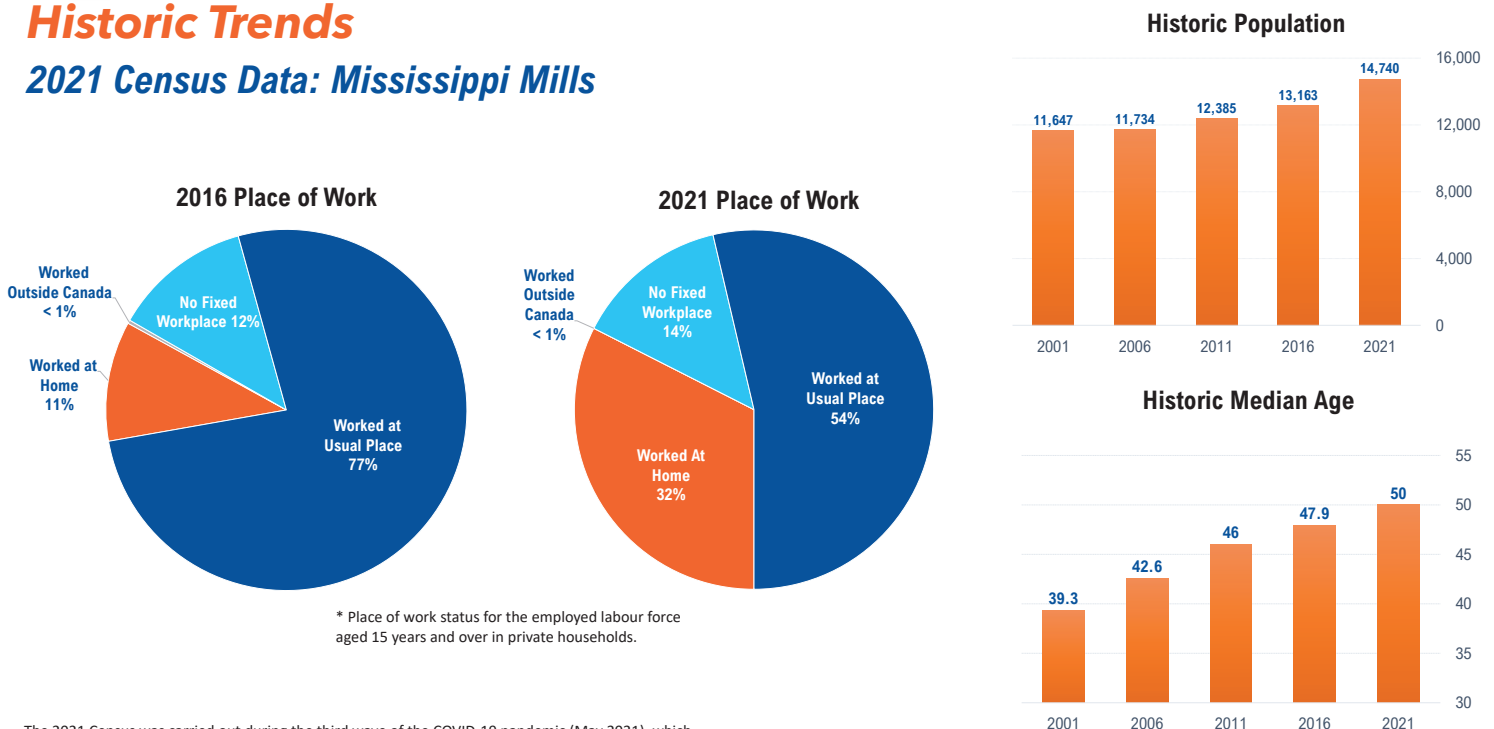
Existing Travel Trends

2021 Census Data: Mississippi Mills



Historic Trends

2021 Census Data: Mississippi Mills



The 2021 Census was carried out during the third wave of the COVID-19 pandemic (May 2021), which factored into these results. However, work from home proportions were declining through 2021.



Existing Rural Transportation Network

Key Elements

The Rural Transportation Network is composed of Rural Municipal or Private Roads, Scenic or Heritage Roads, County Roads, and Provincial Roads.

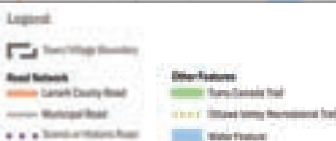
Two prominent trail networks are the Trans Canada Trail and the Ottawa Valley Recreational Trail that traverse through the Municipality.



TOWN OF CARLETON PLACE



Existing Road Network Almonte and Villages





Existing Active Transportation (AT) Network

Almonte and Villages



Reviewing Aspects of the 2016 TMP

Some key elements within the 2016 TMP:

- Strengthen **E/W road network capacity** in Almonte
- Establish a **road classification system** for the Municipality
- Develop **cross sections** for the new road classes
- Establish a **cycling network system**
- Strengthen the **pedestrian network system**





Needs and Opportunities

What Have We Heard So Far?



- ❑ **Vehicle congestion** concerns associated with expected population growth.
- ❑ **New road corridors** needed to service future growth areas.
- ❑ Ottawa St **pedestrian and cycling** safety concerns.
- ❑ Ottawa St **roundabout** safety concerns.
- ❑ Reported **speeding** in neighbourhoods.
- ❑ Need for **traffic calming** on some neighbourhood streets.
- ❑ Active transportation facilities **don't fit the context**.
- ❑ 35% of commuters working within MM presents an opportunity to explore **other travel options**.
- ❑ An aging population may increase the need for **alternative and more affordable travel options**.

Ongoing Outreach

The TMP team has engaged with the Municipality and stakeholders in the form of:

- ❖ A kick-off meeting was held with municipal staff on February 13, 2023.
- ❖ A Community Transportation Survey was released on March 16, 2023, and will remain open until April 14, 2023.
- ❖ The first Public Information Centre will be held on April 13, 2023.



Opportunity for Healthy and Age Friendly Transportation

Road Widening, Expansions, and Rebalancing



We will investigate opportunities to strengthen the road network through **road widening and expansions**, as well as improve the efficiency of the road network through **road rebalancing and local intersection modifications**.

Transit – Ride Sharing – Park N Ride



There may be opportunities to leverage technology and new approaches to make transit and ride-sharing more **convenient, efficient and affordable**, particularly for regular commuters.

Pedestrian and Cycling Treatments



We will look for opportunities to apply **age friendly and accessible design standards** and develop **safe and efficient connections** between key destinations.

Traffic Calming

Contemporary road network planning and design often consider traffic calming measures with the goal of improving quality of life and safety for all road users.



GROUP DISCUSSION

From your or your group/organization's perspective:

WHAT ARE THE MOST IMPORTANT ISSUES?

Please use the hand raise button to directly pose a question or comment and/or type it in the chat room.

THANK YOU FOR PARTICIPATING!

What is next for the TMP?

The study team will:

- ➔ Review and incorporate feedback received.
- ➔ Finalize the TMP Vision and Needs/Opportunities.
- ➔ Assess the Municipality's transportation network and develop technically preferred solutions to mitigate identified issues.
- ➔ For more information, questions or comments, please contact the team:

TMP Project Managers

Robert Smith, C.E.T.
Municipality of Mississippi Mills
SmithR@mississippimills.ca

Austin Shih, P. Eng.
Parsons Inc.
Austin.Shih@Parsons.com

Stay Connected!



Visit the TMP Webpage for updates and additional information about the study.

<https://www.mississippimills.ca/en/how-we-go.aspx>

The next Working Group Meeting is planned in the **Fall/Winter 2023** where we will look for your input on alternative solutions and technically preferred solutions.

Mississippi Mills Transportation Master Plan Working Group Meeting #2

MEETING NOTES

Project No.: 478568

Date/Time of Meeting: December 13, 2023, 10:00 am – 12:00 pm

Location: Microsoft Teams Virtual Meeting

ATTENDEES:

Name	Department/Company
TMP Study Team	
Robert Smith	Municipality of Mississippi Mills PM
Austin Shih	Parsons, Consultant PM
Basel Ansari	Parsons
Ben Allen	Parsons
Sarah Rogers	Parsons
Working Group Members	
Calvin Murphy	Municipality of Mississippi Mills, Recreation Manager
Cory Smith	Municipality of Mississippi Mills, Roads and Public Works
Melanie Knight	Municipality of Mississippi Mills, Development Services
Michael Rikley-Lancaster	Chair of Mississippi Mills Heritage Committee and Executive Director and Curator of the Mississippi Valley Textile Museum
Chelsea Snyder	Carleton Place and District Chamber of Commerce
Danielle Shewfelt	Leeds Grenville and Lanark District Health Unit, Public health nurse
Terry McCann	Lanark County, Director of Public Works
Sean Derouin	Lanark County, Public Works
Max Walker	City of Ottawa, Senior Project Manager Transportation Department
Tarique Kamal	Ministry of Transportation of Ontario (MTO), Senior Project Manager, Eastern Operations
Marc Gosset	Student Transportation Eastern Ontario (STEO), Operations Manager
Randy Shaw	VP Capital projects at Almonte and Carleton Place District Hospital

The following is a record of the key points made during the discussion.

Item	Discussion	Action
1.0	Round table Introductions followed by powerpoint presentation led by Austin.	For information

Item	Discussion	Action
2.0	<p>Max Walker provided support for the information presented and expressed thanks for involving and considering the City of Ottawa network and TMP plans in this project. Mentioned that continued discussions with himself or Jennifer Armstrong as the project continues would be appreciated and happy to provide anything to assist.</p> <p>Austin thanks Max and confirmed the desire for the project teams to work together as well as with all adjacent municipalities. Asked about the City's plans for park and rides, whether the TMP would look at capacity of existing ones only or would they consider looking beyond.</p> <p>Max provided that given the dramatic change to transportation experienced the past few years everything is on the table for consideration and they would be happy to coordinate. Asked if possible for the study team could share ridership info to City that would be great.</p> <p>Austin confirmed connecting offline regarding that request.</p>	<p>Austin/Max to connect regarding data sharing.</p>
3.0	<p>Danielle Shewfelt expressed support for the information presented and asked whether the TMP would also include consideration for climate change/greenhouse gas adaptations as it was primarily mitigation that was in today's presentation.</p> <p>Austin provided reference to the TMP aligning with current Town climate change initiatives/principles. Sarah went on to add that this level of consideration of climate change meets the requirements for a Master Plan under the EA Act and that they are very high level due to the nature of a Master Plan. During the next phases of the projects, adaptation will become a bigger part of the projects and recommendations will be consistent with contemporary principles at that time.</p>	<p>For information</p>
4.0	<p>Tarique Kamal identified a location where MTO facilities interact with the Town's where their interests are. Requested that the study team keep MTO informed throughout the process and desire to connect in the future. Inquired regarding the future development in the vicinity.</p> <p>Austin acknowledged and confirmed commitments to future consultation with MTO related to their permit control areas. Replied that the study team is not aware of any development in the MTO area identified.</p>	<p>Ongoing consultation with MTO</p>
5.0	<p>Austin summarized the next steps in the TMP including the Second Public Information Centre scheduled for January 18, 2024.</p> <p>The notes and presentation today will be circulated to all those on the working group list, regardless if they were able to attend today or not.</p> <p>The study team is requesting feedback from the working group on the materials presented no later than January 12, 2024.</p> <p>Any further questions, comments or discussion is welcome and any stakeholder may reach out to the project managers for more information and to provide feedback over the course of this project.</p>	<p>Provide feedback by January 12, 2024</p>

Distribution: All. Errors and omissions in these notes must be provided to Sarah Rogers (Sarah.Rogers@Parsons.com) within 5 business days, otherwise the notes will be taken as a true and accurate record of the proceedings.



Mississippi Mills: Transportation Master Plan Working Group Meeting #2

December 13, 2023

AGENDA

- Introduction
- Progress to Date / Background
- Roads
- Active Transportation
- Transit and Ridesharing
- Potential Supporting Policies
- Group Discussion

MM Transportation Master Plan – Working Group Meeting #2 – December 13, 2023



Land Recognition

Mississippi Mills is located on unceded territory. Mississippi Mills recognizes the Indigenous Communities of the area, honours their valuable past and present contributions to this land.



List of Participants

TMP Project Managers:

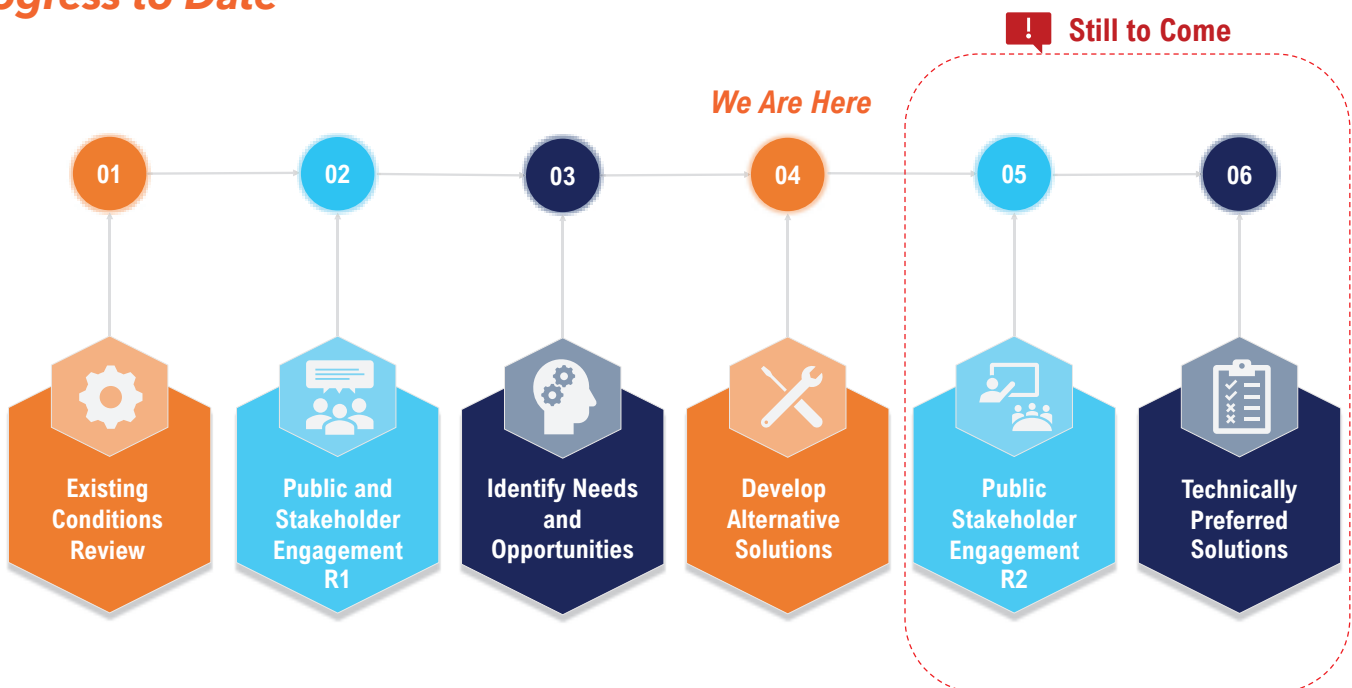
- Austin Shih, P.Eng. – Parsons
- Robert Smith, C.Tech – Mississippi Mills

Working Group Affiliations:

- Mississippi Mills
- Lanark County
- City of Ottawa
- Ontario Ministry of Transportation
- Lanark Transportation Association
- Almonte Hospital
- LGLDHU
- UCDSB
- CDSBEO
- STEO
- Carebridge Community Support
- CP and District Chamber of Commerce
- Destination Almonte



Progress to Date

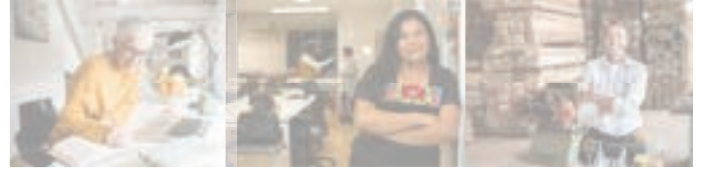




Background

Long-Term Growth Projections

- Three future growth scenarios were assessed: **5-year, 15-year and 25-year**
- Roughly **4,000 new RU** and **65.4 ha of EL** projected in Almonte alone over the next 25-years
- Roughly **1,700 new RU** in the rural municipality (including Villages) – distributed roughly evenly
- **70%** of total population growth expected in Almonte and **30%** in the rural municipality
- **100%** of employment growth in Almonte



RU – Residential Units
EL – Employment Lands



Background

Almonte Anticipated Growth Areas

5-Year

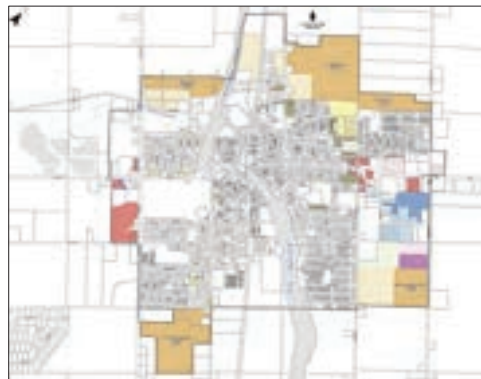
+ 1,005 RU / + 15.7 ha of EL

15-Year

+ 1,465 RU / + 18.1 ha of EL

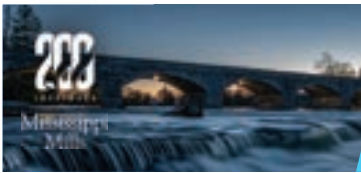
25-Year

+ 1,521 RU / + 31.6 ha of EL



! Assumptions were made on possible long-term growth areas to inform the TMP

RU – Residential Units
EL – Employment Lands



Vision Statement

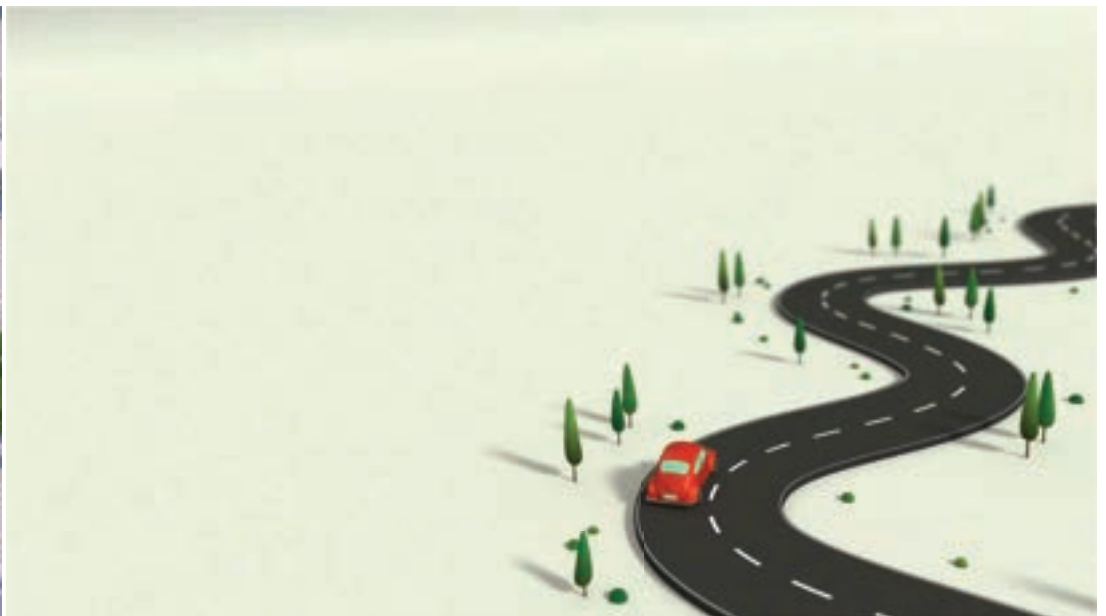
“The Municipality of Mississippi Mills will have a transportation system that is inclusive, accessible, and safe for all users.

The transportation system will be environmentally sustainable and support the local economy by continuing the efficient movement of people and goods within the municipality and to adjoining regions.

These qualities reflect the rural and small-municipal character with its rich cultural history while promoting a healthy and vibrant community”



Roads





Planned Road Works

Ontario Ministry of Transportation (MTO)

MTO

Highway 7:

- Fully reconstructed pavement of the right turn taper at Ramsay Concession 4A intersection and partial paved shoulder on the north side of the right turn taper
- Installation of new opposing left-turn lanes (eastbound and westbound) at the the Pup Patrol (Waggs' n Whiskers), A1 Towing and Ramsay Concession 5A



Planned Road Works

Lanark County

LC

County Road #20 – Waba Road (2023)

- From Pin #2454 Waba Road to Robertson Line for 3.0 km
- Culvert Replacements, Renew Asphalt with Paved Shoulders

County Road #17 – Derry Side Road (2023)

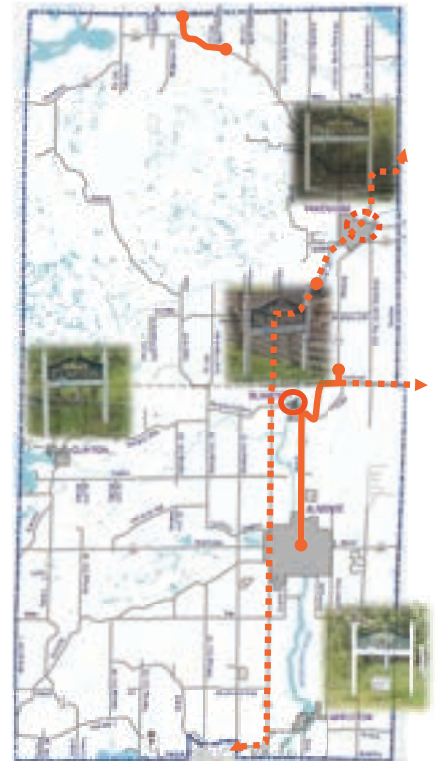
- From CR10 Richmond Road, North for 3.85 km.
- Culvert Replacements, Renew Asphalt with Paved Shoulders

From 2022 Asset Management Plan

- Blakeney Bridge replacement in 2024

From WG #1:

- CR29 work over the next 10 years
- March Rd work over the long-term
- Pakenham 5 Arches Bridge work long-term
- Appleton Side recently upgraded





Villages and Rural Municipality Road Network Needs and Opportunities

01 Consideration for All Vehicles (including farm vehicles)

02 General Safety

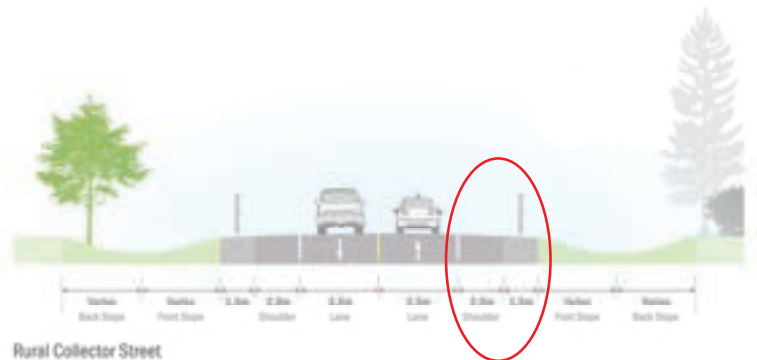


No Infrastructure Solutions Needed
Supporting Road Policy Solutions Considered



Villages and Rural Municipality Potential Supporting Road Policy Solutions

- Review Rural Road Classifications
- Update Standard Rural Cross-Sections
- Update Rural Design Criteria
- Provide Rural Speed Management and Traffic Calming Guidance
- Ensure Maintenance Practices reflect latest Provincial Policies



Wider shoulder provisions on rural roads proposed in the 2023 TMP align with national road design standards, and better accommodate rural (farm) vehicles.

Contemporary approaches to rural traffic calming will be highlighted in the 2023 TMP.

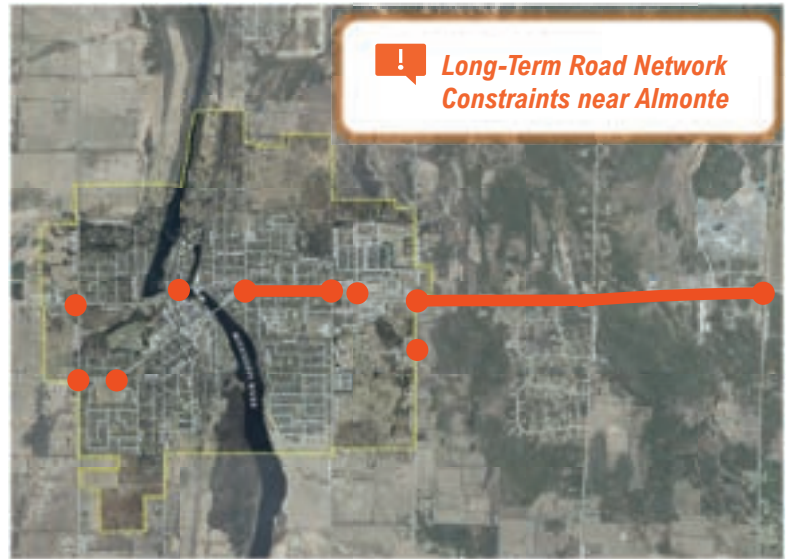




Almonte

Road Network Needs and Opportunities

- 01 Ottawa St: Long-Term Corridor Capacity
- 02 March Rd: Long-Term Corridor Capacity
- 03 Various Intersections: Long-Term Capacity
- 04 General Safety at Major Intersections



Infrastructure and Supporting Policy Solutions Considered



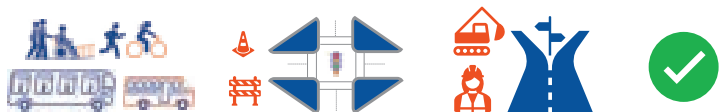
Almonte

Ottawa St and March Rd Corridors: Alternative Solution Approaches

- 01 Do Nothing
- 02 Invest in Sustainable Modes Alone
- 03 Sustainable Modes + Local Intersection Optimizations
- 04 Sust Modes + Local Optimizations + Expand Road Network Capacity



! Applying a balanced approach to mitigating the anticipated corridor constraints was shown to be most effective in managing long-term growth.



Almonte

How do we expand the road network?

! Various alternative infrastructure solutions were investigated.

- 01 Road Widening Alone? (2-Lanes to 4-Lanes)
- 02 New East-West Corridor(s) Alone?
- 03 New East-West Street(s) + New Vehicle Bridge(s) over Mississippi?



Note: The location and alignment of new corridors and bridges shown above are hypothetical and are subject to further study.

Property Implications to Widening

! Over 50 property parcels on Ottawa St impacted if widening was implemented.

- 01 Road Widening Alone (2-Lanes to 4-Lanes)



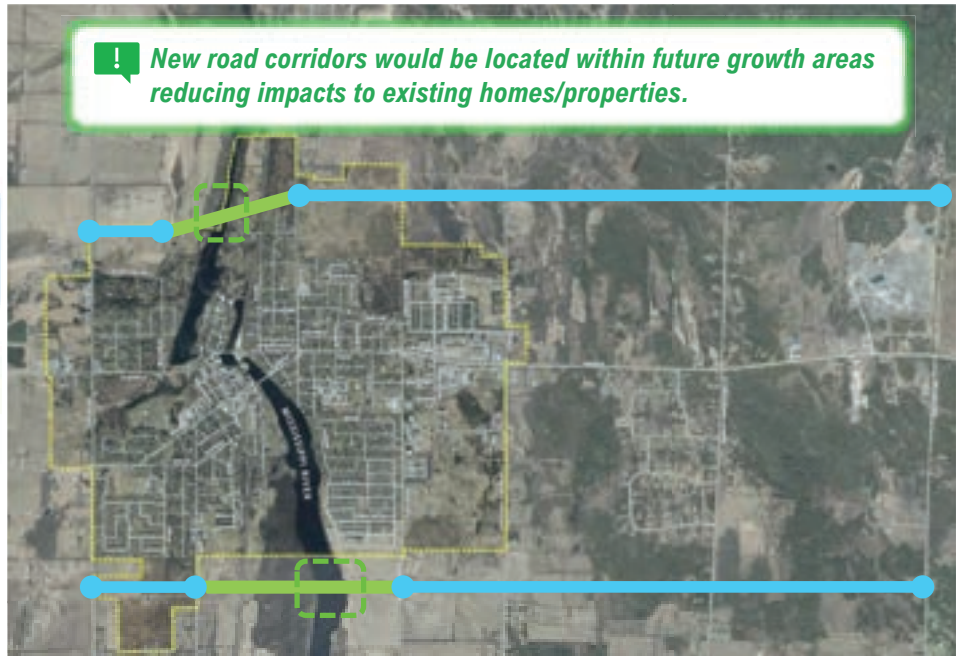
! Some property implications on March Rd if widening was implemented.





Property Implications with New Corridors

! New road corridors would be located within future growth areas reducing impacts to existing homes/properties.



Note: The location and alignment of new corridors and bridges shown above are hypothetical and are subject to further study.

02 New East-West Corridor(s) Alone

03 New East-West Street(s) + New Vehicle Bridge(s) over Mississippi



Significant Wetlands Implications with New Corridors

02 New East-West Corridor(s) Alone

03 New East-West Street(s) + New Vehicle Bridge(s) over Mississippi



! Notable Environmental Implications to Consider

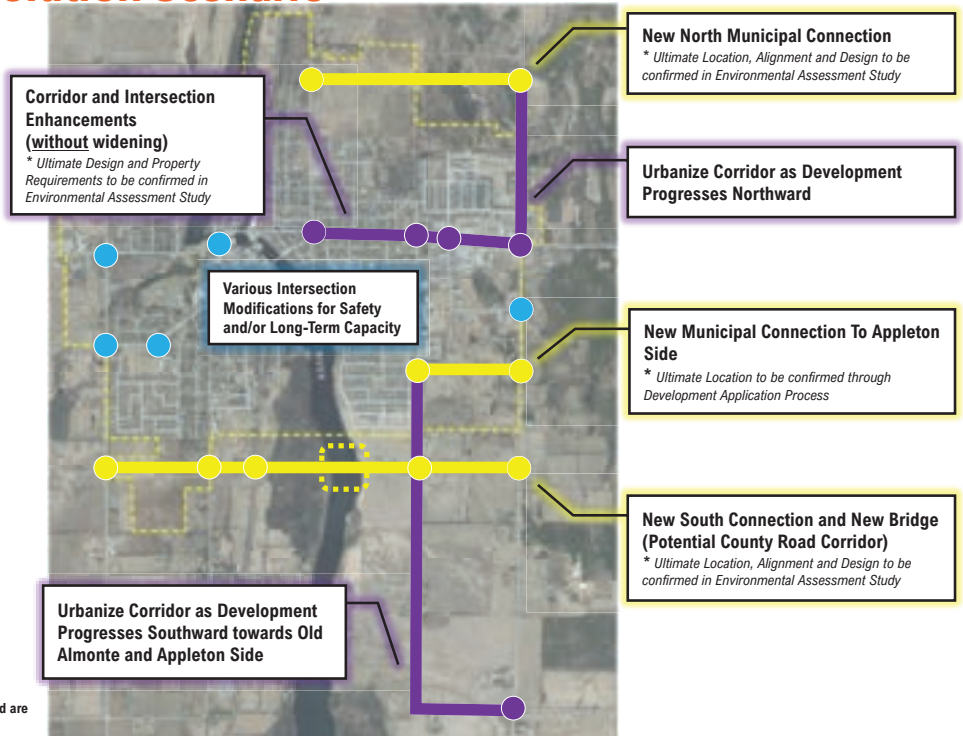
1:100 Near Final/Plan	Streams
SWCA Non-Evaluated Wetland	Regionally Significant Wetlands
SWCA Regulation Limit	SWCA Conservation Areas
Planets_2023	Municipality
Lot & Concession	SWCA Watershed Boundary



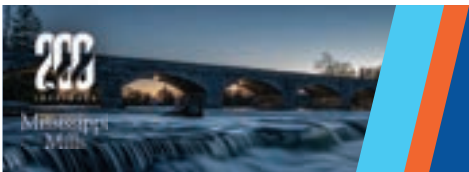
Potential Road Network Solution Scenario

Ottawa St Corridor Vehicle Traffic Needs Alone

- North Bridge and NW road connection not needed
- New South Corridor offers alternative Truck route opportunity
- New corridors and road upgrades avoid widening of Ottawa St
- Enhancing Old Almonte Rd to Appleton Side Rd supports future development; opportunity for multi-modal integration
- Local intersection optimizations on Ottawa St require further study to identify property implications
- This scenario addresses long-term road network needs in Almonte



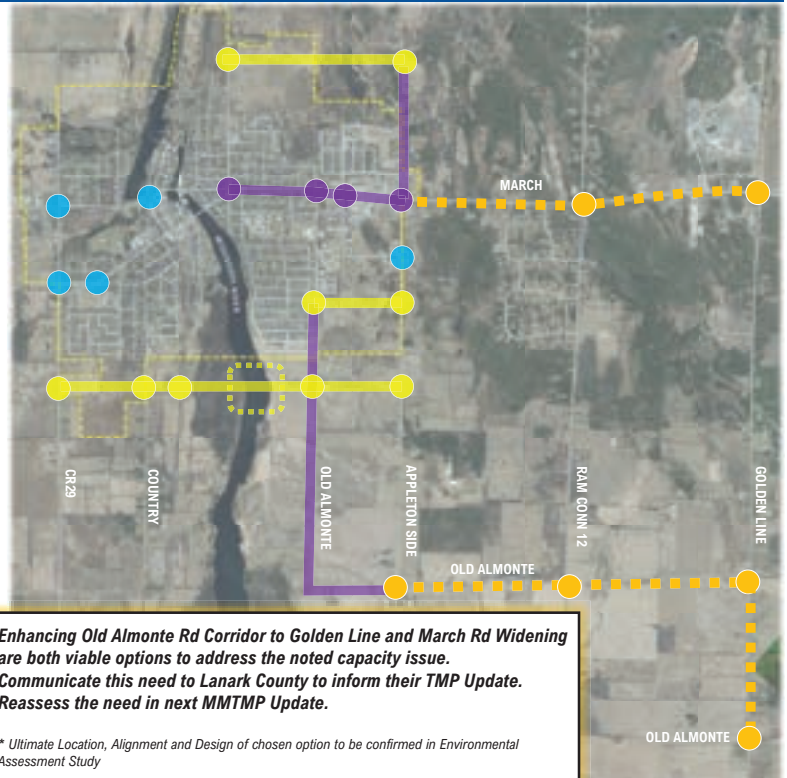
Note: The location and alignment of new corridors and bridges shown are **hypothetical** and are subject to further study.



Potential Road Network Solution Scenario

March Rd Corridor Vehicle Traffic Needs Alone

- Old Almonte Rd provides an alternative connection to the City of Ottawa
- Opportunity to leverage the existing road corridor as a secondary connection, providing relief to March Rd corridor
- Alternatively, March Rd could be widened to 4-lanes to address the corridor constraint; requires County approval and funding
- Additional property acquisition expected for both options, but limited environmental impacts
- Either scenario addresses long-term March Road Corridor need
- Revisit this need in next TMP update



Note: The location and alignment of new corridors and bridges shown are **hypothetical** and are subject to further study.



Draft Short-Term Intersection Enhancements



BEFORE

AFTER



Note: The draft plan is **Conceptual**; to be validated during the functional and detailed design.



Draft Short-Term Intersection Enhancements

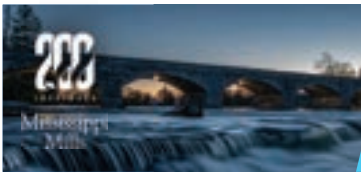


BEFORE

AFTER



Note: The draft plan is **Conceptual**; to be validated during the functional and detailed design.



Draft Short-Term Intersection Enhancements



BEFORE

AFTER



Note: The draft plan is Conceptual; to be validated during the functional and detailed design.

MM Transportation Master Plan – Working Group Meeting #2 – December 13, 2023



Active Transportation (AT)





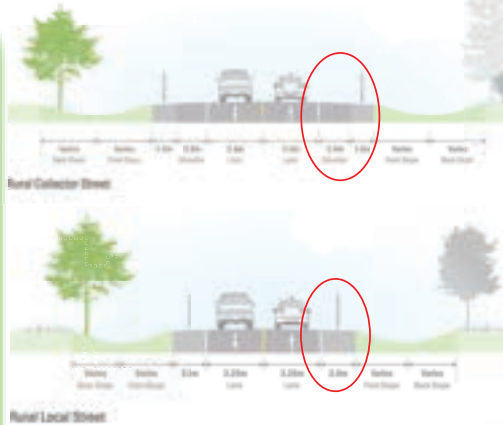
Villages and Rural Municipality Potential AT Network Solutions



- Adopt updated standard cross-sections for new/retrofit roadways
- Adopt Rural cycling priority system to guide supporting measures and maintenance

Within Villages, look for opportunities to:

- Fill sidewalk gaps, extend facilities where applicable
- Upgrade existing pedestrian facilities to contemporary standards
- Continue to adopt latest provincial maintenance standards



Wider shoulder provisions proposed in the 2023 TMP provide greater comfort and safety for pedestrians and cyclists in rural contexts.



Rural Cycling Priority Routes



Almonte AT Network Needs and Opportunities

- 01 Inclusivity: an AT Network for all ages and abilities
- 02 Safety and comfort of AT users on high volume streets, intersections and roundabout
- 03 Lack of permeability, linking key destinations and amenities
- 04 Need for contemporary design standards (e.g. Accessibility)
- 05 Maintenance and Landscaping



Active Transportation plays a vital role in promoting and sustaining a healthy community, a vibrant and thriving economy, an engaged and active population, while safeguarding the environment for future generations. This encompasses the Community Values established in the 2023 Strategic Plan.



Infrastructure and Supporting Policy Solutions Considered



Almonte Complete Streets Approach



The **Complete Streets Approach** is a philosophy for designing, operating and maintaining streets with the needs and safety of all road users in mind.



! All urban streets should provide a sidewalk on at least one side, designed to contemporary standards.

Different Cycling Facility Treatments Considered

Shared: Fit for low traffic volume and speed environments.

Dedicated: Flexible option in retrofit situations.



Separated: Fit for high volume streets, new road construction or renewal situations. Highest quality environment for cyclists.



Multi-Use Pathway



Sidewalk and Cycle Track

! All cycling treatments are supported by applicable pavement markings and signage.



Almonte Pedestrian and Cycling Networks



Look for opportunities to:

- Fill sidewalk gaps
- Upgrade existing pedestrian and cycling facilities to contemporary standards
- Incorporate permeability in new subdivisions within development application process
- Adopt updated standard urban cross-sections
- Continue to update maintenance practices to Provincial standards
- Prepare functional study at critical locations that require major works and potential property

! Existing Sidewalk Inventory





Almonte Cycling Priority System



The **Cycling Priority System** is meant to guide investment and maintenance priorities of the cycling network.

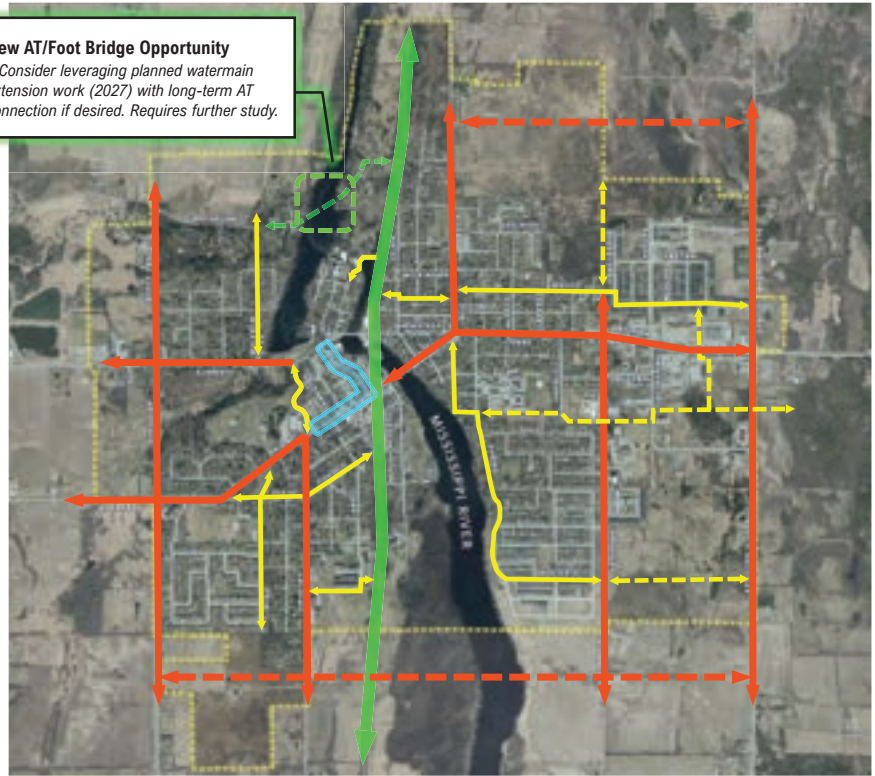
Local Routes (Yellow): Shared facilities supported by pavement markings and signage.

Commuter Routes (Orange): Separated or dedicated facilities to maximize comfort and safety on higher class roads.

! Local routes should be expanded into future growth areas as development advances.

New AT/Foot Bridge Opportunity

* Consider leveraging planned watermain extension work (2027) with long-term AT connection if desired. Requires further study.



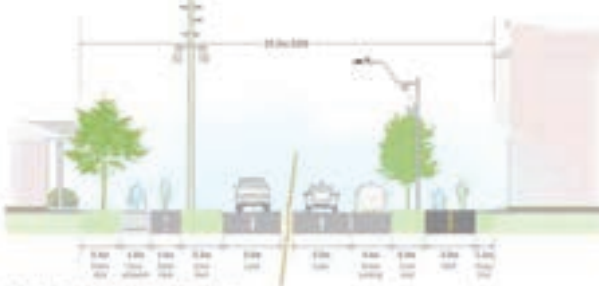
Draft Standard Urban Cross-Sections



Local Street: 20.0m (18.0m) Right-of-Way (Urban)
Sidewalk on two sides (both sides as required)



Arterial Street: 28.0m Right-of-Way (Urban) 3-Lane Undivided
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway



Collector Street: 24.0m Right-of-Way (Urban)
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway



Arterial Street: 30.0m Right-of-Way (Urban) 4-Lane Undivided
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway

Transit and Ridesharing



Transit and Ridesharing Needs and Opportunities



What We Heard:

- Many complaints about **lack of public transit** (internally and to/from other municipalities)
- Develop **shuttle service** for local trips / appointments
- **Taxis too expensive**
- **Not enough affordable transportation options** for seniors or low income
- Alternate travel modes needed, particularly **public transit for winter**
- Develop or incentivize **carpooling** service/programs
- Consider new **Park and Ride locations** (e.g. Conc 4A & Hwy 7)

What We Have Learned:

- **Lanark Transportation Authority (LTA)** has resumed pre-covid “Ride the LT” service, including Carleton Place, Perth and is looking to expand to Almonte. LTA is focused on service within the County.
- **Leduc Bus Lines Ltd**, a private commuter transit operator is engaging the public to potentially resume service.
- **Ottawa Stage 2 LRT** – Confederation Line West is expected to be completed in 2025, with the last station at Moodie Dr.

Transit and Ridesharing General Considerations

- If Leduc resumes private commuter service:
 - Establish a bus stop in Almonte on west side of river
 - Consider a park and ride lot near the Almonte bus stop
 - Ensure final stop is at least Moodie LRT Station (2025)



- Other Considerations:
 - Explore **carpool and ridesharing programs**
 - Consider **new park and ride** lot near Almonte or Hwy 7 at western limit of municipality (e.g. CR9, Conc 4A or 5A)
 - Engage LTA and other municipalities to explore **contemporary rural transit** options (e.g. on-demand transit) and explore co-funding opportunities
 - Fund a **transit feasibility study** to leverage upcoming opportunities and to evaluate and cost long-term transit options for the Municipality. The study should consider all contemporary transit offerings to serve both **commuters and local travellers**

Potential Supporting Policies

CANADA'S CLIMATE ACTIONS

COMMUNITY SAFETY ZONE FINES INCREASED BEGINS

TRAFFIC-CALMED NEIGHBOURHOOD

Ontario ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT (AODA)

Ontario VISION ZERO

TDM TOOLS

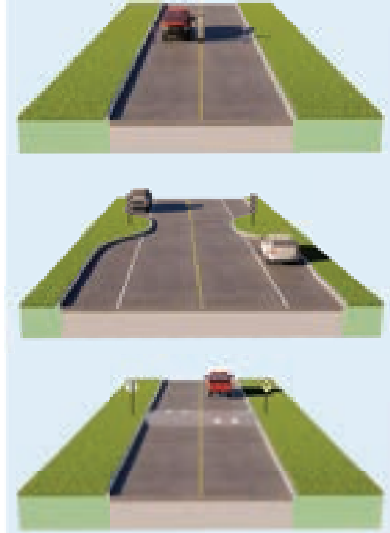


Supporting Policies being Developed

- **Complete Streets Approach** – Policy support, all new and retrofit streets, right-of-way protection
- **Active Transportation Design Criteria** – Define minimum and optimal standards – relying on industry: Ontario Traffic Manual (e.g. sidewalk width, cycling facility type, intersection treatments, etc.); policy support and integration with subdivision planning/development applications
- **Road Classification System** – Review existing system, develop standard cross-sections for road classes
- **Road Design Criteria** – Identify basic design criteria for each road class; referencing national & provincial standards.
- **Seasonal Maintenance** – Reference latest provincial requirements
- **Safety** - Accessibility, Traffic Calming, Speed Management; apply current industry standards - conduct high-level review of specific concerns heard and provide basic input on possible mitigation

Traffic Calming

Contemporary road network planning and design often consider traffic calming measures with the goal of improving quality of life and safety for all road users.



Supporting Policies being Developed

- **Transportation Impact Assessment Guidelines** – Provide a framework to apply, identify general traffic triggers and processes to support the development application process
- **Climate Change** – Align TMP with Lanark County climate change priorities
- **Transportation Demand Management** – Acknowledge importance of reducing single occupant vehicles; general policy suggestions
- **Transit and Ridesharing** – General policy suggestions if commuter transit service resumes, additional study needed
- **Funding, Promotion and Monitoring** – High-level considerations and identify opportunities

LANARK COUNTY Climate Action Plan Quick Reference Guide



Rural Transit Solutions Fund \$250 million	Zero Emission Transit Fund \$1.75 billion	Active Transportation Fund \$400 million
This Fund supports locally-driven transit solutions for rural and remote communities, with flexibility for different local transit system innovations from fixed route to on-demand services to ride-shares.	This Fund supports public transit and school bus operators plan for electrification, supports the purchase of 5,000 zero emission buses and build supporting infrastructure.	This Fund invests in projects that build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges, in addition to supporting active transportation planning activities.

NEXT STEPS

What is next for the TMP?

The study team will:

- ➔ Review and incorporate feedback received.
- ➔ Present identified needs and opportunities as well as alternative solutions to the public (**PIC#2** is scheduled for **January 18, 2024**)
- ➔ Develop Technically Preferred Solutions, Implementation Plan with cost estimates, and prepare draft TMP Report in Q1 2024.
- ➔ For more information, questions or comments, please contact the team.

Stay Connected!



Visit the TMP Webpage for updates and additional information about the study.

<https://www.mississippimills.ca/en/how-we-go.aspx>

TMP Project Managers

Robert Smith, C.E.T.
Municipality of Mississippi Mills
SmithR@mississippimills.ca

Austin Shih, P. Eng.
Parsons Inc.
Austin.Shih@Parsons.com

GROUP DISCUSSION

From your or your group/organization's perspective:

HAVE WE MISSED A POTENTIAL SOLUTION?
ARE THERE CONCERNS WITH ANY PARTICULAR SOLUTION?

Please use the hand raise button to directly pose a question or comment and/or type it in the chat room.

Appendix D Indigenous Consultation Report



MM2048 Indigenous Consultation

Final Report

Introduction

As a part of the Municipality of Mississippi Mills combined master plan project agenda (MM2048) Municipal staff completed the necessary Indigenous consultation process for the two master plans within the combined agenda. The two master plans are the Municipal wide Transportation Master Plan and the Almonte specific Water & Wastewater Infrastructure Master Plan. Municipal staff contacted a total of eleven (11) indigenous groups which were a combination of groups which are close to the Municipality geographically and groups which were recommended by the MECP for consultation. Table one below provides a summary of the Indigenous groups who were contacted.

Municipality of Mississippi Mills Existing List
Algonquins of Pikwakanagan
Mohawks of Akwesasne
Algonquins of Ontario
Ottawa Region Metis Council
Metis Nation of Ontario
Shabot Obaadjiwan First Nation
Transportation Master Plan - List Recommended by MECP
Algonquins of Ontario
Algonquins of Pikwakanagan
Alderville First Nation
Curve Lake First Nation
Hiawatha First Nation
Mississaugas of Scugog Island First Nation
Kawartha Nishnawbe
Water & Wastewater Master Plan - List Recommended by MECP
Algonquins of Ontario
Algonquins of Pikwakanagan
Alderville First Nation
Curve Lake First Nation
Hiawatha First nation
Mississaugas of Scugog Island First Nation
Kawartha Nishnawbe

Table 1



Contact Methods

Municipal staff employed multiple methods for contacting the groups listed in Table 1. The first method was by sending a letter package via registered mail. See **Appendix A** for an example of a mail out letter package. The second method was by email where the same or similar information to the letter package was attached to the email. The registered mail letter packages were sent out on the 9th of May 2023. Table 2 shows a summary of the delivery status of each of the letter packages.

Recipient	Status	Date	Time
Ottawa Region Metis Council	Item Unclaimed	May 10, 2023 to May 28, 2023	NA
Metis Nation of Ontario	Delivered	10-May-23	10:18
Shabot Obaadjiwan	Delivered	12-May-23	10:23
Alderville First Nation	Delivered	11-May-23	15:08
Hiawatha First Nation	Delivered	10-May-23	13:29
Curve Lake First Nation	Delivered	12-May-23	14:15
Mississaugas of Scugog	Delivered	11-May-23	13:54
Kawartha Nishnawbe	Item Unclaimed	May 10, 2023 to May 28, 2023	NA
Algonquins of Ontario	Delivered	10-May-23	9:58
Mohawks of Akwesasne	Delivered	12-May-23	10:10
Algonquins of Pikwakanagan	Delivered	10-May-23	10:02

Table 2

After the mail out packages were sent out no responses were received by the Municipality. A follow up email was sent on June 26th 2023 which included much of the same information as was included in the mail out packages. See **Appendix B** for an example of the June follow up email and attachments. Two responses were received as a result of the first follow up email. The first response was received from a member of the Hiawatha First nation. The second response was received from the Meti Nation of Ontario. A second and final follow up email was sent on December 7th 2023. This second email was similar to the first however it was changed to reflect the updated timeline of the Master Plans. See **Appendix C** for an example of the December follow up email and attachments. One response was received as a result of the second follow up email from a member of the Alderville First Nation.

Summary of Consultations

Hiawatha First Nation

As a result of the first follow up email Municipal staff received an email from Tom Cowie who works in Lands/ Resources Consultation at Hiawatha First Nation. They initially requested to see an EA or impact statement. As the two master plans did not have those types of documents staff provided copies of the presentation slides from the first public information center(PIC) to Tom with an explanation of what was available and a promise of more documents in the future. Tom was provided with the same presentation boards again in preparation for the second PIC and after they



were provided Tom asked if we had made a distinction between stake holders and inherent rights and treaty right holders in our master plan. Staff responded saying that in the master plans indigenous groups are distinct in the consultation process and in the reports. Additionally, staff directed the master plan consultants to make the distinction on future presentation materials. The second set of presentations for the second PIC were provided to Tom once they were available and in response staff received an email stating that Tom did not have any comments at that time. Staff have reached out to Tom to ask for permission to use the correspondence in the final master plan document and received permission to do so.

Alderville First Nation

As a result of the second follow up email Municipal staff received an email from the consultation coordinator for Alderville First Nation. They sent a letter which outlined the expectations for consultations with Alderville First Nation. As a result, Municipal staff prepared a response letter which resulted in a virtual meeting between both parties. During the meeting staff from the Municipality and Alderville First Nations engaged in conversations regarding policies that could be put in the master plans. As a result of this meeting staff put together two policies. They are as follows.

1. The Municipality will consult with Treaty and inherent Indigenous rights holders in preparation of capital Municipal infrastructure construction and maintenance projects. Consultations shall occur at an early stage to allow substantial time for meaningful communications. The Municipality shall engage in consultation which includes the identification of culturally significant land and traditional harvesting areas as well as preferred archaeological practices and procedures and receiving knowledge on archaeological significant areas.
2. The Municipality shall complete archeological studies for all land disruptive projects, including projects that are not identified by legislation or regulation as needing archaeological studies or lands deemed to be heavily disturbed and possibly exempt from study. Land disruptive projects, initiated by the Municipality, within 300m of a water body will include a Stage 2 Archeological Assessment.

Metis Nation of Ontario

As a result of the first follow up email Deanna Dillabough of the MNO Community Wellbeing Branch responded saying that the email that I had sent was forwarded to the Lands, Resources, and Consultations (LRC) team. She also notified staff that the LRC branch no longer accepts hard copy consultation notices mailed to their offices and that all future notices should be via email. Staff did not receive any further correspondence from the LRC branch.

Closing

Records of all correspondence have been kept by the Municipality for proof of completion of consultations with Indigenous Groups. For privacy purposes copies of correspondence with the



aforementioned groups has not been included within the report. Should a representative of the Ministry of Environment Conservation and Parks require any records they should contact the following: Luke Harrington - lharrington@mississippimills.ca - (613 256 2064 ext. 408). For a tracking document of all correspondence dates see **Appendix D**.



CORPORATION OF THE MUNICIPALITY OF MISSISSIPPI MILLS

3131 OLD PERTH ROAD · PO BOX 400 · RR 2 · ALMONTE ON · K0A 1A0

PHONE: 613-256-2064

FAX: 613-256-4887

WEBSITE: www.mississippimills.ca

Algonquins of Pikwakanagan.

1657A Misomis Inamo, Pikwakanagan, ON K0J 1X0

May 4, 2023

Attn: Chief and Council

Re: Mississippi Mills 2048, Municipal Class Environmental Assessments - Indigenous Consultations

We are pleased to inform you that the Municipality of Mississippi Mills is initiating a planning process to prepare a Water and Wastewater Master Plan and a Transportation Master Plan. As an integral part of this process, we would like to extend an invitation to you to participate in the consultation process for both projects.

We will be completing these projects in accordance with Approach 1 of the Master Plan process under the terms of the Municipal Class Environmental Assessment Act (Class EA) process, which has been approved under the Environmental Assessment Act. Our goal is to ensure that the plans are developed in a manner that is socially, environmentally, and economically responsible, and meets the needs of our community now and in the future.

As a part of the planning process for Master Plan projects, Indigenous consultations are a requirement. We value your input and encourage you to participate actively in the consultation process. Additionally, we wish to respectfully acknowledge that Mississippi Mills was established on land that is the ancestral territory of the Algonquin Anishinaabe Nation, and we are committed to fulfilling our duty to consult with Indigenous groups.

For information regarding the Master Plan projects you can see the public notice attached to this letter or you can visit our website <https://www.mississippimills.ca/en/mm2048.aspx>. If you are interested in learning more or would like to begin a dialogue with the Municipality there are many ways to do so such as in person meetings in the Municipality or within your community, or remotely by phone, email, Zoom, or Microsoft Teams. Please reach out to myself Luke Harrington, lharrington@mississippimills.ca, (613)-256-2064 ext. 408. I would be happy to further discuss the consultation process with you.

The Municipality would like to maintain a record of communications with the groups that engage in the consultation process. Therefore, we would appreciate that if you would like to participate in these consultations that you fill out and return the attached form. Any comments or concerns communicated with us will become a part of the project documentation and will be made publicly available. If you do not believe your involvement is necessary at this time, please advise us accordingly. Your written response in either case would be appreciated.

We thank you for your time reading this letter and hopefully we can connect soon.

Respectfully yours,

A handwritten signature in cursive script that reads "Luke Harrington".

Luke Harrington
Mississippi Mills Technologist



Mississippi Mills 2048

Our Community, Our Future



NOTICE OF OFFICIAL PLAN AMENDMENT & ZONING BY-LAW AMENDMENT APPLICATIONS

The **Municipality of Mississippi Mills** has initiated **Z-05-23**, a Municipality-wide Zoning By-law Amendment application and **OPA 32**, a Municipality-wide Official Plan Amendment application. The purpose and intent of the Official Plan Amendment application and Zoning By-law Amendment application is to implement amendments to the Community Official Plan and Zoning By-law which result from Provincial legislative changes and from a Private Road Study initiated by the Municipality.

The applications affect all properties within the Municipality of Mississippi Mills. The Province of Ontario recently made a series of amendments to the Planning Act, Ontario Heritage Act, Conservation Authorities Act and Development Charges Act through **Bill 23, More Homes Built Faster Act**. Amendments to the Community Official Plan and Zoning By-law are necessary to implement the Bill 23 changes. The Municipality of Mississippi Mills has also initiated a **study regarding private roads within the Municipality**.

This review will examine both existing private roads and an assessment of the policy framework for establishing new private roads including the Cluster Lot Subdivision policies in the Official Plan. Recommended changes to the Official Plan and Zoning By-law will be implemented through this application. A Statutory Public Meeting for the subject applications will be held at a later date; information regarding the Statutory Public Meeting will be posted and circulated when available.



NOTICE OF STUDY COMMENCEMENT FOR THE TRANSPORTATION AND WATER & WASTEWATER MASTER PLANS



The **Municipality of Mississippi Mills** has initiated a Municipal Class Environmental Assessment (MCEA) process to conduct a Transportation Master Plan study and a Water & Wastewater Master Servicing Plan study.

The **Transportation Master Plan (TMP)** is a strategic planning document guiding the planning, expansion, and management of the Municipality's multi-modal transportation system. The TMP will guide transportation infrastructure improvements over the coming decades, as well as identify policies and guidelines to meet the transportation needs of all users regardless of age and ability.

The **Water & Wastewater Master Servicing Plan (MSP)** is a critical roadmap for the ongoing development and management of the municipal water and wastewater infrastructure, including treatment plants, reservoirs, pumping stations, and pipes for the continued prosperity and growth.

The TMP and MSP studies are being conducted in accordance with the Master Planning process as outlined in the Municipal Engineers Association MCEA (October 2000, amended 2007, 2011, 2015 and 2023), an approved process under the Ontario Environmental Assessment Act. The TMP and MSP will follow "Approach #1" of the Master Planning process, which introduces the project background and scope. A second Public Information Centre will be held later in the year to review alternative solutions, evaluation criteria and the preferred solution.

How We Grow - Planning Studies

Municipal Staff Contact:

Melanie Knight,
Senior Planner
mknight@mississippimills.ca
613-256-2064 ext. 501

Consultant Contact (for private road study):

Parsons Inc.

Pamela Whyte, MCIP, RPP,
Senior Planner
Pamela.Whyte@Parsons.com
613-738-4160

How We Go - Transportation Master Plan

Municipal Staff Contact:

Robert Smith,
Engineering Technologist
SmithR@mississippimills.ca
613-256-2064 ext.404

Consultant Contact:

Parsons Inc.

Austin Shih, P.Eng.,
Senior Engineer
Austin.Shih@Parsons.com
613-738-4160

How We Flow - Water & Wastewater Master Servicing Plan

Municipal Staff Contact:

Luke Harrington,
Engineering Technologist
LHarrington@mississippimills.ca
613-256-2064 ext.408

Consultant Contact:

J.L.Richards & Associates Ltd.

Mark Buchanan, P.Eng.,
Senior Engineer
mbuchanan@jlrichards.ca
343-804-5349

Luke Harrington

From: Luke Harrington
Sent: June 26, 2023 11:46 AM
To: info@hiawathafn.ca
Subject: Municipality of Mississippi Mills MM2048 Indigenous Consultation Follow Up
Attachments: 09 - MM2048-Indigenous Consutation Letter - Hiawatha First Nation.pdf; Public Notice.pdf; Response Form.pdf

Hello,

This email is a follow up to a letter that was sent to 431 Hiawatha Line, Hiawatha ON. The letter was regarding indigenous consultations for the Municipality of Mississippi Mills' two master plan projects, the Water and Wastewater Infrastructure Master Plan and the Transportation Master Plan. I have attached the same information to this email just in case you need it.

If you are interested in being consulted on these two projects please let me know.

Best Regards,

Luke Harrington B.Eng.
Roads and Public Works Technologist
613-256-2064 ext. 408



This message is confidential. It is intended only for the individual(s) named. If you have received it by mistake, please let me know by e-mail reply and delete it from your system; you may not copy or distribute this message and its attachments or disclose its contents to anyone without consent.



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FAX: 613-256-4887

WEBSITE: www.mississippimills.ca

Hiawatha First Nation.

431 Hiawatha Line Hiawatha, Ontario K9J 0E6

May 4, 2023

Attn: Chief and Council

Re: Mississippi Mills 2048, Municipal Class Environmental Assessments - Indigenous Consultations

We are pleased to inform you that the Municipality of Mississippi Mills is initiating a planning process to prepare a Water and Wastewater Master Plan and a Transportation Master Plan. As an integral part of this process, we would like to extend an invitation to you to participate in the consultation process for both projects.

We will be completing these projects in accordance with Approach 1 of the Master Plan process under the terms of the Municipal Class Environmental Assessment Act (Class EA) process, which has been approved under the Environmental Assessment Act. Our goal is to ensure that the plans are developed in a manner that is socially, environmentally, and economically responsible, and meets the needs of our community now and in the future.

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We thank you for your time reading this letter and hopefully we can connect soon.

Respectfully yours,

Luke Harrington
Mississippi Mills Technologist



Mississippi Mills 2048

Our Community, Our Future



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The TMP and MSP studies are being conducted in accordance with the Master Planning process as outlined in the Municipal Engineers Association MCEA (October 2000, amended 2007, 2011, 2015 and 2023), an approved process under the Ontario Environmental Assessment Act. The TMP and MSP will follow "Approach #1" of the Master Planning process, which introduces the project background and scope. A second Public Information Centre will be held later in the year to review alternative solutions, evaluation criteria and the preferred solution.

How We Grow - Planning Studies

Municipal Staff Contact:

Melanie Knight,
Senior Planner
mknight@mississippimills.ca
613-256-2064 ext. 501

Consultant Contact (for private road study):

Parsons Inc.

Pamela Whyte, MCIP, RPP,
Senior Planner
Pamela.Whyte@Parsons.com
613-738-4160

How We Go - Transportation Master Plan

Municipal Staff Contact:

Robert Smith,
Engineering Technologist
SmithR@mississippimills.ca
613-256-2064 ext.404

Consultant Contact:

Parsons Inc.

Austin Shih, P.Eng.,
Senior Engineer
Austin.Shih@Parsons.com
613-738-4160

How We Flow - Water & Wastewater Master Servicing Plan

Municipal Staff Contact:

Luke Harrington,
Engineering Technologist
LHarrington@mississippimills.ca
613-256-2064 ext.408

Consultant Contact:

J.L.Richards & Associates Ltd.

Mark Buchanan, P.Eng.,
Senior Engineer
mbuchanan@jlrichards.ca
343-804-5349

Luke Harrington

From: Luke Harrington
Sent: December 7, 2023 8:27 AM
To: admin.reception@pikwakanagan.ca
Subject: Municipality of Mississippi Mills Public Information Center for Master Plans
Attachments: 01 - MM2048-Indigenous Consutation Letter - Pikwakanagan - Final.pdf; MM2048 PIC #2 - Public Notice.pdf; Response Form.pdf

Hello,

This email is to let you know that the Municipality of Mississippi Mills is halfway through the completion of two Master Plan Studies. The Water and Wastewater Master Plan and the Transportation Master Plan are entering into their second phase of development and at this time we would like to offer you the opportunity to learn about the two projects and provide your comments. I have attached a letter with more details.

On January 18th, the Municipality is hosting a public information center which you are welcome to attend. If you do not wish to attend the information center the same presentations will be available on the municipal website or I can send them to you at your request. For more details on the public information center please see the attached notice.

Best Regards,

Luke Harrington B.Eng.
Engineering Coordinator
613-256-2064 ext. 408



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FAX: 613-256-4887

WEBSITE: www.mississippimills.ca

Algonquins of Pikwakanagan.

1657A Misomis Inamo, Pikwakanagan, ON K0J 1X0

December 7, 2023

Attn: Chief and Council

Re: Mississippi Mills 2048, Municipal Class Environmental Assessments - Indigenous Consultations

We would like to inform you that the Municipality of Mississippi Mills is part way through completing a planning process to prepare a Water and Wastewater Master Plan and a Transportation Master Plan. As an integral part of this process, we would like to extend an invitation to you to participate in the consultation process for both projects.

We are completing these projects in accordance with Approach 1 of the Master Plan process under the terms of the Municipal Class Environmental Assessment (Class EA) process, which has been approved under the Environmental Assessment Act. Our goal is to ensure that the plans are developed in a manner that is socially, environmentally, and economically responsible, and meets the needs of our community now and in the future.

As a part of the planning process for Master Plan projects, Indigenous consultations are a requirement. We value your input and encourage you to participate actively in the consultation process. Additionally, we wish to respectfully acknowledge that Mississippi Mills was established on land that is the ancestral territory of the Algonquin Anishinaabe Nation, and we are committed to fulfilling our duty to consult with Indigenous groups.

For information regarding the Master Plan projects you can see the public notice attached to this letter or you can visit our website <https://www.mississippimills.ca/en/mm2048.aspx>. If you are interested in learning more or would like to begin a dialogue with the Municipality there are many ways to do so such as in person meetings in the Municipality or within your community, or remotely by phone, email, Zoom, or Microsoft Teams. Please reach out to myself Luke Harrington, lharrington@mississippimills.ca, (613)-256-2064 ext. 408. I would be happy to further discuss the consultation process with you.

The Municipality would like to maintain a record of communications with the groups that engage in the consultation process. Therefore, we would appreciate it if you would fill out and return the attached form. Any comments or concerns communicated with us will become a part of the project documentation and will be made publicly available. If you do not believe your involvement is necessary at this time, please advise us accordingly. Your written response in either case would be appreciated.

We thank you for your time reading this letter and hopefully we can connect soon.

Respectfully yours,

Luke Harrington
Mississippi Mills Technologist



NOTICE OF PUBLIC MEETING FOR OFFICIAL PLAN AMENDMENTS & ZONING BY-LAW AMENDMENT APPLICATIONS

TAKE NOTICE that a Public Meeting will be held on **Thursday, January 18, 2024, 2:00 p.m. to 8:00 p.m.** to consider a proposed Official Plan Amendments and Zoning By-law Amendment under Sections 22 and 34 of the Planning Act, R.S.O. 1990, Chapter P.13. **The public meeting will be held as a part of the MM2048 public information centre meeting being held on January 18, 2024, at 82 Bridge Street, John Levi Community Centre.**

Please be advised that the Municipality of Mississippi Mills has initiated the following Official Plan Amendments and Zoning By-law Amendment request (details below):

The Municipality of Mississippi Mills has initiated Zoning By-law Amendment Z-05-23, and Official Plan Amendment OPA 32. The purpose and intent of the Official Plan Amendment application and Zoning By-law Amendment application is to implement amendments to the Community Official Plan and Zoning By-law which result from Provincial legislative changes. The applications affect all properties within the Municipality of Mississippi Mills.

The Municipality of Mississippi Mills has also initiated Official Plan Amendment OPA 33. The purpose and intent of to update the Community Official Plan policies to implement

changes to the policies related to Cluster Lot Subdivisions and Private Roads. The applications affect all properties within the Municipality of Mississippi Mills.

IF YOU WISH TO ATTEND THE MEETING IN-PERSON, there is no need to register ahead of time. Staff will be in attendance for the duration of the public meeting to hear your comments and answer any questions. **IF YOU WISH TO PROVIDE WRITTEN COMMENTS**, please provide written comments to the assigned Planner using the contact details noted below under **HOW WE GROW**.

IF YOU WISH TO BE NOTIFIED of the decision of the Municipality of Mississippi Mills on the proposed Official Plan Amendment, you must make a written request to the Municipality of Mississippi Mills, 14 Bridge Street, Almonte, ON K0A 1A0 or by emailing a written request to the assigned planner at mknight@mississippimills.ca.

IF A PERSON OR PUBLIC BODY would otherwise have an ability to appeal the decision of the Municipality of Mississippi Mills to the Ontario Land Tribunal but the person or public body does not make oral submissions at the virtual public meeting or make written submissions to Municipality of Mississippi Mills before the by-law is passed, the person

or public body is not entitled to appeal the decision.

IF A PERSON OR PUBLIC BODY does not make oral submissions at a public meeting or make written submissions to the Municipality of Mississippi Mills before the by-law is passed, the person or public body may not be added as a party to the hearing of an appeal before the Ontario Land Tribunal unless, in the opinion of the Tribunal, there are reasonable grounds to do so.

AFTER A DECISION has been made by Council, persons wishing to formally register an objection must, regardless of any previous submissions, file with the Clerk of the Municipality a Notice of Appeal setting out the objection and the reasons in support of the objection accompanied with the appeal fee to the Ontario Land Tribunal.

IF YOU ARE THE OWNER OF A BUILDING WITH SEVEN (7) OR MORE RESIDENTS, it is requested that you post this notice in a location visible to all of the residents.

ADDITIONAL INFORMATION about this application is available on the Municipality's web page. For more information about this matter, including information about appeal rights, contact the assigned planner: mknight@mississippimills.ca



NOTICE OF PUBLIC INFORMATION CENTER #2 FOR THE TRANSPORTATION AND WATER & WASTEWATER MASTER PLANS



The Municipality of Mississippi Mills has reached an important milestone in the ongoing Municipal Class Environmental Assessment (MCEA) process for the Transportation Master Plan and Water and Wastewater Master Servicing Plan.

Both Master Plan projects have completed Phase one of the MECA process. Phase 1 is the problem and opportunity identification phase. Our Consultants compiled the feedback from the first public information center and gathered additional information from review agencies and Municipal staff to identify problems and opportunities related to Municipal infrastructure.

Now the Consultants have begun working on Phase 2 of the MECA process. Phase 2 is used to identify alternative solutions to address the problems or opportunities by taking into consideration the existing environment, and establish preferred solutions taking into account public and review agency input. The upcoming Public Information Center is an important part of Phase two of the MECA process and is an opportunity for residents of Mississippi Mills to provide input to the project team with regards to the evaluation and selection of alternative solutions. The outcomes of Phase 2 will dictate what projects are completed in the Municipality for years to come.

NOTICE OF PUBLIC INFORMATION CENTRE #2 - PLEASE JOIN US!

Under MM2048, the Municipality of Mississippi Mills has scheduled a joint public consultation event for the Transportation Master Plan, Water & Wastewater Master Servicing Plan, Official Plan and Zoning By-law Amendments relating to Bill 23, and the Private Road Study. This public meeting is being held to meet the public consultation requirements under the Environmental Assessment Act and the Planning Act for the projects listed above.

You are invited to join us and learn how each of these projects will contribute to Mississippi Mills for the next 25 years, and how you can have your voices heard. This event provides you the opportunity to share valuable insights, thoughts, concerns, and priorities you wish to have reflected in these studies.

Event Details:

Date: Thursday, January 18, 2024

Location: John Levi Community Centre, 182 Bridge Street, Almonte, ON K0A 1A0

Schedule: 2:00 p.m. to 8:00 p.m. – Information Boards with Municipal Staff & Consultants

If you require any accommodations for a disability in order to attend and participate at this event, please let us know in advance so that arrangements can be made in a timely manner.

If you are unable to attend, or would like more information, please visit the project website: <https://www.mississippimills.ca/en/mm2048.aspx>. There will also be opportunities throughout the MM2048 process for you to engage with staff, and to review ongoing projects. If you have any questions or comments, and/or if you wish to be added to the MM2048 mailing list, please contact the relevant Municipal staff listed below:

HOW WE GROW - Planning Studies

Municipal Staff Contact:

Melanie Knight, Senior Planner
mknight@mississippimills.ca | 613-256-2064 ext. 501

Consultant Contact: Parsons Inc.

Pamela Whyte, MCIP, RPP, Senior Planner
Pamela.Whyte@Parsons.com | 613-738-4160

HOW WE GO - Transportation Master Plan

Municipal Staff Contact:

Robert Smith, Engineering Technologist
SmithR@mississippimills.ca | 613-256-2064 ext. 404

Consultant Contact: Parsons Inc.

Austin Shih, P.Eng., Senior Engineer
Austin.Shih@Parsons.com | 613-738-4160

HOW WE FLOW - Water & Waste Master Servicing Plan

Municipal Staff Contact:

Luke Harrington, Engineering Technologist
LHarrington@mississippimills.ca | 613-256-2064 ext. 408

Consultant Contact: J.L. Richards & Associates Ltd.

Mark Buchanan, P.Eng., Senior Engineer
mbuchanan@jlrichards.ca | 343-804-5349

Appendix D

Indigenous Consultation

Consultations Manager L. Harrington

MM2048 Water and Wastewater Master plan & Transportation Master Plan

Date Last Updated: April 25, 2024

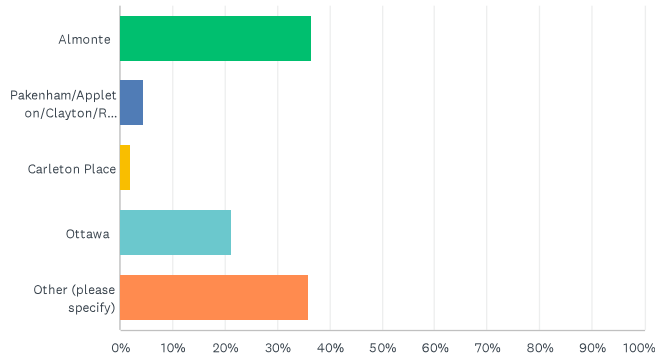
	Contact	Notice Type		Correspondance
		Registered Mail	Email	
Initial Contact First Follow Up Second Follow Up	Ottawa Region Metis Council	09-May-23	26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Metis Nation of Ontario	09-May-23	26-Jun-23 07-Dec-23	Response received from MNO office providing new email address for future correspondance. June 26th notice was sent to correct recipient by office staff.
Initial Contact First Follow Up Second Follow Up	Shabot Obaadjiwan	09-May-23	26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Alderville First Nation	09-May-23	26-Jun-23 07-Dec-23	Response received from Alderville First Nation representative on December 18, 2023
Initial Contact First Follow Up Second Follow Up	Hiawatha First Nation	09-May-23	26-Jun-23	Response received from Hiawatha First Nation representative on June 26, 2023
Initial Contact First Follow Up Second Follow Up	Curve Lake First Nation	09-May-23	26-Jun-23 07-Dec-23	NA

Initial Contact First Follow Up Second Follow Up	Mississaugas of Scugog	09-May-23 26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Kawartha Nishnawbe	09-May-23 26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Algonquins of Ontario	09-May-23 26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Mohawks of Akwesasne	09-May-23 26-Jun-23 07-Dec-23	NA
Initial Contact First Follow Up Second Follow Up	Algonquins of Pikwakanagan	09-May-23 26-Jun-23 07-Dec-23	NA

Appendix E Community Transportation Survey Results

Q1 Where do you work or go to school?

Answered: 159 Skipped: 0



ANSWER CHOICES	RESPONSES
Almonte	36.48% 58
Pakenham/Appleton/Clayton/Ramsey/Blakeney	4.40% 7
Carleton Place	1.89% 3
Ottawa	21.38% 34
Other (please specify)	35.85% 57
TOTAL	159

#	OTHER (PLEASE SPECIFY)	DATE
1	I do not work or go to school! I am retired.	4/17/2023 7:05 AM
2	I am retired. However, I do have volunteer obligations and take classes in Almonte.	4/16/2023 7:27 AM
3	Retired	4/14/2023 6:31 PM
4	retired, work part-time at home	4/14/2023 3:35 PM
5	Both at home and around ottawa valley.	4/13/2023 11:12 PM
6	Retired, but work part time	4/13/2023 5:24 PM
7	Appleton	4/13/2023 4:33 PM
8	retired	4/12/2023 8:53 PM
9	Retired	4/12/2023 8:15 PM
10	Almonte, Ottawa, Toronto	4/12/2023 11:27 AM
11	I reside in Almonte	4/12/2023 10:16 AM

12	Mix of WFH and travel out of town	4/12/2023 9:18 AM
13	Nepean	4/11/2023 1:37 PM
14	Retired	4/11/2023 11:20 AM
15	Retired	4/11/2023 8:57 AM
16	Retired	4/11/2023 8:25 AM
17	retired	4/11/2023 7:04 AM
18	Retired	4/10/2023 9:19 PM
19	Retired	4/10/2023 9:05 PM
20	Retired	4/10/2023 9:00 PM
21	Trucking takes us from Almonte to a 80 km radius	4/10/2023 8:51 PM
22	Retired	4/10/2023 8:33 PM
23	Retired	4/10/2023 8:08 PM
24	retired	4/10/2023 12:37 PM
25	Kanata	4/10/2023 12:25 PM
26	Retired	4/10/2023 12:24 PM
27	Retired	4/10/2023 11:19 AM
28	Retired	4/10/2023 9:24 AM
29	I do a combination of telecommuting and in person work in Ottawa	4/10/2023 9:16 AM
30	all of the above	4/10/2023 9:10 AM
31	retired	4/10/2023 9:03 AM
32	retired	4/10/2023 8:58 AM
33	retired	4/10/2023 7:29 AM
34	retired	4/10/2023 6:04 AM
35	I don't work or go to school.	4/9/2023 10:18 PM
36	Retired	4/6/2023 5:22 PM
37	Elgin, ON	4/1/2023 11:13 AM
38	retired, living in Clayton; shopping and services mainly in Almonte, but some in Carleton Place	3/31/2023 6:48 PM
39	Retired	3/29/2023 11:27 AM
40	Retired	3/28/2023 6:46 PM
41	TEST.ignore	3/28/2023 1:27 PM
42	Retired	3/28/2023 1:25 PM
43	TEST, ignore	3/28/2023 1:24 PM
44	Perth	3/28/2023 11:52 AM
45	Retired	3/28/2023 10:00 AM
46	retired	3/28/2023 8:08 AM
47	Retired	3/28/2023 5:43 AM
48	N/A retired	3/27/2023 9:29 PM
49	Retired	3/27/2023 9:04 PM

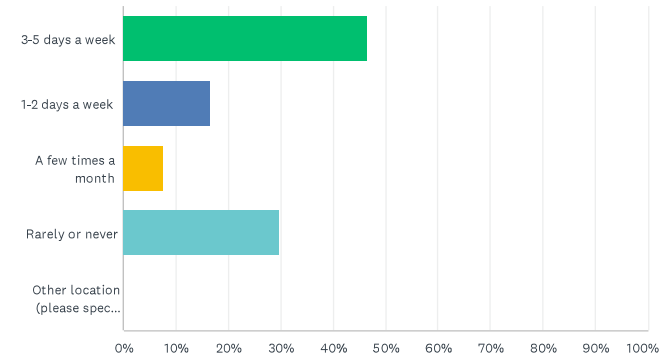
Mississippi Mills Transportation Master Plan Community Transportation Survey

50	Retired	3/27/2023 8:37 PM
51	Retired	3/27/2023 8:12 PM
52	Retired	3/27/2023 7:32 PM
53	retired	3/27/2023 7:24 PM
54	Live in Pakenham tetired	3/27/2023 7:16 PM
55	Retired	3/27/2023 5:14 PM
56	Do not work or go to school	3/27/2023 3:17 AM
57	Under ground with the mmm people. Mississippi Mills Mole PeopleTM	3/17/2023 12:02 PM

Mississippi Mills Transportation Master Plan Community Transportation Survey

Q2 How often do you physically travel to/from work or school? Please check one of the following:

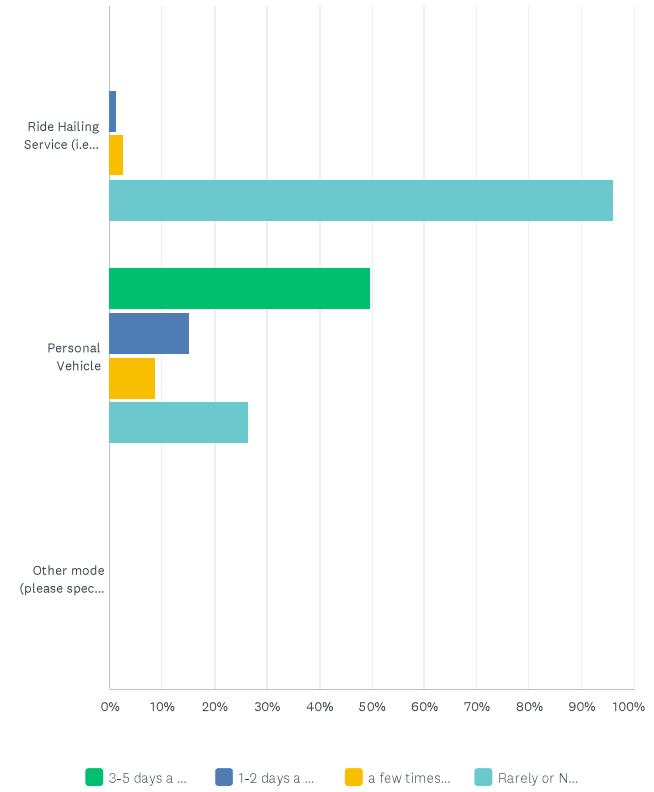
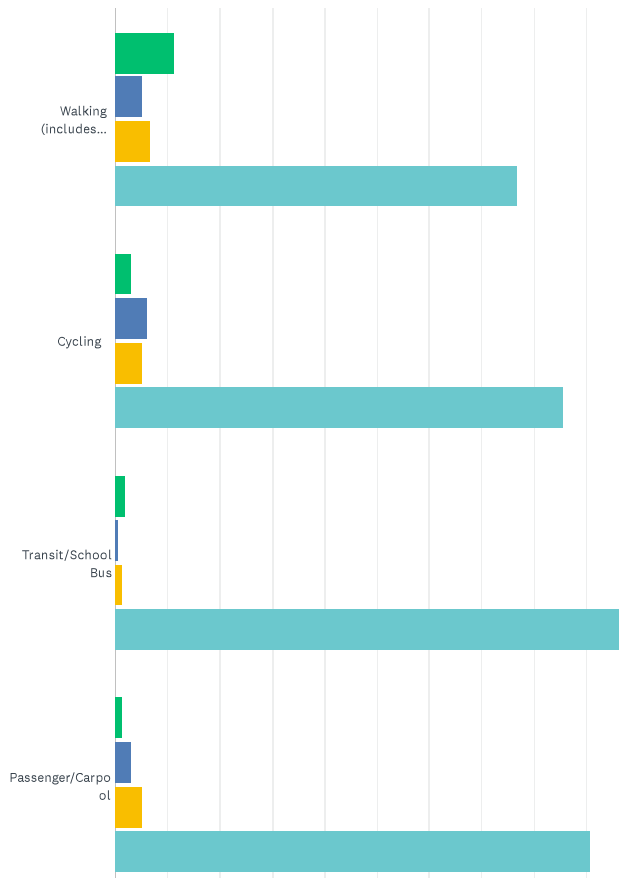
Answered: 159 Skipped: 0



ANSWER CHOICES	RESPONSES	
3-5 days a week	46,54%	74
1-2 days a week	16,35%	26
A few times a month	7,55%	12
Rarely or never	29,56%	47
Other location (please specify below)	0,00%	0
TOTAL		159

Q3 When travelling to/from work or school, how often do you use the following types of transportation? If not applicable, please proceed to the next question. Respond with one of the following options for each travel mode: a) 3-5 days a week, b) 1-2 days a week, c) a few times a month, or d) Rarely or Never. If you do not travel for work/school, answer "Rarely or Never" for all modes below.

Answered: 159 Skipped: 0



Mississippi Mills Transportation Master Plan Community Transportation Survey

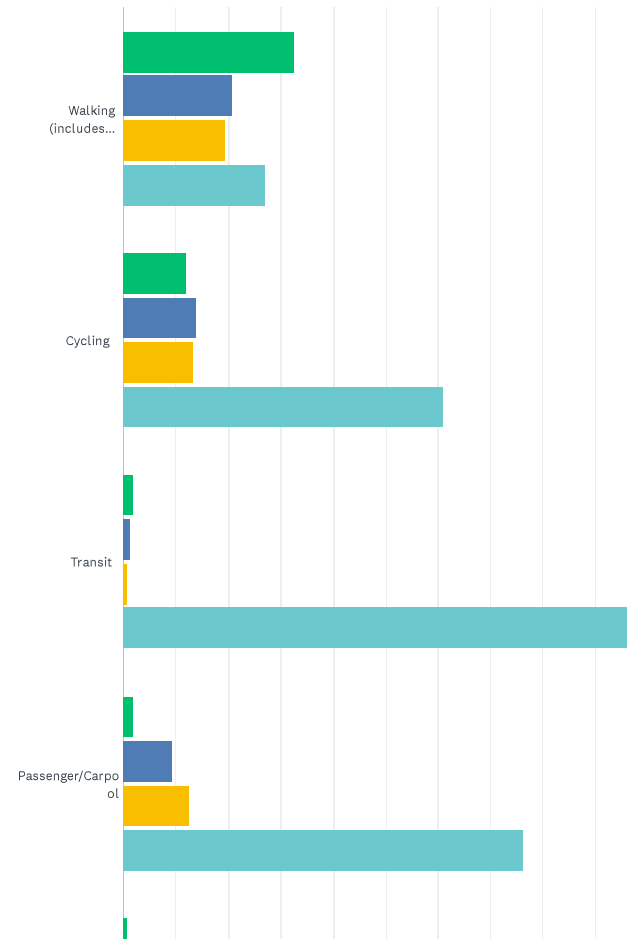
	3-5 DAYS A WEEK	1-2 DAYS A WEEK	A FEW TIMES A MONTH	RARELY OR NEVER	TOTAL	WEIGHTED AVERAGE
Walking (includes mobility assistance devices)	11.32% 18	5.03% 8	6.92% 11	76.73% 122	159	3.49
Cycling	3.14% 5	6.29% 10	5.03% 8	85.53% 136	159	3.73
Transit/School Bus	1.89% 3	0.63% 1	1.26% 2	96.23% 153	159	3.92
Passenger/Carpool	1.26% 2	3.14% 5	5.03% 8	90.57% 144	159	3.85
Ride Hailing Service (i.e. Uber or conventional taxis)	0.00% 0	1.26% 2	2.52% 4	96.23% 153	159	3.95
Personal Vehicle	49.69% 79	15.09% 24	8.81% 14	26.42% 42	159	2.12
Other mode (please specify below)	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00

#	OTHER (PLEASE SPECIFY MODE AND FREQUENCY IN WORDS BELOW)	DATE
1	The wording of this question makes it irrelevant. As i am neither an employed or a student.	4/17/2023 7:05 AM
2	work at home	4/14/2023 3:35 PM
3	Car sharing	4/13/2023 5:24 PM
4	Personal Vehicle sometimes daily Or 3-5 times per week	4/12/2023 10:16 AM
5	If Uber or car sharing services were available I'd use them more often	4/12/2023 9:18 AM
6	I'm a stay at home mom ...	4/10/2023 9:49 AM
7	When the weather warms up I go multi modal. Drive to transit, take transit part way, bike or walk the rest of the way. At the moment, connections stink and there no local options.	4/10/2023 9:16 AM
8	Depends on the time of year.	4/3/2023 1:49 PM
9	Carpool colleagues, will be living at work this year with travel home on weekends.	4/1/2023 11:13 AM
10	Retired	3/29/2023 11:27 AM
11	Do NOT travel to work or school	3/28/2023 6:46 PM
12	TEST,ignore	3/28/2023 1:27 PM
13	TEST, ignore	3/28/2023 1:24 PM
14	Retired. "If not applicable, please proceed..." but "If you do not..., answer Rarely or never..."	3/28/2023 10:00 AM
15	Since there is no transit, there is no choice but to use your personal vehicle	3/28/2023 8:02 AM
16	Retired. Do not travel to work or school.	3/28/2023 5:43 AM
17	Always use personal transport for all activities	3/27/2023 8:12 PM
18	Retired I don't commute anymore	3/27/2023 7:38 PM
19	Retired	3/27/2023 7:32 PM
20	Retired	3/27/2023 5:14 PM
21	E scooter 2-5 times a week	3/27/2023 3:18 PM
22	Do not work or go to school	3/27/2023 3:17 AM
23	Underground tunnels obviously	3/17/2023 12:02 PM

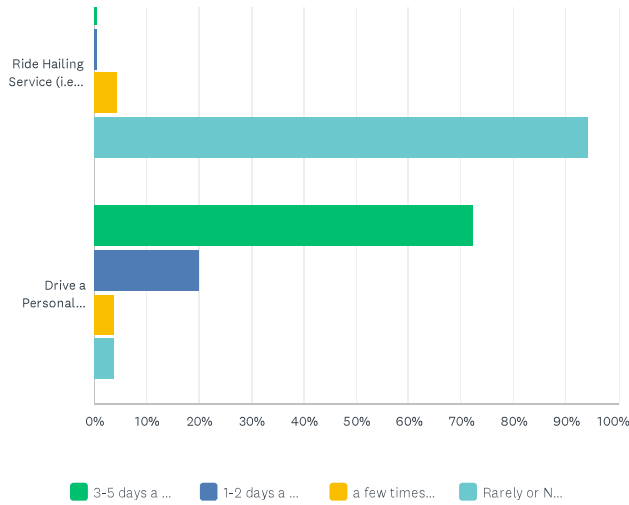
Mississippi Mills Transportation Master Plan Community Transportation Survey

Q4 For all other trip purposes (i.e. not work or school related), how often will you use the following types of transportation? Respond with one of the following options for each travel mode:a) 3-5 days a week, b) 1-2 days a week, c) a few times a month, or d) Rarely or Never

Answered: 159 Skipped: 0



Mississippi Mills Transportation Master Plan Community Transportation Survey



	3-5 DAYS A WEEK	1-2 DAYS A WEEK	A FEW TIMES A MONTH	RARELY OR NEVER	TOTAL
Walking (includes mobility assistance devices)	32.70% 52	20.75% 33	19.50% 31	27.04% 43	159
Cycling	11.95% 19	13.84% 22	13.21% 21	61.01% 97	159
Transit	1.89% 3	1.26% 2	0.63% 1	96.23% 153	159
Passenger/Carpool	1.89% 3	9.43% 15	12.58% 20	76.10% 121	159
Ride Hailing Service (i.e. Uber or conventional taxis)	0.63% 1	0.63% 1	4.40% 7	94.34% 150	159
Drive a Personal Vehicle	72.33% 115	20.13% 32	3.77% 6	3.77% 6	159

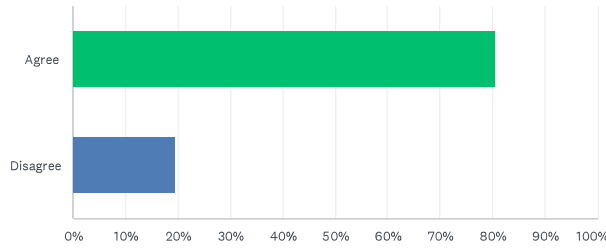
#	IF OTHER, PLEASE SPECIFY THE MODE AND FREQUENCY IN WORDS BELOW:	DATE
1	horse	4/14/2023 7:34 PM
2	n/a	4/14/2023 3:35 PM
3	I walk through/around downtown Almonte, Mill Street and Gemmill Park at least once a day.	4/13/2023 5:49 PM
4	As there is no public transit here I don't currently use any, but would very much prefer this mode if available. Some goes for ride sharing services.	4/12/2023 9:18 AM
5	horse	4/10/2023 10:05 AM
6	shop	4/10/2023 9:10 AM
7	Depends on the time of year.	4/3/2023 1:49 PM

Mississippi Mills Transportation Master Plan Community Transportation Survey

8	Frequency of walking and cycling will increase drastically when I am not working/time off.	4/1/2023 11:13 AM
9	Would like to have an Almonte Taxi service for when we can no longer drive	3/29/2023 11:27 AM
10	TEST,ignore	3/28/2023 1:27 PM
11	TEST, ignore	3/28/2023 1:24 PM
12	No transit option so you have to use your personal vehicle	3/28/2023 8:02 AM
13	Occasionally I like to ride a large toad	3/17/2023 12:02 PM

Q5 Do you agree or disagree with this statement: I feel safe and comfortable walking within the Municipality?

Answered: 159 Skipped: 0



ANSWER CHOICES	RESPONSES	
Agree	80.50%	128
Disagree	19.50%	31
TOTAL		159

Q6 Since you disagreed with the preceding statement, please explain why and what solutions would help improve your level of safety and comfort while walking?

Answered: 30 Skipped: 129

#	RESPONSES	DATE
1	Speed limits are not enforced.	4/17/2023 7:06 AM
2	The rail trail with motorized vehicles feels unsafe. Vehicles do not adhere to speed limits (which are quite high) and don't always give way to cyclists/walkers. Restrict motor vehicle use on rail trail through Almonte and for at least 5K on either side of town. Reduce speed limits and monitor speed of motorized traffic. This is done in municipalities elsewhere.	4/14/2023 7:19 PM
3	The crosswalk structure in Town, particularly to get back and forth across Ottawa Street is sub-par. We have several different types of crosswalks in Town, and I'd say that drivers and pedestrians alike are confused about how to approach and use them: - OVRT crosswalks (one of which is not activated as of April 2023) are pedestrian activated and include an overhead flashing light - the one on Ottawa Street (yet to be activated) is on a much higher speed thoroughfare than the one on Bridge Street (which is very close to the Mill Street intersection) - the crosswalk further out Bridge (past the arena) is a different design (I don't believe that the flashing indicator is overhead) - we have two new crosswalks on Mill Street that have yet to be activated - I believe that there are other crosswalks in town (Patterson Street?, Country Street?, Martin Street?, etc.) that are configured differently to these more recent installations. Perhaps the older crosswalks should be upgraded. - of note, also we have a new crosswalk on Ottawa Street near the end of Mill Street (this one is also not active yet) which is in a poor location from both a pedestrian and a driver sightline point of view. Vehicular traffic traveling west on Ottawa cannot see the crosswalk until they exit the main bridge and begin to make the gradual left curve in the road. Traffic traveling in this direction can be moving very fast as the road is inclined downhill at this point. A much better place for this crosswalk would be to move it a few tens of metres east along Ottawa (to the other end of the small bridge) so that pedestrians cross at a point where they can see both west- *and* eastbound traffic at the same time. This also moves the cross walk to a location where the westbound traffic can see the cross walk status as they exit the bridge. Finally, the OVRT is an attractive asset for the Town and the County, for the former it provides an important AT corridor running north/south through the Town. For the latter it represents a non-car/truck link to communities both north and south of MM. However, the walkability/usability/safety of the OVRT corridor could be much improved for AT users if we could separate the motorized from the non-motorized users at least where the trail runs through the Town of Almonte. Refer to the changes there were made in the Town of Carleton Place by way of a good example.	4/13/2023 7:29 PM
4	The speed of traffic through Appleton is too high and there are no sidewalks. Even paved shoulders for bikes would be an improvement.	4/13/2023 4:34 PM
5	Cars travel too fast on Clayton road and in the winter the roads are not plow early in the morning	4/13/2023 4:01 PM
6	For the most part I feel safe but I do have concerns about meeting up with an unleashed dog. Have been bit in the past so this is something that makes me uncomfortable.	4/13/2023 8:19 AM
7	Many sidewalks in the older neighborhoods are uneven and in poor condition. The sidewalks on Ottawa street are very narrow and some greenery is encroaching over the sidewalk. The intersection at Ottawa street and Martin is unsafe. The pedestrian walk signal can be confusing at times for someone with a visual disability. There are lots of people now walking Ramsay concession in mill run and yet there are no sidewalks. There needs to be some love given to planning for people who love to walk or depend on walking as their only way to get around.	4/12/2023 8:34 PM
8	Traffic calming methods that are used on most roads as in most other places, rural and urban around Ontario (speed bumps / lighted signage/ bump ourats etc	4/11/2023 10:30 PM

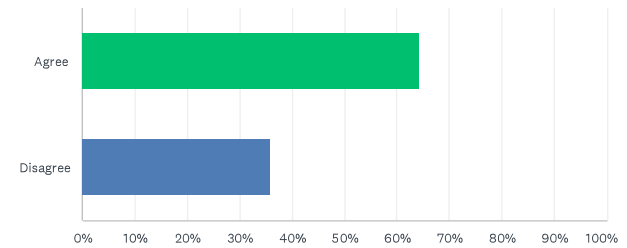
Mississippi Mills Transportation Master Plan Community Transportation Survey

9	Sidewalks maintained properly ie cracked broken uneve	4/11/2023 11:22 AM
10	Most streets in Appleton do not have sidewalks or paved shoulders. Some roads have almost no shoulder. Many roads are narrow and twisting. Lanark traffic counts indicate that many vehicles travel over the speed limit. There are limited parking spaces so vehicles often park on the sides of the road, which forces walkers onto the road. This has been occurring for many years and the traffic appears to be increasing – plus, a new housing development is planned for the village. Motorized vehicles often pass very close to pedestrians on the OVRT. Solutions: As soon as possible, Mississippi Mills and Lanark County identify appropriate options for traffic calming, parking, and active transportation in this situation; consult with residents; and implement. Through Mississippi Mills, create a paved trail for walkers and cyclists and a separate aggregate trail for motorized vehicles (like Carleton Place).	4/11/2023 9:27 AM
11	reduce speed limit on Ramsay Con 8 also Traffic congestion in town is horrible. We need a traffic light at Spring/Ottawa Street.	4/10/2023 12:45 PM
12	Drivers don't look for pedestrians in crosswalks	4/10/2023 12:38 PM
13	My own street Martin St. South that turns by the river. Too much two way traffic. One way would be helpfull. The 13 klm on March Rd off 417 into Almonte would be much safer if four lane.	4/10/2023 12:29 PM
14	There are many streets without sidewalks. The most unsafe road I walk down on a regular basis (usually with a stroller) is Houston St to go grocery shopping. Also, many of the town sidewalks are in horrible condition.	4/10/2023 11:28 AM
15	Our main streets all too often have speeding cars and trucks.... the speed limit inside the town should be MAX 40kph	4/10/2023 9:26 AM
16	I feel safe walking on my own dirt road near Clayton. I don't feel safe walking on the paved roads out hear due to the speed of traffic	4/10/2023 9:17 AM
17	too many strangers from out of town. they are unfriendly rude and make locals feel like they don't belong in there own home town.	4/10/2023 9:14 AM
18	Our family lives in Bay Hill Area - walking to the downtown down Almonte St is a stressful event with children. Malcolm St sidewalks are never plowed in the winter and there are no sidewalks for a portion of Malcom. The entire Bayhill Area seems like it's been forgotten....	4/10/2023 9:01 AM
19	Due to cars speeding down the roads, both main roads in town as well as residential.	4/10/2023 8:43 AM
20	Speed of traffic, size of vehicles and lack of shoulders on rural roads. I think more people on walking and on bikes would help drivers be more aware. More acknowledgement of the right of non-drivers to use the road.	4/10/2023 7:33 AM
21	Lighting, sidewalks, proper public works operations - potholes, snow removal	4/2/2023 4:02 PM
22	Traffic speed is frequently excessive, and some traffic is excessively noisy. Large trucks are more frequent and often speeding	3/31/2023 6:50 PM
23	In town is fine. Country roads are not just due to the state of them and vehicles needing to avoid pot holes.	3/30/2023 11:55 AM
24	TEST,ignore	3/28/2023 1:28 PM
25	Speed limits must be enforced.	3/28/2023 1:28 PM
26	TEST, ignore	3/28/2023 1:24 PM
27	Better lights at intersections, Ottawa and Martin St.	3/27/2023 7:26 PM
28	Not enough places to walk safely in Pakenham.	3/27/2023 3:18 AM
29	Separate pedestrian walkways from motorized recreation vehicles.	3/22/2023 11:18 AM
30	There's too many people above ground and as a mole sized person I feel like I will get eaten by a large bird of prey or a cat. Perhaps a rental service for a hamster ball or even a light weight pylon that I can carry around on my shoulders.	3/17/2023 12:07 PM

Mississippi Mills Transportation Master Plan Community Transportation Survey

Q7 Do you agree or disagree with this statement: I feel safe and comfortable cycling within the Municipality?

Answered: 156 Skipped: 3



ANSWER CHOICES	RESPONSES	
Agree	64.10%	100
Disagree	35.90%	56
TOTAL		156

Q8 Since you disagreed with the preceding statement, please explain why and what solutions would help improve your level of safety and comfort while cycling?

Answered: 53 Skipped: 106

#	RESPONSES	DATE
1	The quality of paving being done on the local roads (Country St for example) is substandard for cycling. The roads are not paved wide enough to be safe. The OVRT in the Almonte area is soft and mushy in areas - again a poor surface for cycling on. I have cycled in many areas of Quebec, NS, N.Y., and other areas of Ontario and generally I feel that the overall quality of the infrastructure is lacking in comparison. I think if MMs wants to become a more cycle/walking friendly community and encourage visitor to come here for that purpose some local decision-makers should go see what is happening and has been happening in Quebec for the last 25 years.	4/17/2023 7:18 AM
2	The shoulders are not well-maintained and large dump trucks speed up and down the road.	4/14/2023 7:36 PM
3	See previous comments re: rail trail. I regularly use the one bicycle lane in town -- it's great to have but needs to have lines painted on it. More cycle lanes are necessary-suggest extending the Ottawa St cycle lanes through town to Hwy 29. The bridges should be painted so that cyclists have right of way and are not passed on the bridges. Other communities do this and it is an effective strategy.	4/14/2023 7:22 PM
4	Drivers are erratic	4/14/2023 5:15 AM
5	The cycling infrastructure in Town is unfortunately at least one generation behind best practices for this sort of thing. Separating cyclist from vehicular traffic using only painted markings on the edge of road is far from ideal from the cyclists point of view. I often see cyclists (particularly young children – sometime even accompanied by their parents! -- riding on the sidewalk along Ottawa Street, presumably because they fear for their safety to ride on the street itself. In any case, whatever safety/security there is in the painted bike line disappears at the Martin/Ottawa intersection when going west, and at Patterson Street going in the other direction. And for the record, non of the cyclists I know will go anywhere near the traffic circle at the edge of Town. That piece of infrastructure is sketchy enough when driving a car much less trying to mix it up on your bike! River crossings are prominent features throughout Mississippi Mills. There are three in Almonte, one in Pakenham, one in Appleton, and one in Clayton, not to mention several others throughout the original Township of Ramsay. The bridges in Almonte and any of the hamlets are particularly concerning for cyclists because of the dangers associated with vehicular traffic using the bridge at the same time. The one lane bridges in Pakenham, Blakeney and Appleton are examples. I have cycled in many other municipalities (Canmore, Alberta comes to mind) where signage at the entry to narrow bridges reminds drivers that cyclists have the right of way. Cars and trucks must not attempt to overtake the cyclist until they both clear the bridge. Even on the two-lane bridges in Almonte, some similar protocol would make bridge transit more safe for cyclists. I found it odd that the AT transportation map that we were shown at the PIC on 13 April '23 showed bike lines only Ottawa Street section. If I'm not mistaken, there are also bike lanes painted along part(s) of Bridge Street out past the Arena. Shouldn't this information have been included on the map?	4/13/2023 7:29 PM
6	See previous explanation	4/13/2023 4:34 PM
7	Some drivers do not allow cyclists space on the road, pass dangerously close, fail to slow down, some drivers are aggressive towards cyclists, yell at or try to intimidate cyclists,	4/13/2023 2:06 PM
8	Do not use this type of transportation but would still be concerned about unleashed dogs	4/13/2023 8:20 AM
9	For the same reason as I don't think walking is safe, I also don't see dedicated cycling lanes. There are so many more lather vehicles ie trucks in this area that has to be taken into consideration in your planning.	4/12/2023 8:37 PM
10	I feel a great deal of hostility from many drivers. SEPARATED bike lanes would help. Wider,	4/12/2023 11:32 AM

paved shoulders on roads outside town would help. A public education campaign would help; it should remind drivers that cyclists have a right to the road, that passing with a metre's clearance is the law, that when approaching a cyclist on a two-lane road, you may have to slow down for a moment to allow oncoming traffic to pass before passing the cyclist.

11	Insufficient truly safe bike lanes	4/11/2023 10:31 PM
12	Most roads in Mississippi Mills do not have paved shoulders and there are no segregated bike lanes. Some roads have almost no shoulder. Many vehicles appear to travel over the speed limit. In residential areas, there are limited parking spaces so vehicles often park on the sides of the road, which forces cyclists onto the road. This has been occurring for many years and the traffic appears to be increasing – plus, there are many new housing developments planned for the municipality In many areas, the aggregate on the surface of the OVRT in Mississippi Mills is too large for comfortable cycling. The aggregate on the margins of the trail is so loose that cyclists often must stop and walk their bikes when ATVs pass. Solutions: As soon as possible, add paved shoulders to all paved roads. Mississippi Mills and Lanark County identify appropriate options for traffic calming, parking and active transportation in this situation; consult with residents; and implement. Through Mississippi Mills, create a paved trail for walkers and cyclists and a separate aggregate trail for motorized vehicles (like Carleton Place).	4/11/2023 9:27 AM
13	Potholes	4/10/2023 9:06 PM
14	There are no bike lanes, and it is very dangerous trying to cycle from lower town to upper town. It is also disruptive to traffic, as there is only one lane each direction. For anybody trying to access the only grocery store in town, there is no way to cycle.	4/10/2023 1:45 PM
15	People have no regard for cyclists. Traffic is too congested everywhere in town.	4/10/2023 12:46 PM
16	No bike lanes on busy roads like Ottawa Street	4/10/2023 12:39 PM
17	Cars speeding through town.	4/10/2023 12:38 PM
18	Cars drive too fast	4/10/2023 12:25 PM
19	Dangerous to ride bikes on the road...no room...need to stay on trails for safety	4/10/2023 12:15 PM
20	I don't cycle	4/10/2023 11:55 AM
21	More continuous bike routes	4/10/2023 9:47 AM
22	Our main streets all too often have speeding cars and trucks.... the speed limit inside the town should be MAX 40kph. Sidewalks on the bridges are too narrow. Do not meet current code.	4/10/2023 9:27 AM
23	Again, I feel comfortable riding the back roads. But aggressive driving out here and in town means I take the long way or no way. I was present on a group ride with school kids when an impatient driver led to a broken arm and dental damage for a young rider. Ironically, I was a cycle commuter in the city for years. But out here I feel more vulnerable.	4/10/2023 9:19 AM
24	I don't bike. the bikers brake all the rules. making it unsafe for themselves.	4/10/2023 9:16 AM
25	Take the bike lanes off of Ottawa St and put them on the side streets	4/10/2023 9:04 AM
26	Roads are too busy	4/10/2023 8:56 AM
27	Due to cars speeding down the roads, both main roads in town as well as residential.	4/10/2023 8:43 AM
28	There are roads within the municipality that are simply too fast, and too busy. Some roads are less busy, but do not have hard shoulders and still have a lot of fast traffic. Drivers in large vehicles often do not pass with sufficient space. An education campaign that cyclists have a right to use the roads, and that vehicles must pass safely would (maybe) help, but the best thing would be to develop infrastructure to encourage more people to cycle. The more cyclists the better as many people now are afraid because they only see "serious" cyclists out on the roads. The attitude that cyclists don't pay taxes and shouldn't ride on the road is going to get someone killed and I don't think the municipality does enough to counter that.	4/10/2023 7:40 AM
29	See previous comment	4/2/2023 4:02 PM
30	Suffered a cyclist/truck accident on open, fair weathered road conditions. TBI and concussion symptoms still affect me years later. Permanent physical damage for the rest of my life as a result of a negligent driver and lack of a bike lane. Increase education and legal action for	4/1/2023 11:18 AM

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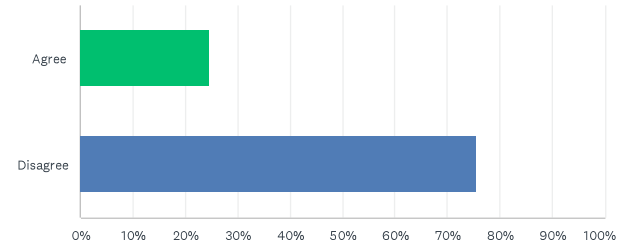
incidences, rolled stop signs, and cyclist harassment. Increase bike lanes and improve blind spots.

31	Cycling on Highway 29 isn't safe.	3/30/2023 8:57 AM
32	Need more room on the road for bicycles	3/29/2023 3:27 PM
33	Example: Paterson St with parked cars becomes too narrow for both cycling & vehicles.	3/29/2023 11:28 AM
34	Way too dangerous to bike on main roads thanks to aggressive car traffic	3/28/2023 4:04 PM
35	Limited bike paths. Poor road maintenance motorized vehicles on OVRT. Too much traffic thru town on roads not built for high traffic.	3/28/2023 1:31 PM
36	TEST, ignore	3/28/2023 1:28 PM
37	TEST, ignore	3/28/2023 1:24 PM
38	I do not cycle: I'm out of shape and I'd probably fall off and I don't want to. This question, like many others, is not well designed. There really should have been an "I do not cycle" box to tick. Without it, data will be skewed.	3/28/2023 10:05 AM
39	on rural roads just outside of town - no sidewalks and cars speed past.	3/28/2023 8:58 AM
40	Wider shoulders on rural roads (wolfgrove rd)	3/28/2023 8:48 AM
41	Reduce speed limit to 40km/hr where bike lanes present +/- in town of Almonte. Wider bike lanes, bylaw enforcement for offenders parking/stopping in bike lanes, more bike lanes on the busier streets.	3/27/2023 11:03 PM
42	Roads are too busy	3/27/2023 9:23 PM
43	More designated cycling lanes	3/27/2023 9:10 PM
44	Roads are too narrow, especially main streets & cars travel too fast	3/27/2023 9:00 PM
45	I live in the middle of town and I find the traffic on Ottawa st and bridge st sometimes too fast	3/27/2023 8:39 PM
46	I prefer paths not shared roadways or bike lanes beside traffic	3/27/2023 8:13 PM
47	better defined cycling lanes	3/27/2023 7:27 PM
48	More bike lanes especially on the bridges.	3/27/2023 7:27 PM
49	I live on Bay Hill, no room for bikes on Almonte St.	3/27/2023 7:13 PM
50	Not enough places to cycle safely in Pakenham	3/27/2023 3:20 AM
51	We need clear cycling lanes and pathways.	3/22/2023 11:18 AM
52	I can't ride a bike. its too scary. I had an uncle once that tried to ride a bike and he couldn't hold onto the tire well enough once it started moving and few off into the sky. I haven't seen him since.	3/17/2023 1:36 PM
53	I don't cycle so I can't say for sure if I feel safe or not.	3/16/2023 2:31 PM

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Q9 Do you agree or disagree with this statement: Mississippi Mills has a transportation system that is accessible and inclusive (i.e. people of all ages, financial means, and physical abilities)?

Answered: 151 Skipped: 8



ANSWER CHOICES	RESPONSES	
Agree	24.50%	37
Disagree	75.50%	114
TOTAL		151

Q10 Since you disagreed with the preceding statement, please explain why and what solutions would help improve accessibility and inclusivity of the transportation system?

Answered: 110 Skipped: 49

#	RESPONSES	DATE
1	It doesn't have a transportation system, There is no public means of traveling to Carleton Place or Kanata. In 2022 I picked up a hitch hiker on Hwy 29 who was returning from a doctor's appointment in Carleton Place. She had walked the entire way there and had walked about a third of the way back. She had no vehicle, knew no one who could drive her and could not afford a taxi.	4/17/2023 7:25 AM
2	I am not aware of transportation in Mississippi Mills	4/16/2023 9:32 PM
3	Friends and acquaintances tell me that they are uncomfortable cycling on Ottawa St to shop. More clearly defined cycling lanes and signage supporting cyclists would allow people to cycle to the grocery and hardware, etc stores with confidence. The more active our community, the healthier and happier they are!	4/16/2023 7:31 AM
4	No	4/14/2023 7:36 PM
5	There are no public transportation options within MM. The development of public transportation options could improve accessibility and inclusivity.	4/14/2023 7:24 PM
6	I am not aware of a transportation system in Almonte.	4/14/2023 6:33 PM
7	.	4/14/2023 5:15 AM
8	I recently moved here and have no idea there is or isn't a bus/transportation available to the public.	4/13/2023 11:14 PM
9	It seems (and the council records will show) that previous municipal administrations were reluctant to embrace many of the tenets of generally accessibility, safety and inclusivity. The preceding two questions and associated discussion about safe walking and cycling is but an example of this. Until we have a council that is prepared to act clearly and with conviction on some of these issues, the Town staff will be hampered when it comes to implementation. Or maybe at such time as we have some of these policies imposed on us by a higher level of government...	4/13/2023 7:29 PM
10	Lack of available public transit (commuter bus to Ottawa) and Uber/Taxi	4/13/2023 6:57 PM
11	Retired and physically or mentally challenged people who live in core of city cannot access grocery store and drug store. A bus to Carleton Place once or twice a week would assist a lot of people who are now having to pay cab fees.	4/13/2023 5:27 PM
12	Traffic is not congested	4/13/2023 4:35 PM
13	No taxis	4/13/2023 4:02 PM
14	There's some attempts to make streets more wheelchair friendly, there's little to no public transit options	4/13/2023 2:07 PM
15	I am not familiar with many other forms of transportation offered other than personal vehicle, walking & cycling. We do not have transit or bus service.	4/13/2023 8:21 AM
16	dont know	4/12/2023 8:54 PM
17	My husband is legally blind and and there are many seniors with other mobility conditions. There would certainly be younger persons with mobility issues as well. I'm not even sure there is any transportation system available. Everything should be on the table when planning to improve accessibility and inclusivity.	4/12/2023 8:45 PM

18	There is no system	4/12/2023 8:18 PM
19	Ride sharing programs, more Uber/taxi services, bus or train to Ottawa	4/12/2023 1:56 PM
20	To my knowledge, there is no transit system beyond personal cars. There are taxis IN CARLETON PLACE. But given the growth predicted for MM, we should probably be thinking of some kind of mass transit.	4/12/2023 11:35 AM
21	As someone who lives in the center of Almonte, I love the walkability of my town. However there aren't any public transit options between the towns which make up MM nor between MM and the OC transpo network of Ottawa. MM is currently a town which is car dependent, and that means life would be challenging for those who can't drive, can't afford a vehicle, or who'd prefer not to drive. It would be wonderful for there to be a small shuttle system on a loop between Almonte, Pakenham, and CP which would allow residents to run errands or connect with those communities - it would be even better if that loop included a connection to an OC transpo park and ride a few times a day for car-less residents who need to go into Ottawa and can't afford an expensive taxi. I would also love to see car sharing services like Communauto so that people could either not have to carry consistent car costs, or families could supplement their car needs thusly instead of feeling like they need a second (or third) vehicle.	4/12/2023 9:30 AM
22	Is there a transportation system?	4/12/2023 9:29 AM
23	It is not widely advertised	4/12/2023 8:23 AM
24	We do not have our own taxi service. Have to wait for it to come from CP. Do not have Uber.	4/12/2023 4:27 AM
25	Safe roadways/ sidewalks for pedestrians and lowering of all speed limits with oversight	4/11/2023 10:32 PM
26	Sidewalks poorly maintained	4/11/2023 11:25 AM
27	In Appleton, there is almost no parking and there is no designated handicap parking. Cars are often parked on the shoulders of the road, which forces pedestrians onto the road.	4/11/2023 9:27 AM
28	Some type of public transportation, linking us to CP and Ottawa	4/11/2023 9:14 AM
29	A small van/bus that makes a circuit through the "suburbs" in order to bring residents to the grocery store or the health centre and returns 2 to 4 hours later.	4/11/2023 7:32 AM
30	is there any?	4/11/2023 7:05 AM
31	No accessible or affordable transportation options for low income people	4/10/2023 9:16 PM
32	Few taxis, no bus service, no way to the airport	4/10/2023 9:07 PM
33	There is no public transit. If you do not have a vehicle and live in the west end end of town you need a taxi service to access grocery stores and pharmacies.	4/10/2023 8:53 PM
34	A form of public transportation to connect Almonte with Ottawa public transportation would be a good thing	4/10/2023 8:35 PM
35	I believe cars and parking concerns are in a lot of cases given priority over pedestrian concerns at the planning and design stage of many new developments, ie., commercial and big box type buildings could be located at the street/sidewalk with parking in the back. Also there have been great efforts to expand walking/multiuse trails within Mississippi Mills. This is great...and more could be done to expand the trails we have and create more linkages.	4/10/2023 3:15 PM
36	More transit options	4/10/2023 2:30 PM
37	No bus system exists. No bicycle infrastructure.	4/10/2023 1:46 PM
38	We need traffic redirect off of Ottawa Street and when development is allowed to make new arteries ie, Paterson Street south to Appleton Side Road.	4/10/2023 12:48 PM
39	No transportation is available for disabled people.	4/10/2023 12:40 PM
40	There is no transport system here.	4/10/2023 12:39 PM
41	Public transportation to downtown Kanata, Ottawa for those who don't drive, seniors would be nice.	4/10/2023 12:32 PM
42	Some sidewalks need repair. Also snow removal is not done on all sidewalks, ie Napier Court	4/10/2023 12:26 PM

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43	Better pedestrian and cycling infrastructure; some form of on-demand public transit or car share would be useful too	4/10/2023 12:18 PM
44	No public transportation other than taxis...too expensive...need a regular bus to go into ottawa ...carleton place etc	4/10/2023 12:16 PM
45	I'm not aware of a transport system	4/10/2023 11:55 AM
46	What transportation system???????	4/10/2023 11:41 AM
47	There are no public transit options.	4/10/2023 11:29 AM
48	MM does not have a public transportation system	4/10/2023 11:20 AM
49	Public transportation/ride sharing is unavailable within town	4/10/2023 10:35 AM
50	There is no public transportation	4/10/2023 9:49 AM
51	Cross walk light should be auto on with the green light	4/10/2023 9:48 AM
52	We do not have any form of public transit to the city or even Carleton Place. Not that I expect it but it makes the statement untrue.	4/10/2023 9:28 AM
53	Taxi service is limited	4/10/2023 9:25 AM
54	Not visible	4/10/2023 9:24 AM
55	So. Transit. There are tri town communities in northern Ontario that have figured it out. If you live rural you have to own a vehicle, which limits people's independence as they age. As noted, a greater feeling of safety for active transportation would also be helpful.	4/10/2023 9:22 AM
56	With one grocery store I'm town, It doesn't make it easy for people on the opposite side to access. Especially if they don't have a vehicle	4/10/2023 9:19 AM
57	They put the tourists ahead of the people that live here and pay taxes.	4/10/2023 9:18 AM
58	* More obvious cycling routes * Smart traffic lights (anecdotally, I think some driver's don't wait for the light to turn green sometimes if no one is coming) * well done on the pedestrian cross walks, just need to complete the one on the OVRT by the hydro company.	4/10/2023 9:12 AM
59	Work with senior there is not enough options for them or to expensive	4/10/2023 8:57 AM
60	bus	4/10/2023 8:48 AM
61	Can do a lot more to be inclusive. Such as paying the trail	4/10/2023 8:46 AM
62	Due to cars speeding down the roads, both main roads in town as well as residential.	4/10/2023 8:44 AM
63	nee more communication on access	4/10/2023 8:44 AM
64	A personal car is a necessity for most. I don't see the political will to change that, though I think it would have to involve subsidized small and frequent buses on flexible routes.	4/10/2023 7:48 AM
65	There is no public transit.	4/9/2023 10:19 PM
66	I believe there are limited options available for those who have accessibility issues, monetary issues, and definitely for those who have both. Especially in the winter months, when walking/ scootering/ is not an option.	4/3/2023 2:02 PM
67	Lack of infrastructure	4/2/2023 4:03 PM
68	Focus on systems that rely on walking/cycling as a primary transportation. Check out Not Just Bikes on YouTube.	4/1/2023 11:19 AM
69	Cabs are not always cheap. Not sure if any cabs are able to accommodate wheelchairs or not.	3/30/2023 11:58 AM
70	No Ubers? No bus service to Ottawa?	3/30/2023 9:38 AM
71	There are limited transportation options in Mississippi Mills.	3/30/2023 9:01 AM
72	Traffic isn't that bad.	3/29/2023 3:27 PM
73	do not live in the area, and i havn't seen any buses	3/29/2023 3:27 PM

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74	MM doesnt have public transit just private	3/29/2023 3:24 PM
75	I feel there is no "system."	3/29/2023 2:55 PM
76	Something like uber would likely help, but it's still expensive	3/29/2023 8:43 AM
77	Not aware of accessibility transpo	3/28/2023 6:48 PM
78	There needs to be a local bus, as well as one that goes to and from Carleton Place and Ottawa.	3/28/2023 4:05 PM
79	walking paths need wheel chair friendly surface.	3/28/2023 1:32 PM
80	TEST,ignore	3/28/2023 1:28 PM
81	TEST, ignore	3/28/2023 1:24 PM
82	There is no "system." It is entirely ad hoc, which is not necessarily a bad thing. Some financial support and publication of programs like Carebridge's program to drive seniors/people on assisted living to apts would be good; taxi vouchers for the same? Perhaps a survey re support for a bus system, but I don't think that buses would be commercially viable, and the municipality cannot, and should not, undertake such an endeavour.	3/28/2023 10:12 AM
83	bike lane? bus?	3/28/2023 8:59 AM
84	no transportation system available	3/28/2023 8:48 AM
85	There is no transit service or local cab or bus service. Can't agree with something that doesn't exist.	3/28/2023 8:09 AM
86	There is no easily nor affordable public transportation available. If you don't own a vehicle or as a person ages and no long er wishes or can drive there is no easy means for a person to get around	3/28/2023 8:05 AM
87	I frequently travel Old Perth Road between Tatlock Road and Concession 8. It has been in terrible condition for years, potholes, broken pavement. It is unsafe for walking, cycling or driving. It needs to be properly paved, not endless patches that last a day or two.	3/28/2023 5:45 AM
88	I do not know MM transport system to make a judgment.	3/28/2023 4:15 AM
89	A municipal transit system for everyone to use.	3/27/2023 11:04 PM
90	Public transit to allow low income people to access stores and work locally and to neighbouring municipalities	3/27/2023 10:34 PM
91	Available Weekend transportation	3/27/2023 9:31 PM
92	What transportation system? Not aware of any accessible transportation in this municipality	3/27/2023 9:27 PM
93	We have no public transportation system	3/27/2023 9:11 PM
94	There is no public transit that I know of, nor uber nor convenient taxi	3/27/2023 9:05 PM
95	There have been several new streets built over the last 5 + years, but in my opinion, they have not been built to accommodate enough room for bicycle lanes. Even walking paths are few and far between. I.e. having a path from Honeybourne that runs behind the hardware store to connect to hwy 49. It would be wonderful to have walking/biking paths that connect throughout the town	3/27/2023 9:05 PM
96	Car share program. Bus to connect retirement homes with shopping areas and hospital and other services.	3/27/2023 8:42 PM
97	I don't see and I am not aware about any Mississippi Mills Transportation (i.e. Public Transport) in Almonte. It will be great if we can bring some public transport to Mississippi Mills so as to improve connectivity to Ottawa city (e.g. for people working in downtown or surrounding area)	3/27/2023 8:39 PM
98	There are no buses.	3/27/2023 8:15 PM
99	No cheap public transportation available	3/27/2023 8:14 PM
100	I'd like options on transit to the city instead of using a car.	3/27/2023 7:41 PM

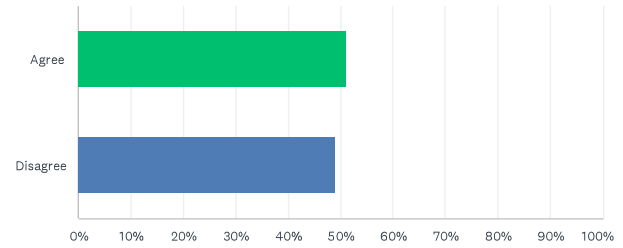
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101	If you could not walk , cycle or drive one's own car, there is very limited public transit.	3/27/2023 7:34 PM
102	It's all car based.	3/27/2023 7:28 PM
103	Dependent totally on driving a car. No way tongetvaround from Pakenham to anywhere else in MM without a car	3/27/2023 7:18 PM
104	No means for physically disabled	3/27/2023 7:14 PM
105	I'm not aware of any specific public transit options that would allow for cheaper travel vs owning a vehicle	3/27/2023 7:06 PM
106	I don't believe there is a shared transportation system in Mississippi Mills, such as a bus. Uber is fairly hard to get and expensive for the rural areas of Mississippi Mills.	3/27/2023 3:18 PM
107	MM has NO transportation system.	3/27/2023 3:20 AM
108	There is no bus/ train that can take regular trips to the big city.	3/22/2023 11:21 AM
109	Have you ever seen george shrinks? The town should invest in some zuper cars.	3/17/2023 1:38 PM
110	I'm not aware so I can't say for sure	3/16/2023 2:31 PM

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Q11 Do you agree or disagree with this statement: Mississippi Mills has vehicle traffic congestion issues?

Answered: 145 Skipped: 14



ANSWER CHOICES	RESPONSES	
Agree	51.03%	74
Disagree	48.97%	71
TOTAL		145

Q12 Since you agreed with the preceding statement, please identify the critical congestion locations (“hot spots”) and what potential solutions you believe would help relieve congestion?

Answered: 72 Skipped: 87

#	RESPONSES	DATE
1	Ottawa street is the only street going to March road so it is very busy every day. It would be great if there was a bypass from highway 29 & Clayton Road to avoid Almonte all together.	4/16/2023 9:37 PM
2	getting from Highway 29 to Highway 417 is very slow and congested	4/14/2023 7:37 PM
3	Ottawa St and Bridge St. Seem to be quite congested at peak times which is normal I suppose but worry about the effect on these arteries in the future with expansion in our town. Maybe now would be the time to create a ring road for traffic not needing to stop downtown.	4/14/2023 6:40 PM
4	Patterson Street at times ... parking of visitors at Orchard View can cause some congestion at times as cars need to go around the parked cars or wait until cars in other direction pass.	4/14/2023 3:37 PM
5	Ottawa street	4/14/2023 5:16 AM
6	I believe another bridge would greatly help with congestion.	4/13/2023 11:15 PM
7	Ottawa Street right through to Highway 29. Impossible for pedestrians to cross street during high traffic times.	4/13/2023 5:28 PM
8	AM = Milano's intersection to roundabout PM = Milano's intersection to top of Bay Hill (Hwy 29) I live on the Clayton side of Almonte and have personally or know of many friends and neighbours who have to travel to Ottawa on a daily basis. It is ridiculous how long it takes to get through town on your morning commute. There should be a way to bypass around town if you are not stopping for coffee or gas. This will only get worse with the addition of all the new subdivisions. One possibility to bypass Almonte may be to extend James Naismith Way.	4/13/2023 9:04 AM
9	In the AM: hot spot areas are from the intersection on Martin St S & Ottawa St up to the round-a-bout at the end of town. In the PM: hot spot areas can sometimes be from Menzie St & Ottawa St intersection right through town to the Christian St & Almonte St intersection. In the AM traffic is much worse. I live 15 minutes away from my job but it takes me 30 sometimes 40 minutes to get to work in the morning, because I have to drive through Almonte to get there.	4/13/2023 8:40 AM
10	Tim Hortons at Sadler & Ottawa	4/12/2023 8:55 PM
11	Ottawa Street / March Road	4/12/2023 8:19 PM
12	The congestion is relatively minor at present. But given the growth that's predicted over the next several years, congestion will get more severe. I'm thinking of March Road between the 417 and town, Ottawa Street for its full length, and Bridge Street. Very large developments are predicted for Paterson Street, Strathburn Rd/ Malcolm St, and Carss St.	4/12/2023 11:38 AM
13	Ottawa St is very busy and I often opt to walk the back streets for as long as possible to avoid it. I don't have a solution!	4/12/2023 9:31 AM
14	Our streets are getting busier all the time. It is getting quite difficult crossing or turning onto Ottawa / Almonte Street. Malcolm Street is starting to get quite busy. We are concerned with new development that would encourage more traffic on Malcolm Street.	4/12/2023 8:40 AM
15	Ottawa St leading to March Rd in morning commute and on weekends. Mill st on weekends but I welcome tourists so I avoid on weekends. Solution? Perhaps more roundabouts Europe has few traffic lights and they work just fine to move all the traffic within their towns.	4/12/2023 5:18 AM
16	Appleton Bay Park: Remove parking at the Appleton Bay Park so that vehicles only have space to drop off and launch boats and green space is maximized. Make both sides of River Road near the park as no parking zones. Designate the parking area at the soccer fields as	4/11/2023 9:27 AM

parking for the Appleton Bay Park. Appleton dam park: Investigate options for designated parking; consult with residents; and implement. Make both sides of River Road near the park as no parking zones. Ottawa Street: Create a road from Martin Street to Ramsay Concession 11A. Create a road from Old Almonte Road (near Riverfront Estates) to Appleton Side Road. Start planning for another bridge across the Mississippi River.

17	Ottawa street. A parallel road to the roundabout	4/11/2023 9:15 AM
18	The entry from Greystone Drive to March road is very difficult from 6-9AM and 3-6PM. An alternate route to 417 would help	4/11/2023 7:36 AM
19	Ottawa St!!	4/10/2023 9:16 PM
20	Ottawa Street	4/10/2023 9:07 PM
21	Mill St and Bridge, with a demand X-walk 40 feet away. Reroute pedestrians to the traffic light. Ottawa St. between Queen and Paterson. Widen or add turn lanes. Very limited room to do this.	4/10/2023 9:04 PM
22	Spring st is a highly travelled road and one where people travel at 60 and above kmh. There is a hospital, a park and soon to be an indigenous gathering spot where parking on the street will increase. We need to be designated a 'community safety zone' and reduce the speed limit to 40kph.	4/10/2023 6:18 PM
23	Another Bridge, Only 1 way through town	4/10/2023 4:02 PM
24	One of the problem spots i've noticed is at commuter times trying to travel up Ottawa Street out of town, particularly when approaching the lights at Paterson. I'm honestly not sure how to rectify this problem as Ottawa street is the only arterial road eastbound out of town. As the town grows planners need to account for more arterial roads particularly on the east side of the river.	4/10/2023 3:23 PM
25	Na	4/10/2023 2:31 PM
26	Crazy intersection at Martin St South and Queen. Cars turning left at lights from Ottawa going straight down on Martin St may not be aware there is no STOP sign at the corner of Queen and Martin St.	4/10/2023 2:23 PM
27	Paterson Road where the schools are. It is a nightmare when parents are dropping/pickup their kids and parking on the road.	4/10/2023 1:36 PM
28	Ottawa Street /March Road, Paterson Street	4/10/2023 12:49 PM
29	Spring/Ottawa St (traffic lights needed). Pedestrians downtown are at risk. Not sure what the solution is.	4/10/2023 12:48 PM
30	Ottawa St. at Martin St. but all of Ottawa St. from the traffic circle to Martin St . Main St. at Mill St. I don't know what would help.	4/10/2023 12:44 PM
31	Side streets trying to get onto Ottawa street	4/10/2023 12:27 PM
32	From Spring street going onto ottawa...any street turning onto Ottawa Street without traffic lights	4/10/2023 12:17 PM
33	Queen St in Almonte is congested in mornings/evenings/weekends. I have had to wait up to 10 minutes some days just to leave my driveway. I also find cars travel I gas fast around the corners giving us concerns for our children. The streets aren't wide enough and there needs to be more 'main' roads	4/10/2023 11:59 AM
34	Almonte near Independent. Hwy 29 at the corner of the Esso station	4/10/2023 11:42 AM
35	March Road/Ottawa st., Bridge St. Ottawa St needs to be widened Another bridge needed at south end of town	4/10/2023 11:23 AM
36	Ottawa street Town bypass route	4/10/2023 9:50 AM
37	Ottawa street ++	4/10/2023 9:26 AM
38	We don't have urban congestion issues. But we do have problems with aggressive driving in Almonte during commute times.	4/10/2023 9:23 AM
39	* Ottawa St and Martin St N(by Milanos) * Downtown, Bridge St and Mill St intersection. (The	4/10/2023 9:20 AM

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pedestrian walkway sometimes causes issues). * Bridge St in front of the Holy Name of Mary Church and the Legion. I don't have any helpful suggestions to fix these hot spots as I don't have a civil engineering background. Here are some maybe not helpful suggestions: * Smart lights at Bridge and Mill St will help traffic flow better since there is much less traffic coming from downtown or the beer store at busy times. * I can't think of a fiscally-conscious way to fix the pedestrian walkway areas. True north solution would be to have the road go under or over the OVRT. Obviously, this is highly cost prohibitive. * Add lanes on Ottawa St and Bridge St to better accommodate the volume of vehicles.

40	Too may subdivision housing is the obvious problem.	4/10/2023 9:19 AM
41	Spring St. entrance to Ottawa street. Needs traffic lights. Awkward corner at old Blackburn's Garage at Martin St. Needs re-design.	4/10/2023 9:00 AM
42	Ottawa st	4/10/2023 8:58 AM
43	traffic circle	4/10/2023 8:48 AM
44	Ottawa street	4/10/2023 8:46 AM
45	Ottawa Street, Tim Hortons/ Shoppers intersection as well as grocery store intersection.	4/10/2023 8:45 AM
46	main st	4/10/2023 6:06 AM
47	Having a pedestrian crosswalk 25ft from traffic lights on one of the two streets that allow you to travel from one end of town to the other, has caused traffic congestion issues. This is especially true during tourist season. The other pedestrian crosswalks in the downtown area have not been activated yet, so I am unable to comment about them.	4/3/2023 2:05 PM
48	Ottawa Street Sadler Street where the Tim Hortons parking lot meets	4/3/2023 9:37 AM
49	Bridges and main roads	4/2/2023 4:03 PM
50	Between Martin st. S and Main st. E. to Ottawa st. and Industrial dr. Mill st and Almonte st. intersection where the new(ish) pride crosswalk is can be messy for pedestrians and car activity. Definitely there are quiet hours of the day too. Mornings or evenings are nice to cycle, but with daytime commuters + tourists not knowing the layout of the area it can take 10-15 minutes to cross our small town.	4/1/2023 11:25 AM
51	Patterson Road anytime of the day. Ottawa Street anytime of the day. Bridge Street anytime of the day.	3/30/2023 9:40 AM
52	March Rd. between the Almonte Rotary and Hwy 417. Ottawa St. as it approaches Martin St. Neither are problems right now, but given Almonte's expected growth, they will become problems.	3/29/2023 2:57 PM
53	All of Ottawa St; especially at heavy commute times. Large vehicle transpo route makes Ottawa St unsafe for walking and especially cycling.	3/28/2023 6:49 PM
54	The main road (Ottawa Street and all of its other names)	3/28/2023 4:06 PM
55	Downtown, Ottawa street. MM needs a circle road for traffic going thru town.	3/28/2023 1:41 PM
56	TEST,ignore	3/28/2023 1:28 PM
57	TEST, ignore	3/28/2023 1:24 PM
58	During commuting hours as well as on weekends, the entrance to Almonte along Ottawa St is often congested.	3/28/2023 10:47 AM
59	Ottawa/Main/Almonte Streets are difficult during high commute periods. At most times, turning left out of Spring onto Ottawa is challenging (I avoid doing so, which is no hardship). I can't think of an economically reasonable solution as congestion is inevitable given the number of people living in the hinterland and working in Ottawa. The roundabout was a tremendous help, but there was sufficient space to build one at that site.	3/28/2023 10:20 AM
60	On Sadler Street at the Tim Hortons traffic is backed up from Tim Horton's entrance around the corner onto Ottawa St. east bound. To make a turn from the east bound lane north onto Sadler you can't even get as far as the traffic light.	3/28/2023 8:14 AM
61	New Housing has caused major congestion on the roadway infrastructure since the roadways	3/28/2023 8:14 AM

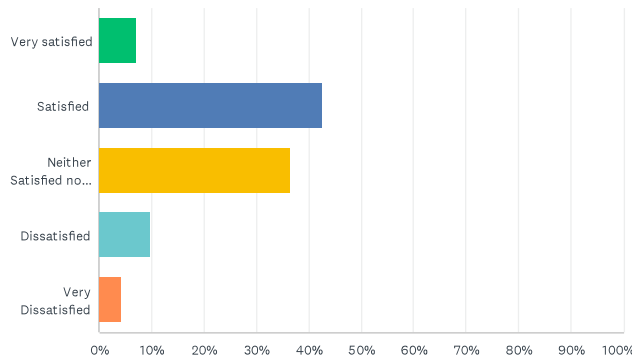
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have not been expanded to offset this increase. One major route in and out of town (Ottawa Street). IE. New housing off of Paterson Street yet the street stills allows on street parking (in front of Orchard View), two elementary schools et the road remains as a two way single lane street. Vehicle traffic should have accessibility to an alternate route and Spring Street as an alternate route leads to the hospital and a congested Ottawa Street to access the only grocery store in town, home hardware etc and then hwy 49 to drive to hwy 417.

62	March Road is really congested and the intersection of Ramsay Concession 12 and March Road needs to be upgraded.	3/27/2023 11:10 PM
63	Disallow transport trucks from passing through town, local transportation, more access for bikes,	3/27/2023 11:05 PM
64	Ottawa Street at Malcolm is getting very busy at times and can be difficult to cross. Cars do not consistently stop for pedestrians at the crosswalk	3/27/2023 9:13 PM
65	Heading in and out of town during 'rush hours' tend to be slow. Although it's not as bad now, with the intended expansion down Paterson St., it will only get more intense as developments continue to grow.	3/27/2023 9:07 PM
66	Hot spots include the main routes through almonte. A route around almonte is needed	3/27/2023 8:44 PM
67	It should be in any plan to have a bypass around Almonte.	3/27/2023 8:18 PM
68	Accidents with the roundabout into town with one lane into two and traffic gets congested during rush hour 3:30- 4:30 near St. Andrews and the Esso Gas Station on the weekdays.	3/27/2023 8:18 PM
69	Parking for Mill St area, Maude St should not have parking on both sides	3/27/2023 8:15 PM
70	Ottawa Street! Ring road or alternative routes	3/27/2023 7:37 PM
71	Ottawa street	3/27/2023 3:18 PM
72	Some congestion on Ottawa St in Almonte.	3/27/2023 3:21 AM

Q13 Overall, how do you feel about your travel experience within the Municipality?

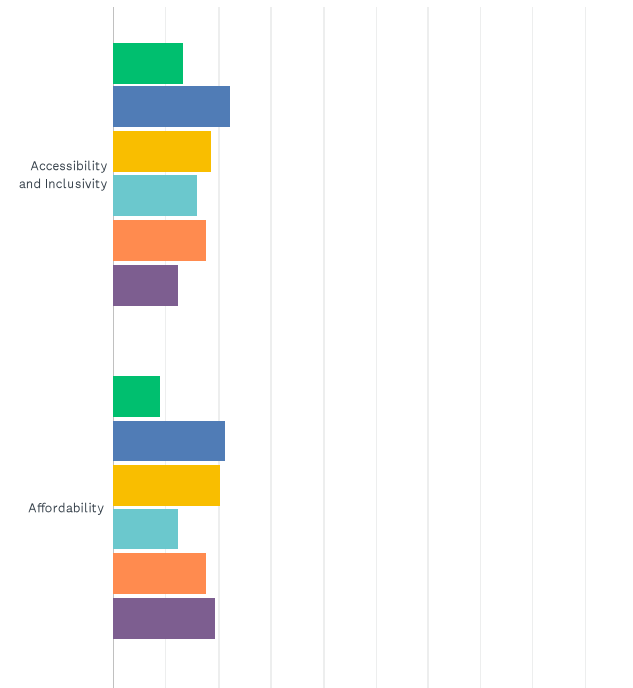
Answered: 143 Skipped: 16



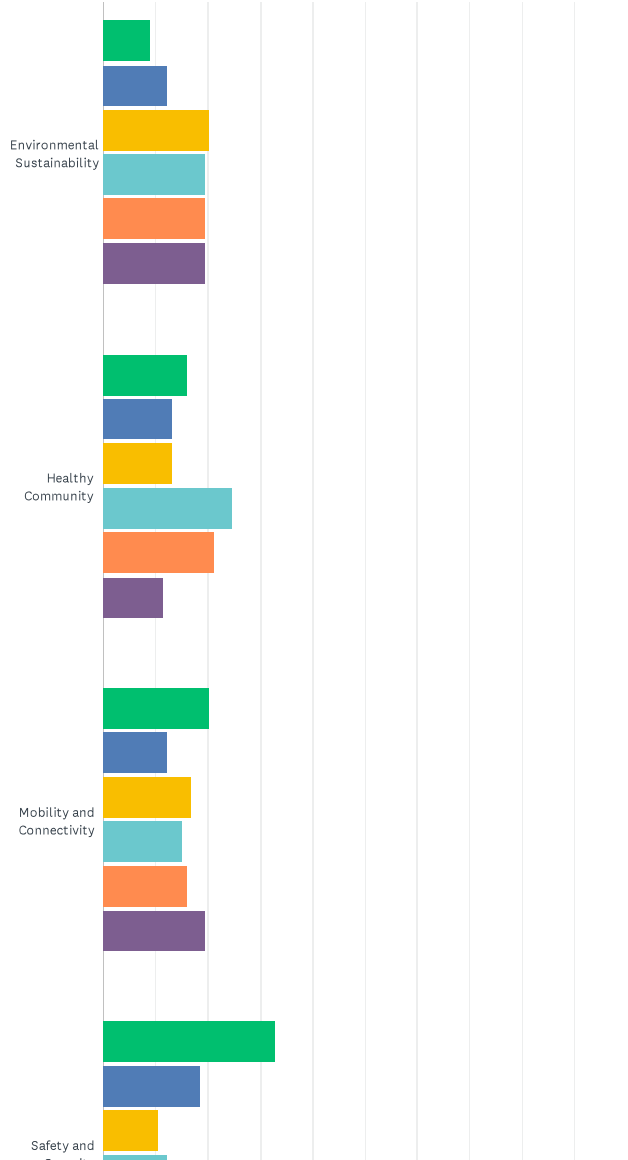
ANSWER CHOICES	RESPONSES	
Very satisfied	6.99%	10
Satisfied	42.66%	61
Neither Satisfied nor Dissatisfied	36.36%	52
Dissatisfied	9.79%	14
Very Dissatisfied	4.20%	6
TOTAL		143

Q14 Please rank the following transportation-related themes (listed alphabetically below) from most important to least important to you, where '1' is most important (do not duplicate rankings). Accessibility and Inclusivity: Prioritizes a transportation system equally beneficial to users of all abilities and means. Affordability: Prioritizes cost efficiency and benefits to the local economy. Environmental Sustainability: Prioritizes minimizing impacts to the natural environment. Healthy Community: Prioritizes a walking/cycling system and promotes healthy travel options. Mobility and Connectivity: Prioritizes reducing congestion and increasing network connections within the Municipality and to adjacent municipalities. Safety and Security: Prioritizes minimizing risk of harm to all users in the transportation network.

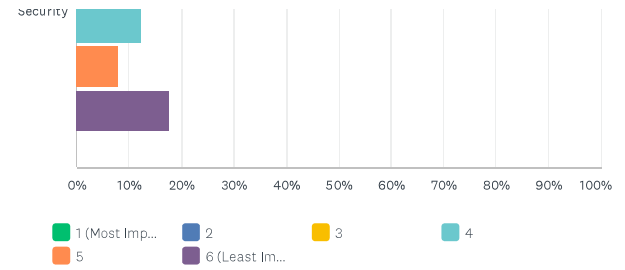
Answered: 113 Skipped: 46



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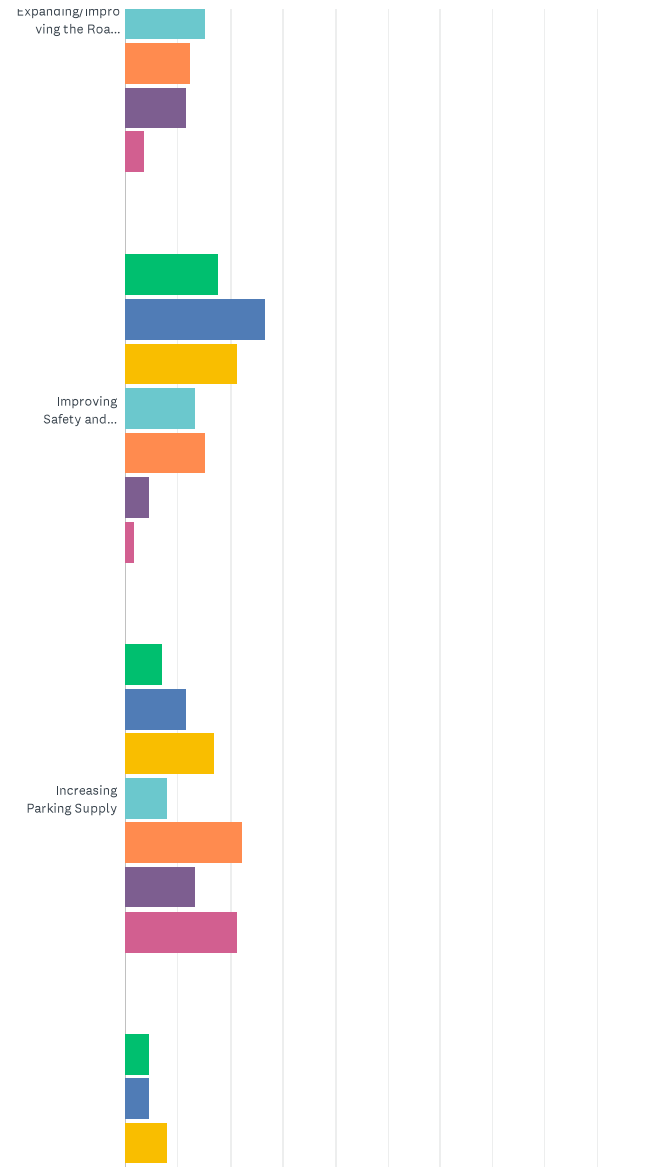
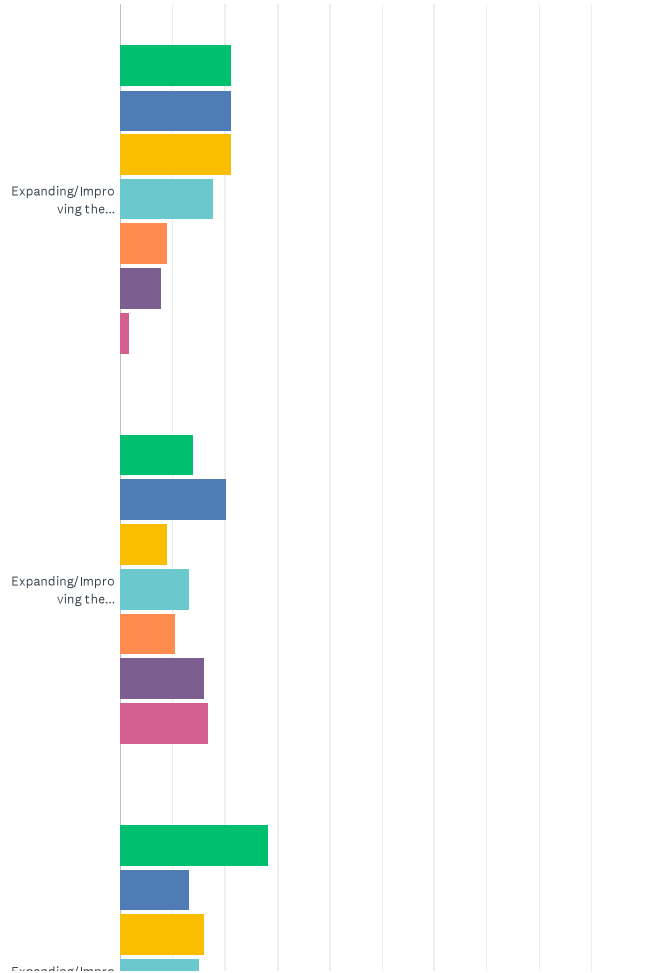
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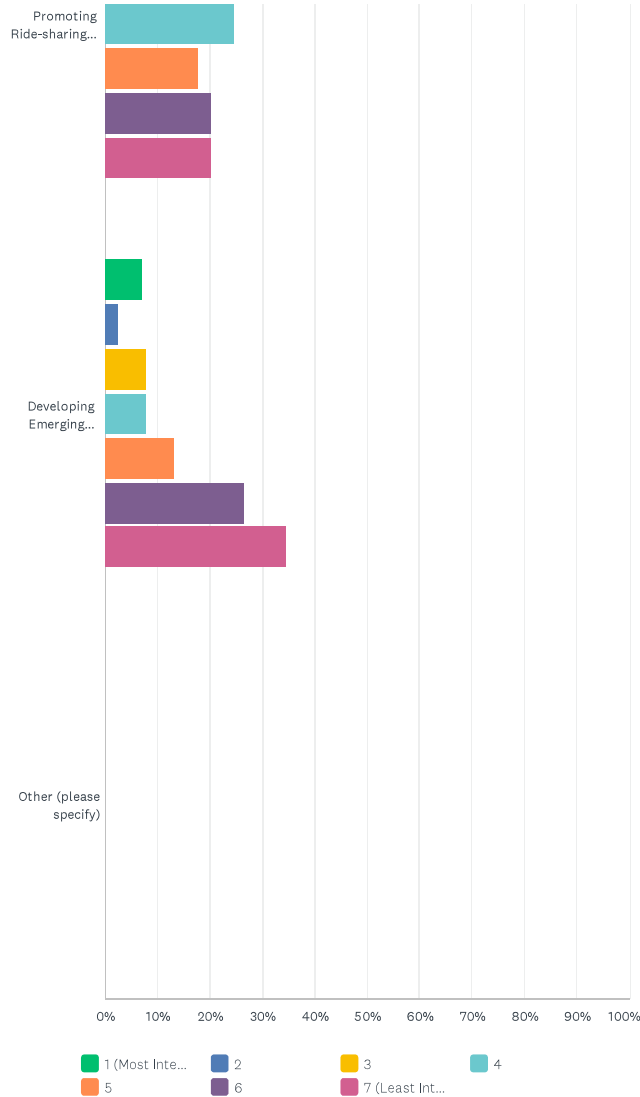
	1 (MOST IMPORTANT)	2	3	4	5	6 (LEAST IMPORTANT)	TOTAL
Accessibility and Inclusivity	13.27% 15	22.12% 25	18.58% 21	15.93% 18	17.70% 20	12.39% 14	113
Affordability	8.85% 10	21.24% 24	20.35% 23	12.39% 14	17.70% 20	19.47% 22	113
Environmental Sustainability	8.85% 10	12.39% 14	20.35% 23	19.47% 22	19.47% 22	19.47% 22	113
Healthy Community	15.93% 18	13.27% 15	13.27% 15	24.78% 28	21.24% 24	11.50% 13	113
Mobility and Connectivity	20.35% 23	12.39% 14	16.81% 19	15.04% 17	15.93% 18	19.47% 22	113
Safety and Security	32.74% 37	18.58% 21	10.62% 12	12.39% 14	7.96% 9	17.70% 20	113

Q15 Within the TMP, which transportation topics would be of most interest to you? Please rank the following, where '1' is of highest interest (do not duplicate rankings).

Answered: 113 Skipped: 46



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	1 (MOST INTEREST)	2	3	4	5	6	7 (LEAST INTEREST)	TOTAL
Expanding/Improving the Pedestrian Network	21.24% 24	21.24% 24	21.24% 24	17.70% 20	8.85% 10	7.96% 9	1.77% 2	113
Expanding/Improving the Cycling Network	14.16% 16	20.35% 23	8.85% 10	13.27% 15	10.62% 12	15.93% 18	16.81% 19	113
Expanding/Improving the Road Network	28.32% 32	13.27% 15	15.93% 18	15.04% 17	12.39% 14	11.50% 13	3.54% 4	113
Improving Safety and Accessibility (for all modes of travel)	17.70% 20	26.55% 30	21.24% 24	13.27% 15	15.04% 17	4.42% 5	1.77% 2	113
Increasing Parking Supply	7.08% 8	11.50% 13	16.81% 19	7.96% 9	22.12% 25	13.27% 15	21.24% 24	113
Promoting Ride-sharing/Car-pooling/Ride-hailing (e.g. Taxis, Uber, Lyft, etc.)	4.42% 5	4.42% 5	7.96% 9	24.78% 28	17.70% 20	20.35% 23	20.35% 23	113
Developing Emerging Technologies (e.g. Electric Vehicle Infrastructure, Autonomous Vehicles etc.)	7.08% 8	2.65% 3	7.96% 9	7.96% 9	13.27% 15	26.55% 30	34.51% 39	113
Other (please specify)	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0

#	IF THERE ARE OTHER TRANSPORTATION TOPICS NOT LISTED THAT INTEREST YOU, PLEASE SPECIFY:	DATE
1	Increased network of trails for side-by-side travel	4/13/2023 9:04 AM
2	I don't like how the survey forces me into prioritizing things. For example, environmental sustainability and expansion of the bike network are of equal priority to me.	4/12/2023 1:04 PM
3	Public transit options!	4/12/2023 9:35 AM
4	Electric bus services	4/11/2023 7:41 AM
5	Na	4/10/2023 1:38 PM
6	We need better connections to the city and throughout Lanark County. Even though that involves multiple levels of government.	4/10/2023 9:25 AM
7	N/A	4/2/2023 4:59 PM
8	YouTube Not Just Bikes	4/1/2023 11:28 AM
9	Making sure people who are cycling aren't taking over the back road riding double or triple on the roads also when promoting the rail trails how about charging the people biking or walking to use it not just the ones on 4 wheelers and sides by sides then have people in town yell and curse you out when going slow with your children with you because you are on the trails . The people in town of almonte are rude and selfish to the people who actually Pay for the passes to maintain these trails.	3/29/2023 5:37 AM
10	n/a	3/28/2023 1:45 PM
11	TEST,ignore	3/28/2023 1:28 PM
12	TEST, ignore	3/28/2023 1:25 PM
13	Speed restrictions on side streets. Side street speed limits should be reduced to 40 km/hr.	3/28/2023 10:51 AM
14	Properly paving Old Perth Road, especially in the Galbraith Settlement historic area.	3/28/2023 5:49 AM
15	Speeding and noisy cars/trucks racing through the town	3/27/2023 9:35 PM
16	Do not know	3/27/2023 9:18 PM

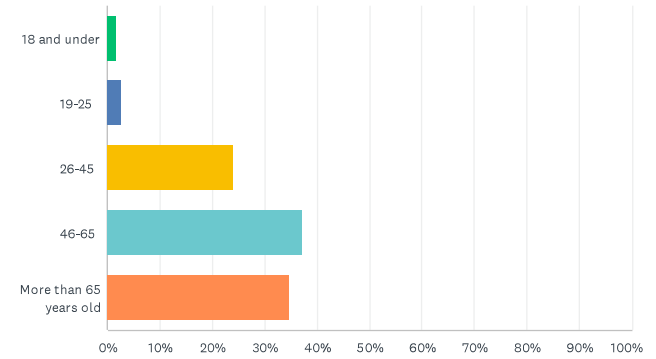
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17	Control speeding	3/27/2023 9:12 PM
18	Connectivity to Ottawa City, this will reduce use of personal vehicles and in turn minimize our Municipality's Carbon footprint.	3/27/2023 8:47 PM
19	remote parking and a bus/trolley service	3/27/2023 7:31 PM
20	Flying machines	3/17/2023 1:40 PM

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Q16 What is your age group?

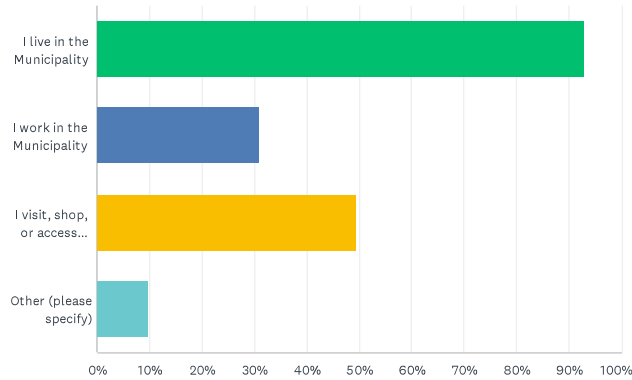
Answered: 113 Skipped: 46



ANSWER CHOICES	RESPONSES	
18 and under	1.77%	2
19-25	2.65%	3
26-45	23.89%	27
46-65	37.17%	42
More than 65 years old	34.51%	39
TOTAL		113

Q17 What is your connection to Mississippi Mills (choose all that apply)?

Answered: 113 Skipped: 46

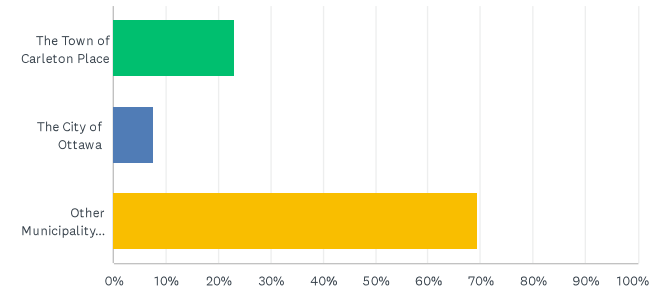


ANSWER CHOICES	RESPONSES
I live in the Municipality	92.92% 105
I work in the Municipality	30.97% 35
I visit, shop, or access services in the Municipality	49.56% 56
Other (please specify)	9.73% 11
Total Respondents: 113	

#	OTHER (PLEASE SPECIFY)	DATE
1	I walk, hike cycle, snowshoe and ski here.	4/17/2023 7:41 AM
2	I am semi-retired and work from home.	4/13/2023 7:30 PM
3	I'm an "engaged citizen " in the community.	4/12/2023 1:37 PM
4	own businesses	4/10/2023 12:52 PM
5	I volunteer in the community	4/10/2023 9:26 AM
6	Born and raised, come and go as I'm in post secondary education now.	4/1/2023 11:31 AM
7	Moving there in May	3/30/2023 12:03 PM
8	TEST,ignore	3/28/2023 1:28 PM
9	TEST, ignore	3/28/2023 1:25 PM
10	Work part time remotely	3/27/2023 10:37 PM
11	I live under the Municipality	3/17/2023 1:40 PM

Q18 If you do not live in the Municipality, where do you live? (If you live in the Municipality, leave blank)

Answered: 13 Skipped: 146

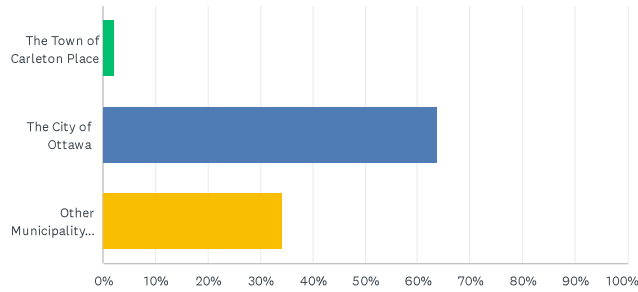


ANSWER CHOICES	RESPONSES
The Town of Carleton Place	23.08% 3
The City of Ottawa	7.69% 1
Other Municipality (please specify)	69.23% 9
TOTAL	13

#	OTHER MUNICIPALITY (PLEASE SPECIFY)	DATE
1	Almonte	4/10/2023 1:39 PM
2	Retired	4/10/2023 9:29 AM
3	Born and raised Mississippi Mills, in post secondary education in Niagara	4/1/2023 11:31 AM
4	beckwith	3/29/2023 3:32 PM
5	Perth	3/29/2023 8:46 AM
6	n/a	3/28/2023 1:45 PM
7	TEST,ignore	3/28/2023 1:28 PM
8	TEST, ignore	3/28/2023 1:25 PM
9	Almonte	3/27/2023 7:33 PM

Q19 If you do not work in Mississippi Mills, where do you work? (If you work in the Municipality, leave blank)

Answered: 47 Skipped: 112



15	Retired	3/27/2023 9:08 PM
16	Retired	3/27/2023 8:21 PM

ANSWER CHOICES	RESPONSES
The Town of Carleton Place	2.13% 1
The City of Ottawa	63.83% 30
Other Municipality (please specify)	34.04% 16
TOTAL	47

#	OTHER MUNICIPALITY (PLEASE SPECIFY)	DATE
1	Retired	4/14/2023 6:50 PM
2	Ottawa, Toronto and elsewhere	4/12/2023 1:37 PM
3	Retired	4/10/2023 8:15 PM
4	retired	4/10/2023 12:49 PM
5	Kanata	4/10/2023 11:11 AM
6	Retired	4/10/2023 9:31 AM
7	Retired	4/10/2023 9:29 AM
8	Rideau Lakes	4/1/2023 11:31 AM
9	Do NOT work	3/28/2023 6:54 PM
10	n/a	3/28/2023 1:45 PM
11	TEST,ignore	3/28/2023 1:28 PM
12	TEST, ignore	3/28/2023 1:25 PM
13	retired	3/28/2023 10:32 AM
14	Retired	3/27/2023 9:37 PM

Q20 Do you have any other final comments, questions or concerns? (If not, click Next)

Answered: 36 Skipped: 123

#	RESPONSES	DATE
1	I think you have flaws in your survey... I had to fill in an answer for the 1st few questions to be able to advance to the next page even though they were irrelevant to my situation. Also, it was my understanding a few years ago that MMs wanted to develop its cycling infrastructure and generate associated tourism \$\$ but it feels like little has been done. Many of the road are in very poor condition for riding... no paved shoulder or cracked and eroded shoulders, ridiculously numerous over or under filled potholes. The town has 2 short little bike lanes that go nowhere, I'd like to see some real thought and planning put into this and start to see some action being taken.	4/17/2023 7:46 AM
2	I have been cycling in Miss Mills for decades, both as a commuter to my job and recreationally. Nowadays, wherever I travel, I bring a bike, for exercise and just to get around. Sure beats traffic jams and paying for parking! I have seen some wonderful cycling infrastructure and would love to see that happen here in Miss Mills. Just as I travel to cycle elsewhere, people will travel to cycle here. Quiet country roads, trails and sweet towns and villages to pick up a bite to eat or more. If I could be of any help in supporting and promoting cycling in Miss Mills, pls let me know.	4/16/2023 7:45 AM
3	Active transportation needs to be a priority when planning. New areas are currently being developed and it is essential that it is more convenient for people to be able to walk or cycle safely rather than utilizing cars. The most effect way to do that is to set up the system so that it takes more time to drive than it does to walk or cycle.	4/14/2023 7:35 PM
4	One of the other observations I made at the PIC was that TMP map that showed cycling routes (so long as I understood it correctly) was showing the "proposed" network for 2035. The map(s) that I was looking at didn't appear to include even the bike routes that are currently in use. Based on this information it appeared as though in future there might be "fewer" links in the cycling network that we have now. Didn't make sense – hopefully I was simply misunderstanding what I was seeing. If not (or even if so), some clarification would be appreciated.	4/13/2023 7:37 PM
5	This may not apply to the context of the survey but I would like to express concern for the maintenance of Clayton Road during the winter months. It is a busy road but yet it never seems to get scrapped down to the pavement, which causes ice and snow to accumulate and get packed. I have actually had friends ask how the road is before they will attempt to drive out for a visit. Once you get to Tatlock Road or Hwy 29 on either ends, the roads are fine. I know the plows can't be everywhere at once but maybe if Clayton Road was sooner on the list, the snow wouldn't have as much time to get packed down. Also, there are multiple fields where snow drifts across. In addition, there has been multiple accidents at most of the concession crossings. Mine personally was at the corner of Conc 7B. A person coming from Cedar Hill way failed to come to a complete stop and crossed in front of me. They said they did not see me because of all the trees on the corner. I now try to look across the field to see if anyone is approaching but I still leary coming to this intersection. Is it possible to have this addressed and maybe clean up some of the trees on the corner to improve visibility for both ways.	4/13/2023 9:04 AM
6	An alternative route into Ottawa, that by passes Almonte would be ideal, extending onto James Naismith Way off of County Road 29. Clayton Road needs to be better maintained. It's never ploughed or were the last to get done. People don't even want to drive on Clayton Road in the winter because everyone knows its never looked after.	4/13/2023 8:49 AM
7	Just to reiterate that there are multiple priorities of equal weight.	4/12/2023 1:38 PM
8	I chose to live in Almonte specifically because it is a walkable and bikeable community and as the community grows I want to make sure that we don't become another sprawling suburb in which one really needs a car to get to any services. Also, given climate concerns, we need to	4/12/2023 9:40 AM

make sure people have options so they can reduce their dependence on vehicles, which also will promote equity and help keep cost of living manageable.

9	Do NOT build roads through existing parks like Augusta Street Park	4/11/2023 7:42 AM
10	There should be more enforcement of speed limits across the municipality.	4/10/2023 6:24 PM
11	NEW DEVELOPMENTS MUST not come at the inconvenience and safety of existing neighbourhoods. Through traffic must be avoided at any cost!	4/10/2023 9:32 AM
12	I'm glad you're asking! Please don't listen to the people who hate cyclists and pedestrians. Roads are for all users, not just vehicles.	4/10/2023 9:27 AM
13	Is it possible to eliminated some of the pass only parking spots at old town hall during the week. Quite often it is half full and it's an ideal to park for others	4/10/2023 9:22 AM
14	Transportation infrastructure needs to catch before massive more housing developments. Too much traffic on Patterson (schools) already.	4/10/2023 9:04 AM
15	Please do upgrades on the March Road corridor, it's dangerous with the vehicles entering from the Concession Roads.	4/4/2023 1:46 PM
16	So many houses, no infrastructure, no options for grocery store, no affordable family take-out restaurants, one high school.	3/30/2023 9:54 AM
17	A large amount of new housing is forecast for MM. Under current conditions, a two-lane March Rd is a recipe for potential disaster...but how do we expand capacity without falling into the vicious circle, where more road capacity becomes more cars?	3/29/2023 3:03 PM
18	Yes maybe put some money into the the back roads of the municipality and consider someone other than cyclists and walkers . Make money by charging anyone for the rail trails and people in town won't be so ignorant to the ones using the trails who PAY to use it. Expecially cyclists then people won't be treated like garage in front of there children by people walking this definitely isn't a friendly town anymore	3/29/2023 5:41 AM
19	There is a growing segment of retirees in this community. I found it difficult, as a member of this group, to answer some of the questions.	3/28/2023 6:55 PM
20	TEST,ignore	3/28/2023 1:28 PM
21	TEST, ignore	3/28/2023 1:25 PM
22	The questions imply to me at least that an inclusive transportation system includes public transit. I would like to see this either modified or made clearer.	3/28/2023 10:53 AM
23	High emphasis on walking and bicycling is good in urban areas, but problematic in semi-rural ones. Glad to see parking mentioned: I am 78 and have a heart condition and have been appalled to see the decrease in parking spaces on Mill Street after the recent construction. And as I remarked in an earlier space, I think that the questionnaire design may skew data. It seems that certain responses will be deemed to apply to the entire community, whereas they would only apply to, for instance, people who use bicycles.	3/28/2023 10:39 AM
24	Rural areas are often left out of serious road improvements. Please pave Old Perth Road. When walking, it easy to twist your ankle. When cycling, it is easy to blow our a tire. When driving, it is easy to wreck suspension, all because it is in such bad condition, especially in the Galbraith Settlement historic area.	3/28/2023 5:52 AM
25	Please put pressure on Lanark County to spend the funds sitting in reserves that is being collected from development charges and not being spent on the projects that have already been identified for Mississippi Mills.	3/27/2023 11:17 PM
26	Bicycle safety on our roads will promote bicycle use. Millions of Europeans can't be wrong!	3/27/2023 11:09 PM
27	Need the OPP patrolling the streets in the evening time to catch speeders and ticket noisy vehicles	3/27/2023 9:37 PM
28	We live on Bay Hill and the cars that speed up & down Almonte St. is very concerning when trying to cross the street (sidewalk is only on one side). With the additional crosswalk at the bottom of Mill St., it will be quite a concern for pedestrians since cars (& large trucks) are typically going over the speed limit - and don't have visibility coming across back bridge when they take the curve and then come up on the new crosswalk (not yet activated). Because this	3/27/2023 9:22 PM

Mississippi Mills Transportation Master Plan Community Transportation Survey

is basically the route for traffic to get through town, traffic tends to move a lot faster than 50 km/hr - based on my extensive experience walking. Thank you for the opportunity to provide input!!

29	All of the options suggested are important and should be addressed in an integrated way	3/27/2023 8:54 PM
30	I am looking forward to better transportation services in our Municipality and means to connect to Ottawa city in public transport mode.	3/27/2023 8:51 PM
31	Almonte Bypass is necessary and critical.	3/27/2023 8:22 PM
32	I'm grateful for this initiative. Thank you.	3/27/2023 7:50 PM
33	More public transit	3/27/2023 7:38 PM
34	What is the process used to determine which roads are topped vs left as gravel?	3/27/2023 7:09 PM
35	How can we make our community safe for 2SLGBTQIA+ individuals. A a gay man my husband and I do not feel safe holding hands walking in Mississippi Mills.	3/22/2023 11:28 AM
36	The mole people will rise again!	3/17/2023 1:41 PM

Appendix F Public Consultation Materials



Transportation Master Plan Background

What is a Transportation Master Plan?

A Transportation Master Plan (TMP) is a high-level strategic planning document guiding the planning, expansion, and management of multi-modal transportation system to its planning horizon. A Transportation Master Plan identifies the policies and projects that will support the vision and meet short- and long-term transportation needs.

The Municipal Class Environmental Assessment (MCEA) Process

The TMP is being conducted in accordance with the Master Planning process as outlined in the Municipal Engineers Association Municipal Class Environmental Assessment (EA) following "Approach #1" which is an approved process under the Environmental Assessment Act. The Master Planning process will complete Phase 1 and 2 of the Class EA process.

Why is the TMP Important?

The TMP will develop a practical and affordable plan to meet the transportation needs of the municipality's existing and future residents.

Why is the MCEA Process Important?

The Class EA process provides a transparent approach to planning municipal infrastructure utilizing consensus building through public and stakeholder consultation conducted throughout the study lifecycle.



TMP Study Context

Why are we updating the 2016 TMP?

<< Needs of the Community >>



Connecting new communities to the street and active transportation networks, and planning for active transportation infrastructure (multi-use pathways, sidewalks, trails) within new developments are paramount. These priorities must be balanced with maintaining adequate and safe vehicular mobility.

<< Evolving Travel Behaviour >>



How we travel is constantly evolving. Evolving travel choices need to be properly recognized in the TMP.

<< Anticipating Growth >>



The Municipality is expecting population growth to accelerate, beyond what was anticipated in the 2016 TMP. It is essential that transportation infrastructure and policies defined in the 2016 TMP are still appropriate and able to accommodate this growth.

2016 TMP Vision

"To provide an integrated, diverse transportation system for all residents and businesses that is safe, convenient, affordable and sustainable, and that facilitates the efficient movement of people and goods within the Municipality and to adjoining areas. The transportation system will support the goals and values of the Municipality which include maintaining the rural and small Municipality character, protecting the environment and cultural and natural heritage, and promoting sustainable economic growth."

2016 Active Transportation Vision

"The Municipality of Mississippi Mills will provide an integrated and diverse transportation system, where it is easy for people to choose active modes in favour of their private automobiles. The Municipality will foster the culture and the infrastructure to support AT and to support economic development by creating a regional recreation destination."

2016 Active Transportation Goals

1. Make it easy for people to use AT in favour of private automobiles.
2. Improve AT connections between different communities and between community facilities.
3. Develop AT friendly culture in MM.
4. Develop MM as a regional recreation destination.

2016 TMP Themes

- Integration
- Social Sustainability
- Environmental Sustainability
- Economic Sustainability
- Safety
- Efficiency
- Accountability



Existing Rural Transportation Network

Key Elements

The Rural Transportation Network is composed of Rural Municipal or Private Roads, Scenic or Heritage Roads, County Roads, and Provincial Roads.

Two prominent trail networks are the Trans Canada Trail and the Ottawa Valley Recreational Trail that traverse through the Municipality.



What are Scenic or Heritage Roads?

The Community Official Plan acknowledges a special class of roads that it calls Scenic or Heritage Roads. These roads have a valued role in the historical development of the Municipality; as such, the Municipality desires to preserve them in their historical state and context.



Existing Road Network Almonte and Villages



Bridges

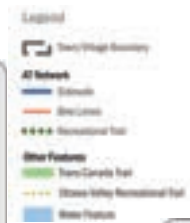
The Town of Almonte and each of the Village road networks contain bridges and will be important considerations when evaluating the future road network capacity.





Existing Active Transportation (AT) Network

Almonte and Villages



What is Active Transportation?

Active Transportation refers to any type of human-powered means of travel such as walking, cycling and rolling.



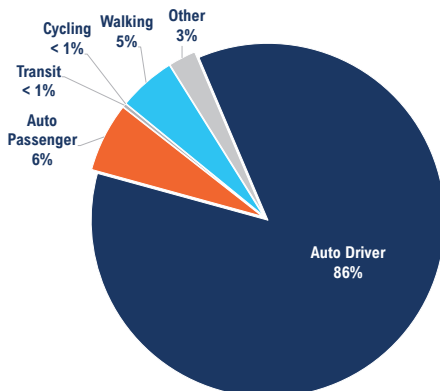
Existing Travel Trends

2021 Census Data: Mississippi Mills

Car-Dependent Municipality

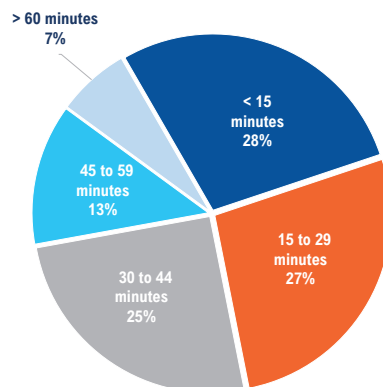
Commuting trends suggest residents of the municipality generally commute by passenger vehicle. Nearly half of commute durations are over 30-minutes, with roughly 65% destined outside the municipality.

Mode Share Amongst Commuters



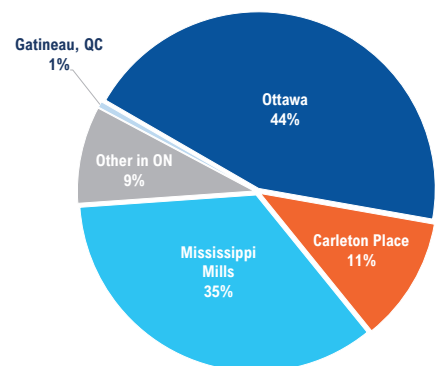
* Main mode of commuting for the employed labour force aged 15 years and over with a usual place of work or no fixed workplace address

Commuting Duration



* Commuting duration for the employed labour force aged 15 years and over with a usual place of work or no fixed workplace address

Commuting Destination



* Commuting flow from geography of residence to geography of usual place of work

Historic Trends

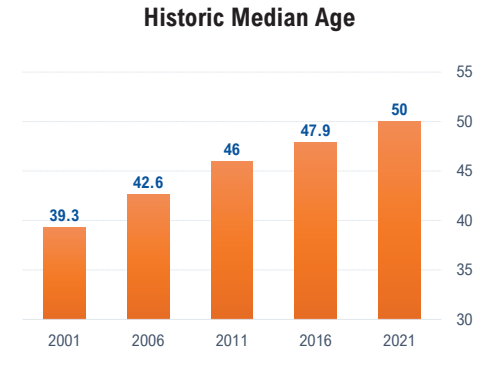
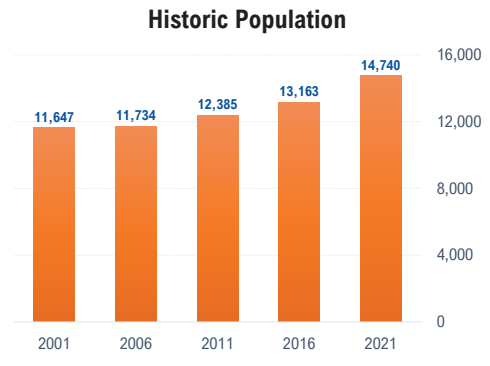
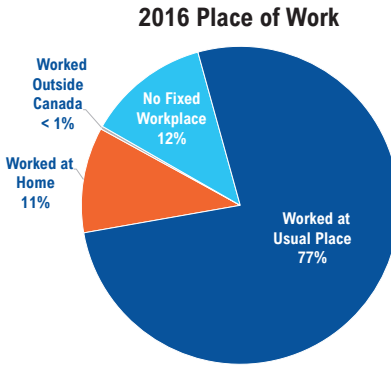
2021 Census Data: Mississippi Mills

More Working from Home

There was a growing trend of working from home between 2016 and 2021, which was influenced by COVID-19.¹

Growing Older

The municipality's population has been growing over the last decade and is also aging. These will be important considerations when planning transportation infrastructure and policies that are inclusive and equitable for all users.

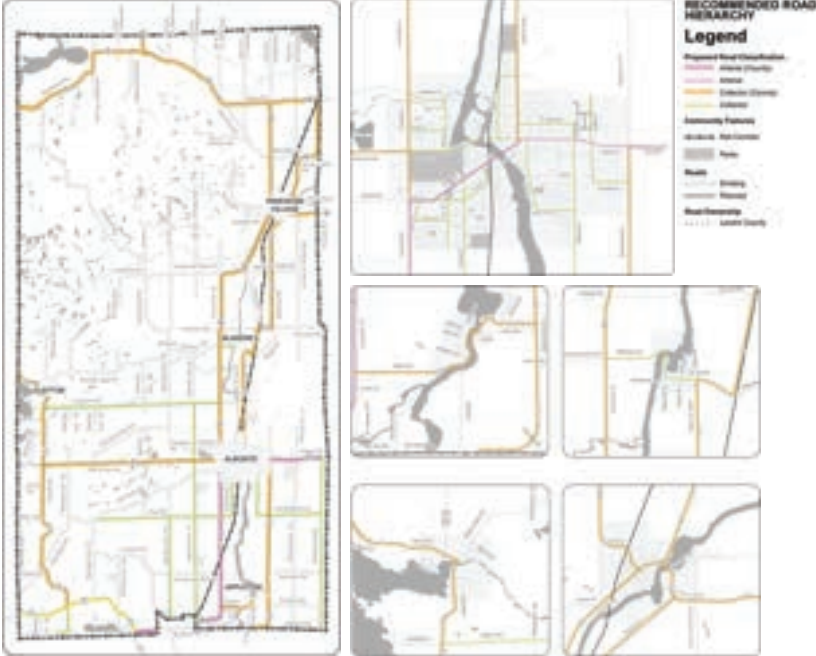


1 - The 2021 Census was carried out during the third wave of the COVID-19 pandemic (May 2021), which factored into these results. However, work from home proportions were declining through 2021.

* Place of work status for the employed labour force aged 15 years and over in private households.

Reviewing Aspects of the 2016 TMP

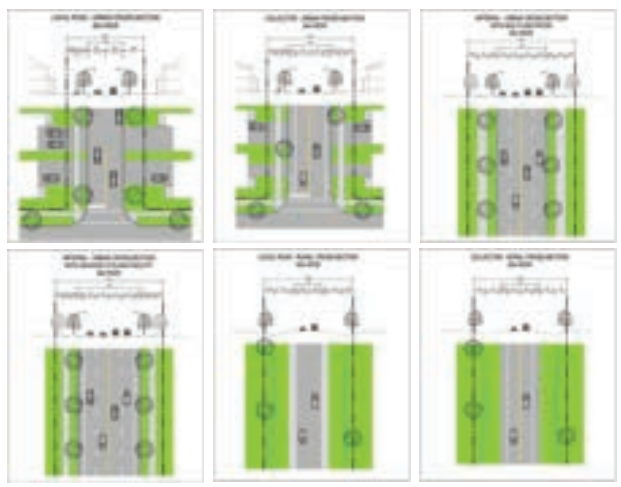
2016 TMP Road Classification System



What is a Road Classification System?

A road classification system is a hierarchical structure or grouping of roadway types based on geometry, function and the type of service they provide to the public.

2016 TMP Cross Sections

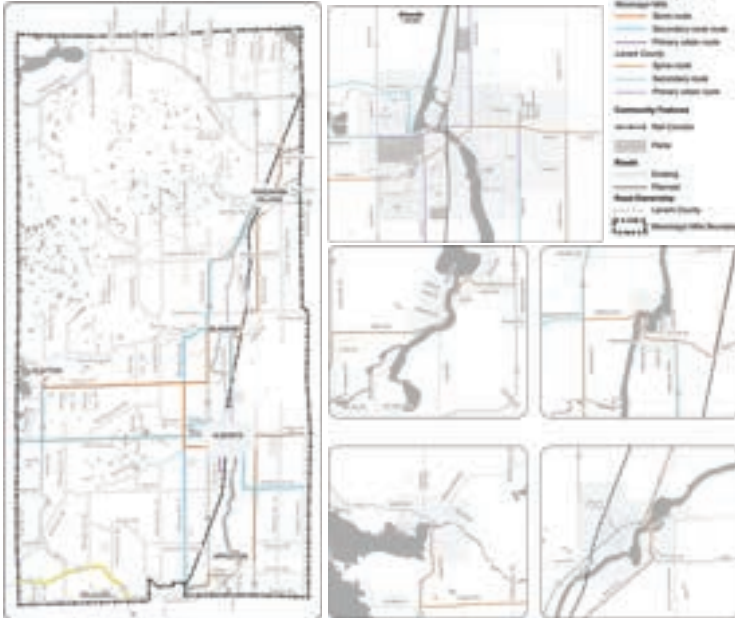




Reviewing Aspects of the 2016 TMP

Active Transportation

Cycling Priority Network

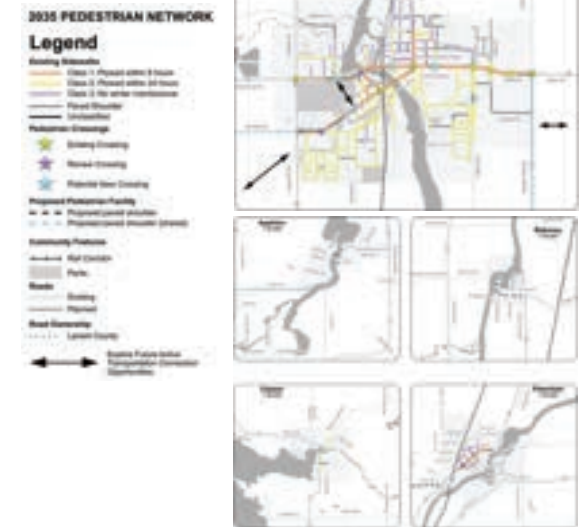


MMTMP – PIC #1 – April 13, 2023

Active Transportation (AT) Priority

The 2016 TMP established a cycling priority network system and pedestrian infrastructure in an effort to better connect Almonte and the Villages, and to increase AT adoption.

Pedestrian Linkages and Crossings



9



Needs and Opportunities

What Have We Heard So Far?



- ❑ **Vehicle congestion** concerns associated with expected population growth.
- ❑ **New road corridors** needed to service future growth areas.
- ❑ Ottawa St **pedestrian and cycling** safety concerns.
- ❑ Ottawa St **roundabout** safety concerns.
- ❑ Reported **speeding** in neighbourhoods.
- ❑ Need for **traffic calming** on some neighbourhood streets.
- ❑ **Active transportation facilities** don't fit the context.
- ❑ 35% of commuters working within MM is an opportunity to **encourage other travel options**.
- ❑ An aging population may increase the need for **alternative and more affordable travel options**.
- ❑ Evolving **work from home trends** post-COVID.

Ongoing Outreach

The TMP team has engaged with the Municipality and stakeholders in the form of:

- ❖ A kick-off meeting was held with municipal staff on February 13, 2023.
- ❖ A Community Transportation Survey was released on March 16, 2023, and will remain open until April 14, 2023.
- ❖ A stakeholder Working Group meeting was held with key agencies and organizations on April 11, 2023.



MMTMP – PIC #1 – April 13, 2023

10



Opportunities for Healthy and Age Friendly Transportation

Road Widening, Expansions, and Rebalancing



We will explore opportunities to strengthen the road network through **road widening and expansions**, as well as improve the efficiency of the road network through **road rebalancing and local intersection modifications** to maintain adequate vehicular mobility that support residents, visitors and businesses.

Transit – Ride Sharing – Park N Ride



There may be opportunities to leverage technology and new approaches to make transit and ride-sharing more **convenient, efficient and affordable**, particularly for regular commuters.

Pedestrian and Cycling Treatments



Promoting active transportation will continue to be a priority in this TMP to offer people sustainable travel choices that will foster healthier communities. We will build upon the previous efforts to apply **age friendly and accessible design standards** and develop **safe and efficient connections** between key destinations.



Traffic Calming

Contemporary road network planning and design often consider traffic calming measures with the goal of improving quality of life and safety for all road users. Examples include:

“Minor Treatments”

Narrowing the travel lane without affecting road geometry is a lower-cost approach to reduce vehicle speeds. Flex-posts (as shown) are temporary/seasonal measures.



“Horizontal Deflection”

Physically narrowing the road provide permanent friction. Curb extensions (as shown) may also provide on-street parking demarcation.



“Vertical Deflection”

Introducing an elevated road treatment is a very effective way to reduce speeds (such as the speed hump shown). They must be used with caution and in the appropriate context.



Share Your Thoughts!

Help us Shape the Future Transportation Network!



Use a Sticky and tell us what you think about the TMP, and the information presented today.
Was anything missed?
Be as general or specific as you like!



THANK YOU FOR PARTICIPATING!

What is next for the TMP?

The study team will:

- ➔ Review and incorporate feedback received.
- ➔ Finalize the TMP Vision and Needs/Opportunities.
- ➔ Assess the Municipality's transportation network and develop technically preferred solutions to mitigate identified issues.



Before You Leave!

- ➔ Please fill out the **Community Transportation Survey** (ask for a paper copy or you may access the online survey via the TMP website); it provides another opportunity for you to share your thoughts with us.
- ➔ If you wish to be included on the **mailing list** to receive updates on the TMP, please provide your contact information to a study team member or email the Project Managers directly.

Stay Connected!



Visit the TMP Webpage for updates and additional information about the study.

<https://www.mississippimills.ca/en/how-we-go.aspx>

The next Public Information Centre for the study is planned in the Fall/Winter 2023.

TMP Project Managers

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Welcome!

The **Transportation Master Plan (TMP)** is the Municipality's blueprint for planning, developing and operating its transportation system over the next 25 years. The TMP will identify policies and infrastructure investments to meet the needs of all modes of transportation including walking, cycling, transit, trucks and general traffic.

We appreciate your participation in the second and final Public Information Centre for the Mississippi Mills TMP!

Please help shape the future of transportation in Mississippi Mills by:

- Asking us a question, or
- Submitting a comment

Event Objectives

- Share alternative transportation infrastructure solutions
- Share alternative transportation supporting strategies
- Get YOUR feedback to these ideas!

Transportation Master Plan Vision

"The Municipality of Mississippi Mills will have a transportation system that is inclusive, accessible, and safe for all users.

The transportation system will be environmentally sustainable and support the local economy by continuing the efficient movement of people and goods within the municipality and to adjoining regions.

These qualities reflect the rural and small-municipal character with its rich cultural history while promoting a healthy and vibrant community"

For more information on the study and to provide feedback, please visit our website:

<https://www.mississippimills.ca/en/how-we-go.aspx>



Contact the Project Managers:

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Austin Shih, MASC, P.Eng.
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Email: austin.shih@parsons.com

Progress to Date

History

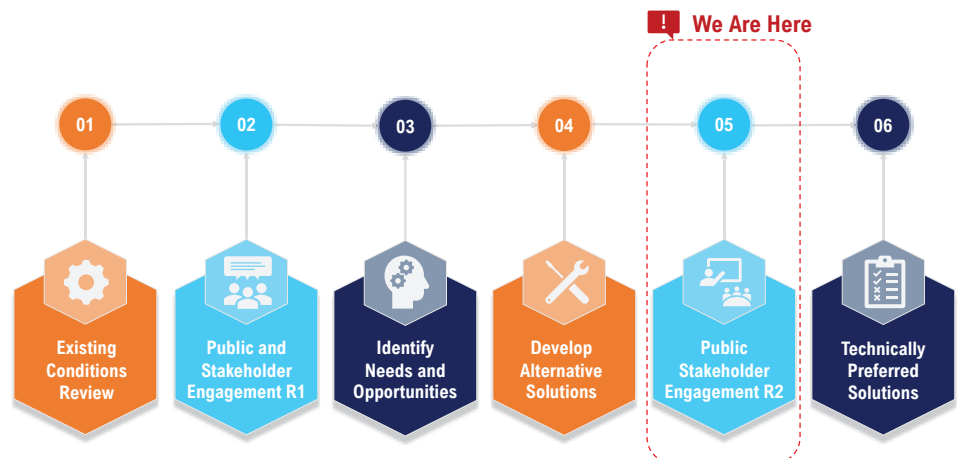
Mississippi Mills initiated the TMP in February 2023. The initial consultation process began with an Online Community Survey open to the public from March 16, 2023, to April 17, 2023. The first Public Information Centre was held April 13, 2023. Working Group Meetings with key agency and business stakeholders were held April 11, 2023, and December 13, 2023

In undertaking the consultation process with stakeholders, specific engagement was made with Indigenous communities and inherent rights and treaty holders to ensure an inclusive and holistic engagement process that promotes indigenous sovereignty and well-being.

Municipal Class EA Process

The TMP is being conducted in accordance with the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process (following "Approach #1") under the Environmental Assessment Act.

The Class Environmental Assessment process provides a transparent approach to planning and building municipal infrastructure which includes public and stakeholder participation throughout.





Background

Long-Term Growth Projections

Long-term growth projections for Residential Units (RU) and Employment Lands (EL) were developed for the municipality as part of the Water and Wastewater Master Servicing Plan. These assumptions are critical elements that informed key outcomes and decisions in the TMP.

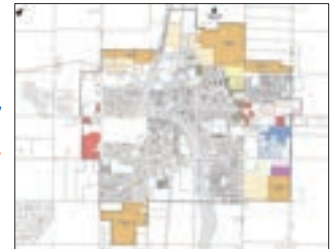
- Three future growth projections developed: **5-year, 15-year and 25-year**
- Roughly **4,000 new RU** and **65.4 ha of EL** projected in Almonte alone over the next 25-years
- Roughly **1,700 new RU** in the rural municipality (including Villages) – distributed roughly evenly
- **70%** of total population growth expected in Almonte and **30%** in the rural municipality
- **100%** of employment growth in Almonte

Almonte Growth Areas

5-Year
+ 1,005 RU / + 15.7 ha of EL



15-Year
+ 1,465 RU / + 18.1 ha of EL



25-Year
+ 1,521 RU / + 31.6 ha of EL



! Assumptions were made on possible 25-Year growth areas to inform the TMP.



Villages and Rural Road Network

Needs and Opportunities

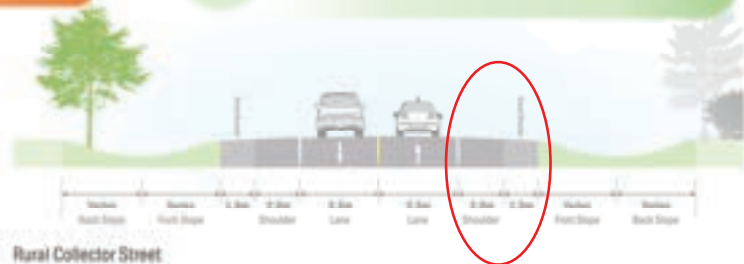
- !** 1. Consideration for All Vehicles (including farm vehicles)
- 2. General Safety



No Major Infrastructure Solutions Needed
Supporting Rural Road Policy Solutions Considered

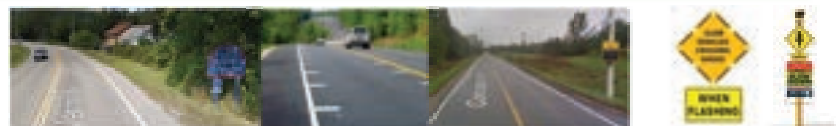
Potential Supporting Rural Road Policy Solutions

- !** Review Rural Road Classifications
- Update Standard Rural Cross-Sections
- Update Rural Design Criteria
- Provide Rural Speed Management and Traffic Calming Guidance
- Ensure Maintenance Practices reflect latest Provincial Policies



! Wider shoulder provisions on rural roads proposed in the 2023 TMP align with national road design standards, and better accommodate rural vehicles (e.g., farm vehicles).

! Contemporary approaches to rural traffic calming will be highlighted in the 2023 TMP.





Almonte Road Network

Needs and Opportunities

- 01 Ottawa St: Insufficient Long-Term Corridor Capacity
- 02 March Rd: Insufficient Long-Term Corridor Capacity
- 03 Various Intersections: Insufficient Long-Term Capacity
- 04 General Safety at Major Intersections



Infrastructure and Supporting Road Policy Solutions Considered



Almonte Road Network

Ottawa St and March Rd Corridors: Alternative Solution Approaches

- 01 Do Nothing
- 02 Invest in Sustainable Modes Alone
- 03 Sustainable Modes + Local Intersection Optimizations
- 04 Sust Modes + Local Optimizations + Expand Road Network Capacity



Applying a **balanced approach** to mitigating the anticipated corridor constraints was shown to be most effective in managing long-term growth.



Almonte Road Network

How do we expand the road network?

- 01 Road Widening Alone (2-Lanes to 4-Lanes)
- 02 New East-West Corridor(s) Alone
- 03 New East-West Street(s) + New Vehicle Bridge(s) over Mississippi



! Various alternative infrastructure solutions were investigated, including combinations of the options presented.

Note: The location and alignment of new corridors and bridges shown above are hypothetical and are subject to further study.



Property Implications to Road Widening

- 01 Road Widening Alone (2-Lanes to 4-Lanes)

! Over 50 property parcels on Ottawa St impacted if widening was implemented. A significant social impact.



! Potential property implications on March Rd if widening was implemented. Lower social impact.





Property Implications with New Road Corridors

02

New East-West Corridor(s) Alone

03

New East-West Street(s) + New Vehicle Bridge(s) over Mississippi



Note: The location and alignment of new corridors and bridges shown above are hypothetical and are subject to further study.



Significant Wetland Implications with New Road Corridors

02

New East-West Corridor(s) Alone

03

New East-West Street(s) + New Vehicle Bridge(s) over Mississippi



1:100 New Floodplain	Streams
MVCA Non-Evaluated Wetland	Provincially Significant Wetlands
MVCA Regulation Limit	MVCA Conservation Areas
Results_2023	Municipality
Lot & Concession	MVCA Watershed Boundary

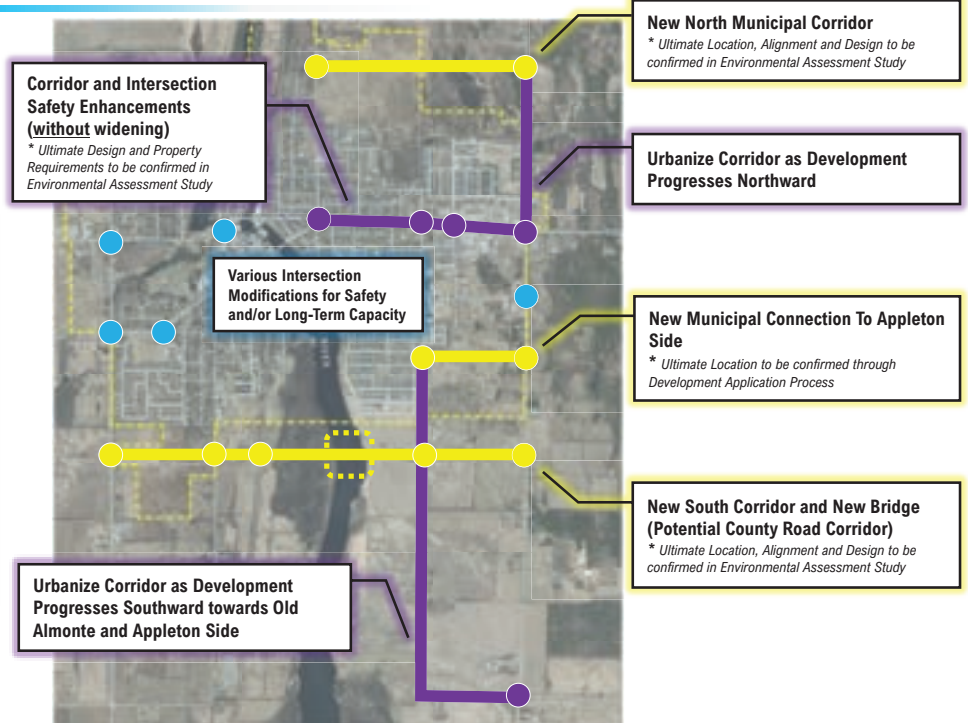


Potential Ottawa St Capacity Solution

Vehicle Traffic Needs Alone



- North Bridge and new road connection in NW quadrant not needed
- New Corridors and South Bridge avoid widening of Ottawa St
- New South Corridor offers alternative truck route opportunity
- Enhancing Old Almonte Rd to Appleton Side Rd supports future development; opportunity for multi-modal integration
- Local intersection optimizations on Ottawa St needed, but must identify property implications
- Further design studies required



Note: The location and alignment of new corridors and bridges shown are **hypothetical** and are subject to further study.

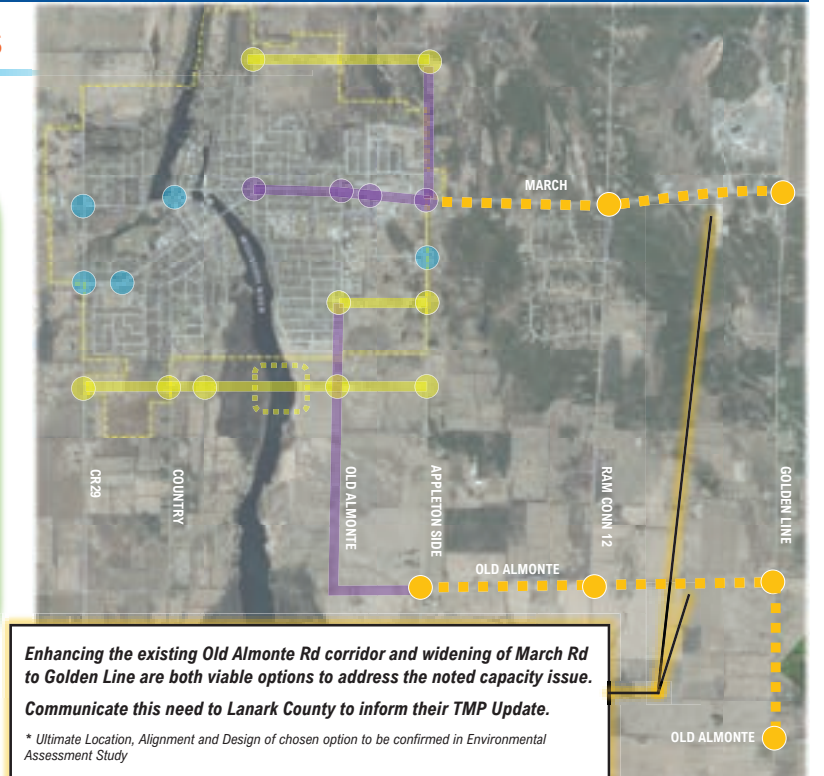


Potential March Rd Capacity Solutions

Vehicle Traffic Needs Alone



- Old Almonte Rd provides an alternative connection to the City of Ottawa
- Old Almonte Rd is an opportunity to leverage an existing road corridor as a secondary vehicle connection, providing relief to the March Rd corridor
- Alternatively, March Rd could be widened to 4-lanes to address the corridor constraint, however this requires County approval and funding
- Both options are expected to trigger limited property acquisition, but have low social and environmental implications
- Further design study and coordination with Lanark County required; revisit this specific need in next TMP update



Note: The location and alignment of new corridors and bridges shown are **hypothetical** and are subject to further study.



Potential Short-Term Enhancements



BEFORE
AFTER



Note: The draft plan is **Conceptual**; to be validated during the functional and detailed design.

MM Transportation Master Plan – Public Information Centre #2 – January 18, 2024



Active Transportation (AT) Network

What we heard from public engagement to date

- **Courtesy Crossings** should be upgraded to PXOs where applicable (incl. County roads)
- People feel unsafe crossing **Ottawa St**
- **Extend/expand sidewalks** in Pakenham and Appleton, various locations in Almonte
- Better **sidewalk maintenance** (winter, landscaping etc.)
- **Almonte St stressful to walk to downtown** with children
- More **streetlights** needed on streets
- Provide **paved OVRT** within Almonte limits; motorized vehicles feel unsafe to peds/cyclists
- Lack of visibility for **PXO** on Ottawa St at Mill St
- Not enough time to cross at **Tim Hortons pedestrian signal**
- Add or augment **crosswalks along Ottawa St**
- Provide **ped infrastructure around stores and parks**
- Plan for sidewalks and ped walkways for **new developments**
- **Poor road surface** for bikes on various segments
- **Vehicles turning** where **bike lanes** end is unsafe
- **Extend Ottawa St bike lanes** to CR29
- **Paterson St** too narrow with cars parked
- Not enough **paved shoulders** on rural roads
- **Bridges** should have painted bike lanes
- **Painted bike lanes feel unsafe**, need separated facilities
- **Need slower traffic** on Country St due to bike volumes





Villages and Rural Active Transportation Network

Needs and Opportunities

01 Pedestrian and cycling considerations on rural roads

02 Rural road maintenance of popular cycling routes

03 Connecting Villages and Trails

No Major Infrastructure Solutions Needed
Supporting AT Policy Solutions Considered



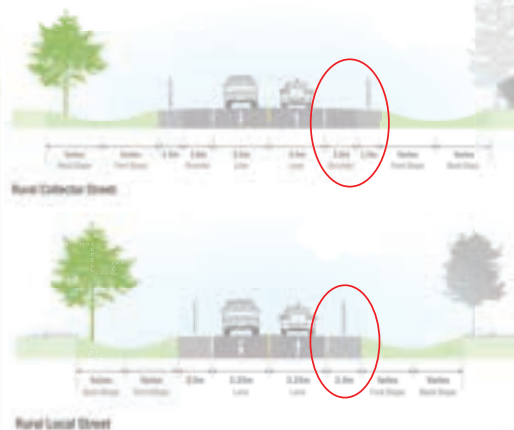
Villages and Rural Active Transportation Network

Potential AT Network Solutions

- Adopt updated standard cross-sections for new/retrofit roadways
- Adopt Rural cycling priority system to guide supporting measures and maintenance

Within Villages, look for opportunities to:

- Fill sidewalk gaps, extend facilities where applicable
- Upgrade existing pedestrian facilities to contemporary standards
- Continue to adopt latest provincial maintenance standards



Wider shoulder provisions proposed in the 2023 TMP provide greater comfort and safety for pedestrians and cyclists in rural contexts.






Almonte Active Transportation Network

Needs and Opportunities

- 01 Inclusivity: an AT Network for all ages and abilities
- 02 Safety and comfort of AT users on high volume streets, intersections and roundabout
- 03 Lack of permeability, linking key destinations and amenities
- 04 Need for contemporary design standards (e.g., Accessibility)
- 05 Maintenance and Landscaping

! *Active Transportation plays a vital role in promoting and sustaining a healthy community, a vibrant and thriving economy, an engaged and active population, while safeguarding the environment for future generations. This encompasses the Community Values established in the 2023 Strategic Plan.*





 **Infrastructure and Supporting AT Policy Solutions Considered**



Almonte Active Transportation Network

The Complete Streets Approach

 The **Complete Streets Approach** is a philosophy for designing, operating and maintaining streets with the needs and safety of all road users in mind.



! *All urban streets should provide a sidewalk on at least one side; both sides if the context warrants it. Target optimal sidewalk width rather than the minimum width.*

Different Urban Cycling Facilities Considered

Shared: Fit for low traffic volume and low speed environments.



Dedicated: Flexible option used in retrofit situations.



Separated: Fit for high volume streets; typically, new road construction or renewal situations. Highest quality environment for cyclists.



! *Which type of facility do you prefer to see in Almonte?*



Almonte Active Transportation Network

Almonte Cycling Priority System

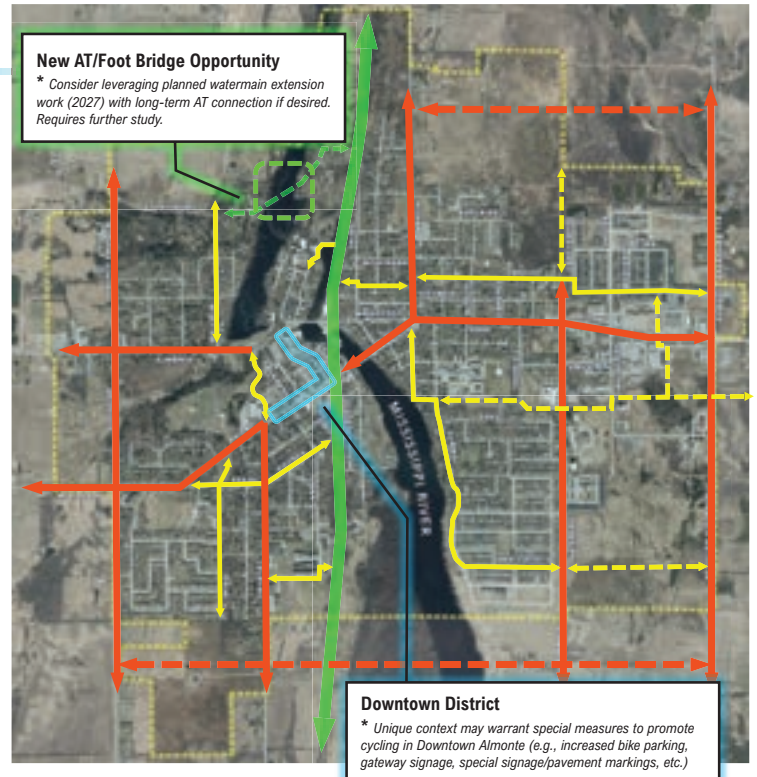


The **Cycling Priority System** is meant to guide investment and maintenance priorities of the cycling network.

Local Routes (Yellow): Shared facilities on low volume, low speed local streets supported by pavement markings, signage and potentially traffic calming measures; intended for more vulnerable or less experienced cyclists.



Commuter Routes (Orange): Separated or dedicated facilities to maximize comfort and safety on higher class (with higher speeds and volumes) roads. Intended for experienced/commuter cyclists.



Almonte Active Transportation Network

Pedestrian and Cycling Networks



Look for opportunities to:

- Fill in sidewalk gaps
- Upgrade existing pedestrian and cycling facilities to contemporary standards (e.g., target 1.8m sidewalk width)
- Incorporate AT permeability in new subdivisions within development application process
- Adopt updated standard urban cross-sections and Almonte cycling priority system
- Continue to update maintenance practices to Provincial standards
- Prepare functional study at critical locations where AT safety require major works and potential property (e.g., Ottawa/Martin)

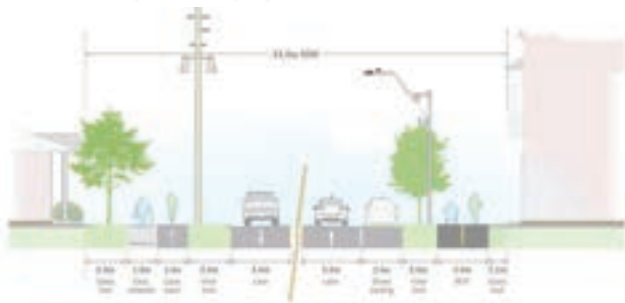




Draft Complete Streets Standard Urban Cross-Sections

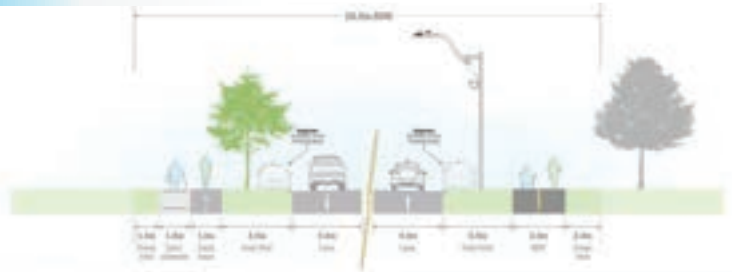


Local Street: 20.0m (66.0ft) Right-of-Way (Urban)
Sidewalk on one side (both sides as required)



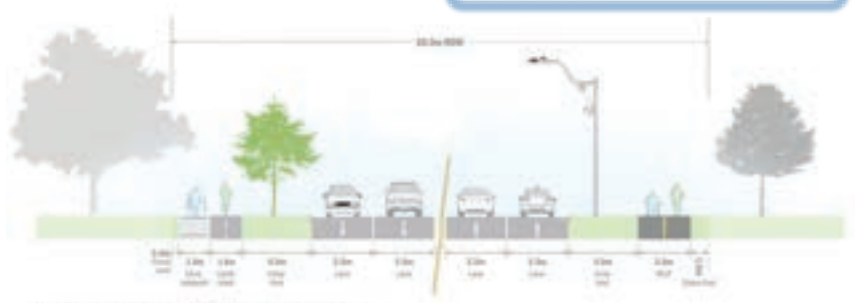
Collector Street: 24.0m Right-of-Way (Urban)
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway

MM Transportation Master Plan – Public Information Centre #2 – January 18, 2024



Arterial Street: 26.0m Right-of-Way (Urban): 2-Lane Undivided
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway

! Do you prefer MUPs or Cycle Tracks? Both or Neither?



Arterial Street: 30.0m Right-of-Way (Urban): 4-Lane Undivided
Option 1: Sidewalk with Cycle Track
Option 2: Multi-Use Pathway



Potential Corridor Specific Enhancement Alternatives

Ottawa St: Appleton Side Rd to Paterson St



Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

! Share your thoughts on these potential enhancements!



Existing Condition
Appleton Side Rd to Industrial Dr



Existing Condition
Industrial Rd to Paterson St



Potential Enhancement: Multi-Use Pathway (Both Sides) - Minor Intervention

Potential Enhancement: Multi-Use Pathway (Both Sides) - Major Intervention

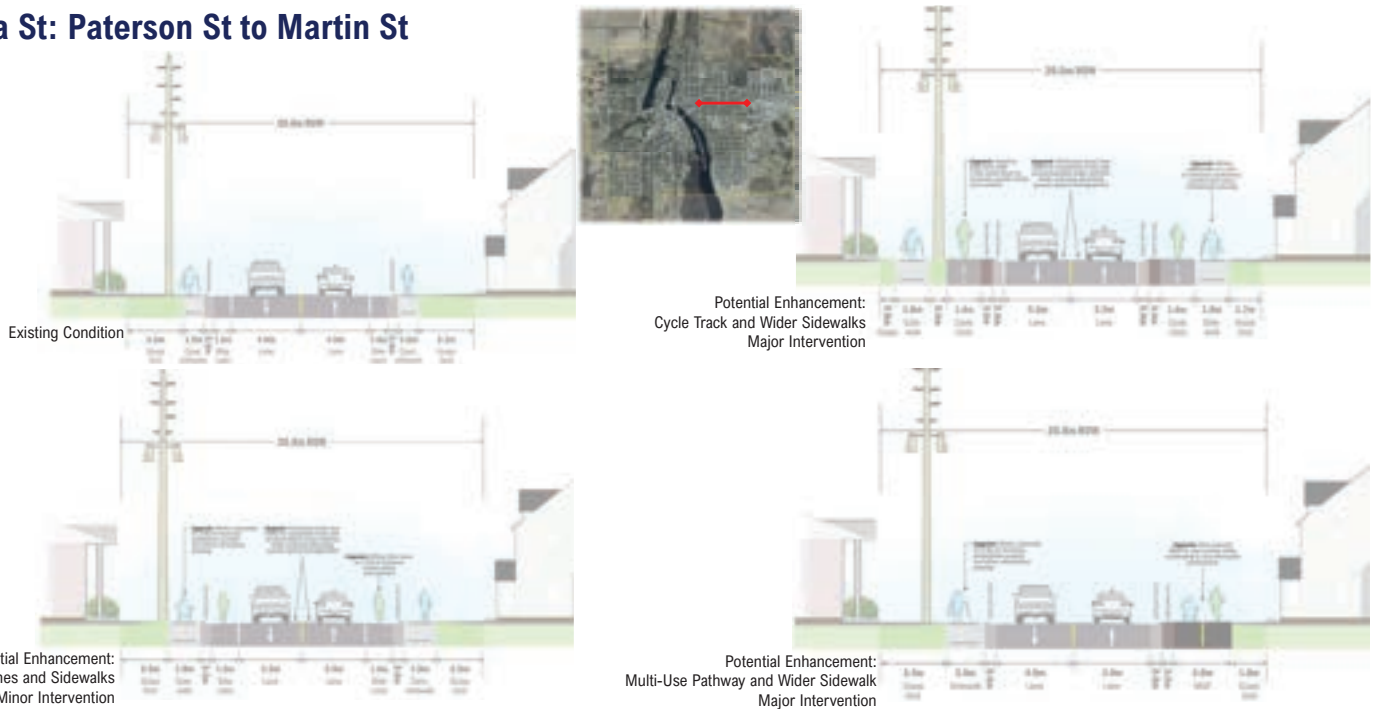
MM Transportation Master Plan – Public Information Centre #2 – January 18, 2024



Potential Corridor Specific Enhancement Alternatives

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

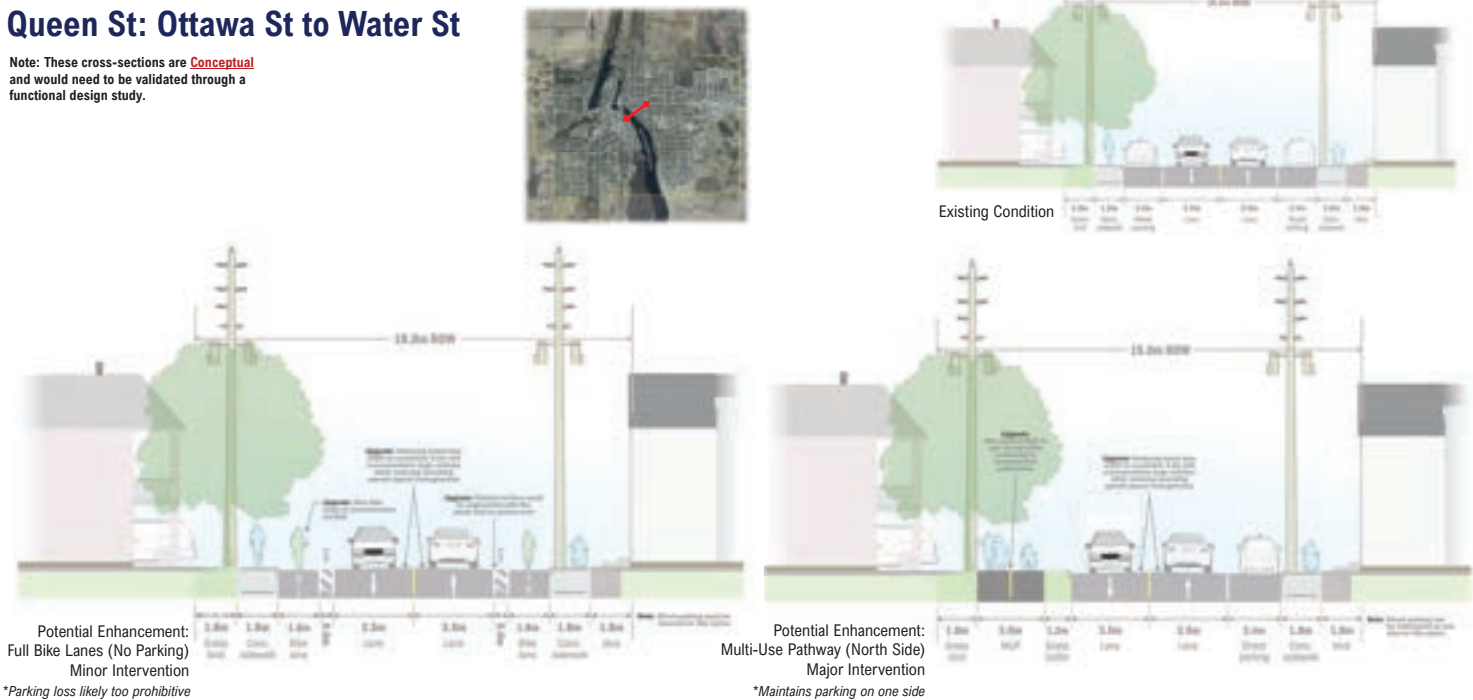
Ottawa St: Paterson St to Martin St



Potential Corridor Specific Enhancement Alternatives

Queen St: Ottawa St to Water St

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.





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Our Community, Our Future



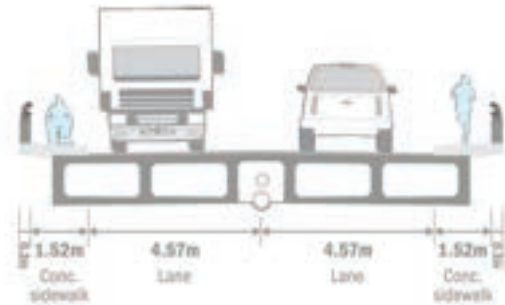
Potential Corridor Specific Enhancement Alternatives

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

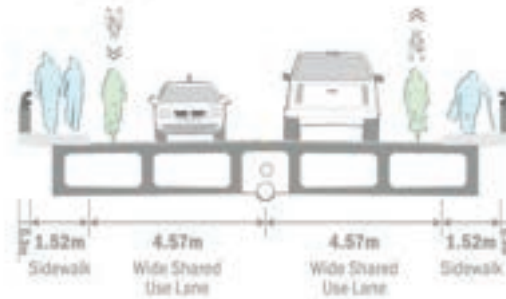
Queen St Bridge



Note: Traffic volumes and speeds higher than recommended for shared use lanes, however increasing safety measures may help with cyclist safety. Consider speed management measures.



Existing Condition



Potential Enhancement:
Shared Use Treatments
Minor Intervention

! *Stronger active transportation enhancements can be considered at the next lifecycle renewal period for the Queen St bridge.*

Note: These cross-sections are **Conceptual**; they would be validated during the functional and detailed design.



Mississippi Mills 2048

Our Community, Our Future



Potential Corridor Specific Enhancement Alternatives

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

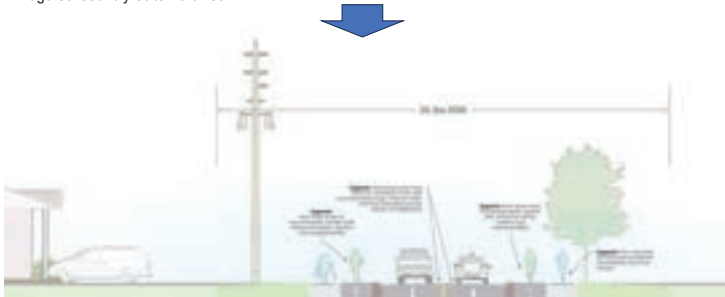
Bridge St / Perth St: Country St to CR29



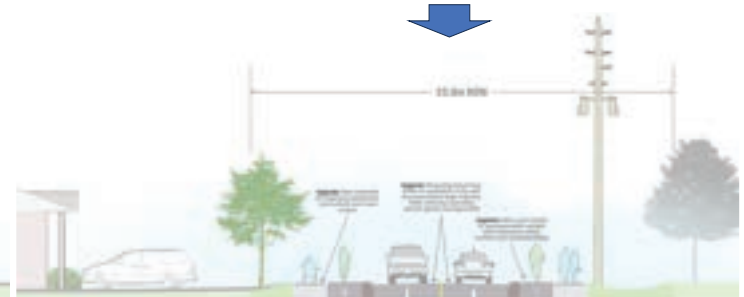
Existing Condition
Bridge St: Country St to Perth St



Existing Condition
Perth St: Bridge St to CR29



Potential Enhancement:
Cycle Tracks and Sidewalks
Major Intervention



Potential Enhancement:
Cycle Tracks and Sidewalks
Major Intervention



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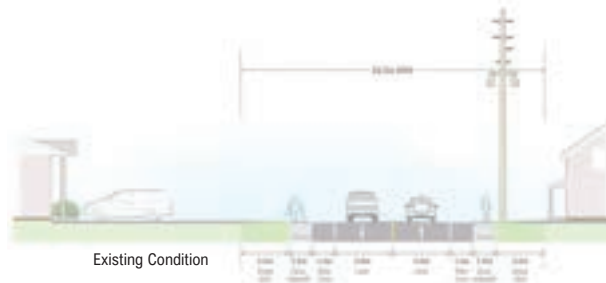
Our Community, Our Future



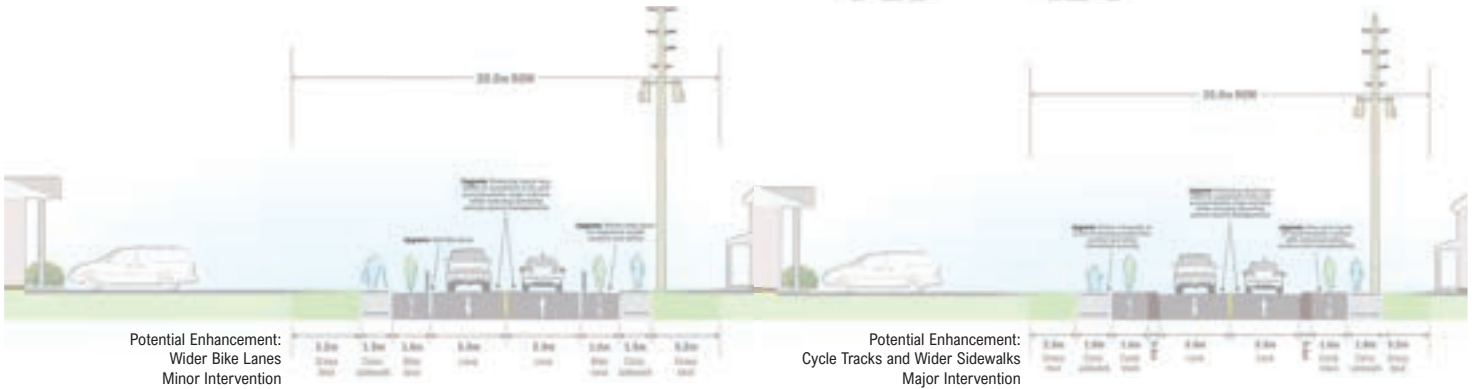
Potential Corridor Specific Enhancement Alternatives

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

Martin St: Ottawa St to Town Boundary



Existing Condition



Potential Enhancement:
Wider Bike Lanes
Minor Intervention

Potential Enhancement:
Cycle Tracks and Wider Sidewalks
Major Intervention



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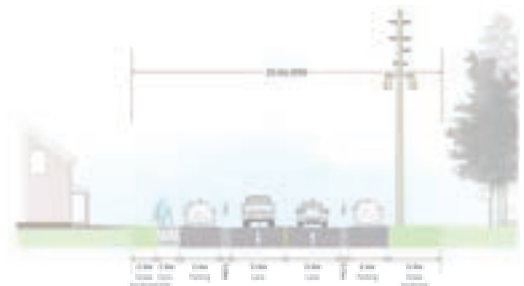
Potential Corridor Specific Enhancement Alternatives

Note: These cross-sections are **Conceptual** and would need to be validated through a functional design study.

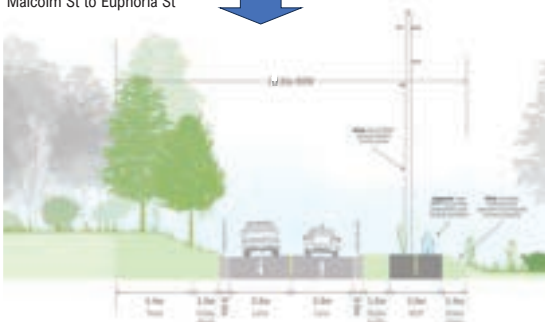
Almonte St: Euphoria St to CR 29



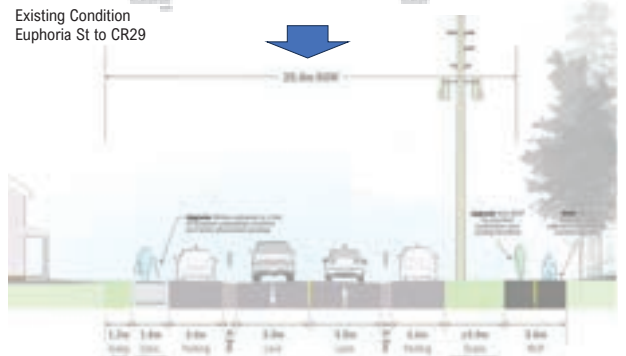
Existing Condition
Malcolm St to Euphoria St



Existing Condition
Euphoria St to CR29



Potential Enhancement: Multi-Use Pathway (South)
Major Intervention



Potential Enhancement: Multi-Use Pathway (South)
Major Intervention

Transit and Ridesharing

Needs and Opportunities

What We Heard:

- Many complaints about **lack of public transit** (internally and to/from other municipalities)
- Develop **shuttle service** for local trips / appointments
- **Taxis too expensive**
- **Not enough affordable transportation options** for seniors or low income
- Alternate travel modes needed, particularly **public transit for winter**
- Develop or incentivize **carpooling** service/programs
- Consider new **Park and Ride locations** (e.g. Conc 4A & Hwy 7)

What We Have Learned:

- **Lanark Transportation Authority (LTA)** is slowly resuming pre-covid “Ride the LT” service, including Carleton Place, Perth and is looking to expand to Almonte.
LTA is focused on service within the County.
- **Leduc Bus Lines Ltd**, a private commuter transit operator is engaging the public to potentially resume service.
- **Ottawa Stage 2 LRT** – Confederation Line West is expected to be completed in 2025, with the last station at Moodie Dr.



Transit and Ridesharing

General Considerations

- **If Leduc resumes private commuter service:**
 - Establish a bus stop in Almonte on west side of river
 - Consider a park and ride lot near the Almonte bus stop
 - Ensure final stop is at least Moodie LRT Station (by 2025)



“Game changer:” New Lanark County community carpool program shifts into gear

Residents of Lanark County can now join to share rides to increase transportation accessibility and reduce their carbon footprint with a new initiative.

Other Considerations:

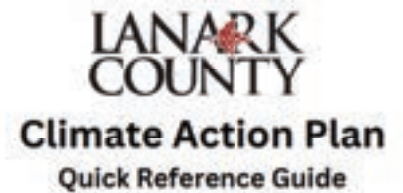
- Explore **carpool and ridesharing programs**
- Consider **new park and ride** lots near Almonte or Hwy 7 at western limit of municipality (e.g. CR 9 or Conc 4A)
- Engage LTA and other municipalities to explore **contemporary rural transit** options (e.g. on-demand transit) and explore co-funding opportunities
- Fund a **transit feasibility study** to leverage upcoming opportunities and to evaluate and cost long-term transit options for the Municipality. The study should consider all contemporary transit offerings to serve both **commuters and local travellers**





Potential Supporting Strategies/Policies Being Developed

- **Complete Streets Approach** – General policy support; link transportation to land-use planning by **integrating “complete streets” principles** into future planning documents (Community Official Plan, etc.); **update municipal design standards/guidelines** include accommodations for all users on all streets; adopt **complete streets cross-sections** on all new and retrofit streets to encourage more human powered transport
- **Active Transportation** – Define minimum and optimal standards based on industry **best practice** (e.g., sidewalk width, cycling facility type, intersection treatments, etc.); encourage a **coordinated planning approach** to future development activity that ensures network **“permeability”** for active users; identify and protect property needed for future **“missing links”**; provide policy support, strategies and guidance towards **education and promotion**.
- **Climate Change** – Align TMP with **Lanark County climate change priorities**; leverage active transportation to reduce transportation-related emissions for local trips (e.g., intra-village trips); **reduce single-occupancy non-local vehicle trips** (e.g., inter-regional trips) through transportation demand management.



Potential Supporting Strategies/Policies Being Developed

- **Road Classification System** – Review existing road classification system in both **urban and rural** environments; refine standard cross-sections for different road classes; provide guidance for future planning policy, development approval, distinguishing between “local” and “collector/arterial” roads to **better match land-use contexts with transportation functions**
- **Road Design Criteria** – Identify basic design criteria for each road class to **guide future road infrastructure** e.g., limit the number of private approaches on arterial roads; leverage current provincial & national road design standards; consider adopting greater **paved shoulder widths** in rural contexts
- **Safety** – Establish an overall approach to **traffic calming** (as per 2020-2023 Strategic Plan); review **best practices** from other municipalities (e.g., Vision Zero); consider opportunities to **improve rural traffic calming** such as “gateway” features in urban/rural transition zones; conduct **high-level review of specific concerns** heard and provide basic input on possible mitigation

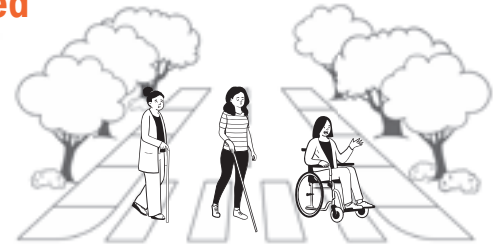
Traffic Calming

Contemporary road network planning and design often consider traffic calming measures with the goal of improving quality of life and safety for all road users.



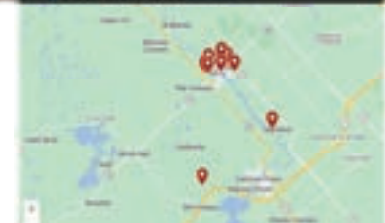
Potential Supporting Strategies/Policies Being Developed

- Accessibility** – Remove accessibility barriers from pedestrian facilities (including intersections) in accordance with provincial and regional policies; apply **contemporary design principles** (e.g., “Eight-to-Eighty”) to transportation infrastructure that ensure high levels of accessibility across all age groups; provide high-level guidance on the provision of **street-furnishing** (i.e., benches, etc.) at minimum intervals as per relevant accessibility guidelines, explore options for increasing the **density of “rest-areas”** along key road, pathway corridors.
- Maintenance** – Reference latest provincial requirements; apply a lens of **sustainability**, lifecycle costs to transportation infrastructure planning and investment.
- Transportation Demand Management** – Acknowledge importance of **reducing single occupant vehicles**; identify potential strategies and potential programs to encourage **sustainable modes of travel**



Potential Supporting Strategies/Policies Being Developed

- Transportation Impact Assessment Guidelines** – Develop a **framework**, identify general triggers and processes to support the application process for new developments/ subdivisions
- Transit and Ridesharing** – General policy suggestions if commuter transit service resumes; highlight the importance of **cooperation** between private operators, adjacent municipalities and the County; develop strategies to **promote ridesharing**
- Funding, Promotion and Monitoring** – Provide high-level considerations and identify potential opportunities to support TMP recommendations



Rural Transit Solutions Fund
 \$250 million
 This Fund supports locally-driven transit solutions for rural and remote communities, with flexibility for different local transit system innovations from fixed-route to on-demand services to ride-shares.

Zero Emission Transit Fund
 \$2.75 billion
 This Fund supports public transit and school bus operators plan for electrification, supports the purchase of 3,000 zero emission buses and build supporting infrastructure.

Active Communities Fund
 \$400 million
 This Fund invests in projects that build new and expanded networks of pathways, bike lanes, trails and pedestrian bridges, in addition to supporting active transportation planning activities.

Share Your Thoughts!

Help us Shape the Future of Transportation in the Municipality



Use a Sticky and tell us what you think about the TMP, and the information presented today. Was anything missed? Be as general or specific as you like!

THANK YOU FOR PARTICIPATING!

What is next for the TMP?

The study team will:

- ➔ Review and incorporate feedback received at PIC #2.
- ➔ Confirm Technically Preferred Solutions, develop the Implementation Plan with cost estimates, and prepare the draft TMP Report in Q1 2024 for public review.
- ➔ For more information, questions or comments, please contact the team.

Stay Connected!

Visit the TMP Webpage for updates and additional information about the study.

<https://www.mississippimills.ca/en/how-we-go.aspx>

Before You Leave!



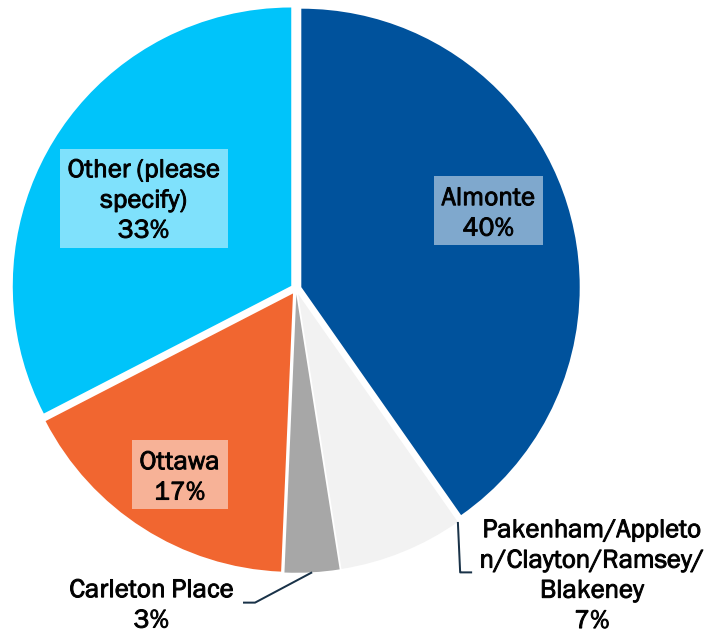
- ➔ Please fill out a **Comment Sheet** if you have further input or more detailed comments for us to consider.

Appendix B

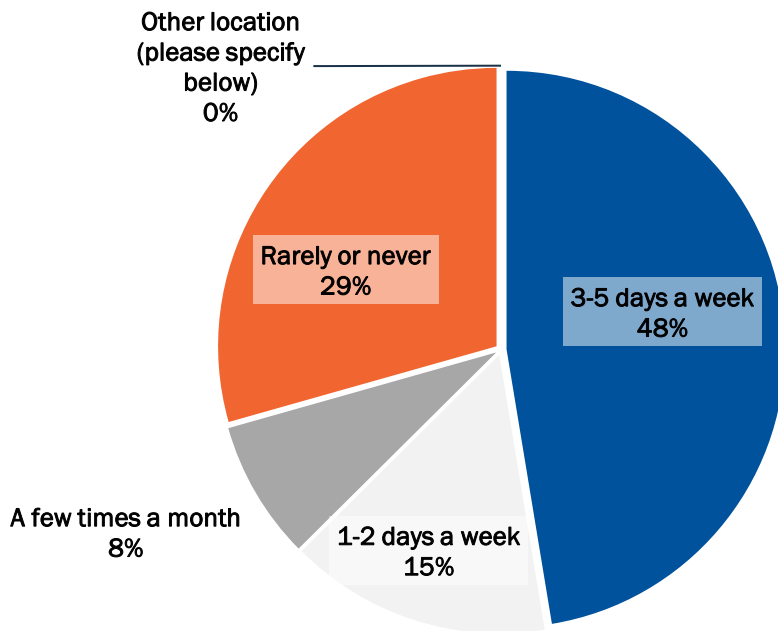
Summary of Community Transportation Survey Results

Municipality of Mississippi Mills: Transportation Master Plan
APPENDIX

Q1: Where do you Work or go to School?



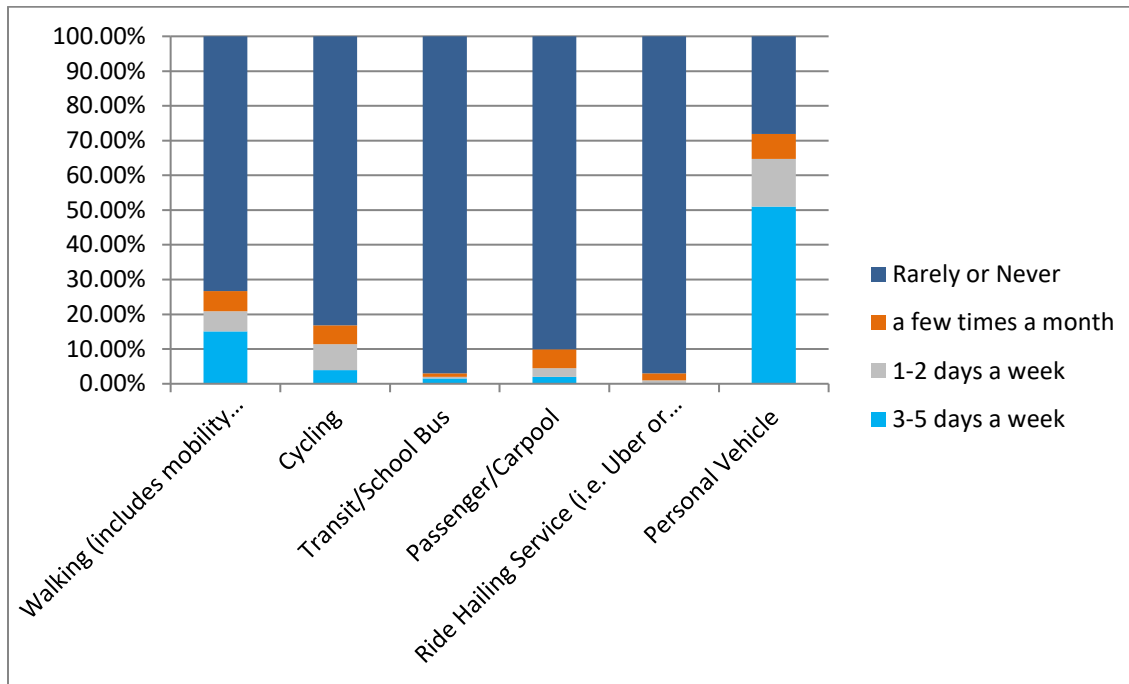
Q2: How often do you physically travel to/from work or school?



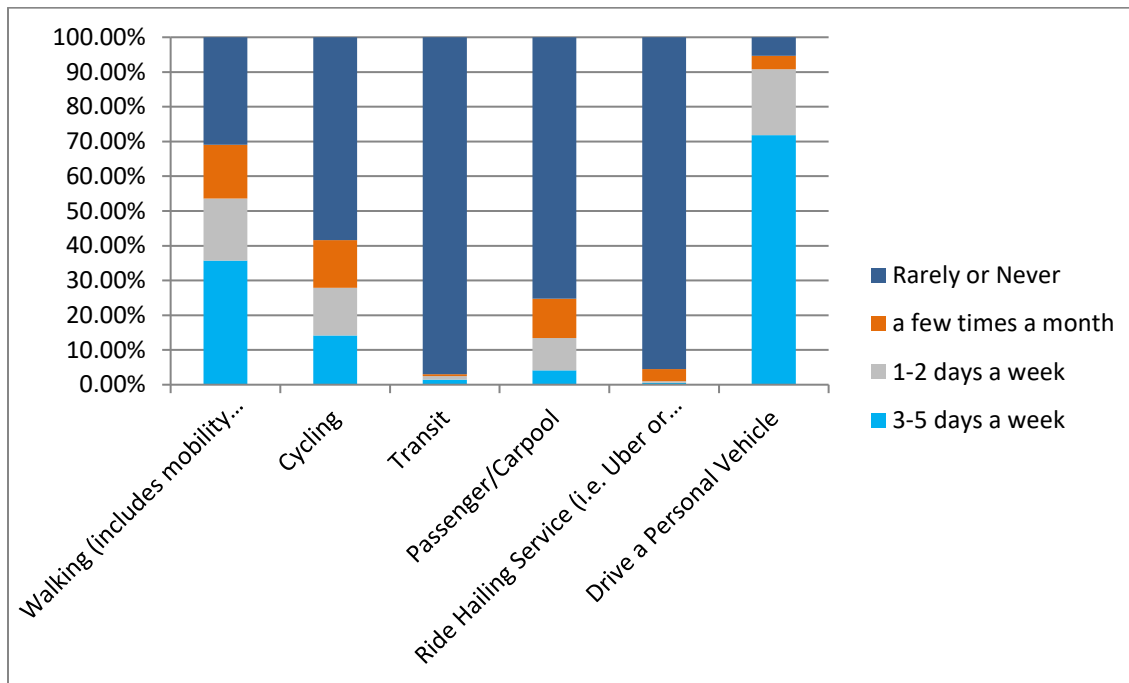
Municipality of Mississippi Mills: Transportation Master Plan

APPENDIX

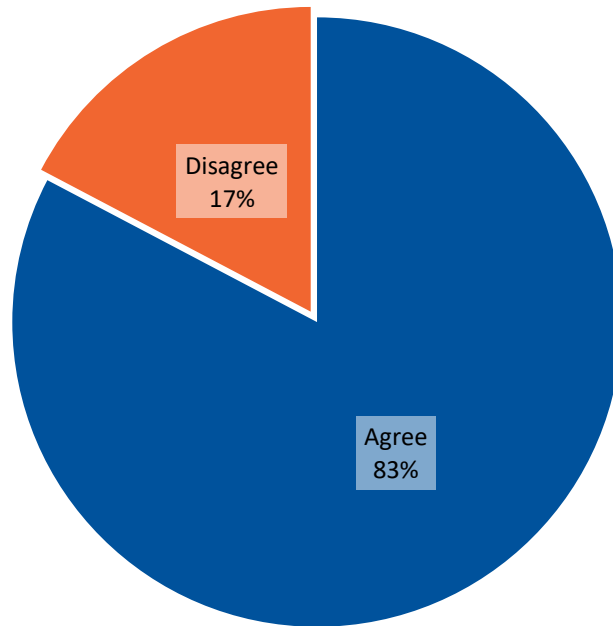
Q3: When travelling to/from work or school, how often do you use the following types of transportation?



Q4: For all other trip purposes (i.e. not work or school related), how often will you use the following types of transportation?



Q5: Do you agree or disagree with this statement: I feel safe and comfortable walking within the Municipality?



Q6: Since you disagreed with the preceding statement, please explain why and what solutions would help improve your level of safety and comfort while walking?

Crosswalks

- Specific complaints:
 - PXO on Ottawa St at Mill St - not very visible due to road curve plus westbound traffic moving fast downhill
 - Ottawa St - sidewalks are narrow, greenery is encroaching, does not feel safe
 - Lack of sidewalks in Pakenham and Appleton
 - Church St - Request to extend sidewalks past trail crossing
 - Houston St- has no sidewalks, used to walk to grocery store
 - Malcolm St - sidewalks never plowed in winter and have missing link
 - Almonte St – stressful to walk to downtown with children
- Older PXOs should be upgraded to the newer installations
- OVRT crossings are confusing to peds and drivers
- PXOs can be confusing for someone with visual disability
- Lack of sidewalks on streets
- Sidewalks need to be maintained
- More streetlights needed for walking in dark

Speeding

- Specific comments:
 - Clayton Rd – speeding
 - OVRT – does not seem safe to peds and cyclist with motorized vehicles permitted
 - Ramsay Conc 8 – reduce speed limit

Municipality of Mississippi Mills: Transportation Master Plan

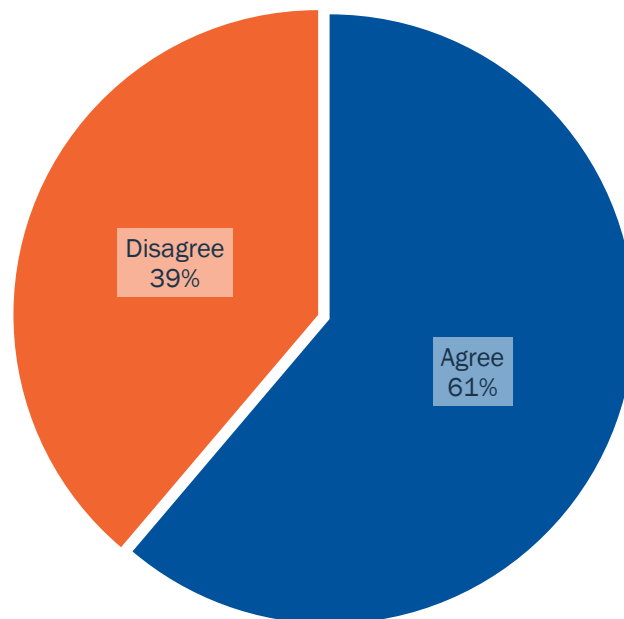
APPENDIX

- Speed limit not enforced
- Suggestion for traffic calming measures
- Too much speeding on main roads
- Not enough paved shoulders on rural roads

Other

- Ottawa/Martin intersection - two comments on not feeling safe from crossings and lights
- Almonte - Traffic calming measures
- Provide paved OVRT within town limits

Q7: Do you agree or disagree with this statement: I feel safe and comfortable cycling within the Municipality?



Q8: Since you disagreed with the preceding statement, please explain why and what solutions would help improve your level of safety and comfort while cycling?

Bike lanes and paved shoulders

- Specific comments:
 - Ottawa St – extend bike lanes to CR29
 - Ottawa/Martin intersection – westbound unsafe
 - Ottawa/Paterson intersection – eastbound unsafe
 - March/Appleton Side roundabout – unsafe for traffic, let alone bikes
 - Paterson St – with cars parked it becomes too narrow for both cyclists and vehicles
 - Wolfgrove Rd – wider shoulders for rural roads
- Bridges should have painted bike lanes and signage to help prioritize bike right-of-way

Municipality of Mississippi Mills: Transportation Master Plan

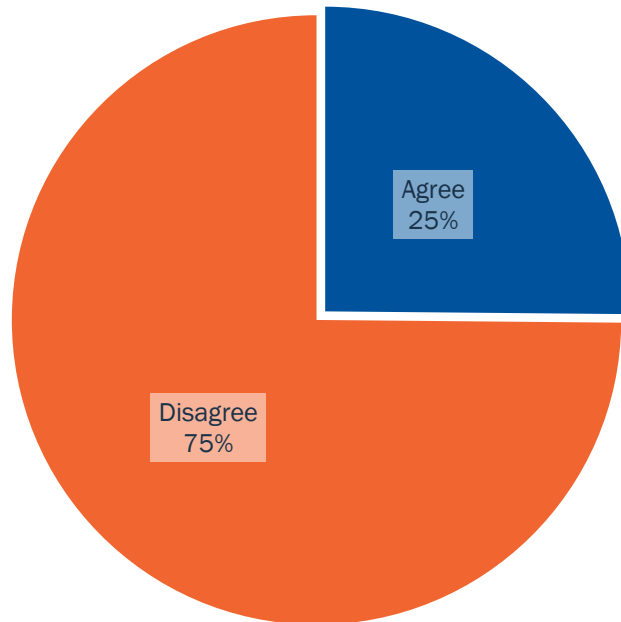
APPENDIX

- Painted bike lanes on parts of Bridge St are not shown in our AT map displayed at PIC 1
- Separated bike lanes and wider paved shoulders requested
- Vehicle parking on the side interferes with bikes
- OVRT surface not comfortable for cycling and edges have loose aggregate which is unsafe for cyclists when letting ATV's pass
- Suggested to separate a paved trail for cyclists and peds and an aggregate trail for motorized vehicles (similar to CP)
- No way to cycle to grocery store
- Painted bike lanes on roads are unsafe, need better defined bike lanes
- Suggestions to remove bike lanes on Ottawa St and move them to side roads
- Several comments on cyclist harassment and aggressive drivers, public education needed
- CR29 unsafe for cycling
- Not enough places to cycle in Pakenham
- Suggestion to remove bike lanes and replace with traffic calming measures on Ottawa St, Almonte St and Bridge St
- Vehicle turning at intersections where bike lanes end are concerning

Speeding

- Too much speeding everywhere
- Speed limit in town should be 40km/h everywhere

Q9: Do you agree or disagree with this statement: Mississippi Mills has a transportation system that is accessible and inclusive (i.e. people of all ages, financial means, and physical abilities)?



Q10: Since you disagreed with the preceding statement, please explain why and what solutions would help improve accessibility and inclusivity of the transportation system?

Transport options

- Many complaints about lack of public transit, both internally and to/from Kanata and Carleton Place
- Suggested a shuttle service between Almonte and other towns/villages, as well as OC Transpo
- Suggestion to move buildings for new developments closer to street and sidewalk and parking lots to the back
- There are taxis, but too expensive
- Need greater feeling of safety for active transport
- Suggestion for actuated intersections, as drivers sometimes skip on red when no oncoming traffic
- Not enough affordable options for seniors and low income to travel
- Suggestion for program like Carebridge’s program to drive seniors/people with disabilities, maybe taxi vouchers?

Bikes

- Build more bicycle routes throughout town

Sidewalks and crosswalks

- Maintain and repair sidewalks and have consistent snow removal
- Peds should automatically get walk like at intersections on green light
- Walking/scootering less of an option in winter

Parking

Municipality of Mississippi Mills: Transportation Master Plan

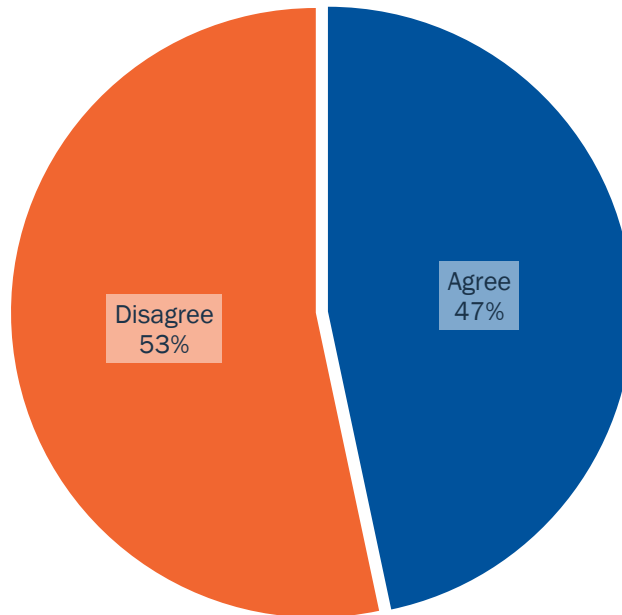
APPENDIX

- No accessible parking in Appleton

Pavement quality

- Old Perth Rd west of Ramsay Conc 8 has terrible pavement quality

Q11: Do you agree or disagree with this statement: Mississippi Mills has vehicle traffic congestion issues?



Q12: Since you agreed with the preceding statement, please identify the critical congestion locations (“hot spots”) and what potential solutions you believe would help relieve congestion?

Ottawa St/March Rd

- Many complaints for Ottawa St
- Only connection to March Rd, so very busy. Suggestion for bypass from CR29 and Clayton Rd to avoid Almonte.
- Quite congested at peak times
- Difficult for peds to cross at peak times
- Lots of growth expected in the future, which will add to the problem
- More roundabouts?
- Ottawa St bypass route (extend James Naismith Way?)
- Ottawa/Malcolm intersection – cars do not consistently stop for peds crossing
- Roundabout is dangerous as people are confused and often cut in front of vehicles
- Roundabout exit merge lanes are too short
- To help congestions, construct road between Martin St and Ramsay Conc 11A and from Old Almonte Rd to Appleton Side Rd, also construct new bridge crossing

Other Streets

Municipality of Mississippi Mills: Transportation Master Plan

APPENDIX

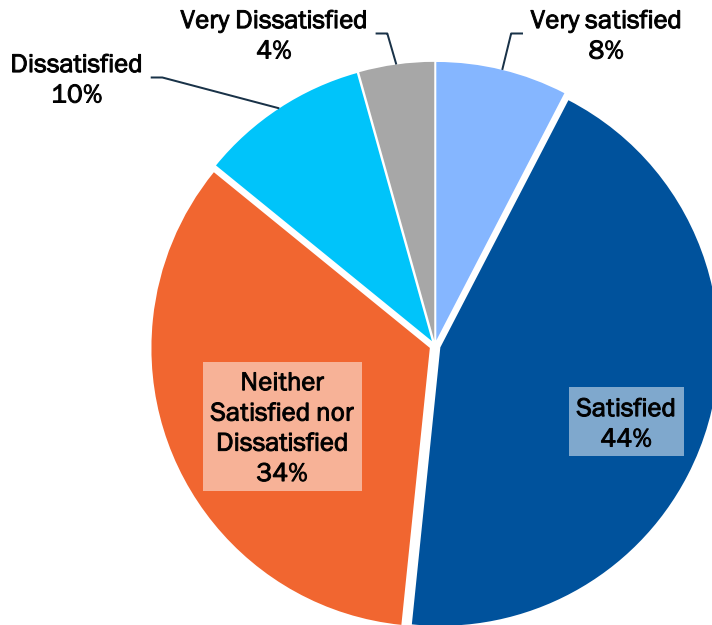
- Bridge St, Mill St, Malcolm St, Queen St, Sadler St with Tim Hortons
- Paterson St schools are an issue, visitor parking at Orchard View also cause an issue as cars have to go around sometimes
- Entry from Greystone Dr to March Rd is difficult during peak hours
- Problems with side streets with no traffic lights turning onto Ottawa St, several complaints about Spring St onto Ottawa St
- Turns from Malcolm onto Almonte

Other comments/suggestions

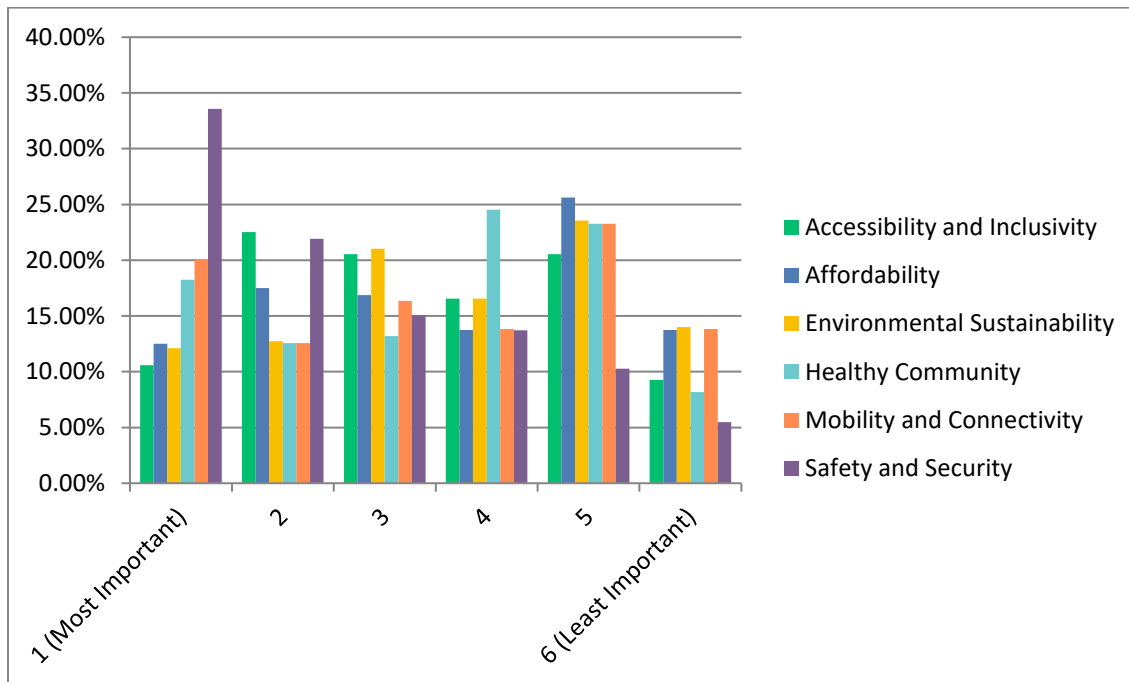
- Add traffic light at Ottawa/Spring intersection
- Bridge needed at south end of town
- Remove parking from Appleton Bay Park and investigate options for Appleton Dam Park to maximize green space
- Martin/Queen intersection very dangerous as SB cars on Martin may not realize there is no stop sign for cars coming from Queen
- March/Ramsay Conc 12 needs to be upgraded
- Problem with aggressive driving in Almonte
- Monitor speed on Almonte St
- Need education on how to use traffic circle
- Disallow transport trucks from travelling through town
- Improve parking on Mill St, remove on Maude St
- So many crosswalks are not needed in downtown
- Street light locations are bizarre
- Concerns about the traffic generated by upcoming developments

Municipality of Mississippi Mills: Transportation Master Plan
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Q13: Overall, how do you feel about your travel experience within the Municipality?



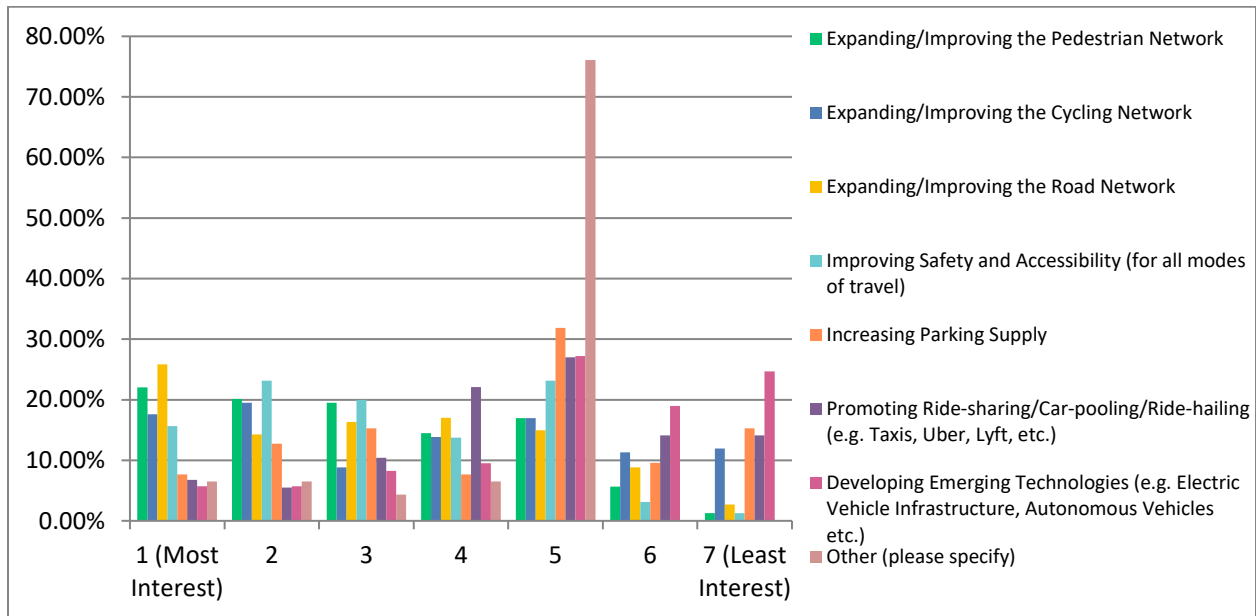
Q14: Please rank the following transportation-related themes (listed alphabetically below) from most important to least important to you.



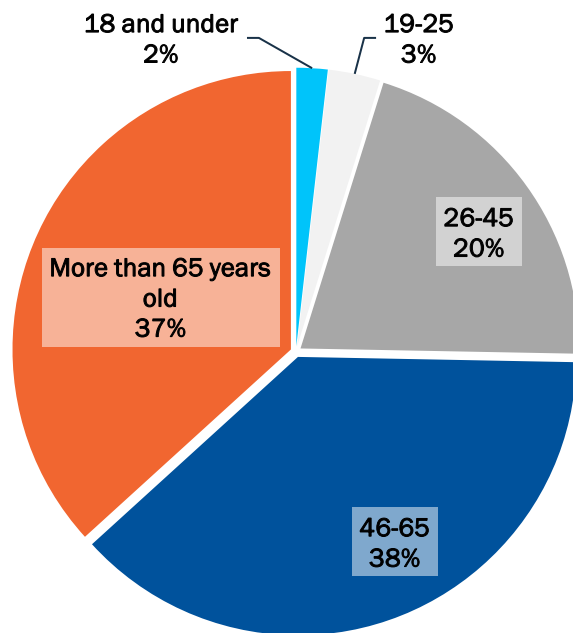
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Q15: Within the TMP, which transportation topics would be of most interest to you? Please rank the following.

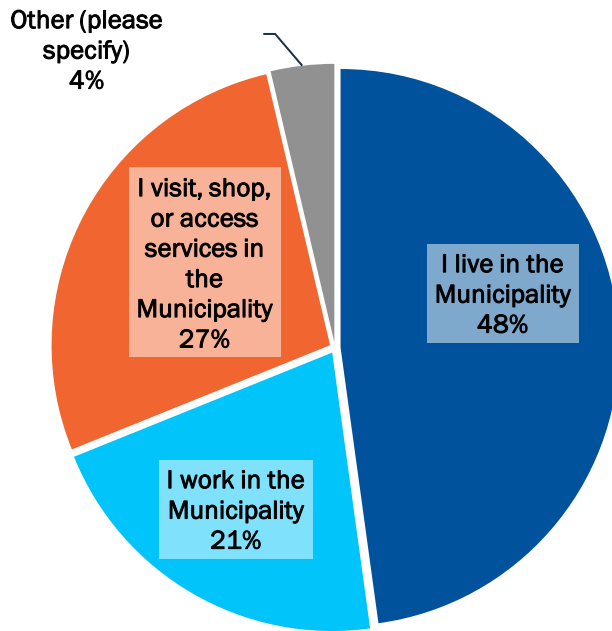


Q16: What is your age group?

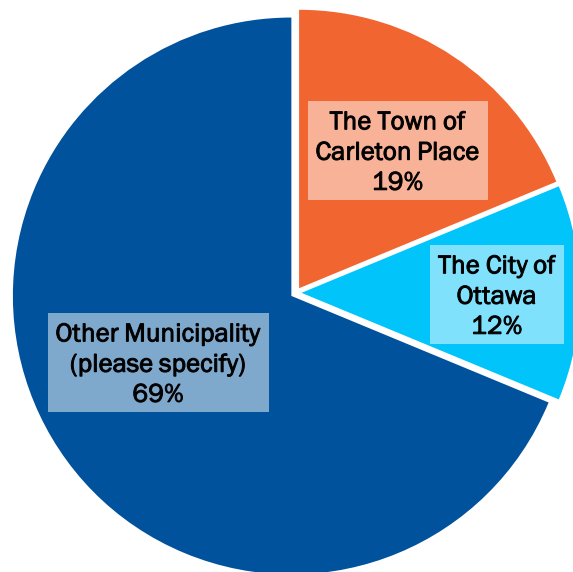


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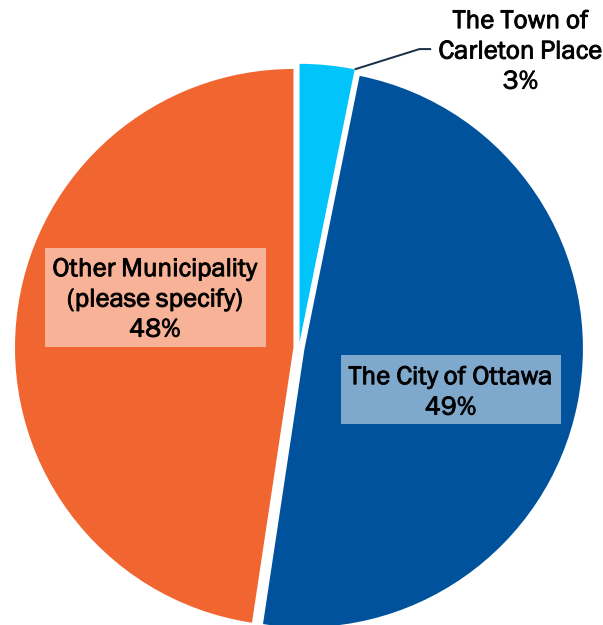
Q17: What is your connection to Mississippi Mills (choose all that apply)?



Q18: If you do not live in the Municipality, where do you live?



Q19: If you do not work in Mississippi Mills, where do you work?



Q20: Do you have any other final comments, questions or concerns?

Cycling

- Little has been done to develop cycling infrastructure over the past few years
- Offer by long term cyclist to help in supporting and promoting cycling in MM if needed.
- Prioritize active transportation
- Our 2035 cycling routes map shown at PIC did not show existing links, looking to clarify if there will be fewer cycling links in the future
- Bicycle safety will promote bicycle use

Roads

- Clayton Rd – couple comments, needs to be maintained more frequently in winter months
- Concession intersections people do not come to complete stop and cause accidents, low visibility from trees in intersection corner at Conc 7B/Cedar Hill
- Alternate route to Ottawa that bypasses Almonte
- Too much traffic on Paterson Rd due to schools, transportation infrastructure should catch up before new developments
- March Rd needs upgrades, unsafe from vehicles crossing at concession roads
- Old Perth Rd – needs paving
- Almonte bypass
- Process to determine which roads are paved vs left as gravel?
- How do we increase capacity on March Rd while avoiding inviting more cars?

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- Do not build roads through existing parks like Augusta Street Park

Public Transit

- Travel modes other than personal vehicle needed, particularly public transit for winter months

Speeding

- More speed limit enforcement

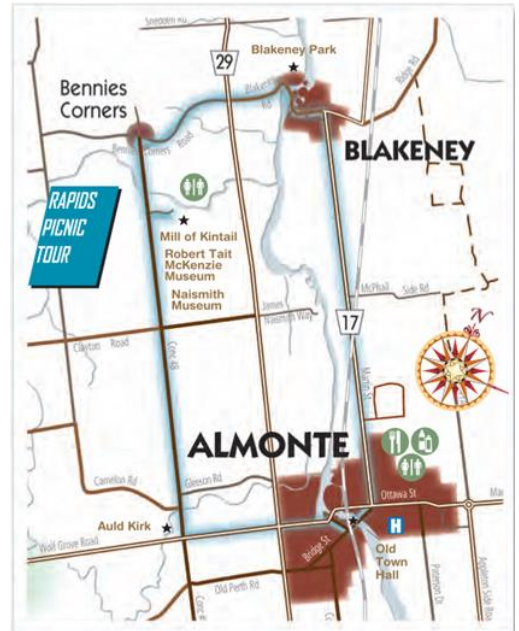
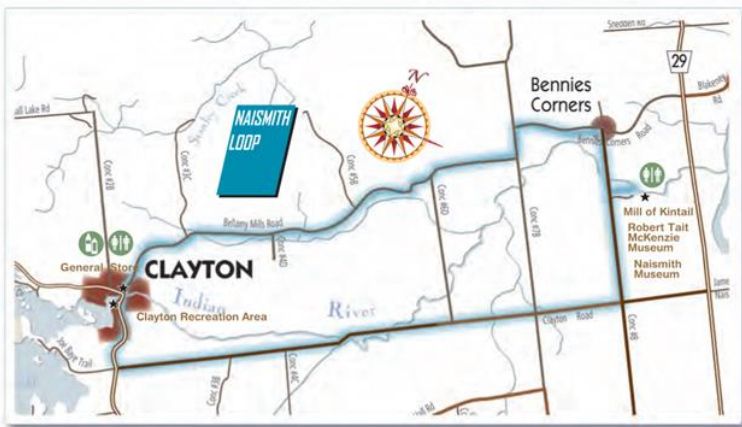
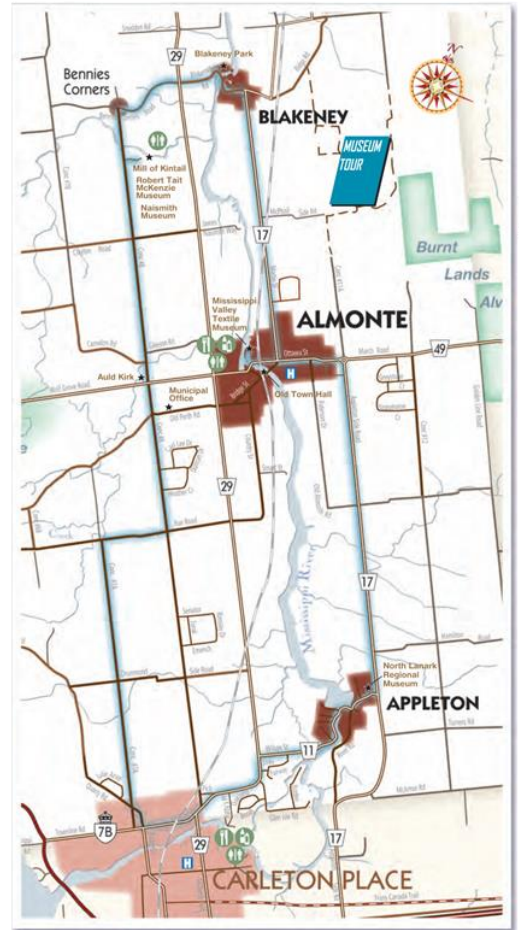
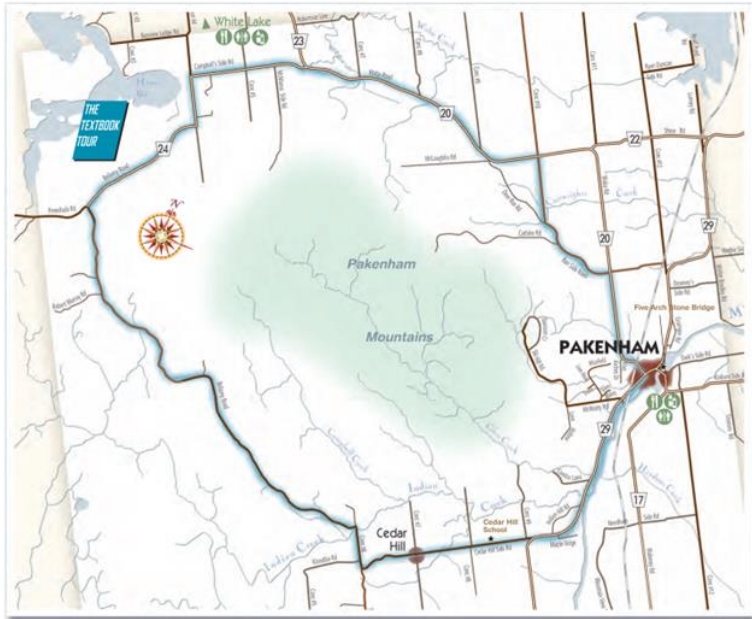
Other

- New developments must not compromise safety of existing neighborhoods
- If possible eliminate some of the pass only parking at old town hall
- Use development charges to complete projects already identified for MM

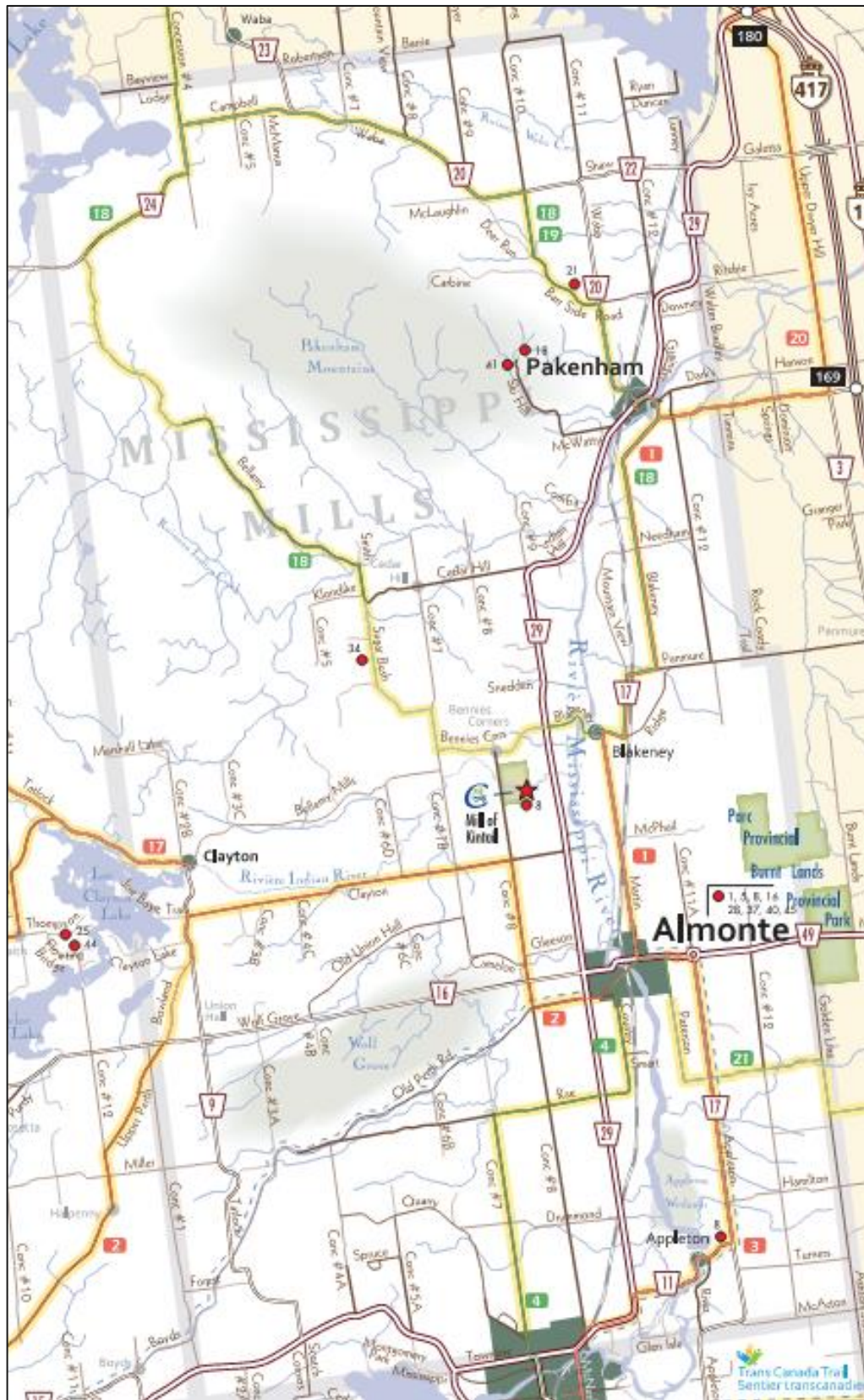
Appendix C

Existing Municipal and County Cycling Routes

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Mississippi Mills Municipal Cycling Routes (Mississippi Mills Cycling Map, 2014)



Mississippi Mills County Cycling Routes (Lanark Cycling, 2015)

Appendix D

Existing Recreational Trails



Existing Trails within Mississippi Mills (Lanark County Trail Map, 2022)

Appendix E

Traffic Analysis and Trip Generation Memo

The Municipality of Mississippi Mills Transportation Master Plan

TRAFFIC ANALYSIS AND TRIP GENERATION

July 2024

1.0 INTRODUCTION

The purpose of the following memo is to review the existing traffic operations at study area intersections, detail the trip generation methodology followed to forecast future traffic volumes in Mississippi Mills, and use the future traffic volumes to conduct traffic operational analysis of the future study area network to identify deficiencies and mitigation plans.

2.0 EXISTING CONDITIONS

2.1 Analysis Criteria

2.1.1 Evaluation Approach

The municipality of Mississippi Mills consists of a vast road network that add up to a few hundred kilometers in length. Most roads are underused and do not constitute any major concerns from a traffic operational perspective. A greater majority of traffic is concentrated within Almonte, which is a primary hub for residential, commercial and employment locations in the municipality. For the purpose of analysis, all major roads within the rural areas and villages of the municipality will be evaluated through reviewing their respective Average Annual Daily Traffic (AADT) volumes to determine if there is need for any additional capacity. Within Almonte, intersection performance at key intersections will be evaluated in detail using traffic modelling software for the peak morning and afternoon hours. Additionally, a high-level screenline analysis will be conducted along the Mississippi River at the Almonte bridge crossings to determine the need for additional bridge crossings. Traffic signal warrant analysis will also be completed at unsignalized intersection locations in accordance with the methodology of the Ontario Traffic Manual (OTM) Book 12 – Traffic Signals.

2.1.2 Evaluation Criteria

According to the Highway Capacity Manual 6th Ed. (2010), traffic operations are evaluated based on a Level-of-Service (LOS) variable that ranges from LOS 'A', denoting low delays, to a LOS 'F', denoting congested traffic operations with high delays. Delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line at the intersection, which is then averaged to determine the total intersection delay. A secondary performance measure is to determine the maximum volume-to-capacity (v/c) ratio, which compares the traffic demand to theoretical capacity. A v/c ratio greater than 1.00 is a strong indication of congested conditions.

Synchro 11 Trafficware is a traffic modelling software that can evaluate both LOS and v/c ratio at a signalized or stop-controlled intersection, which will be used for the purpose of intersection performance analysis for Almonte intersections. SIDRA is a traffic modelling software that specializes in the analysis of roundabout intersections and as such, will be used to analyze the March/Appleton Side roundabout intersection; it should be noted that SIDRA provides a different LOS criterion than Synchro. The screenline analysis will focus only on v/c ratio and will be evaluated using first principles and industry accepted roadway capacities.

The LOS criteria, based on the Highway Capacity Manual (2010), for signalized and stop-controlled intersections, as well as SIDRA for roundabout intersections, has been outlined in **Table 1**.

Table 1: Level of Service (LOS) Criteria for Signalized and Unsignalized Intersections

LOS	Delay (seconds)		
	HCM Synchro Criteria		SIDRA Criteria
	Signalized	Stop Control	Roundabout
A	<10	<10	<10
B	>10 and <20	>10 and <15	>10 and <20
C	>20 and <35	>15 and <25	>20 and <35
D	>35 and <55	>25 and <35	>35 and <50
E	>55 and <80	>35 and <50	>50 and <70
F	>80	>50	>70

The v/c ratio criteria that will be used in the evaluation for the intersection capacity analysis and screenline analysis has been summarized in **Table 2**.

Table 2: V/C Ratio Criteria for Intersection and Screenline Analysis

Criteria	Volume to Capacity Ratio (v/c)
Acceptable	0 to 0.60
	0.61 to 0.70
	0.71 to 0.80
	0.81 to 0.90
Periods of Congestion	0.91 to 1.00
Extended Periods of Congestion	>1.00

In addition to reviewing the delays and v/c ratios, the 95th percentile queue length, which indicates the length of traffic stopped at an intersection in meters, will be reviewed and compared to available storage lengths of the noted movements. If the queue length exceeds available storage or extend past the available space between intersections, it will be flagged.

2.2 Existing Conditions Traffic Analysis

2.2.1 Data Collection and Existing Traffic Volumes

Mid-block traffic volumes at study area roadways were obtained from Mississippi Mills municipality staff for municipal roads, from County of Lanark staff for county roads and from MTO for Highway 7. The data includes a large number of locations and includes several years of data. For simplicity and comparison purposes, data was reviewed for the years 2019 to 2023, while no data prior to 2019 was used. To be conservative, the highest traffic volumes between 2019 and 2023 at each particular location were used. Existing mid-block AADT traffic volumes within rural areas and villages of Mississippi Mills are illustrated in **Appendix A**.

Along rural municipal roads, AADT traffic volumes were found to be no greater than 1,600, which is a fairly low number indicative of volumes typically served by a local road. County roads have a much higher usage, particularly along County Roads 49 and 29, where AADT volumes are up to 10,350 and 8,250 respectively, which are high volumes typically served by arterial roads.

Traffic turning movement counts in urban areas were also collected at key intersections in Almonte for the purpose of intersection operational analysis (**Appendix A**). All counts were collected on May 9th and 10th, 2023, with all travel modes

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(passenger cars, trucks, pedestrians, cyclists) collected over either a 4-hour or 8-hour period. These intersections include:

- Appleton Side (CR17)/ March (CR49) – Roundabout
- Ottawa / Industrial / Sadler – Signalized
- Ottawa / Menzie / Paterson – Signalized
- Ottawa / Martin S (CR16A) / Martin N (CR17) – Signalized
- Almonte / Christian (CR29) – Signalized
- Queen (CR16A) / Martin S (CR17) – Unsignalized
- Christian (CR29) / Perth (CR16A) – Unsignalized
- Main / Mill – Unsignalized
- Bridge (CR16A) / Country – Unsignalized
- Appleton Side (CR17) / Industrial – Unsignalized

2.2.2 Almonte Bridges Screenline Analysis

A screenline is an imaginary line drawn on a map to capture traffic demand and available capacity across multiple corridors intersecting the screenline. Only one relevant screenline has been identified, which captures bridge traffic demands and their available capacities for the two bridges in Almonte (Main Street and Bridge Street). This analysis will help to determine the limitations across these bridges and the need for alternatives in future analysis. The screenline is illustrated on **Figure 1**.

Figure 1: Almonte Bridges Screenline



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The volume-to-capacity (v/c) ratio will be used to determine capacity needs across the two bridges. As mentioned previously, v/c ratio up to 0.9 is considered acceptable, while v/c ratio between 0.9 and 1.0 may experience some congestion and v/c greater than 1.0 indicates extended periods of congestion. The total capacity of the screenline is the sum of the capacities of the roads intersecting the screenline. The vehicle per hour per lane (vphpl) unit is used to define the lane capacity of the intersecting roads and compared to the existing peak direction volume in the more critical PM peak hour to calculate the v/c ratio. The City of Ottawa identifies the lane capacity of arterial roads to be greater than 600 vphpl. For the purpose of this analysis, the capacity for arterials is assumed to range between 600 and 1,000 vphpl. For the two arterials that make up the Almonte Bridges Screenline, a capacity of 800 vphpl was considered reasonable.

Table 3: Almonte Bridges Existing Screenline Capacities

Screenline	Street	Class	Lane Capacity (vphpl)	Number of Lanes	Peak Direction Capacity	Existing PM Peak Direction Volume	V/C Ratio
Almonte Bridges	Main Street	Arterial	800	1	800	509	0.64
	Bridge Street	Arterial	800	1	800	400	0.50
Total or Average				2	1,600	909	0.57

As shown in the table above, the 0.57 combined v/c ratio of the screenline indicates that there is currently sufficient capacity across the two bridges to accommodate the existing traffic volumes.

A peak hour analysis using the Streetlight Insight tool indicated that nearly half of all traffic using the Almonte bridges are travelling between Ottawa and other locations in the municipality, while the majority of the remainder are travelling between Almonte and Ottawa.

2.2.3 Intersection Capacity Analysis

Intersection Capacity analysis was conducted using Synchro Trafficware and SIDRA software at the key Almonte intersections. Analysis results indicated that all intersections currently operate acceptably:

- At the roundabout, SIDRA analysis indicates that all movements operate at LOS 'B' or better with acceptable v/c ratios during both peak hours.
- At signalized intersections, Synchro analysis indicates that all intersection movements operate at LOS 'D' or better with acceptable v/c ratios and 95th percentile queue lengths during peak hours. The Ottawa/Paterson intersection exhibits the highest delays and queues due to it being a pinch point where the number of lanes on Ottawa Street decrease from 4-lanes to 2-lanes.
- At unsignalized intersections, Synchro analysis indicates that all intersection movements operate at LOS 'C' or with acceptable v/c ratios and 95th percentile queue lengths during peak hours. The Christian/Perth intersection exhibits the highest delays due to the higher number of traffic volumes using the intersection.

2.2.4 Rural Areas and Villages Road Network Traffic Review

As mentioned previously, traffic volumes on municipal roads in both the rural road network and within villages of Mississippi Mills are low and not expected to be cause for major traffic operational concerns. AADT volumes in rural areas are recorded to be up to approximately 1,600 vehicles, which are recorded on rural roads such as Ramsay Concession 8 and Clayton Rd. On village municipal roads, AADT volumes were recorded to be less than 600 vehicles.

Volumes on county roads are notably higher, reflecting the significance of the county road network in the municipality. AADT volumes in rural county road areas can reach up to 10,350 vehicles as recorded along County Rd 49. AADT

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volumes on county roads passing through villages can reach up to approximately 5,000 vehicles as recorded by County Rd 29 in Pakenham. Although county road volumes are notably higher compared to municipal road volumes, they are within the capacity of the respective roads.

2.2.5 Traffic Signal Warrant Analysis

Traffic signal warrant analysis was conducted at unsignalized intersections in Almonte, where relatively higher volumes are served compared to other locations in the municipality. The signal warrant analysis follows the methodology of the OTM Book 12. The analysis indicated that traffic signals are not warranted at intersections where they are not currently provided.

3.0 TRAFFIC VOLUME FORECASTING

Traffic volume forecasting is a step-by-step process that follows the general progression outlined below:

1. Identifying future developments and growth plans in the municipality,
2. Determining the appropriate trip rates to be applied for the identified developments,
3. Distributing the trips by determining existing travel patterns and behaviors,
4. Assigning the trips to the study area network using the distributions, and
5. Layering the trips onto the existing traffic volumes to create projected future volumes.

3.1 Future Developments and Land Uses

J.L. Richards prepared and provided three maps illustrating all anticipated future developments within Almonte, which formed the basis for all trip generation calculations completed for the TMP. The future growth areas have been provided in Schedule 2 of the TMP report, which is also available for reference in **Appendix B**, and includes the three horizon years: 1 to 5 years (short-term), 5 to 15 years (medium-term) and 15 to 25 years (long-term). The majority of future growth is expected in Almonte as 70% of future growth is directed to Almonte, while 30% is directed to rural areas and existing villages based on the Municipality's Community Official Plan (COP 2018) and as indicated in the J.L. Richards Growth Forecast Report (July 2023). For the purpose of this TMP, all future non-residential developments are assumed to be located in Almonte, whereas future residential developments are assumed to be located in Almonte, rural areas and the existing villages.

Municipality staff provided Site Plans/Plans of Subdivisions and Transportation Impact Study (TIS) Reports that identified all active development applications for most residential and commercial developments on the short-term map and some of the residential developments on the medium-term map. Development statistics for any development illustrated on the maps with no active development application were estimated using factors provided in the Growth Forecast Report, with some land uses identified using the COP:

- For lands identified as residential developments, the number of units and unit breakdown were estimated as follows:
 - Estimated 55% of the land would consist of the residential units, while remaining space would be used for roads, park, utilities, etc.
 - On average, the number of units is estimated as 25 units/hectare.
 - 60% of the total units are low density units, while 40% are medium density units.

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- In rural areas and villages of Mississippi Mills, the Growth Forecast Report estimated 1,196 new units expected to year 2048. As such, the total units are divided evenly between the three horizon years.
- For lands identified as industrial, the permitted uses identified in the COP include a mix of warehousing, manufacturing and other industrial uses. The number of employees were estimated using a factor of 45 jobs/hectare based on the Growth Forecast Report.
- For lands identified as business park, the permitted uses identified in the COP include offices, industrial uses and retail uses. For industrial and office uses, the number of employees were estimated using a factor of 45 jobs/hectare based on the Growth Forecast Report. For retail uses, a Floor Area Ratio (FAR) was estimated by measuring the FAR of existing commercial buildings within their respective properties. Based on a number of existing commercial buildings within Almonte, a FAR of 20% was assumed as the ratio of building area to parcel area.
- For lands identified as commercial areas, the permitted uses identified in the COP include offices and retail uses. For office uses, the number of employees were estimated using a factor of 45 jobs/hectare based on the Growth Forecast Report. For retail uses, a Floor Area Ratio (FAR) was estimated by measuring the FAR of existing commercial buildings within their respective properties. Based on a number of existing commercial buildings within Almonte, a FAR of 20% was assumed as the ratio of building area to parcel area.

Based on the above, all site statistics and development sizes needed for the purpose of trip generation were estimated across the three horizon years as shown in **Table 4**. It is important to note that the long-term map is meant to identify the envisioned expansion areas for Almonte but has not received approval from the municipality as of yet. For the purpose of this TMP, the proposed long-term expansion lands are analyzed with the assumption Almonte may include these expansions.

Table 4: Estimated Statistics for Different Land Uses

Location	Land Use	Horizon Years Estimated Statistics			Total
		Short-Term (1-5yr)	Medium-Term (5-15yr)	Long-Term (15-25yr)	
Almonte	Residential (units)	1,005	1,465	1,521	3,991
	Industrial (employees)	283	257	779	1,319
	Office (employees)	218	397	545	1,160
	Retail (ft ²) - <i>strip retail, supermarket, restaurant</i>	50,964	195,699	47,361	294,024
MM Rural and Villages	Residential (units)	240	478	478	1,196

3.2 Trip Generation and Mode Shares

3.2.1 Mode Shares and Relevant Factors

Commuter mode share percentages for different travel modes within both the municipality as a whole and the Almonte were obtained from the 2021 Census and provided in **Table 5**. Based on the 2021 Census, the main mode share within the municipality of Mississippi Mills and Almonte is auto driver, followed by auto passenger, walking, “other”, transit and cycling. Both transit and cycling are practically nonexistent, which is not unexpected considering transit is very limited in

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the municipality with no formal routes at this time and cycling may be more of a recreational activity rather than a main mode of commuting to/from work. For simplicity, an 80% auto driver mode share will be assumed for the analysis.

Table 5: 2021 Census Mode Share Percentages

Travel Mode	Mississippi Mills	Almonte
Auto Driver	86%	81%
Auto Passenger	6%	8%
Transit	0%	1%
Cycling	0%	0%
Walking	5%	7%
Other	2%	3%
Total	100%	100%

Given the circumstances caused by the COVID-19 pandemic, it is evident that travel behaviors across the country have undergone significant changes as work-from-home (WFH) became much more relevant and created a shift in commuter traffic that is expected to have everlasting effects. Based on an analytical study by Stats Canada, the percentage of workers working most of their hours from home in Ontario have increased from approximately 7% prior to the pandemic, to a peak of 50% in early 2022. In the first four months of 2023, although COVID-19 restrictions had been effectively lifted in the months prior, an average WFH percentage of 29% persisted. For the purpose of this TMP, a conservative WFH percentage of 15% will be applied to the anticipated trip generation of future developments to account for the major shift in traffic in some form.

3.2.2 Methodology for Residential Developments

For developments with an available TIS Report, the expected site-generated trips were obtained directly from their respective reports. For all remaining developments with no TIS Reports or active development applications, the ITE Trip Generation Manual (11th edition) was the primary initial source used to obtain trip rates for all the different land uses. However, from a holistic planning point of view, the ITE Manual is typically overly conservative and provides trip rates based on surveys specifically taking place in a general urban/suburban setting, which is not representative of the small town/rural setting of both Almonte and Mississippi Mills. In order to determine how the ITE Trip Generation Manual compares to other trip generation methodologies, the ITE residential trip rates were compared to a blended rate of residential trip rates found in the City of Ottawa TRANS Trip Generation Manual (October 2020). **Table 6** provides a comparison between the trip rates of both the ITE and TRANS Manuals for the anticipated total future number of units of 5,187 in Mississippi Mills.

Table 6: Residential Trips Mode Split Comparison (ITE vs. TRANS)

Rates Source	Scenario	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
ITE Manual	Total Mississippi Mills Vehicle Trips (5,187 units)	705	2,132	2,837	2,340	1,391	3,731
	Increased by 1.28 factor for person trips (standard factor accounting for non-residential and vehicle occupancy)	902	2,729	3,631	2,995	1,780	4,776
	15% work from home reduction (COVID aftereffects)	767	2,320	3,086	2,546	1,513	4,060
	80% auto-driver mode share (guided by census)	614	1,856	2,469	2,037	1,210	3,248
Ottawa TRANS Manual	Total Mississippi Mills Person Trips (5,187 units)	1,041	2,429	3,469	2,047	1,608	3,655
	15% work from home reduction (COVID aftereffects)	885	2,064	2,949	1,740	1,367	3,107
	80% auto-driver mode share (guided by census)	708	1,651	2,359	1,392	1,094	2,486
<i>Difference in Auto Trips (ITE-TRANS)</i>		<i>-94</i>	<i>205</i>	<i>110</i>	<i>645</i>	<i>116</i>	<i>762</i>

As shown in the table above, the ITE Manual trip rates estimate during the morning and afternoon peak hours approximately 110 and 762 total vehicle trips more than the TRANS Manual. Considering the population projection of Mississippi Mills as indicated in the J.L. Richards Growth Forecast Report from approximately 15,000 in 2023 to 25,000 in 2048, the TRANS Manual projected total residential vehicle trips were considered to be more reasonable and as such, were carried forward in the trip generation process.

3.2.3 Methodology for Non-Residential Developments

For non-residential trips, the trip rates were still taken from the ITE Manual as the TRANS Manual does not provide non-residential trip rates. However, it is important to note that the non-residential trips originating from Almonte residents during the peak hours were calibrated to equate to the TRANS Manual’s residential trips that would originate from Almonte and are destined to said non-residential locations in Almonte. This resulted in reductions to the non-residential trips anticipated to be generated by the ITE Manual.

Additionally, the “pass-by” (trips not originally destined to location but choose to stop while passing by) trip rates provided by the ITE Manual for the non-residential developments were used based on ITE Manual methodology to further reduce new trips by the non-residential developments. Lastly, between the non-residential developments, there is expectation that there would be multi-use trips that would move between multiple developments in one trip rather than create a completely new trip. The multi-use internal trip factor was assumed to be 20-30% of total trips.

3.2.4 Estimated Future Trip Generation in Mississippi Mills

Based on the assumptions and methodologies identified in the previous sections, the anticipated trip generation of all future developments in Mississippi Mills has been provided in **Table 7** below.

Table 7: Trips Generated by Future Residential and Non-Residential Developments

Location	Land Use	Peak Hour Time Period	Horizon Years Estimated Trips Generated			Total
			Short-Term (1-5yr)	Medium-Term (5-15yr)	Long-Term (15-25yr)	
Almonte	Residential	AM	439	667	693	1,799
		PM	465	702	729	1,896
	Non-residential	AM	352	563	573	1,488
		PM	379	621	620	1,620
MM Rural and Villages	Residential	AM	102	205	205	512
		PM	108	216	216	540
Total		AM	893	1,435	1,471	3,799
		PM	952	1,539	1,565	4,056

3.3 Trip Distribution and Assignment

3.3.1 Census Data

The 2021 Census was used to identify the existing commuter travel patterns of the municipality as a whole. **Figure 2** identifies travel patterns of Mississippi Mills residents to their place of work, where approximately 44% travel to Ottawa, 35% travel within Mississippi Mills, 11% travel to Carleton Place, 9% travel to other municipalities within Ontario and 1% travel to Gatineau, Quebec. **Figure 3** identifies travel patterns of commuters to Mississippi Mills as their place of work, where approximately 52% travel from within Mississippi Mills, 21% travel from other municipalities within Ontario, 16% travel from Ottawa, 10% travel from Carleton Place and 1% travel from Gatineau, Quebec.

Figure 2: 2021 Census Chart Commute from Mississippi Mills

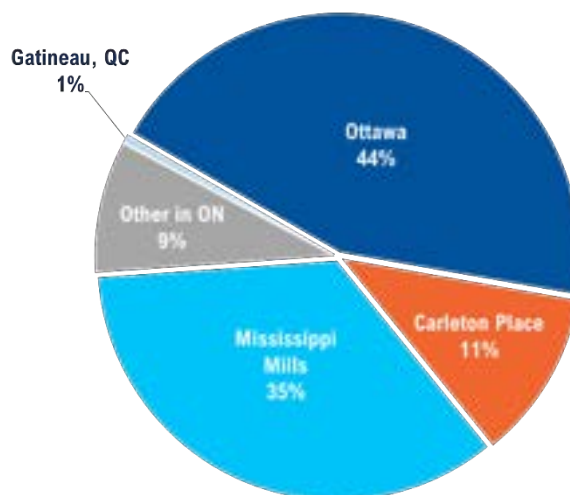
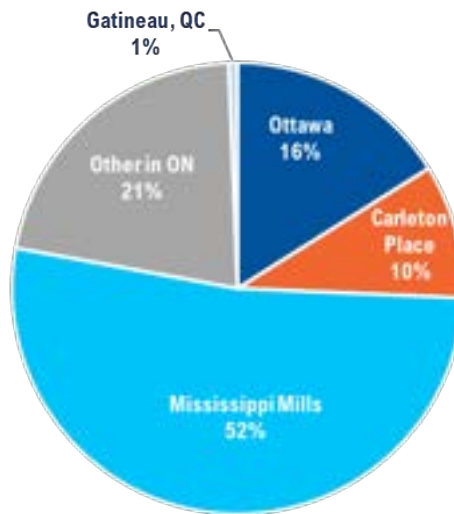


Figure 3: 2021 Census Chart Commute to Mississippi Mills



3.3.2 Identified Travel Patterns (Trip Distribution)

Based on the locations and types (residential/non-residential) of future developments within the municipality, there are five main general travel patterns during the peak hours, those are:

1. Almonte residents that
 - a. Travel to work locations within Almonte.
 - b. Travel to external work locations (outside Mississippi Mills).
2. Mississippi Mills residents in rural areas and villages that
 - a. Travel to work locations within Almonte.
 - b. Travel to external work locations (outside Mississippi Mills).
3. Almonte employees that
 - a. Commute from Almonte and Mississippi Mills rural areas and villages (calibrated to 1a and 2a).
 - b. Commute from external locations (outside Mississippi Mills).

Guided by the Census data and using engineering judgement and rationale, trip distributions for each particular travel patterns group were broken down as shown in **Table 8**. The trip distributions to/from Almonte were further reviewed using the Streetlight Insight tool, which indicated majority of trips are between Almonte and Ottawa.

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Table 8: Trip Distributions and Rationale

Group	Travel Pattern	Distribution	Rationale
Almonte Residents	To Almonte Work	45%	Guided by Census data where 35% of MM residents commute within MM. A higher percentage was used for Almonte to account for the expectation that Almonte would see higher than average internal travel due to the concentration of future developments.
	To External Work	55%	Future MM developments currently indicate no major planned employment in locations other than Almonte. Therefore, residents assumed to travel to external locations.
MM Rural and Village Residents	To Almonte Work	35%	Guided by Census data where 35% of MM residents commute within MM. The 35% would be directed entirely to Almonte, where all major future employment will be.
	To External Work	65%	The remaining percentage is assumed to travel to external work locations.
Almonte Employees	From Almonte and MM	65%	The Census indicates that more than 50% of MM employees travel from within MM. To calibrate with above patterns where residents of Almonte and MM rural areas and villages travel to Almonte, as well as the commercial usage that is not accounted for in the Census, the percentage was increased.
	From External Residents	35%	The balance of the 65% percent assumed by the above travel pattern.

3.3.3 Travel Routes and Trip Assignment

Based on the indicated trip distributions, total vehicle trips were assigned to each travel pattern as provided in **Table 9** below. The trips were then assigned to the road network using the most likely routes between the respective origins and destinations. County roads will naturally see the highest traffic usage given they provide the main connections between villages, Almonte and external regions. In particular, County Road 49 (March Road) will see the highest usage of all roads in the municipality considering the connection it forms as the main road to the City of Ottawa, where a significant portion of travel to/from Mississippi Mills takes place. County Road 29 will also have a notable increase in traffic due to it being a primary connection between Carleton Place, Almonte and three of the four existing villages in the municipality. County roads connecting to Almonte, such as County Roads 16, 16A and 17 will also have a modest increase in traffic. For municipal roads, major roads mainly within Almonte will have significant increases in traffic, including Ottawa Street/Main Street/Almonte Street, Industrial Drive and Paterson Street.

Table 9: Travel Pattern Trip Assignment

Travel Pattern	Peak Hour Time Period	Horizon			Total
		Short-Term	Medium-Term	Long-Term	
1a	AM	198	300	312	810
	PM	209	316	328	853
1b	AM	241	367	381	989
	PM	256	386	401	1,043
2a	AM	36	72	72	180
	PM	38	76	76	190
2b	AM	66	133	133	332
	PM	70	140	140	350
3a	AM	234	372	384	990
	PM	247	392	404	1,043
3b	AM	118	191	189	498
	PM	132	229	216	577
Total	AM	893	1,435	1,471	3,799
	PM	952	1,539	1,565	4,056

3.4 Projected Future Traffic Volumes

The future development generated traffic volumes assigned to the road network were overlaid onto the existing traffic volumes at each of the future horizon years. The projected volume figures for each horizon year are provided in **Appendix C**.

4.0 FUTURE ANALYSIS

Analysis was conducted using the projected traffic volumes of the three horizon years, to determine the capacity deficiencies and the potential mitigation measures, such as new roads, bridges or local design modifications. Almonte intersections were analyzed using the morning and afternoon peak hour projected volumes, with a review of mid-block AADT volumes and the Almonte Bridges Screenline analysis. The rural network and villages of Mississippi Mills were evaluated through a review of projected mid-block AADT volumes along major and key roads.

4.1 Do Nothing

“Do nothing” analyzes the existing study area network without any physical modifications using the projected traffic volumes of the three horizon years.

4.1.1 Short-Term (1 to 5 years)

Analysis indicates that there is no need to provide any new infrastructure or modify existing roads or intersections in the short-term, aside from some safety modifications and studies at particular intersections. Optimizing the cycle lengths and phase times of signalized intersections in Synchro results in intersections that operate within acceptable standards as detailed by the evaluation criteria. Both the roundabout and the unsignalized intersections all operate within acceptable standards without any physical modifications as well.

The mid-block volumes in both Almonte and rural areas and villages also indicate no traffic operational concerns in the short-term as AADT volumes are expected to increase slightly compared to existing conditions.

Intersections in Almonte that are in need of safety modifications or studies:

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- Christian/Perth – removal of NBR channel island and replacement with auxiliary turn lane.
- Bridge/Perth – redesign intersection to standard ‘T’-intersection to mitigate safety issues.
- Ottawa/Martin – complete a functional design study to determine property, accessibility, and capacity needs.
- March/Appleton Side roundabout – complete a safety review to mitigate current safety concerns by the public.

Based on screenline analysis for short-term horizon shown in **Table 10**, the v/c ratio across the two bridges indicates sufficient capacity available, both in total and individually.

Table 10: Almonte Bridges Short-Term Screenline Capacities

Screenline	Street	Class	Lane Capacity (vphpl)	Number of Lanes	Peak Direction Capacity	Existing PM Peak Direction Volume	V/C Ratio
Almonte Bridges	Main Street	Arterial	800	1	800	565	0.71
	Bridge Street	Arterial	800	1	800	408	0.51
Total or Average				2	1,600	973	0.61

4.1.2 Medium-Term (5 to 15 years)

In Almonte, Ottawa Street/Main Street/Almonte Street is expected to experience high levels of congestion due to the added future development volumes in Almonte. This includes extended queue lengths and critical traffic operations at signalized intersections between Appleton Side Road and County Road 29. Unsignalized intersections in Almonte will also experience added delays, with operations at the westbound movement of the County Road 29/Perth Street intersection operating over capacity. The March Road roundabout is expected to operate acceptably at this horizon.

Mid-block AADT volumes of the village roads and rural road network are expected to increase but not exceed available road capacities, where AADT volumes on municipal rural roads may reach 2,000 vehicles.

Based on screenline analysis for medium-term horizon shown in **Table 11**, the v/c ratio across the two bridges does not exceed total available capacity. However, v/c ratio for the Main Street bridge may exceed capacity due to high volumes.

Table 11: Almonte Bridges Medium-Term Screenline Capacities

Screenline	Street	Class	Lane Capacity (vphpl)	Number of Lanes	Peak Direction Capacity	Existing PM Peak Direction Volume	V/C Ratio
Almonte Bridges	Main Street	Arterial	800	1	800	780	0.98
	Bridge Street	Arterial	800	1	800	465	0.58
Total or Average				2	1,600	1,245	0.78

4.1.3 Long-Term (15 to 25 years)

Analysis indicates a need to provide a new bridge crossing plus potentially upgrade some intersections to achieve acceptable traffic operations along the Ottawa/Main/Almonte arterial. The March Road roundabout and signalized intersections along Ottawa/Main/Almonte are all anticipated to operate at capacity during peak hours, with high levels of congestion and delays. Unsignalized intersections Main/Mill and County Road 29/Perth Street will also operate at capacity.

Mid-block AADT volumes of the village roads and rural road network are expected to increase with an AADT up to approximately 2,300 vehicles, but still do not exceed available road capacities.

Based on screenline analysis for long-term horizon shown in **Table 12**, the v/c ratio across the two bridges is expected to exceed total available capacity due to significantly high volumes along the Main Street Bridge.

Table 12: Almonte Bridges Long-Term Screenline Capacities

Screenline	Street	Class	Lane Capacity (vphpl)	Number of Lanes	Peak Direction Capacity	Existing PM Peak Direction Volume	V/C Ratio
Almonte Bridges	Main Street	Arterial	800	1	800	1,060	1.32
	Bridge Street	Arterial	800	1	800	500	0.62
Total or Average				2	1,600	1,560	0.98

4.2 Alternative Options

Given the poor traffic operations expected in the medium and long terms, an objective review of different options was carried out with some analysis to determine appropriate mitigation options. Some analysis alternatives included different combinations of future road alternatives, such as new north/south collector road options and bridge crossings in Almonte, and different options for the March Road future capacity constraints.

4.2.1 Sustainable Modes

Sustainable modes refer to travel modes such as transit, cycling and walking that would help alleviate and mitigate traffic operations concerns by reducing it in favor of the sustainable modes. Based on the 2021 Census, the auto driver mode share within Almonte is approximately 80%, with practically nonexistent transit and cycling usage during peak hours.

To test the required reduction in traffic volumes to achieve acceptable traffic operations within Almonte, the auto driver mode share was reduced and analyzed in several iterations. The goal of the analysis was to determine the bare minimum reduction in traffic volumes necessary to achieve traffic operations that are not over capacity, while not needing to implement any physical modifications in Almonte. Through the analysis, it was determined that an auto driver mode share of 55% would be needed at the long-term horizon, which is considered very difficult to achieve given Almonte’s more rural setting. Therefore, it was determined that a sustainable mode only option is not reasonable at this time. However, the municipality and Almonte should continue to improve transit and active transport (walking and cycling) modes and facilities given the existing and future demands of these modes.

4.2.2 Intersection modifications only

Analysis determined that intersection modifications alone cannot provide the needed traffic operations within Almonte in the medium and long-terms, even if all turn movements are provided on every approach at intersections such as Ottawa/Paterson and Ottawa/Martin. This is because the major limiting factor in the poor traffic operations are the high projected future through traffic volumes on Ottawa Street, which can only be resolved through providing additional lane capacity.

4.2.3 Ottawa Street Widening

Based on analysis, widening 2-lane cross-section of Ottawa Street to 4-lane between Paterson Street and Martin Street can help resolve the major traffic operational issue at the pinch point of Ottawa Street. However, this option was discounted early on for a couple major reasons:

- If only this section of Ottawa is widened, the pinch point will simply move to the next intersection where the 2-lane cross-section begins (i.e. west of Martin Street). As a result, part of Main Street may also need to be widened to accommodate the traffic, which includes the bridge crossing. Additionally, there will still be a need to

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modify some turning movements at other intersections, which may not be achievable due to limited space availability.

- There is currently a very limited Right-of-Way (ROW) on this section of Ottawa Street. Tens of houses are located right at the street, making it not possible to widen Ottawa Street without first purchasing and demolishing all these units. This would likely come at the cost of major public opposition and very high costs, making it not a viable option.

4.2.4 New Collector Roads

Based on analysis, a new north collector road between Martin Street and Ramsay Concession 11A and a new south collector road between Paterson Street and Appleton Side Road will be necessary to reduce pressures along Ottawa Street. This is consistent with the conclusions of the 2016 Mississippi Mills TMP, which recommended the two collector roads by horizon year 2035. Considering the locations of major future developments, these collector roads will be significant in providing an alternative route for future site-generated traffic, as well as a portion of the existing traffic. There may be a need for some local intersection modifications, such as extending existing turn lane storage lengths or adding auxiliary turn lanes.

The collector roads are expected to be sufficient in the medium-term, but not in the long-term, where a completely alternative route than Ottawa Street/Main Street/Almonte Street becomes needed to divert traffic away from the busy Almonte core areas.

4.2.5 New Mississippi River Bridge Crossing

At long-term, it becomes necessary to provide either a new north or south bridge crossing to completely remove a large portion of traffic from Ottawa Street, which includes both volume internal to Almonte and those travelling through Almonte to other locations.

The analysis and existing travel data information both suggest that the south bridge will be more useful in diverting traffic as it will see a higher usage than a north bridge.

4.2.6 March Road Future Constraints

At long-term, March Road is expected to experience capacity constraints due to high future traffic volumes. Two different options were considered, which includes widening March Road from the existing 2-lane cross-section to a 4-lane cross-section within municipality boundary, or alternatively, providing an alternate route for traffic travelling between Ottawa and the Mississippi Mills Municipality.

March Road is under the jurisdiction of Lanark County and is owned by the City of Ottawa past the Mississippi Mills boundary. Widening the road within the municipality boundary is subject to timing and implementation of the county and the road may still experience congestion as it transitions back to a 2-lane cross-section within Ottawa's boundary. The widening may also result in an increase in traffic demand.

Therefore, the preferred solution may be to formalize an alternative route via Old Almonte Road and Golden Line Road, which provides more flexibility to address the capacity constraints. This would require upgrading both Old Almonte Road from Appleton Side Road to Golden Line Road and Golden Line Road from Old Almonte Road (north) to Old Almonte Road (south).

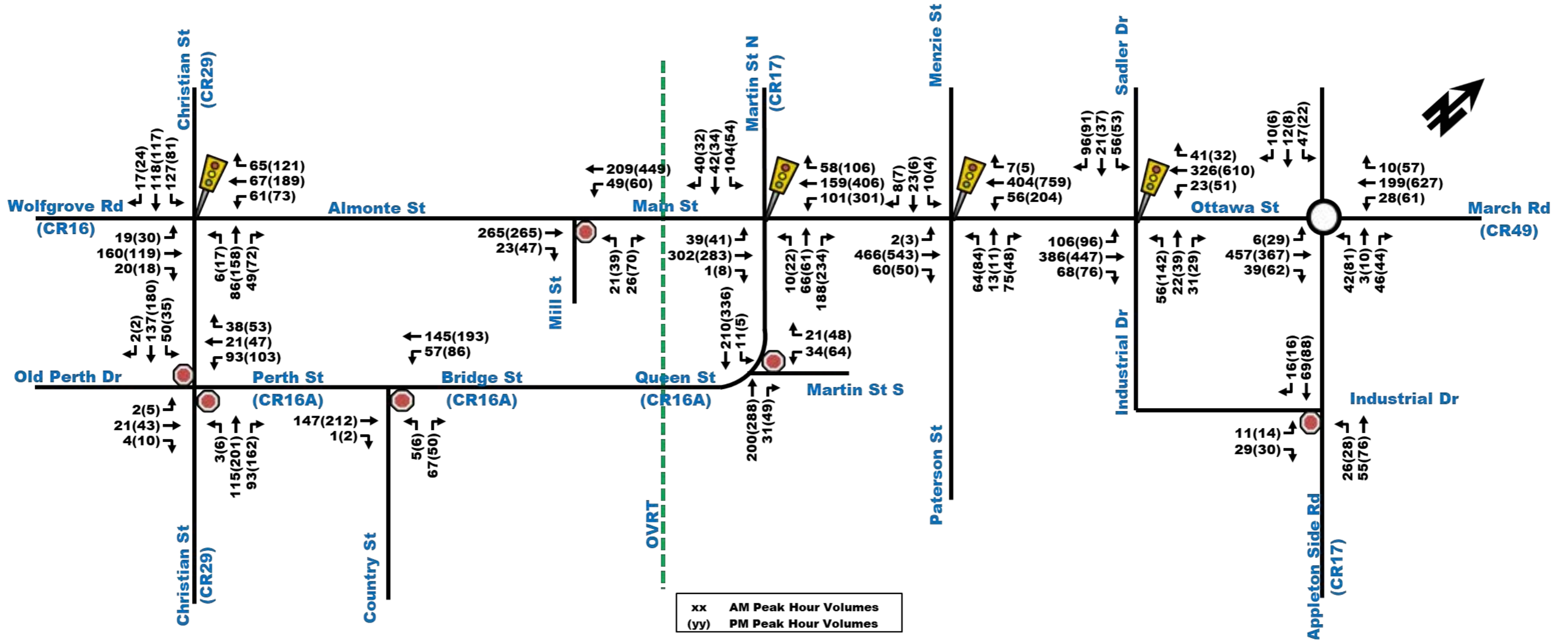
4.3 Recommendations

The complete recommended traffic operational improvement measures for new infrastructure and intersection modifications consist of measures primarily for Almonte, with one measure within the rural boundaries of the municipality. There are no traffic operational concerns for the majority of the rural areas and villages at this time. The recommended measures are as follows:

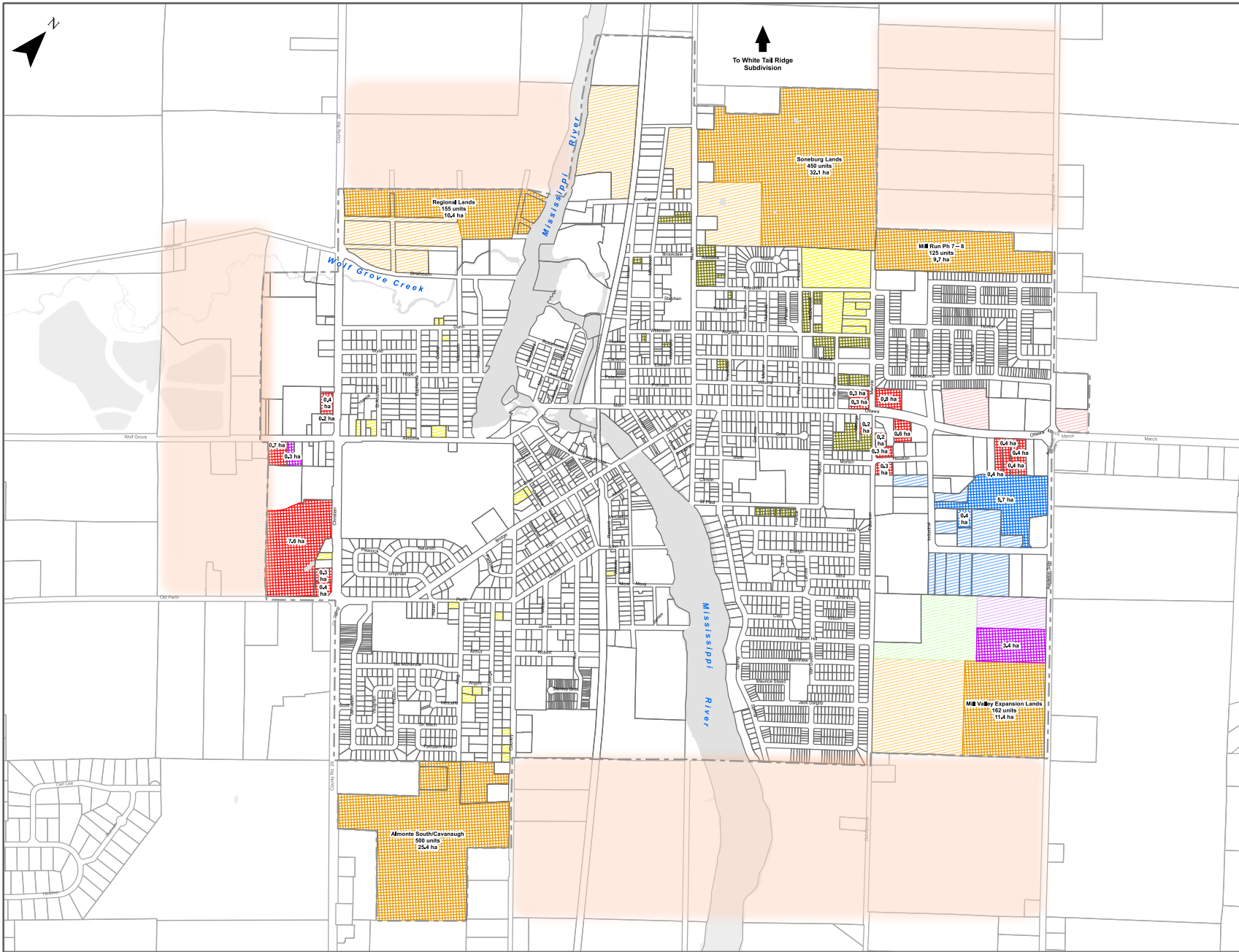
- Short-term safety mitigations/studies:
 - Ottawa/Martin – complete a functional design study to determine property, accessibility, and capacity needs.
 - March/Appleton Side roundabout – complete a safety review to mitigate current safety concerns by the public and provide short-term roundabout enhancements.
- Signalization of three intersections at long-term:
 - Christian/Perth
 - Main/Mill
 - Appleton Side/Industrial
- Intersection modifications at four locations at medium and long-terms:
 - Christian/Perth – including removal of NBR channel island and replacement with auxiliary turn lane.
 - Bridge/Perth – redesign intersection to standard ‘T’-intersection to mitigate safety issues.
 - Ottawa/Martin – town to monitor intersection between medium and long-terms. Any modifications will be subject to need and property availability.
 - Ottawa/Paterson – town to monitor intersection between medium and long-terms to determine need.
 - March/Appleton Side roundabout – town to monitor intersection at long-term. Modification may not be needed if alternative route to March Road is extended past Almonte’s boundaries.
- New infrastructure:
 - At medium-term, new north and south collector roads should be constructed to reduce pressure on Ottawa Street.
 - At long-term, a new south bridge crossing should be constructed to detour large volumes of traffic away from Ottawa Street. Consideration will also be needed to either widen March Road from the current 2-lane cross-section to a 4-lane section, or upgrade the alternative route via Old Almonte Road and Golden Line Road.

Appendix A – Existing Traffic Volume Figures

Almonte Existing Intersection Peak Hour Volumes



Appendix B – Future Growth Areas



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**Schedule 2:
Future Growth Areas
and Land Uses - Almonte**

Legend

Almonte Boundary

5 Year - Short-Term

- Intensification (Infill, Subdivisions)
- Residential - Greenfield
- Residential - Community Facility
- Business Park
- Commercial
- Industrial

15 Year - Medium-Term

- Intensification (Infill, Subdivisions)
- Residential - Greenfield
- Residential - Community Facility
- Business Park
- Commercial
- Industrial

25 Year - Long-Term

Potential Future Growth Areas

Notes: 25 Year horizon land uses include residential, industrial and business park. Precise locations of land uses to be confirmed in future Official Plan updates

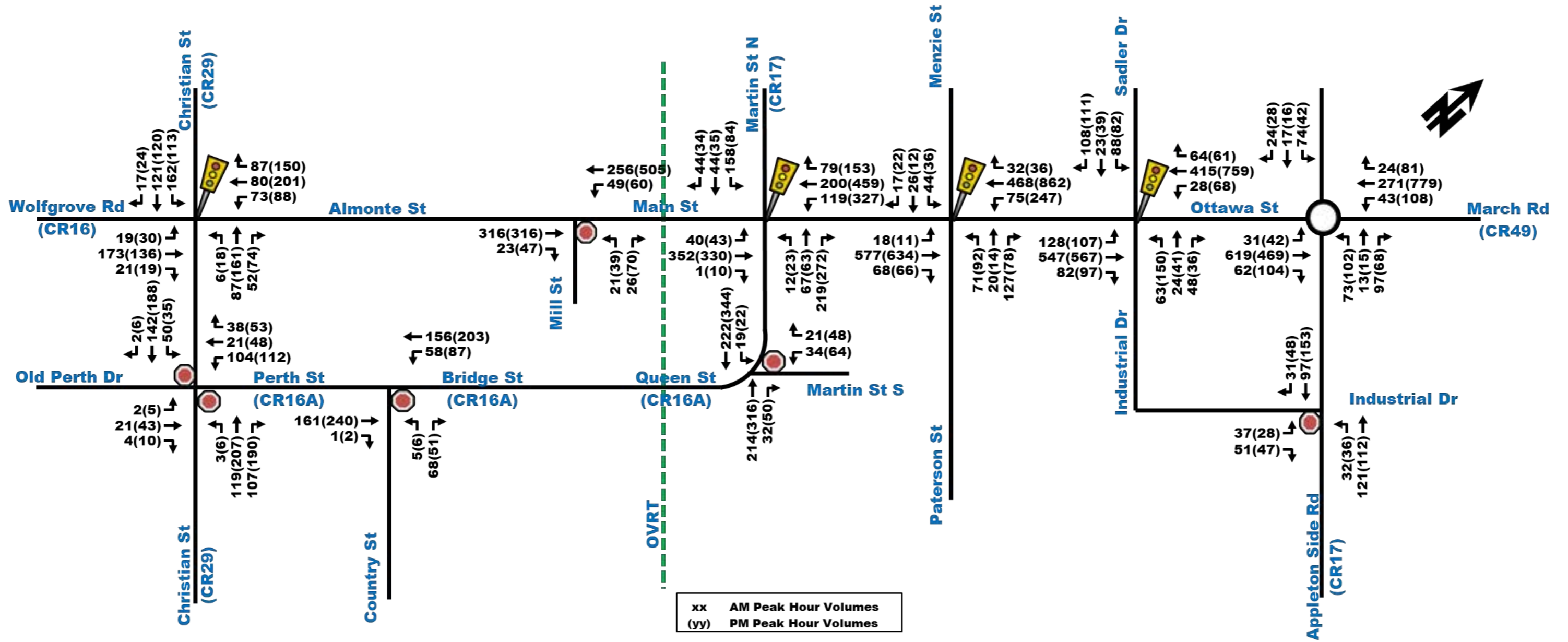
Source: Municipality of Mississippi Mills Almonte Ward Water and Wastewater Infrastructure Master Plan Update, July 2023. J.L. Richards

July 2024

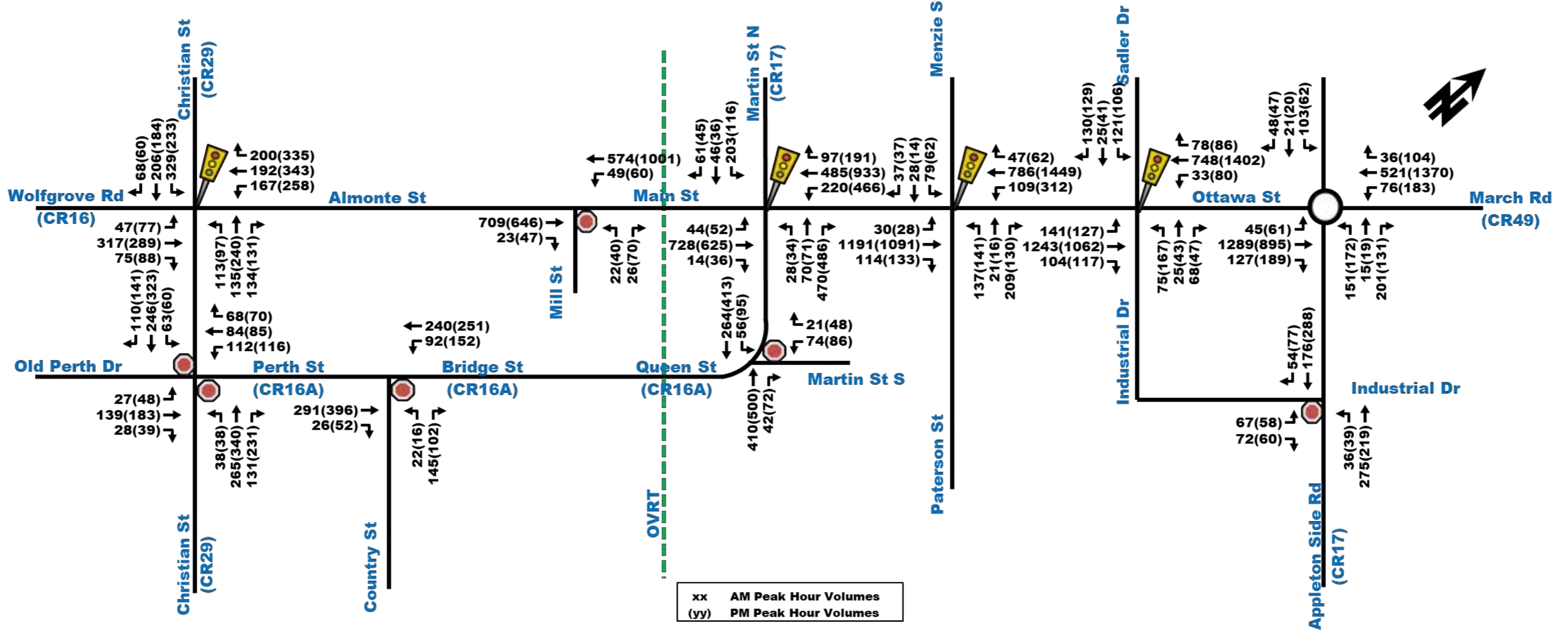


Appendix C – Projected Traffic Volume Figures

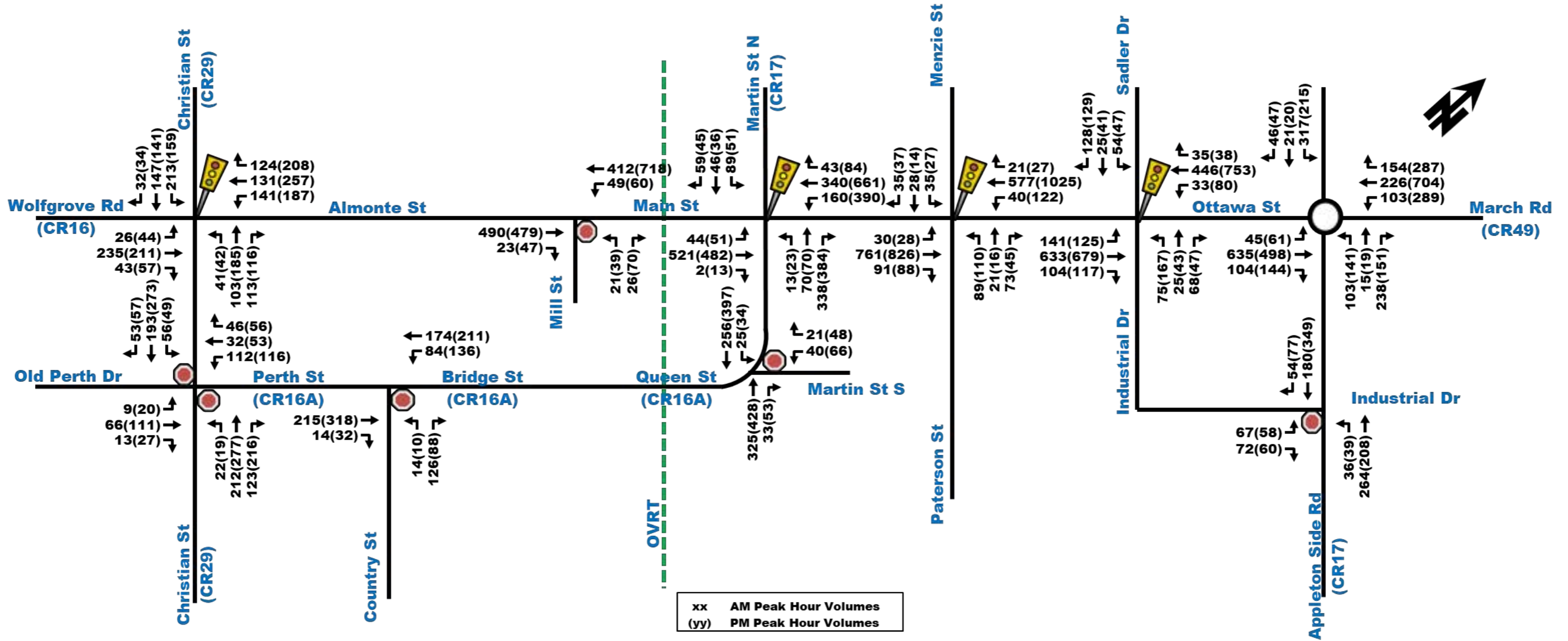
Almonte Short-Term Intersection Peak Hour Volumes (Existing Infrastructure)



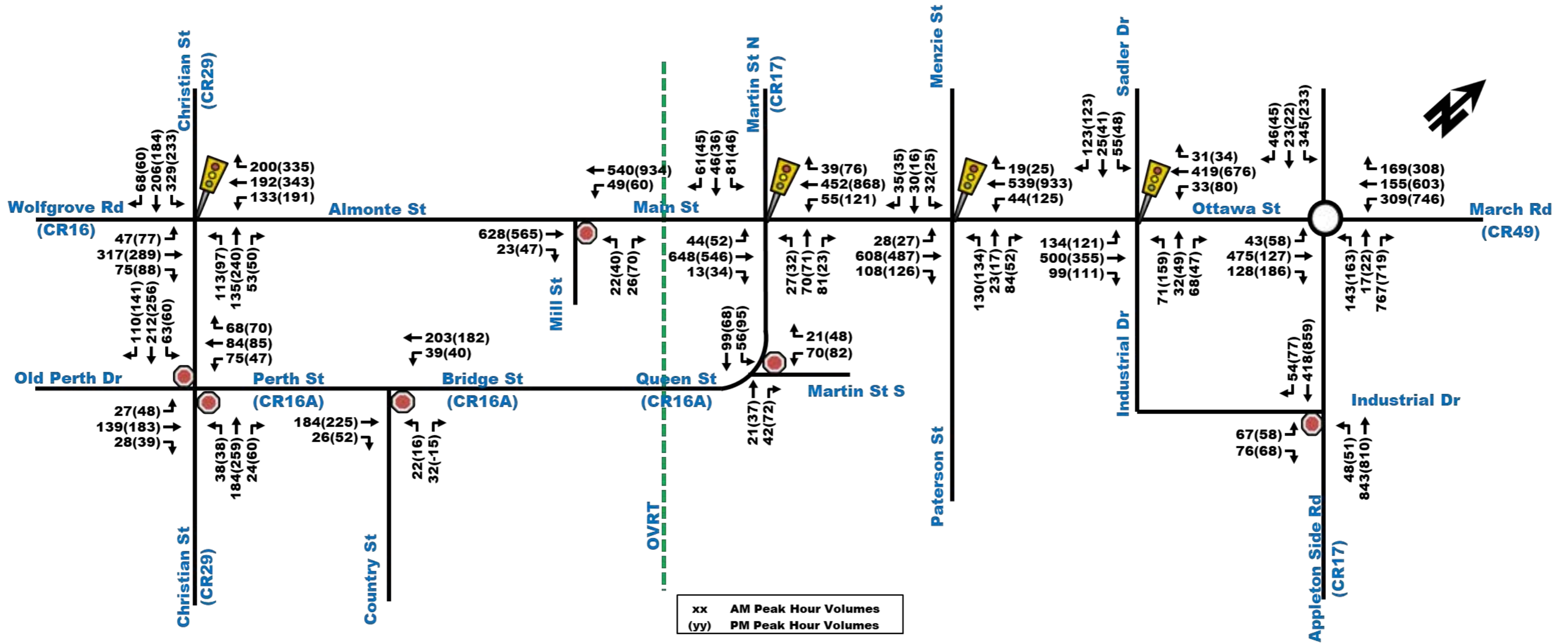
Almonte Long-Term Intersection Peak Hour Volumes (Existing Infrastructure)



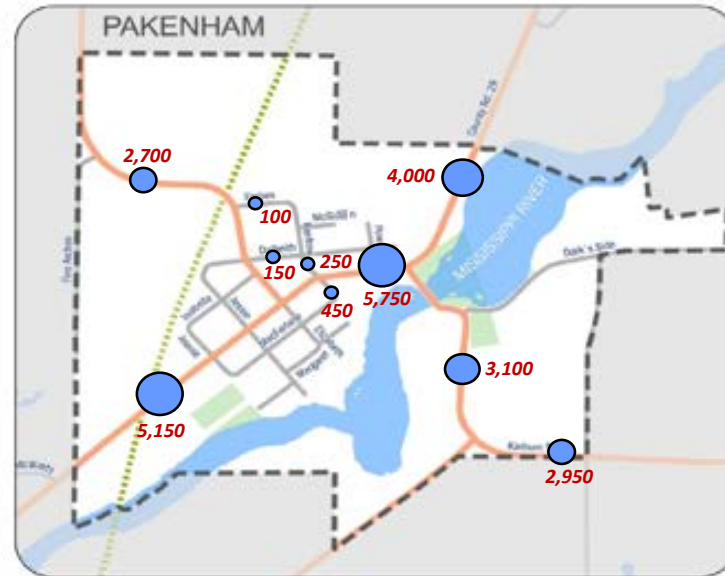
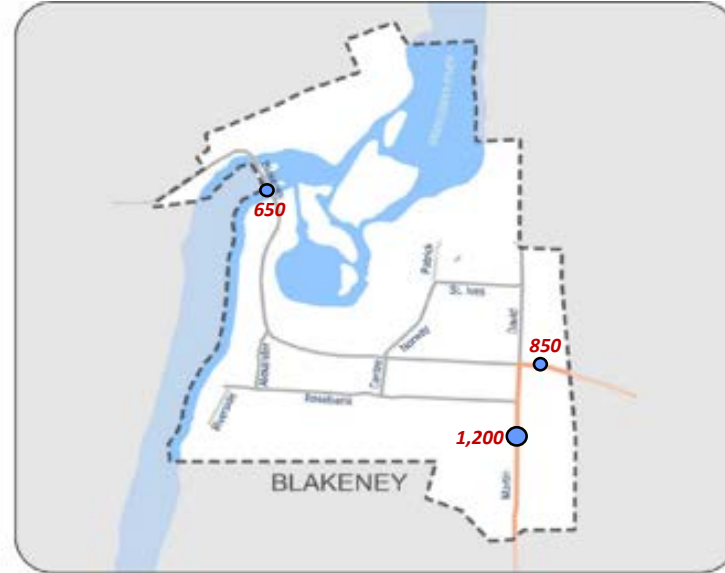
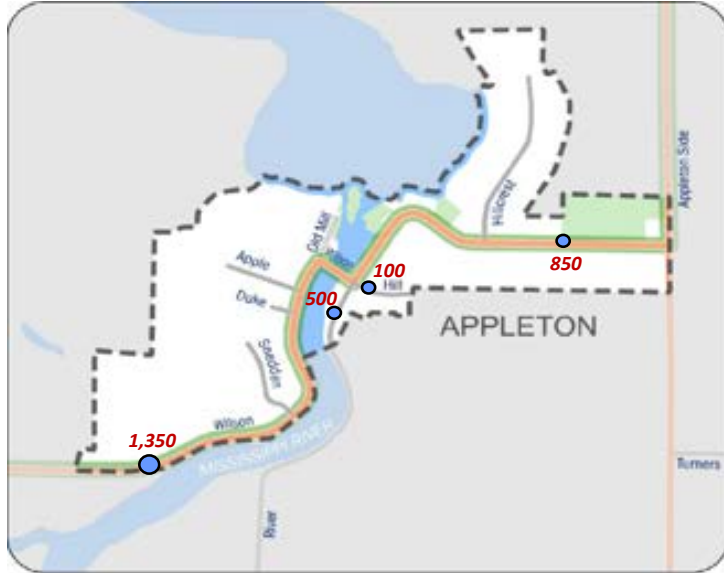
Almonte Medium-Term Intersection Peak Hour Volumes (Recommended Infrastructure)



Almonte Long-Term Intersection Peak Hour Volumes (Recommended Infrastructure)



Villages Long-Term Mid-Block AADT



Appendix F

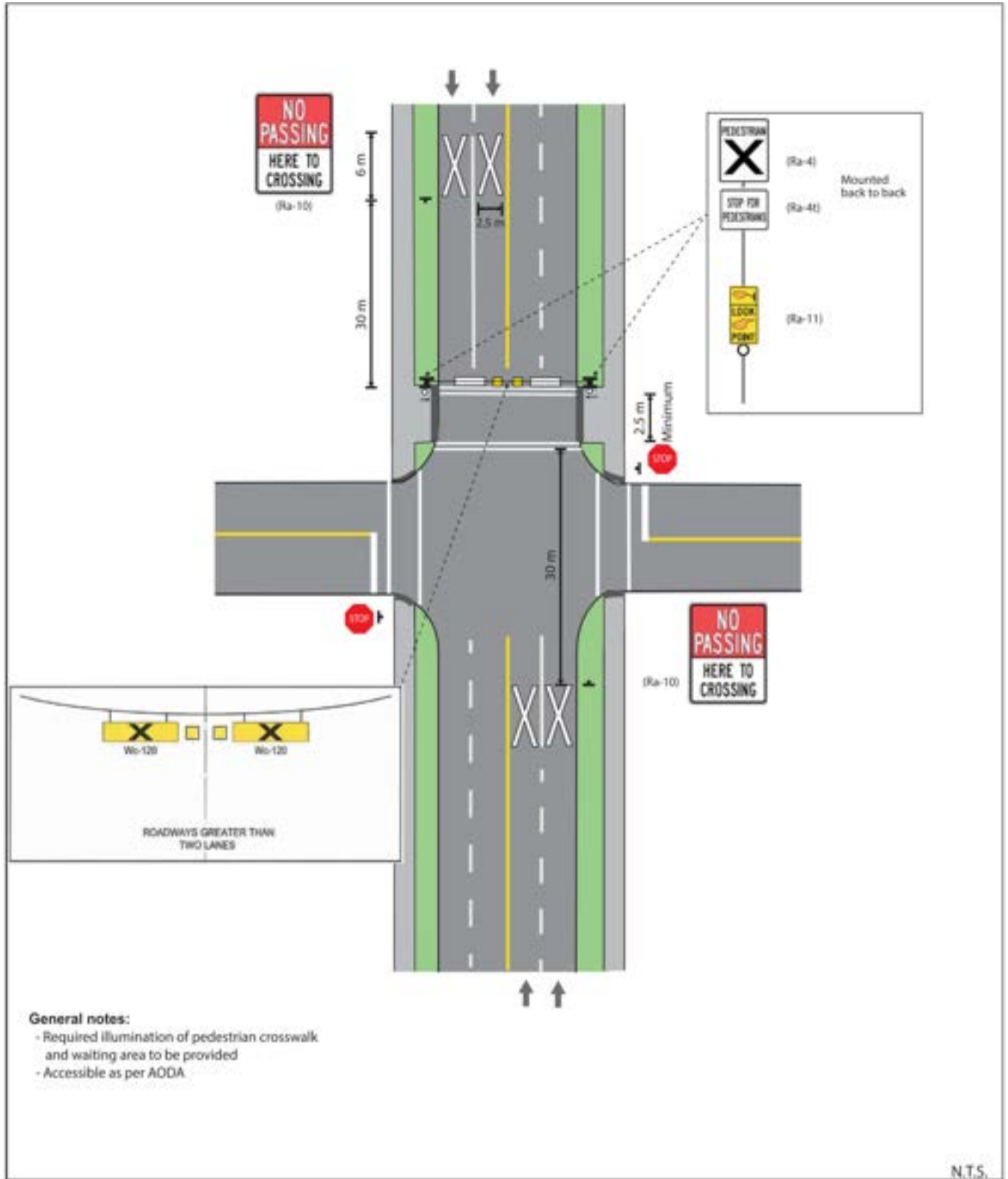
2016 TMP: Active Transportation Infrastructure Project Prioritization Plan

Facility Type	Roadway	From	To	Priority	Completed
New Concrete Sidewalks	Adelaide St.	Martin St.	Finner Ct-	Medium	No
	Almonte St.	Euphemia St.	Malcolm St	Medium	No
	Almonte St.	Malcolm St.	Mill st	Medium	No
	Argyle St	King st.	Country St.	Medium	No
	Bridge St	Shipman Dr. / Existing Sidewalk	Country St-	High	No
	Brookdale Ave.	Union St. N.	Martin St. N.	Medium	No
	Carss St.	Union St_ N.	Martin St. M	Low	No
	Evelyn St.	Larose St.	Gale St,	Medium	No
	Farm St.	Almonte St	Charles St.	Medium	Yes
	Frederick St.	Augusta St.	Ottawa St.	Medium	No
	Houston St.	Paterson St. Houston St. / Existing Sidewalk	Industrial Dr.	High	No
	Industrial Dr.	Country St.	Appleton Side Rd.	Low	No
	James St.	Country St.	William St.	Medium	No
	Johanna St.	Spring St.	Larose St.	Low	No
	John St.	High St.	Reserve St.	Low	No
	Larose St.	Evelyn St.	Tara St.	Low	No
	Malcolm St.	Strathburn St.	Dunn St.	Low	No
	Marshall St.	Adelaide St-	Existing Sidewalk	Medium	No
	Maude St.	Frederick St_	Florence St.	Medium	No
	Maude St.	St. James St.	Existing Sidewalk	Low	No
	Menzie Rd.	Maude st.	Ottawa St.	Medium	Yes
	Mercer St.	Maude St_	Augusta St.	Medium	No
	Napier Ln.	Adelaide St.	Dead End	Medium	Yes
	Norton St.	Augusta St.	Existing Sidewalk	High	No
	Ottawa St.	Existing Sidewalk	Appleton Side Rd.	High	No
	Paterson St. (Holy Mary School)	Existing Sidewalk	Existing Sidewalk	High	Yes
	Perth St. (North side)	Christian St.	Bridge St.	High	No
	Perth St. (South side)	Christian St.	Jamieson St.	Low	No
	Sadler Dr.	Honeybourne st.	Existing Sidewalk	Medium	Yes
	Stephen St.	Existing Sidewalk	Martin St.	Medium	Yes
	Strathburn St.	Christian St.	Malcolm St	Low	No
	Waterford St.	Wilkinson St.	Edward St.	Low	No
	Linn Bower Ln.	Tatlock Rd.	Dead End	Low	No
	County Rd. 29	Kinburn Side Rd.	Existing Sidewalk	Medium	No
	Dalketh St.	Existing Sidewalk	Existing Sidewalk	Medium	No
	Dalketh St.	Waba Rd.	Existing Sidewalk	Medium	No
	Elizabeth St	MacFarlane St	County Rd. 29	Medium	No
	Isabella St.	Existing Sidewalk	Existing Sidewalk	Medium	No

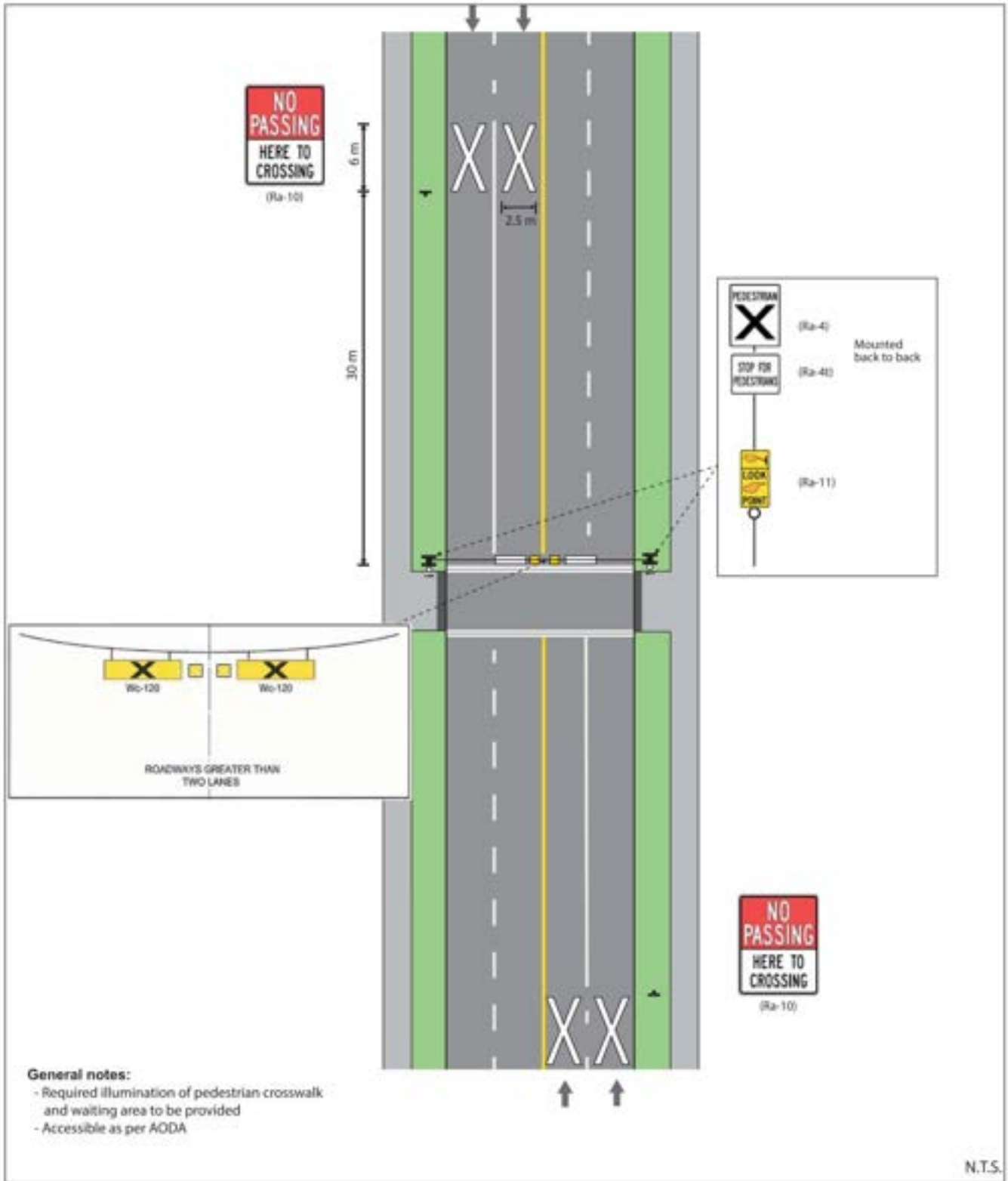
	Jessie St.	Isabella St.	County Rd. 29	Medium	No
	Jessie St.	MacFarlane St.	Margaret St.	Medium	No
	MacFarlane St.	Jessie St.	Existing Sidewalk	Medium	No
	MacFarlane St.	Jessie St.	Elizabeth St.	Medium	No
New Pedestrian Paved Shoulder	Blakeney Rd.	Bridge	Martin St. North	Medium	No
	Mcwatty Rd.	Lion Head Dr.	county Rd. 29	Low	No
	River Rd.	Hill St.	Community Mailbox	Medium	Yes
Pedestrian Crossings	Undertake a detailed engineering study of each crossing location identified as either requiring review (3) or potential new crossing locations (7) to determine appropriate crossing treatments in accordance with OTM Book 15. Modify existing crossing locations to none-et current standards.			High	
Rural Spine Cycling Route	Blakeney Rd.	County Rd. 29	Martin St.	High	No
	Clayton Rd.	Tatlock Rd.	county Rd. 29	High	No
	Old Perth Rd.	County Rd. 29	Ramsay Con. 8	High	No
	Ramsay Con. 8	Clayton Rd.	Old Perth Rd.	High	No
Rural Secondary Cycling Route	Bennies Corners Rd.	Ramsay Con. 8	county Rd. 29	Medium	No
	Gleeson Rd.	Rarnsay Con. 8	Christian st. (CR29)	Medium	No
	Old Almonte Rd	Johanna St.	Golden Line Rd.		No
	Ramsay Con. 8	Bennies Corners Rd.	Clayton Rd	Medium	No
	Ramsay Con. 8	Old Perth Rd.	County Rd. 29	Medium	No
Urban Spine Network	Ottawa St.	Martin St.	Patterson St.	High	Yes
	Ottawa St.	Patterson St.	Industrial Dr.	High	No
	Ottawa St.	453 Ottawa St.	Appleton Side Rd.	High	Yes
Urban Primary Routes	Almonte St. / Main St.	Christian St.	Martin St.	High	No
	Country St.	Bridge St-	Smart St.	High	No
	Paterson St.	Ottawa St.	Johanna St.	High	No
Urban Secondary Routes	Malcolm St.	Strathburn St.	Almonte St.	Medium	No
	Strathburn St.	Christian Rd.	Malcolm St	Medium	No

Appendix G

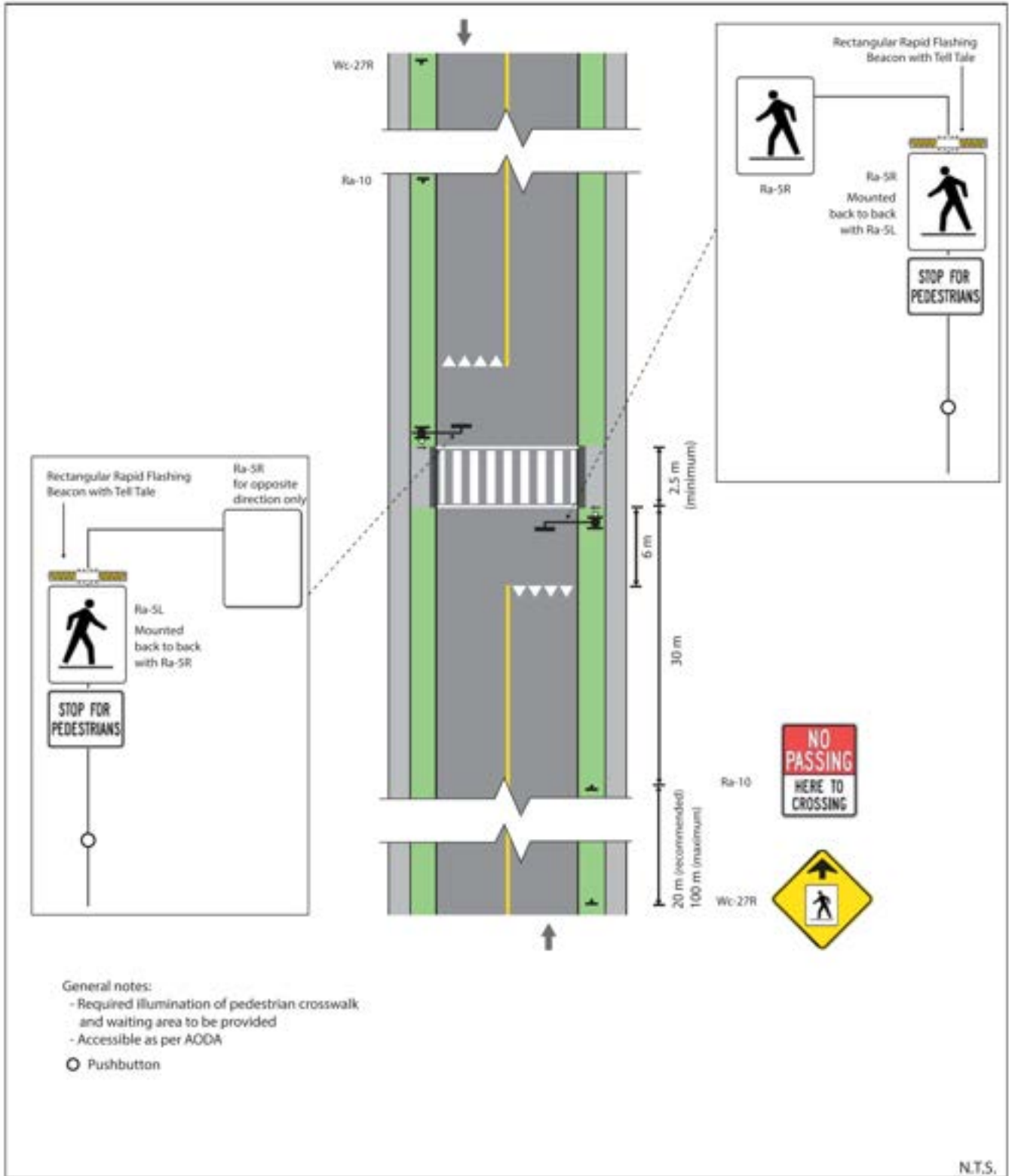
Pedestrian Cross-Over (PXOs) Treatments and Selection Criteria



Pedestrian Crossover Type A – Intersection (2-way) - OTM Book 15



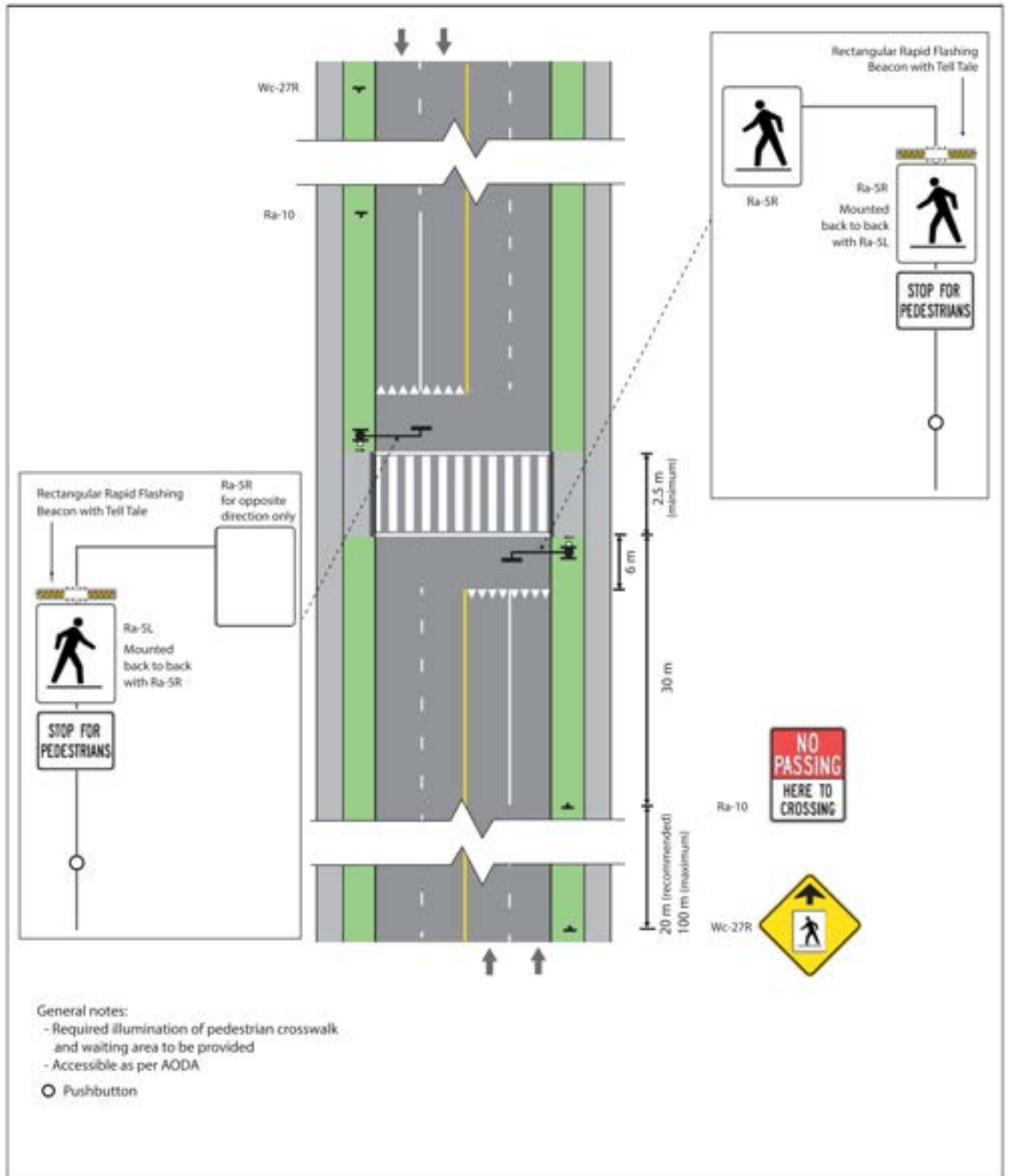
OTM



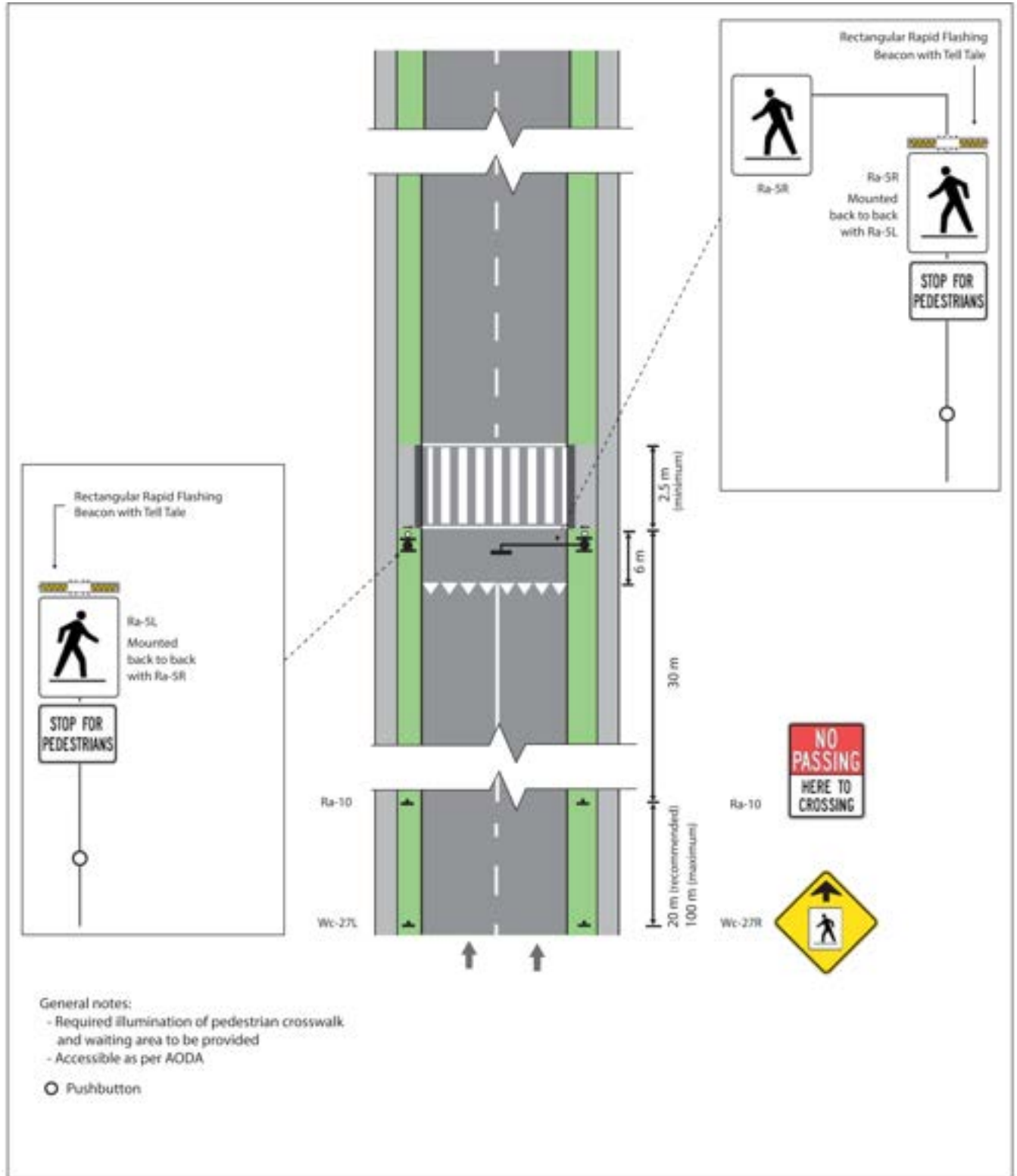
OTM

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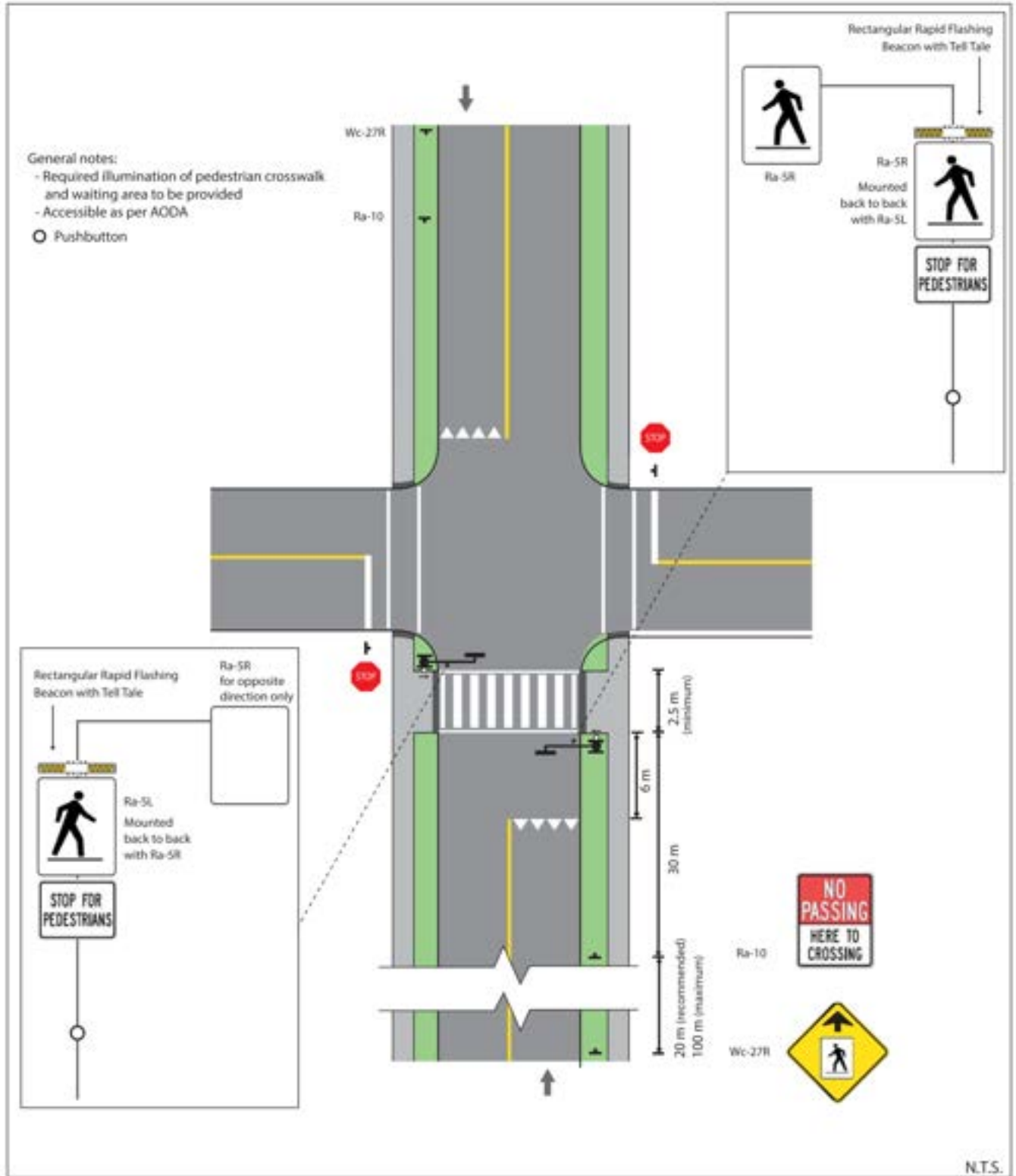
OTM Book 15 - Pedestrian Crossover Type B – Mid-block (4-lane, 2-way)



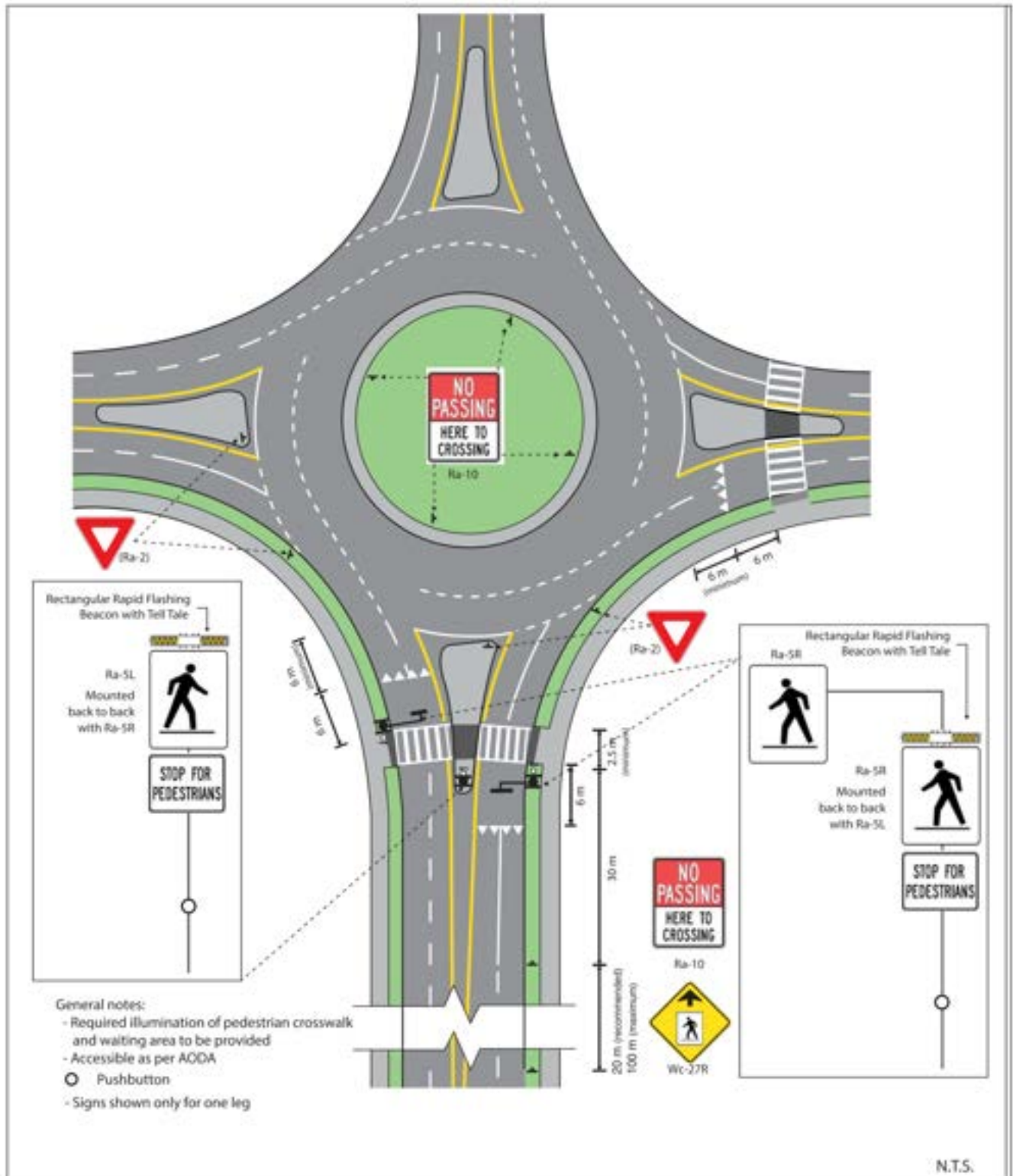
OTM Book 15 - Pedestrian Crossover Type B – Mid-block (2-lane, 1-way)

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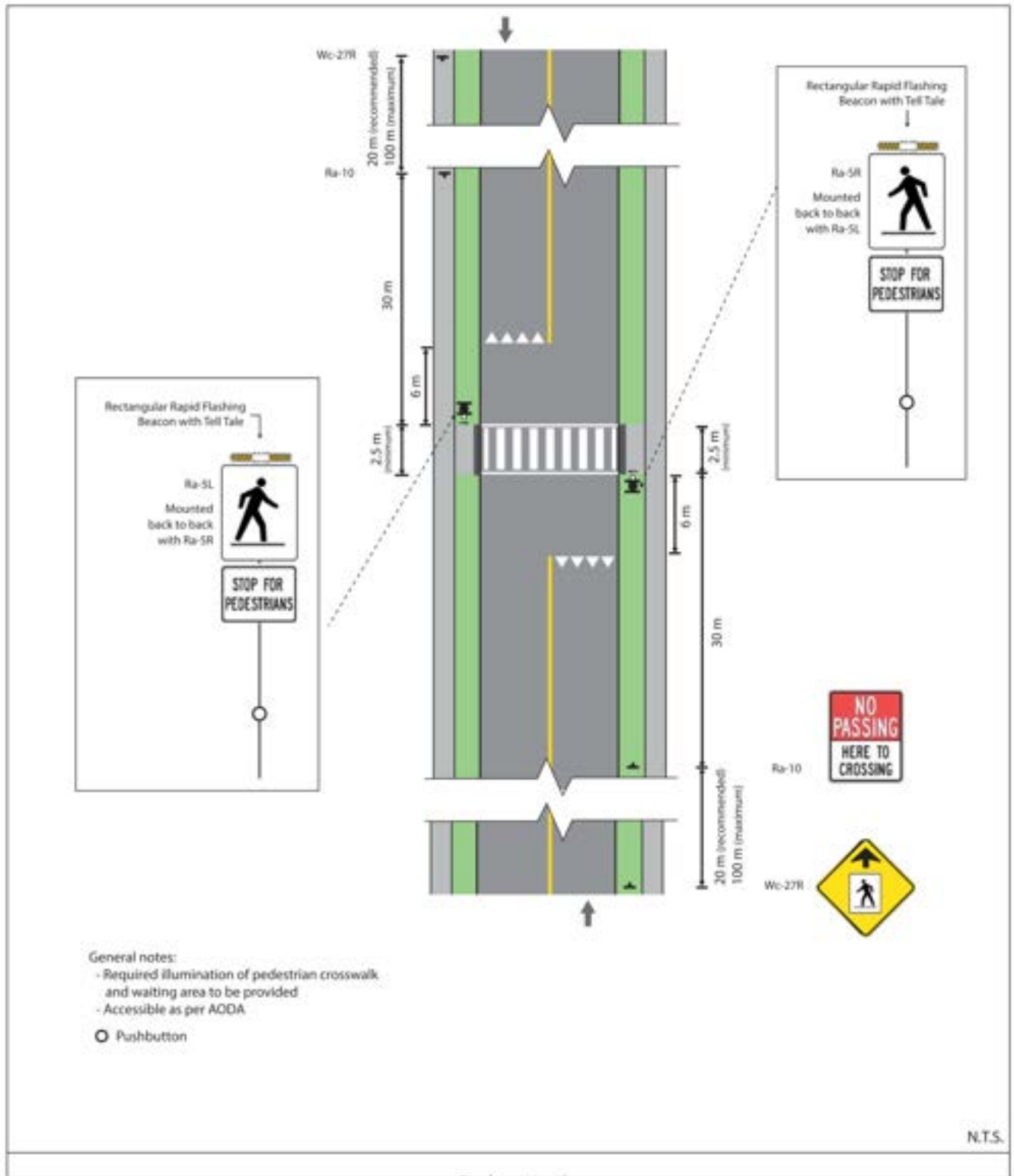
OTM Book 15 - Pedestrian Crossover Type B – Intersection (2-way)



OTM Book 15 - Pedestrian Crossover Type B – Double-Lane Roundabout

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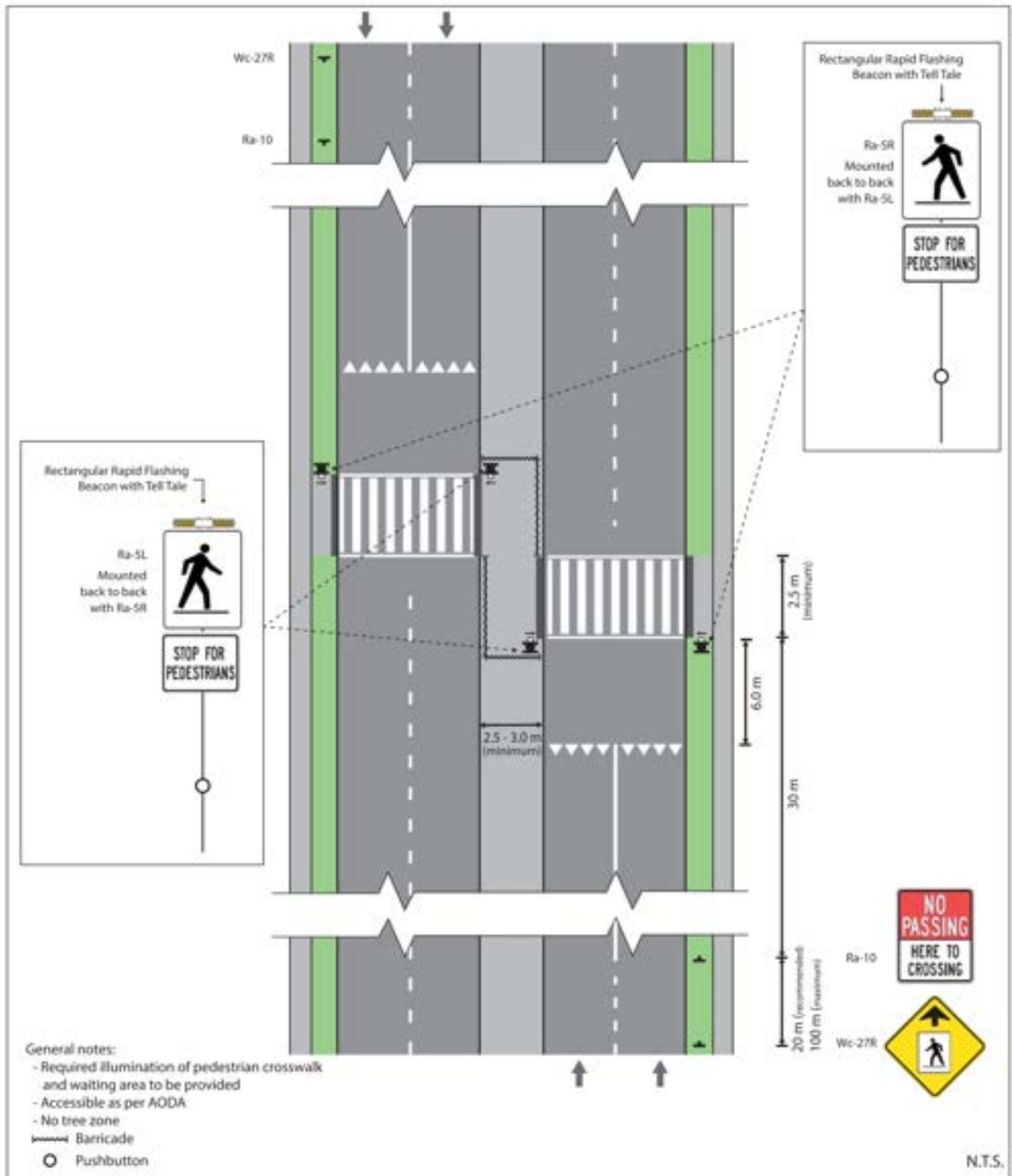
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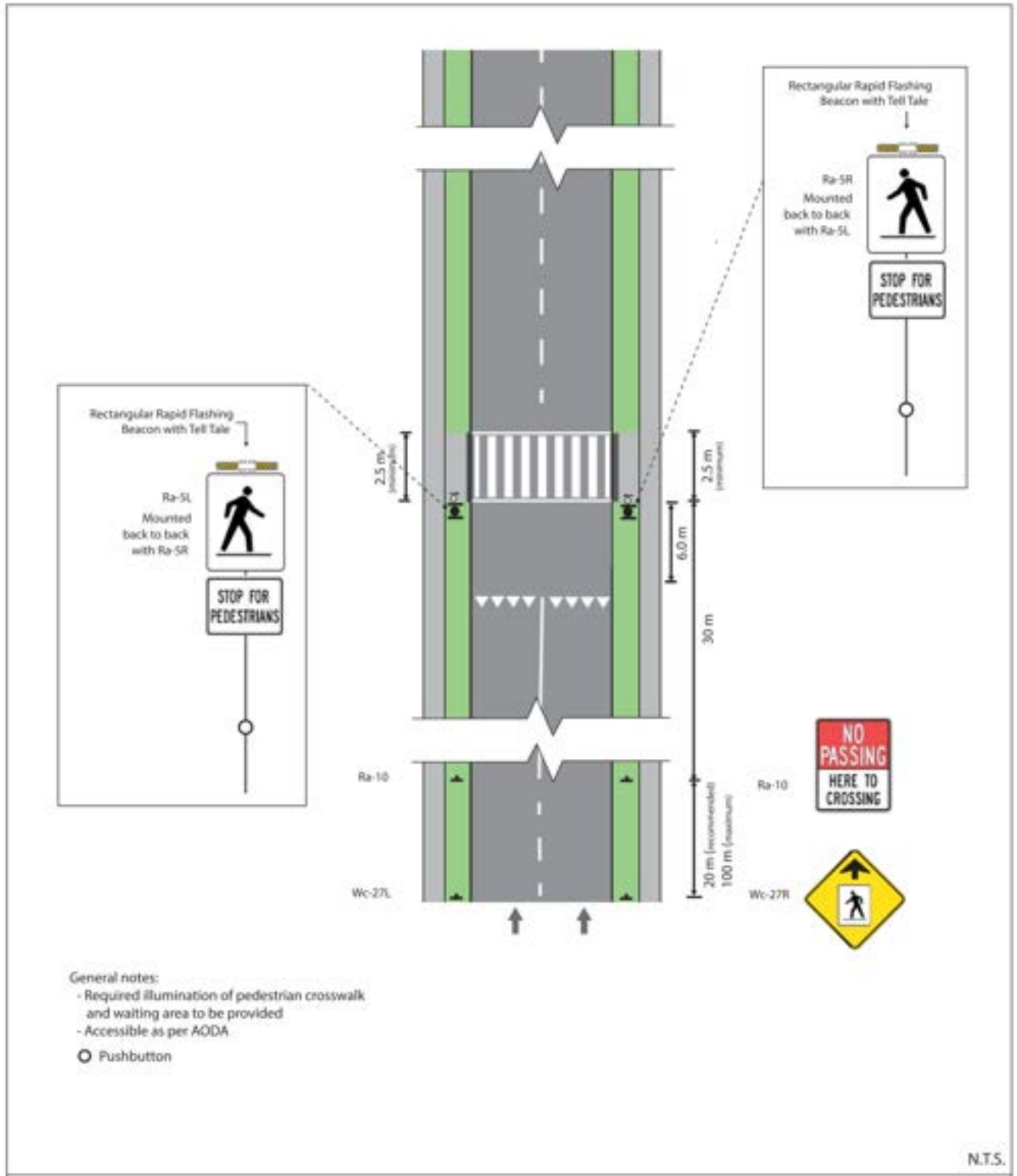
OTM Book 15 - Pedestrian Crossover Type C – Mid-block (2-lane, 2-way)

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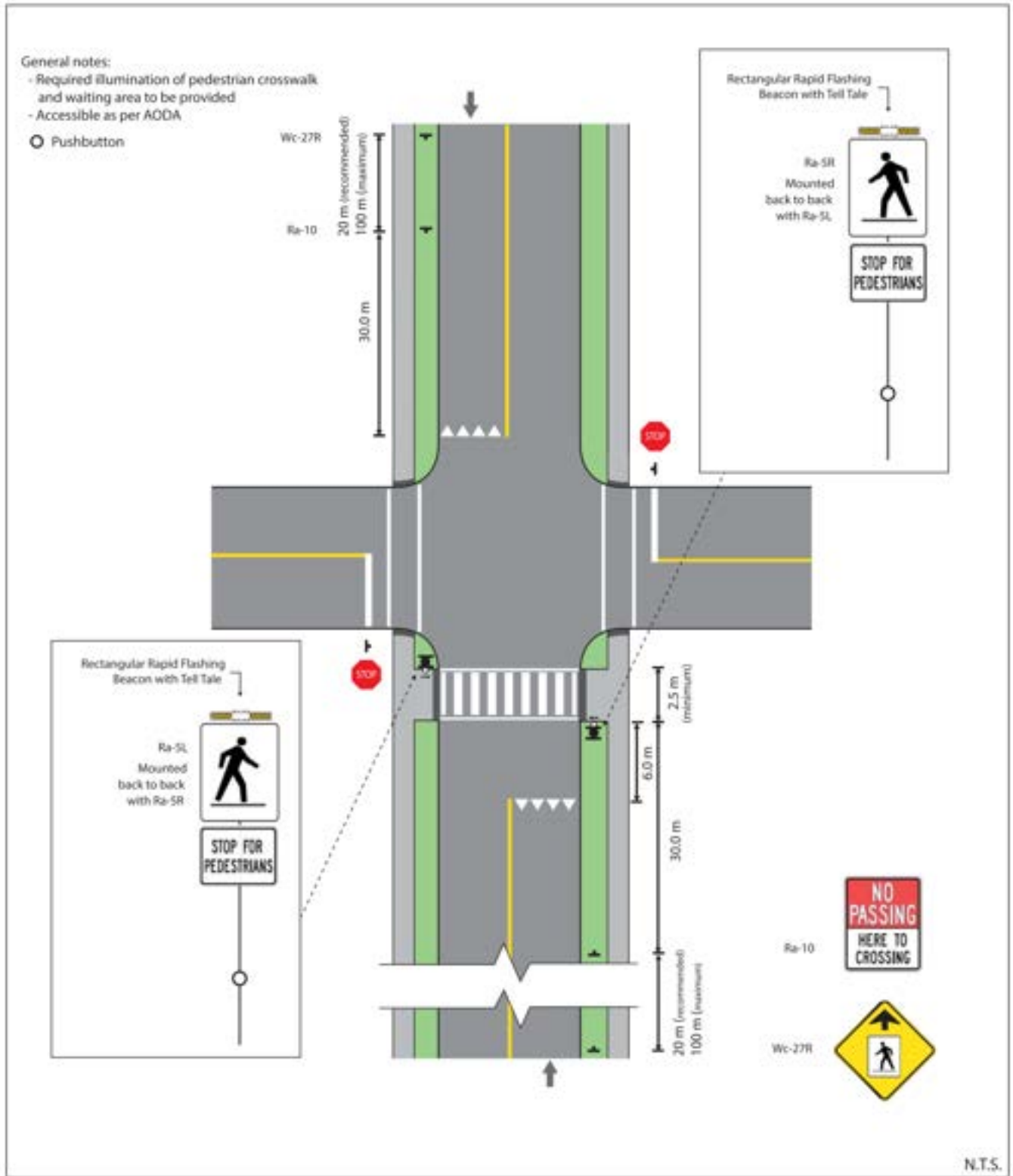
OTM Book 15 - Pedestrian Crossover Type C – Mid-block (4-lane, 2-way with raised refuge)



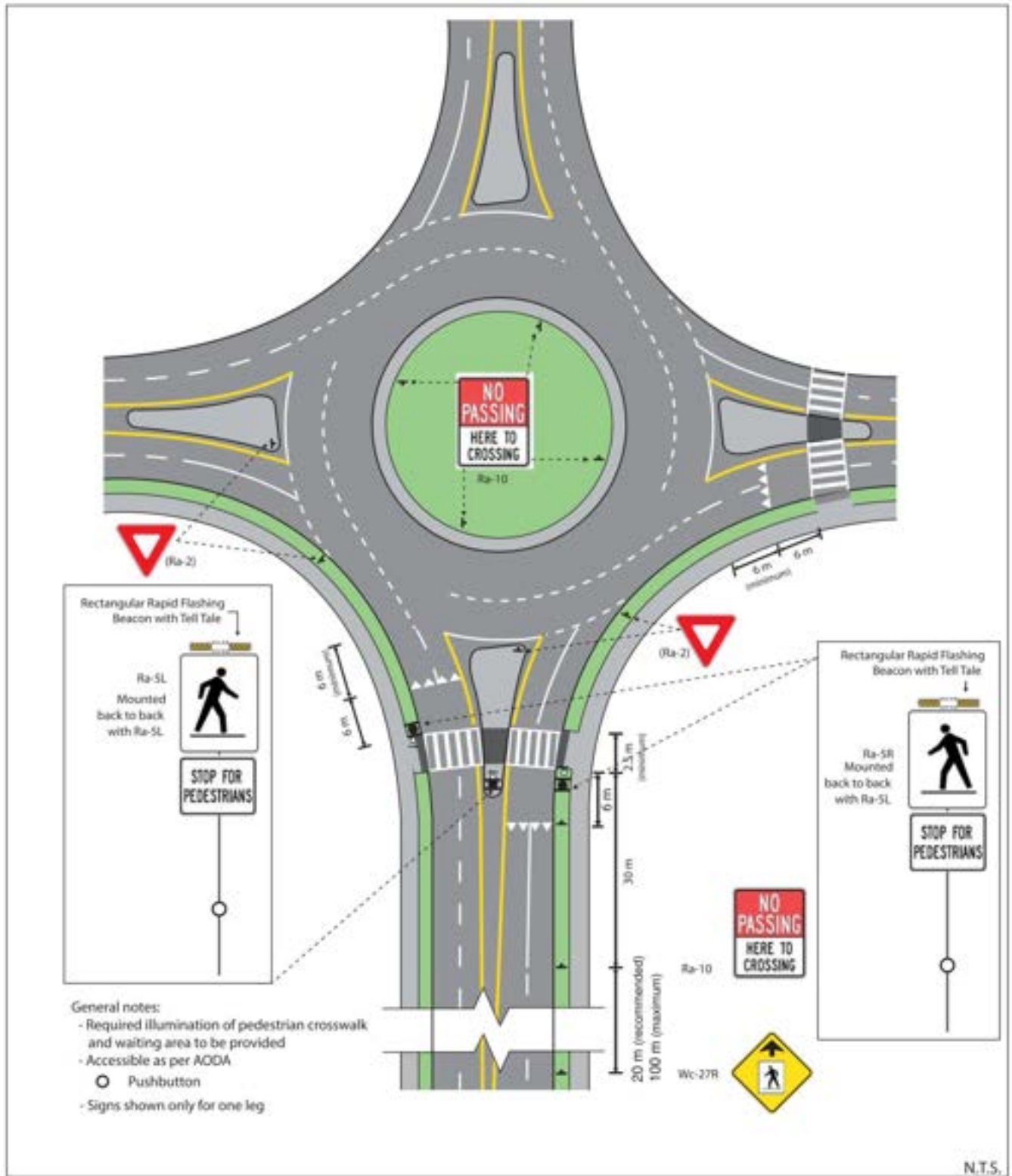
OTM Book 15 - Pedestrian Crossover Type C – Mid-block (2-lane, 1-way)

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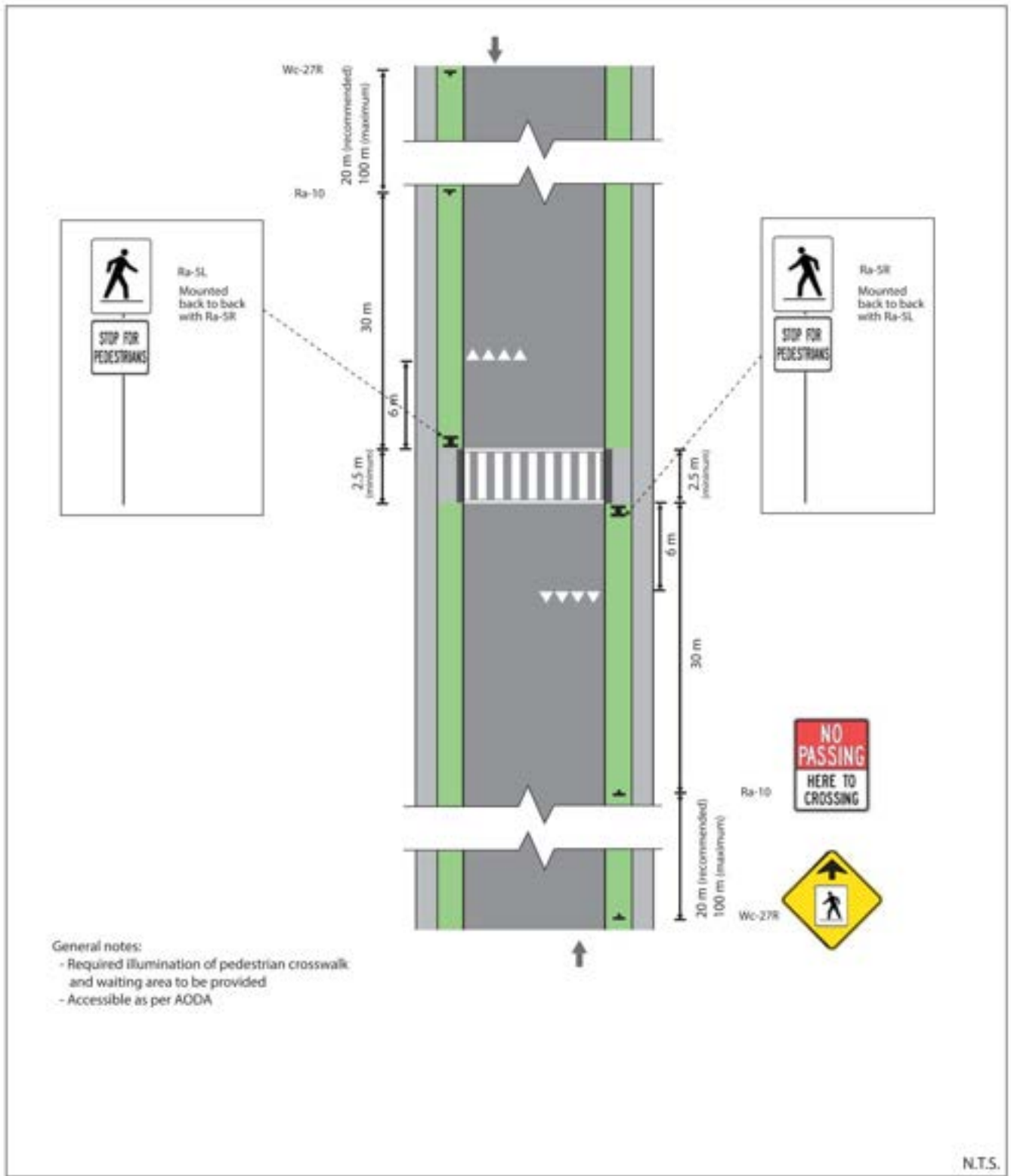
OTM Book 15 - Pedestrian Crossover Type C – Intersection (2-way)



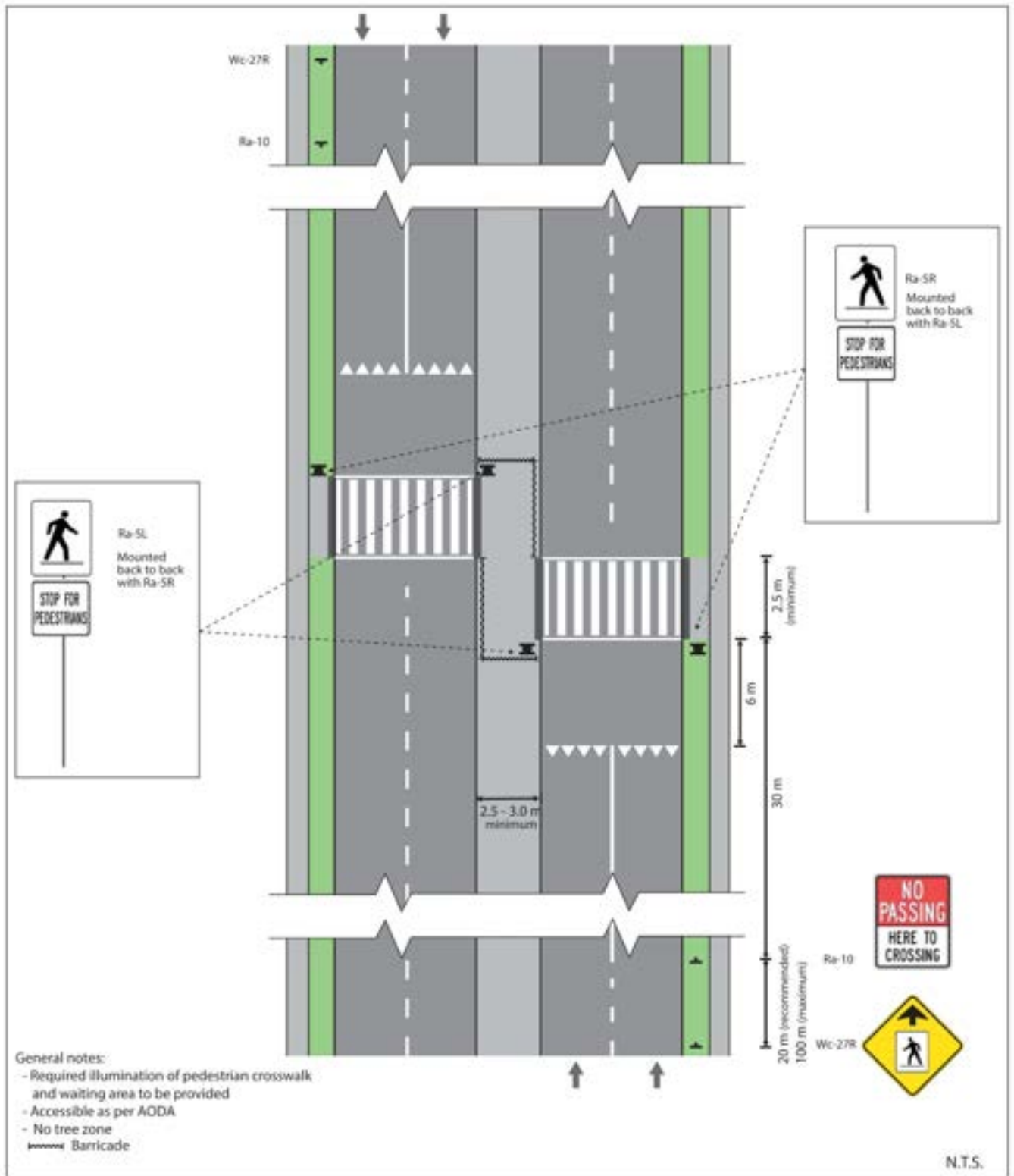
OTM Book 15 - Pedestrian Crossover Type C – Double-Lane Roundabout

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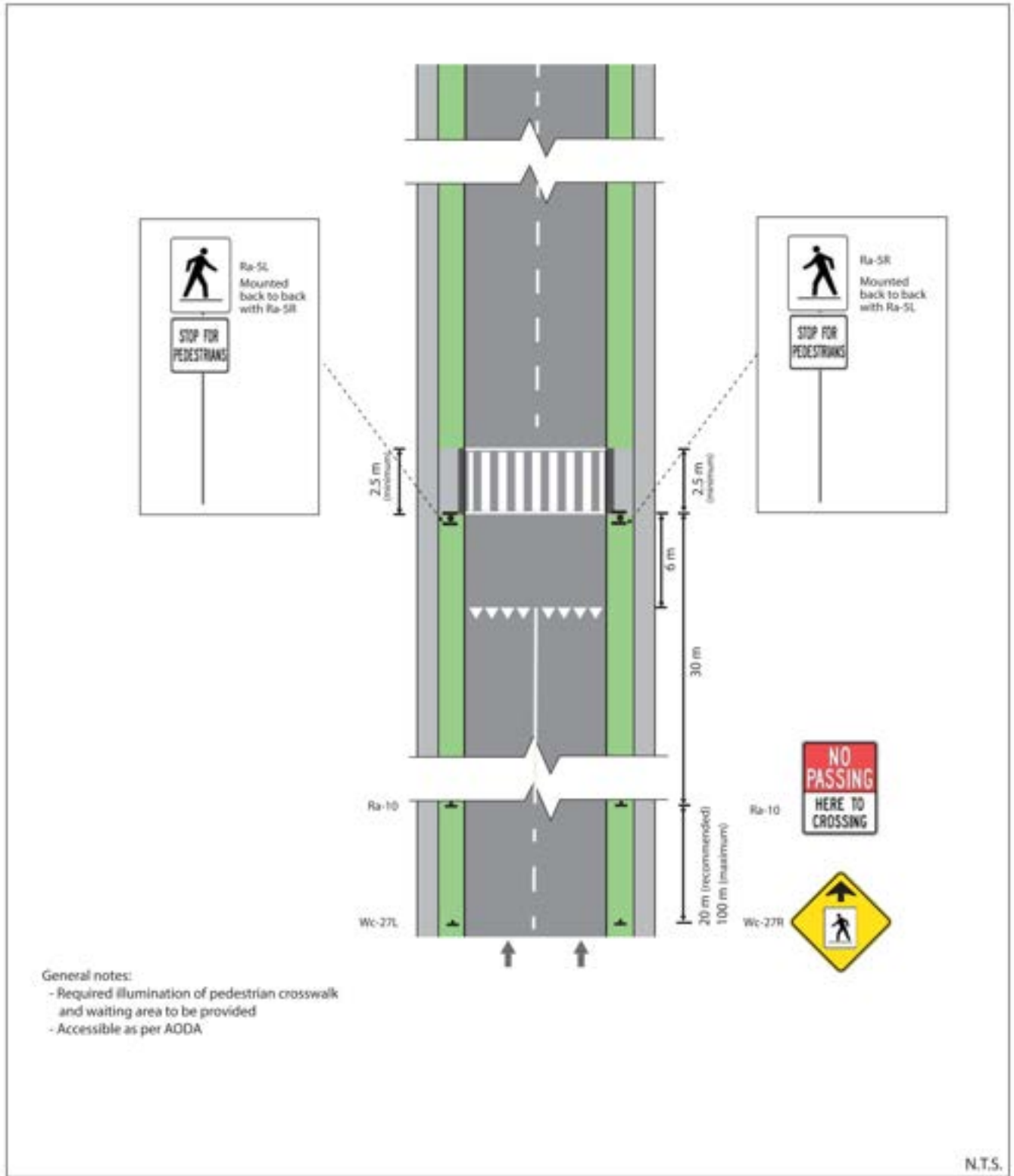
OTM Book 15 - Pedestrian Crossover Type D – Mid-block (2-lane, 2-way)



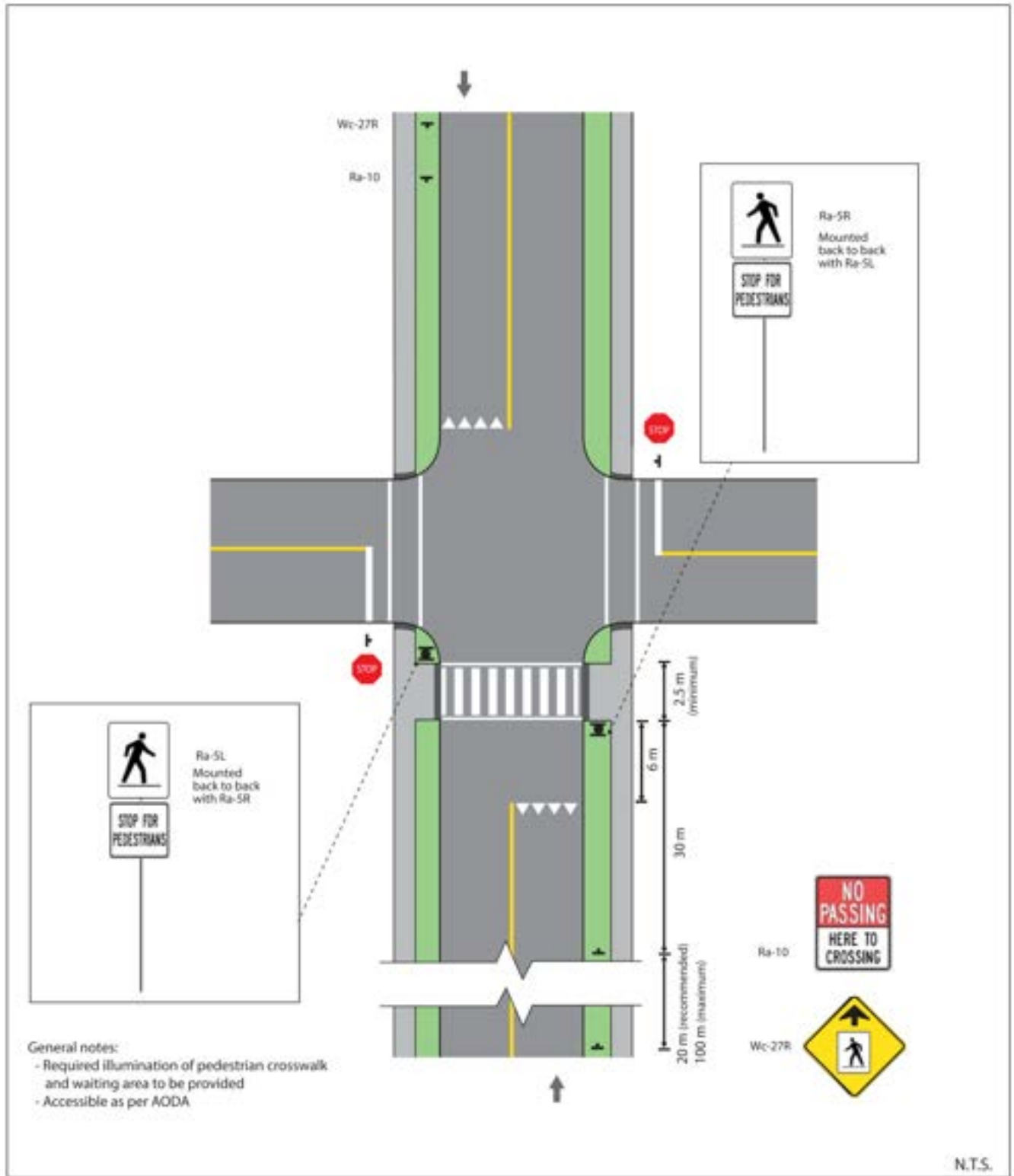
OTM Book 15 - Pedestrian Crossover Type D – Mid-block (4-lane, 2-way with raised refuge)

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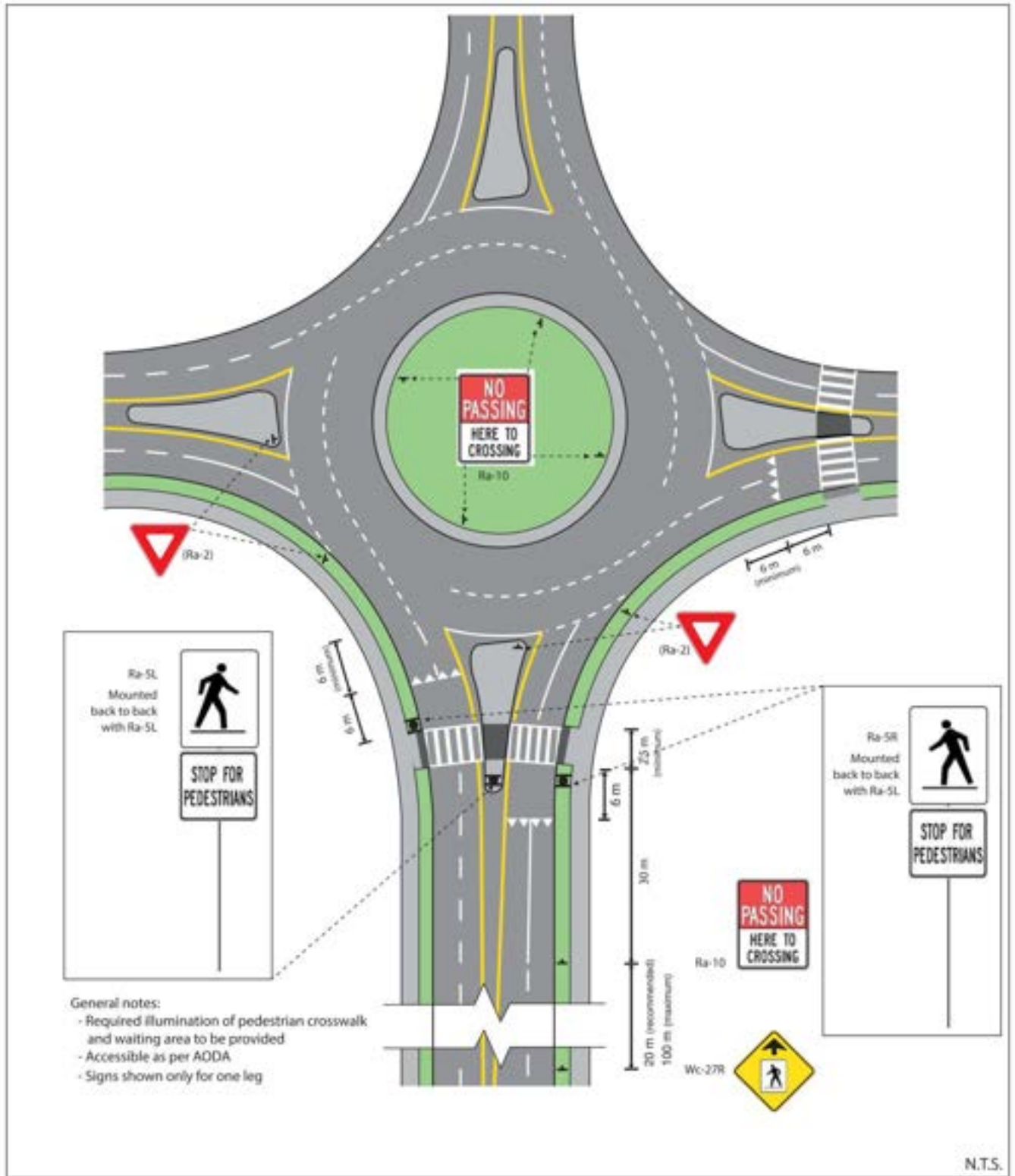
APPENDIX



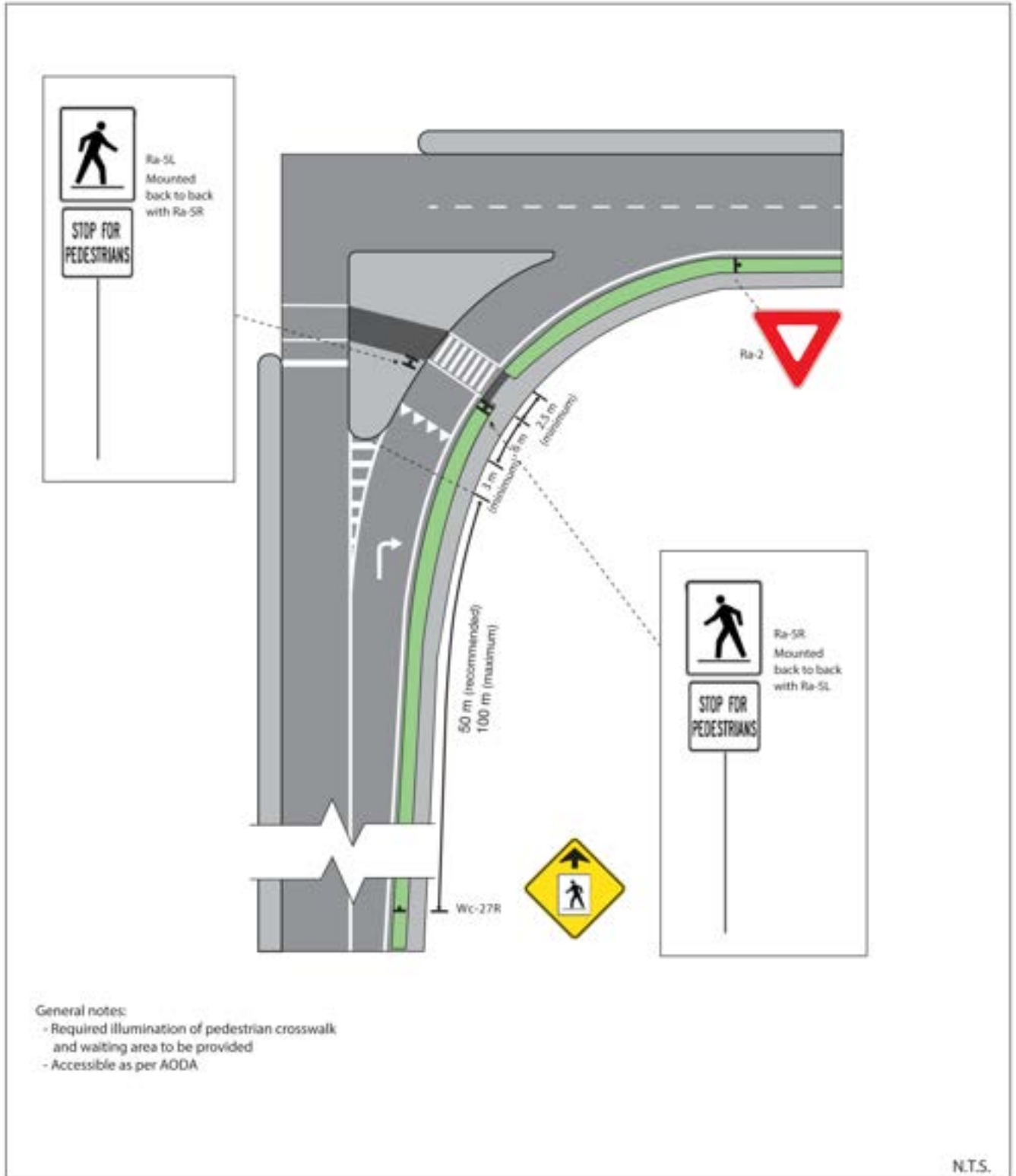
OTM Book 15 - Pedestrian Crossover Type D – Mid-block (2-lane, 1-way)



OTM Book 15 - Pedestrian Crossover Type D – Intersection (2-way)



OTM Book 15 - Pedestrian Crossover Type D – Double-Lane Roundabout



OTM Book 15 - Pedestrian Crossover Type D – Right-turn Channel

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APPENDIX

Two-way Vehicular Volume			Posted Speed Limit (km/h)	Total Number of Lanes for the Roadway Cross Section ¹			
Time Period	Lower Bound	Upper Bound		1 or 2 Lanes	3 lanes	4 lanes w/raised refuge	4 lanes w/o raised refuge
8 Hour	750	2,250	≤50	Level 2 Type D	Level 2 Type C ²	Level 2 Type D ²	Level 2 Type B
4 Hour	395	1,185		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	750	2,250	60	Level 2 Type D	Level 2 Type B	Level 2 Type D ²	Level 2 Type B
4 Hour	395	1,185		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	2,250	4,500	≤50	Level 2 Type D	Level 2 Type B	Level 2 Type D ²	Level 2 Type B
4 Hour	1,185	2,370		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	2,250	4,500	60	Level 2 Type D	Level 2 Type B	Level 2 Type D ²	Level 2 Type B
4 Hour	1,185	2,370		Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	4,500	6,000	≤50	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	4,500	6,000	60	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
8 Hour	6,000	7,500	≤50	Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 1 Type A
4 Hour	3,155	3,950		Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 1 Type A
8 Hour	6,000	7,500	60	Level 2 Type B	Level 2 Type B		
4 Hour	3,155	3,950		Level 2 Type B	Level 2 Type B		
8 Hour	7,500	17,500	≤50	Level 2 Type B	Level 2 Type B		
4 Hour	3,950	9,215		Level 2 Type B	Level 2 Type B		
8 Hour	7,500	17,500	60	Level 2 Type B			
4 Hour	3,950	9,215		Level 2 Type B			

Type A
 Type B
 Type C
 Type D

Approaches to roundabouts should be considered a separate roadways.

¹The total number of lanes is representative of crossing distance. The width of these lanes is assumed to be between 3.0 m and 3.75 m according to MTO Geometric Design Standards for Ontario Highways (Chapter D.2). A cross sectional feature (e.g. bike lane or on-street parking) may extend the average crossing distance beyond this range of lane widths.

²Use of two sets of side mounted signs for each direction (one on the right side and one on the median)

³Use Level 2 Type B PXO up to 3 lanes total, cross section one-way.

The hatched cells in this table show that a PXO is not recommended for sites with these traffic and geometric conditions. Generally a traffic signal is warranted for such conditions.

Appendix H

*Recommended Sidewalk and Pedestrian Crossing
Infrastructure Supporting Material*

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Road	From	To	Side	Priority	Town	Length (m)
Wylie	Euphemia	St Andrew	Either	1	Almonte	143
St Andrew	Wylie	Existing	East	1	Almonte	176
Argyle	King	Country	North	1	Almonte	185
State	Spring	Gomme	North	1	Almonte	126
State	Spring	Gomme	South	1	Almonte	127
Gomme	State	Ottawa	Either	1	Almonte	178
Gomme	State	Ottawa	Either	1	Almonte	163
Strathburn	Christian	End	Either	3	Almonte	623
Glass	Malcolm	Existing	Either	3	Almonte	117
Wylie	St Andrew	Christian	Either	3	Almonte	143
Colina	Existing	Malcolm	East	3	Almonte	79
St George	Argyle	End	West	3	Almonte	283
Adelaide	Martin	Finner	Either	3	Almonte	456
Norton	Augusta	Existing	East	3	Almonte	44
Frederick	Augusta	Ottawa	Either	3	Almonte	269
Brookdale	Union	Martin	Either	3	Almonte	227
Carss	Martin	OVRT	Either	3	Almonte	228
Farm	Colborne	Almonte	Either	3	Almonte	85
Colborne	Farm	Brae	Either	3	Almonte	142
James	Country	William	Either	1	Almonte	106
William	James	Robert	West	1	Almonte	86
Maurice Stead	Jack Dalgity	Spring	North	1	Almonte	230
Maude	Existing	St James	North	1	Almonte	251
Mercer	Maude	Augusta	Either	1	Almonte	92
John	High	Reserve	Either	1	Almonte	39
Almonte	Mill	~200m W of Mill	North	1	Almonte	138
King	Church	Argyle	East	2	Almonte	304
Country	Bridge	Robert	West	2	Almonte	442
Country	Robert	Ann	West	2	Almonte	227
Ann	Country	OVRT Connection	South	2	Almonte	296
Jamieson	Country	Jamieson Mills	West	2	Almonte	50

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Road	From	To	Side	Priority	Town	Length (m)
Matthew	Spring	Van Dusen	North	2	Almonte	260
Van Dusen	Matthew	Van Dusen	East	2	Almonte	62
Horton	Sadler	Honeyborne	South	2	Almonte	148
Wilkinson	Mitcheson	Martin	North	2	Almonte	142
High	John	Bridge	North	2	Almonte	224
Industrial	Ottawa	Appleton Side	East	2	Almonte	880
Perth	Bridge	Country	North	2	Almonte	342
Malcolm	Strathburn	Hope	Either	3	Almonte	362
Naismith	Bridge	Shipman	Either	3	Almonte	323
Shipman	Bridge	Naismith	Either	3	Almonte	537
Robert	Country	Ann	Either	3	Almonte	220
Merrithew	Johanna	Van Dusen	Either	3	Almonte	150
Johanna	Spring	Van Dusen	Either	3	Almonte	274
Clay	Spring	Johanna	Either	3	Almonte	233
Evelyn	Gale	Gale	Either	3	Almonte	451
Larose	Evelyn	Tatra	East	3	Almonte	73
Houston	Paterson	Industrial	Either	3	Almonte	198
Laroque	Horton	Honeyborne	Either	3	Almonte	176
McKenney	Horton	Honeyborne	Either	3	Almonte	171
McCabe	Horton	Honeyborne	Either	3	Almonte	166
Mercer	Augusta	Adelaide	Either	3	Almonte	163
Finner	Adelaide	Augusta St Park Path	Either	3	Almonte	192
High	Brae	Bridge	Either	3	Almonte	111
MacFarlane	Elizabeth	Jeanie	East	1	Pakenham	229
Waba	OVRT	Dalkeith	East	3	Pakenham	197
Renfrew	Waba	Dalkeith	Either	3	Pakenham	311
Dalkeith	Existing	Pine	North	3	Pakenham	136
Dalkeith	Renfrew	Jessie	Either	3	Pakenham	250
Isabell	Waba	Jeanie	North	3	Pakenham	259
Jessie	CR 29	Isabella	Either	3	Pakenham	92
MacFarlane	Elizabeth	Renfrew	Either	3	Pakenham	111
Elizabeth	CR 29	Margaret	Either	3	Pakenham	139
Margaret	Jessie	End	Either	3	Pakenham	225

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Road	From	To	Side	Priority	Town	Length (m)
Jessie	MacFarlane	End	North	3	Pakenham	118
CR 29	Kinburn	Existing	South	2	Pakenham	72
County Rd 29	Existing	Kinburn Side	South	2	Pakenham	9
CR 29	Renfrew	Kinburn Side	North	2	Pakenham	225

Project	Description	Recommendation	Priority	Rationale
Country Street at Bridge Street	PXO Type B	Based on current traffic/pedestrian volumes, at least a Type D Pedestrian Crossover is warranted at this location (see: OTM Book 15), however warrants should be re-assessed during the ongoing construction of the recommended AT network.	Short-Term	<ul style="list-style-type: none"> Continuity of Local Cycling Priority system Align with proposed N-S trail through Gemmill Park to create continuous AT route Enhanced community access for the Almonte Community Centre
Almonte Street, 150m East of Malcolm Street	-	<ul style="list-style-type: none"> Continuity of Local Cycling Priority system Safe connection between Almonte & District Community Centre and Metcalfe Park, across Almonte St. Note proximity to Mill St. PXO; coordinate with possible changes to this crossing 	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time
Maude Street at Martin Street	-	<ul style="list-style-type: none"> Continuity of Local Cycling Priority system Connect peds/cyclists from NE quadrant to OVRT without travelling on Ottawa 	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time
Country Street at Perth Street	-	<ul style="list-style-type: none"> Continuity of Local Cycling Priority system Finishing link of a safe E-W alternative route to Bridge St. Evaluate warrants based on projected future traffic increases on Country, considering planned development in SW quadrant 	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time
Paterson Street, ~200m South of Morton Street	-	<ul style="list-style-type: none"> Continuity of Local Cycling Priority system Align/coordinate with proposed E-W pathways crossing Holy Name Mary/R Tait McKenzie school properties 	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time
Existing Class D PXO	-	<ul style="list-style-type: none"> Evaluate warrants for improvements to existing Type D PXO Provide improved safety for Appleton Trail users at busy/high-speed roadway 	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time

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Project	Description	Recommendation	Priority	Rationale
Queen Street at Union Street	PXO Type B	<ul style="list-style-type: none">- Continuity of Local Cycling Priority system- Connect peds/cyclists from North of Main Street to the Downtown area	Long-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time
Industrial Drive at Frank Davis Street	PXO Type B	<ul style="list-style-type: none">- Align with proposed Industrial and Frank Davis multi-use pathways- Connect peds/cyclists from Ottawa Street, Appleton Side Road, and Paterson to the Almonte Business Park	Short-Term	Recommended for ongoing review during construction of AT Network - Re-assess warrants at that time

Appendix I

Recommended Active Transportation Specific Projects

Municipality of Mississippi Mills: Transportation Master Plan

APPENDIX

Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
Local Cycling Routes	-	-	Signage, pavement markings	5.8km	- Shared facilities on low volume, low speed local streets supported by pavement markings, signage and potentially traffic calming measures	Short-Term	
Almonte & District Community Centre Pathway Connection	Almonte St.	Bridge St.	New MUP connection	215m	- Construct new 3.0m MUP on municipal property (Almonte District Community Centre) between Almonte St and Brae St./Community Centre driveway - Integrate with new PXO on Almonte ~70m west of Farm St	Short-Term	
Cameron St. OVRT Connector	Camerson St.	OVRT	Formalize pathway connection (clear, pave, signage, bollards)	10m	- Formalize, pave existing pathway connection between the west terminus of Cameron St. and the OVRT	Short-Term	




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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
Ottawa St. Commercial Area Pathway Connector (North)	Honeyborne St.	Ottawa St.	New MUP	200m	<ul style="list-style-type: none"> - Construct 3.0m MUP connecting Honeyborne St. to Ottawa St. - May require property acquisition for the southern portion; confirm ownership of parcel between 306 and 336 Honeyborne St. 	Short-Term	
R Tait McKenzie P.S. Pathway	Industrial Dr.	Paterson St.	New MUP	210m	<ul style="list-style-type: none"> - Construct 3.0m MUP along the north edge of the R. Tait McKenzie Public School property 	Short-Term	
Holy Name Mary Catholic School Pathway	Paterson St.	Harold St.	New MUP	210m	<ul style="list-style-type: none"> - Construct 3.0m MUP along the south edge of the Holy Name Mary Catholic School property - May require rearrangement of existing surface parking lot; confirm feasibility 	Short-Term	

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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
Harold St. Linear Park	Harold St.	Spring St.	New MUP	280m	<ul style="list-style-type: none"> - Construct 3.0m MUP in the unopened road allowance along the south edge of the Almonte General Hospital property - Use wide ROW for landscaping, creation of "linear park space"; cost for appropriate facilities? 	Short-Term	
Pakenham Beach - OVRT Connector	Margaret St.	OVRT	New Pathway	315m	<ul style="list-style-type: none"> - Construct 3.0m crushed-stone surface pathway connecting the terminus of Margaret St. in Pakenham to the OVRT - Utilize existing road allowance intersecting the OVRT 	Short-Term	
Five Arches Community Housing - Pathway Connector	Five Arches Dr.	Jessie St.	New Pathway	330m	<ul style="list-style-type: none"> - Construct 3.0m crushed-stone surface pathway connecting Five Arches Dr. to Jessie St. in Pakenham. - May require property acquisition; coordinate with farmland owner to gauge feasibility. - Integrate with crossing of OVRT 	Short-Term	



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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
Ottawa St. Commercial Area Pathway Connector (South)	Frank Davis St.	Ottawa St.	New MUP	260m	<ul style="list-style-type: none"> - Construct 3.0m MUP connecting Frank Davis St. to Ottawa St. - Integrate with future south-side MUP on Ottawa St. (see: Road Retrofits) - May require property acquisition and/or collaboration with property owners; confirm ownership of Lot 15 Part 5 	Medium-Term	
Greystone Trail Local Route Connector	Frank Davis St.	Appleton Side Rd.	New MUP	85m	<ul style="list-style-type: none"> - Construct 3.0m MUP between Frank Davis St. and Appleton Side Road - Construct using parcel labelled as Lot 15 Part 14; confirm ownership but assumed to be municipal property? - Integrate with improved PXO on Appleton Side Road at Appleton Trail 	Medium-Term	
Frank Davis St. MUP	Industrial Dr.	Proposed Appleton Trail Local Route Connector	New MUP	520m	<ul style="list-style-type: none"> - Construct 3.0m MUP along the north side of the future Frank Davis St. - Confirm that this does not overlap with existing plans for arrangement of Frank Davis 	Short-Term	



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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
<p>Industrial Dr. MUP (West/South)</p>	<p>Ottawa St.</p>	<p>Appleton Side Rd.</p>	<p>New MUP</p>	<p>900m</p>	<p>- Construct 3.0m MUP along the west/south side of Industrial Dr.</p>	<p>Short-Term</p>	
<p>Industrial Dr. MUP (West/South)</p>	<p>Frank Davis St.</p>	<p>Appleton Side Rd.</p>	<p>New MUP</p>	<p>80m</p>	<p>- Construct 3.0m MUP along the north side of Industrial Dr.</p>	<p>Short-Term</p>	


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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
Menzie-North Pathway	Maude St.	Town Boundary	New MUP	1.0km	- Construct 3.0m MUP in unopened road allowance north of Menzie St. to connect to future subdivision development in north-east quadrant of Almonte	Long-Term	
Thomas St. - OVRT Connector	Thomas St.	OVRT	New Pathway	15m	- Formalize, pave existing pathway connection between the west terminus of Thomas St. and the OVRT	Short-Term	

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Project	From	To	Description	Estimated/ Assumed Length	Recommendation	Priority	Limits
<p>Peterson St. - OVRT Connector</p>	<p>Peterson St.</p>	<p>OVRT</p>	<p>New Pathway</p>	<p>21m</p>	<p>- Formalize, pave existing pathway connection between the west terminus of Peterson St. and the OVRT</p>	<p>Short-Term</p>	

Appendix J

Mississippi Mills Complete Streets Policy (2017): Design Criteria Tables

Municipality of Mississippi Mills: Transportation Master Plan

APPENDIX

Residential/Local Road Characteristics

Local Roads Characteristic	Rural Cross-Section	Urban Cross-Section	Hamlet/Village
Role in road network	Connect between ultimate origin/ destination (i.e., driveways) and primary circulation system		
Function: Traffic Service vs. Land Use Access	Land access primary; traffic movement secondary		
Expected Traffic Volume	< 1,000 vehicles per day/ < 100 vehicles per hour (peak hour)		
Flow Characteristics	Interrupted flow		
Intersections/Crosswalks	None	Xwalks @ Major crossings.	Xwalks @ Major crossings
Traffic Calming	None	Minimal treatments in problem areas e.g. raised intersections	Minimal treatments in problem areas e.g. raised intersections
Default Speed Limit (km/hr) ²	80	50	50
Vehicle Type	Predominantly passenger cars and light-medium trucks; occasional heavy trucks		
Typical Network Connections	Locals, Collectors		
Road Surface	Gravel/ Surface Treatment	Paved	Gravel/ Surface Treatment
Cycling Treatment	Unsigned or signed routes only; no infrastructure treatments. Storm sewer grates aligned perpendicular to travel direction. Flush with road surface.		
Pedestrian Treatment	None	Sidewalk may be constructed on one side depending on adjacent land uses	Sidewalk may be constructed on one side depending on adjacent land uses
Parking Treatment	None	Parking on one or both sides	Parking on one or both sides. space permitting
ROW	20m	Typical 20m * * Narrower ROW may be approved for infill development	Typical 20m

Collector Road Characteristics

Collector Roads Characteristic	Rural Collector Cross-Section	Urban Collector Cross-section	Hamlet/Village
Role in road network	Distribute demand between primary circulation network and local roads; some direct connection to driveways		
Function: Traffic Service vs. Land Use Access	Balanced between land access and traffic movement		
Expected Traffic Volume	< 5,000 vehicles per day/ < 500 vehicles per hour (peak hour)	< 10,000 vehicles per day/ < 1,000 vehicles per hour (peak hour)	< 5,000 vehicles per day/ < 500 vehicles per hour (peak hour)
Flow Characteristics	Interrupted flow		
Intersections/Crosswalks	None	Xwalks @ Major school crossings and high use pedestrian crossings.	Xwalks @ Major school crossings and high use pedestrian crossings.
Traffic Calming	None	Consider narrowing of intersection.	Consider narrowing of intersection.
Default Speed Limit (km/hr) ²	80	50	50
Vehicle Type	Predominantly passenger cars and light trucks		
Typical Network Connections	Local, Collector, Arterial		
Road Surface	Surface Treatment or Paved	Paved	Paved
Cycling Treatment	Signed routes or bicycle lanes as appropriate; no segregated facilities. Paved shoulders.	Signed routes, bicycle lanes, or segregated facilities. Storm sewer grates aligned perpendicular to travel direction. Flush with road surface. Curb inlet catch basins where bike lanes are present.	
Pedestrian Treatment	Paved shoulders	Sidewalks both sides	Sidewalks one side.
Parking Treatment (Typical)	Parking considerations WRT pedestrian and cycling traffic		
ROW	20-24	24	Typical 20m

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Arterial Road Characteristics

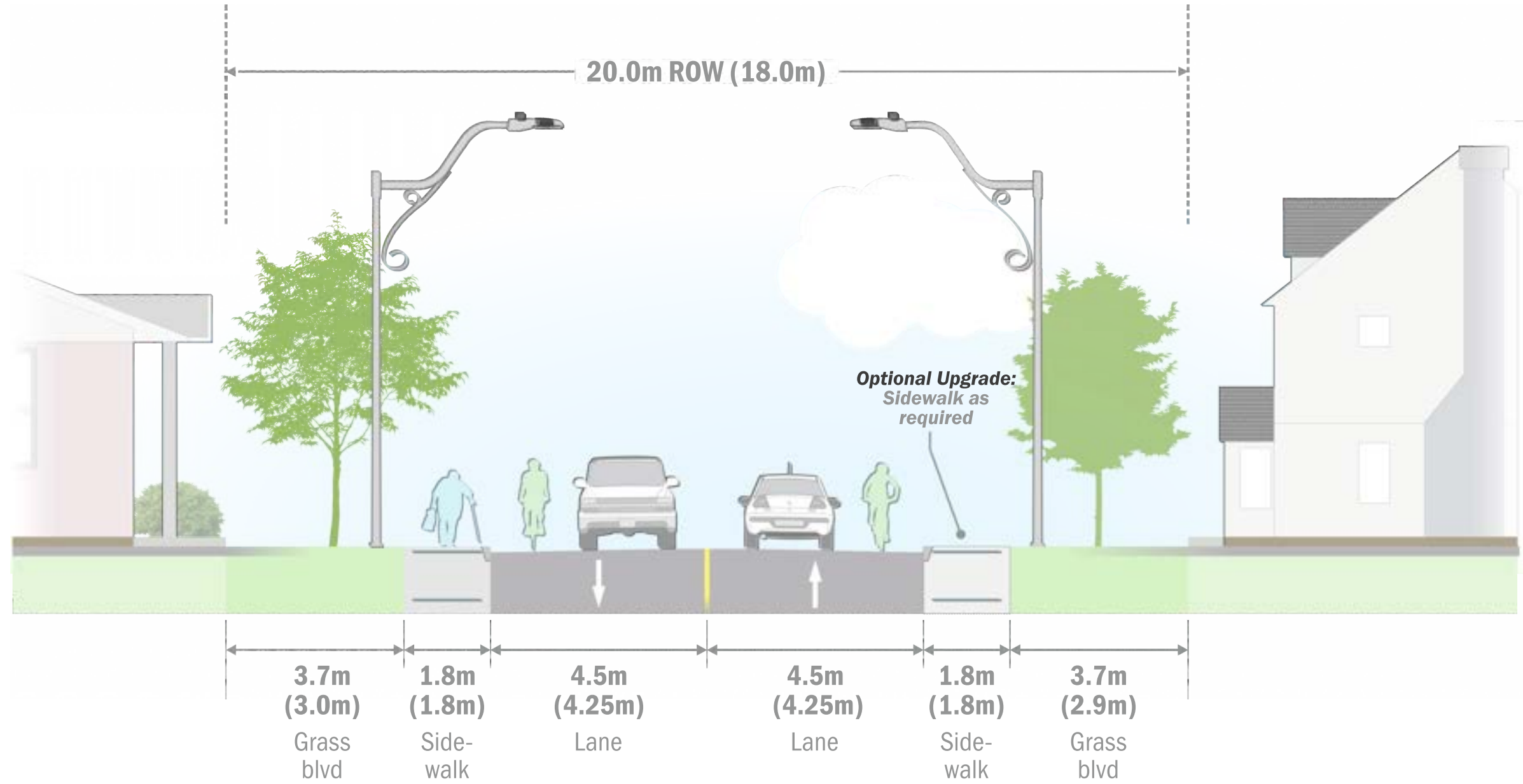
Arterial Roads Characteristic	Rural Cross-Section	Urban Cross-Section	Hamlet/Village
Role in road network	Travel circulation/ mobility primary role; connect villages to one another, to adjacent urban centres and to the highway/ freeway system		
Function: Traffic Service vs. Land Use Access	Traffic movement primary; land access secondary; some direct connection to larger driveways		
Expected Traffic Volume	< 12,000 vehicles per day; < 1,200 vehicles per hour (peak hour)	< 20,000 vehicles per day; < 2,000 vehicles per hour (peak hour)	N/A
Flow Characteristics	Uninterrupted flow, except at major intersections and crosswalks	Interrupted flow	
Intersections/Crosswalks	None	Xwalks @ Major school crossings, and high use pedestrian crossings.	N/A
Traffic Calming	None	Consider narrowing of intersection.	N/a
Default Speed Limit (km/hr) ²	80	50	N/A
Vehicle Type	All types; up to 20% trucks		
Typical Network Connections	Locals, Collectors, Arterials, Freeways	Collector, Arterial, Freeway	N/A
Road Surface	Asphalt		
Cycling Treatment	Bicycle lanes, or segregated facilities as appropriate.	Bicycle lanes, or segregated facilities as appropriate. Curb inlet catch basins where bike lanes are present	N/A
Pedestrian Treatment	No facilities	Sidewalks both sides	N/A
Parking Treatment (Typical)	Potentially restricted	Potentially prohibited or peak hour restrictions	N/A
ROW	30	30	N/A

Note:

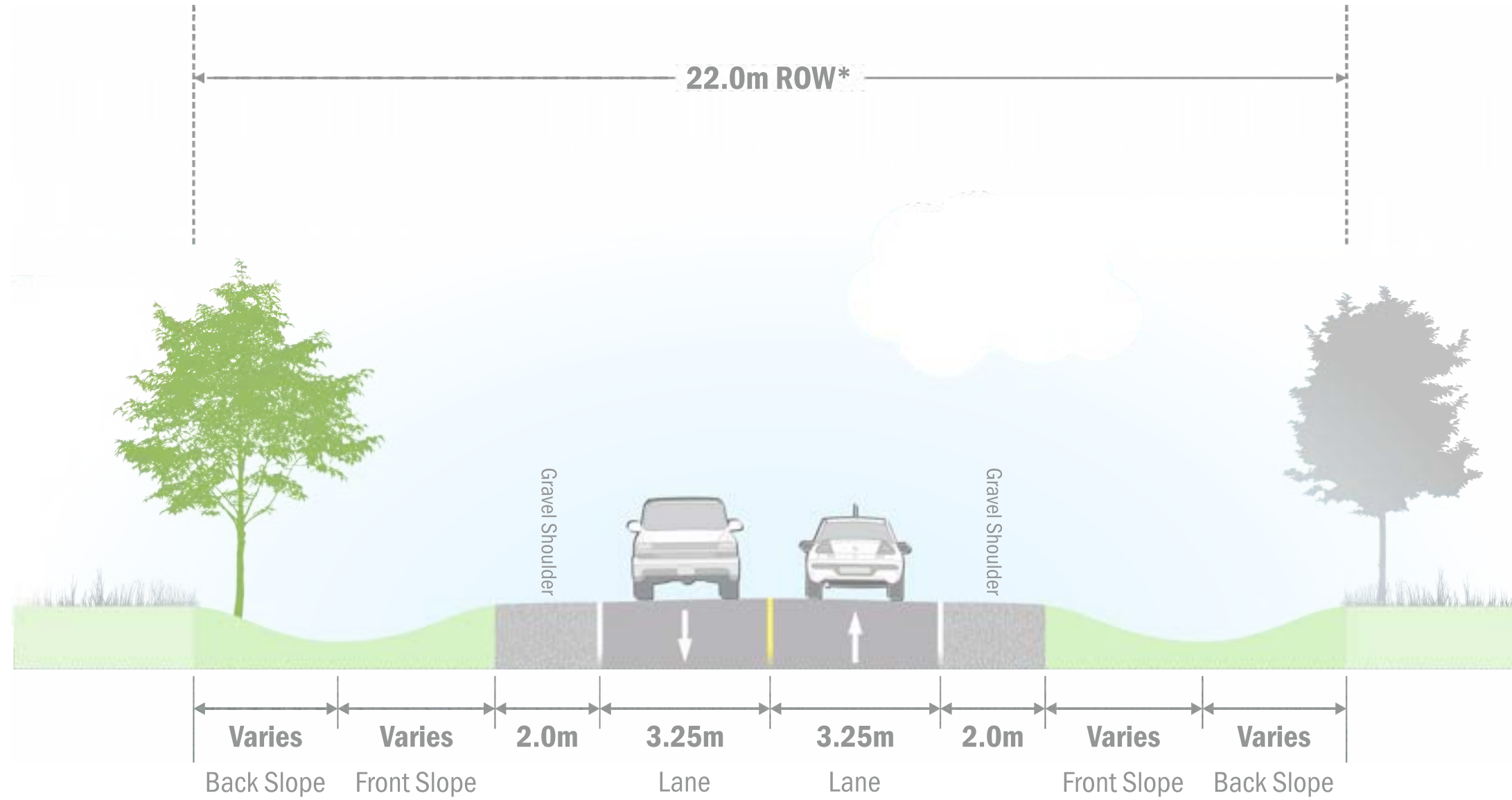
- Should the need arise to ensure safety of road users, lower speed limits can be enacted through posted speed signs.

Appendix K

Recommended Complete Streets Standard Cross-Sections

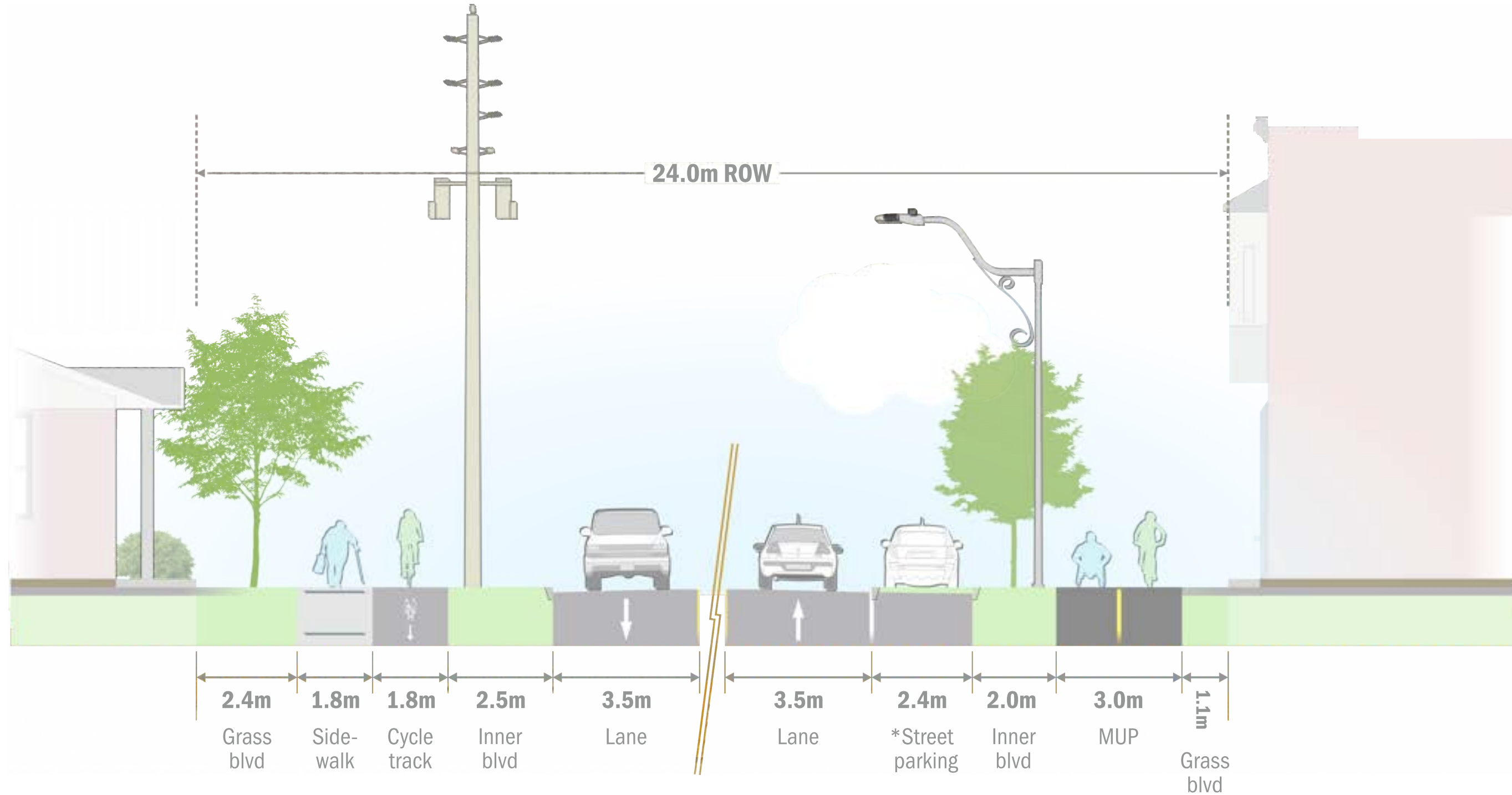


Urban Local Road: 20.0m (18.0m) Right-of-Way
 Sidewalk on one side (Optional on Both Sides)



Rural Local Road: 22.0m Right-of-Way

**ROW requirement is based on optimal ditch depth and contemporary road design standards.
ROW width may be narrower if justified by drainage study and ditch design.*

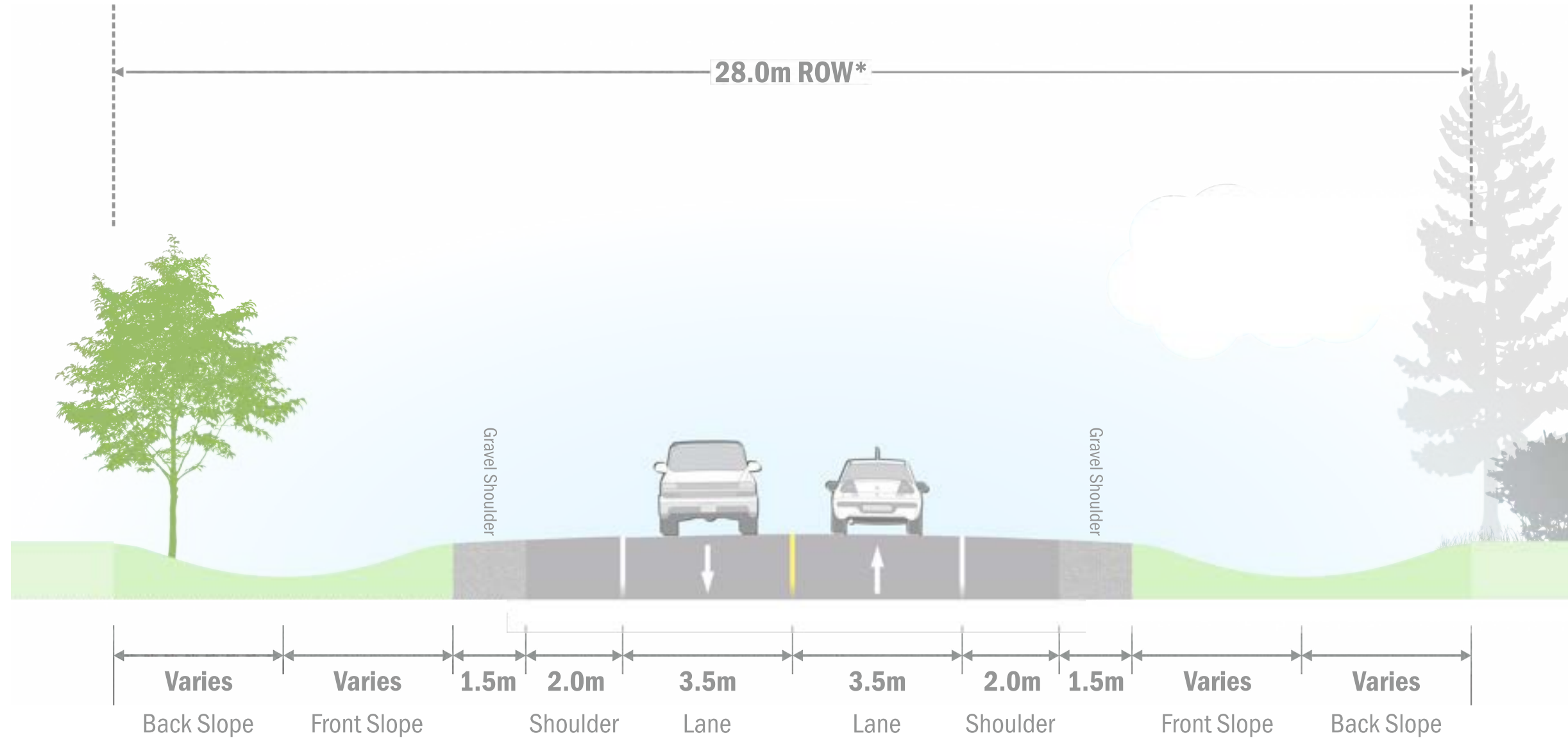


Urban Collector Road: 24.0m Right-of-Way

Option 1: Sidewalk with Cycle Tracks

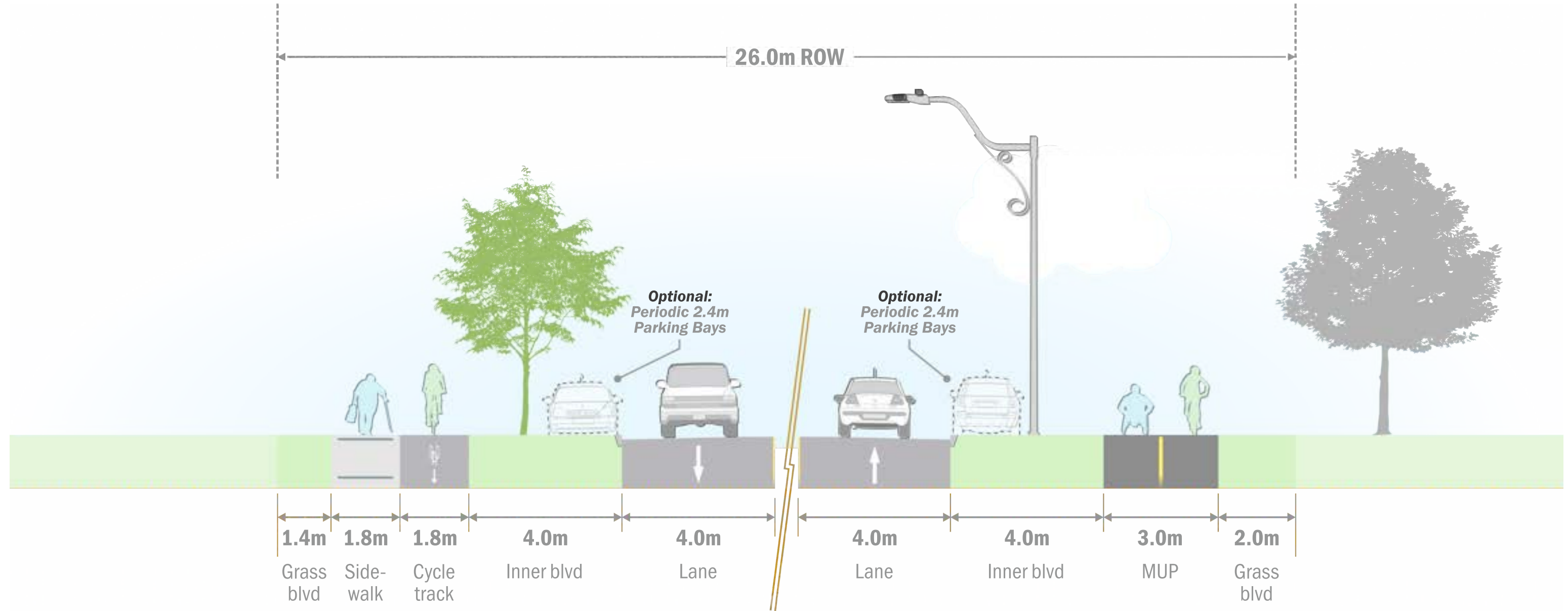
Option 2: Multi-Use Pathways

**If street parking not required based on context, may be considered optional*



Rural Collector Road: 28.0m Right-of-Way

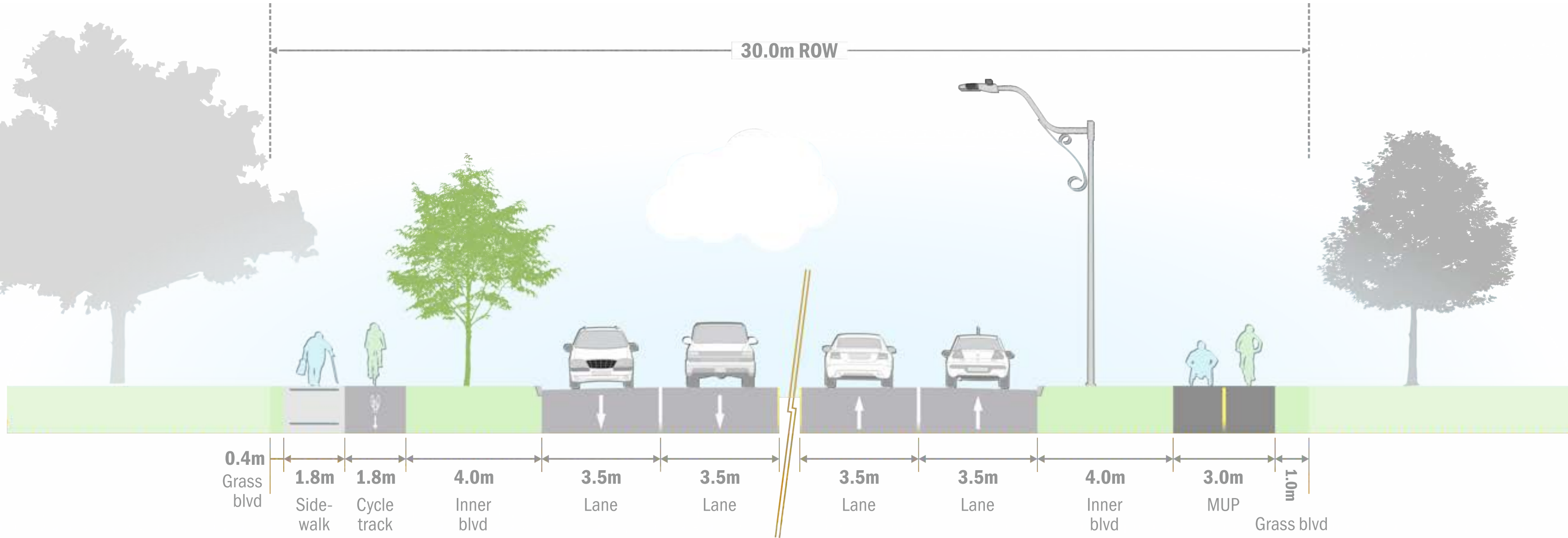
**ROW requirement is based on optimal ditch depth and contemporary road design standards.
ROW width may be narrower if justified by drainage study and ditch design.*



Urban Arterial Road (2-Lane Undivided) 26.0m Right-of-Way

Option 1: Sidewalks with Cycle Tracks

Option 2: Multi-Use Pathways



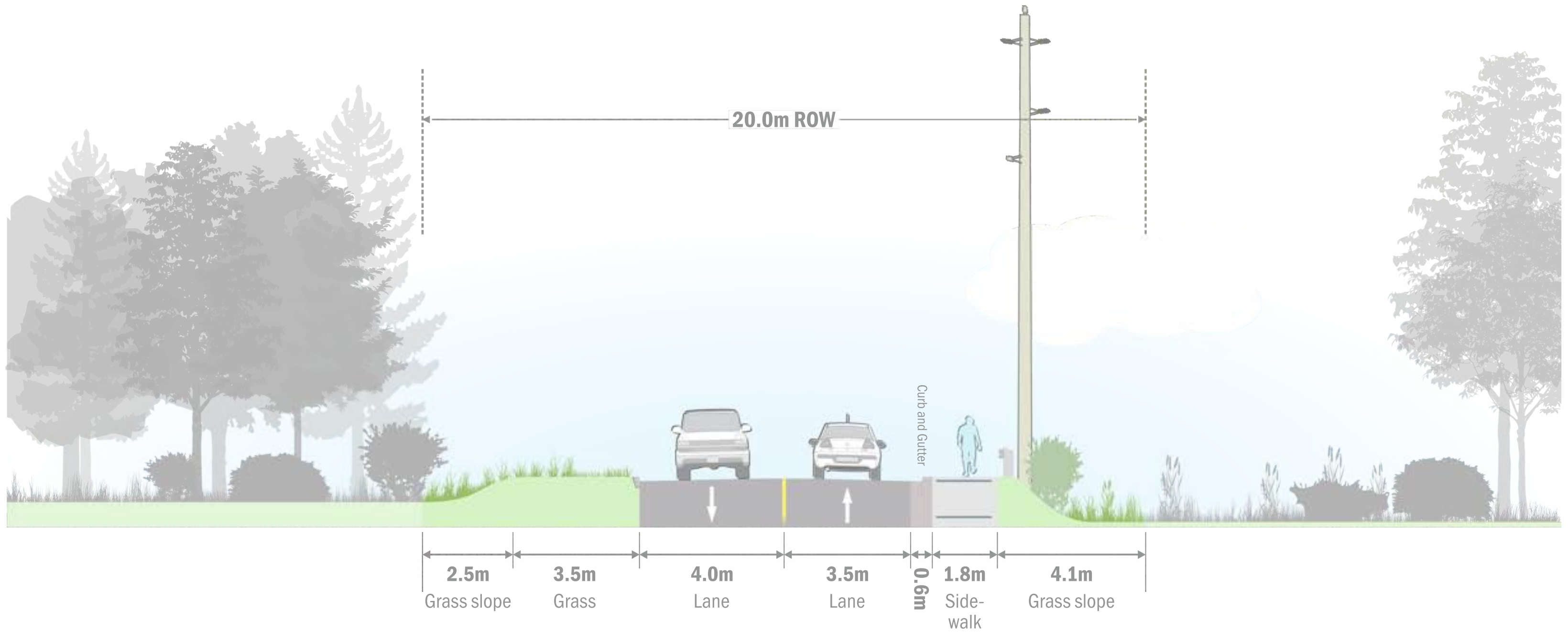
Urban Arterial Road (4-Lane Undivided) 30.0m Right-of-Way

Option 1: Sidewalks with Cycle Tracks

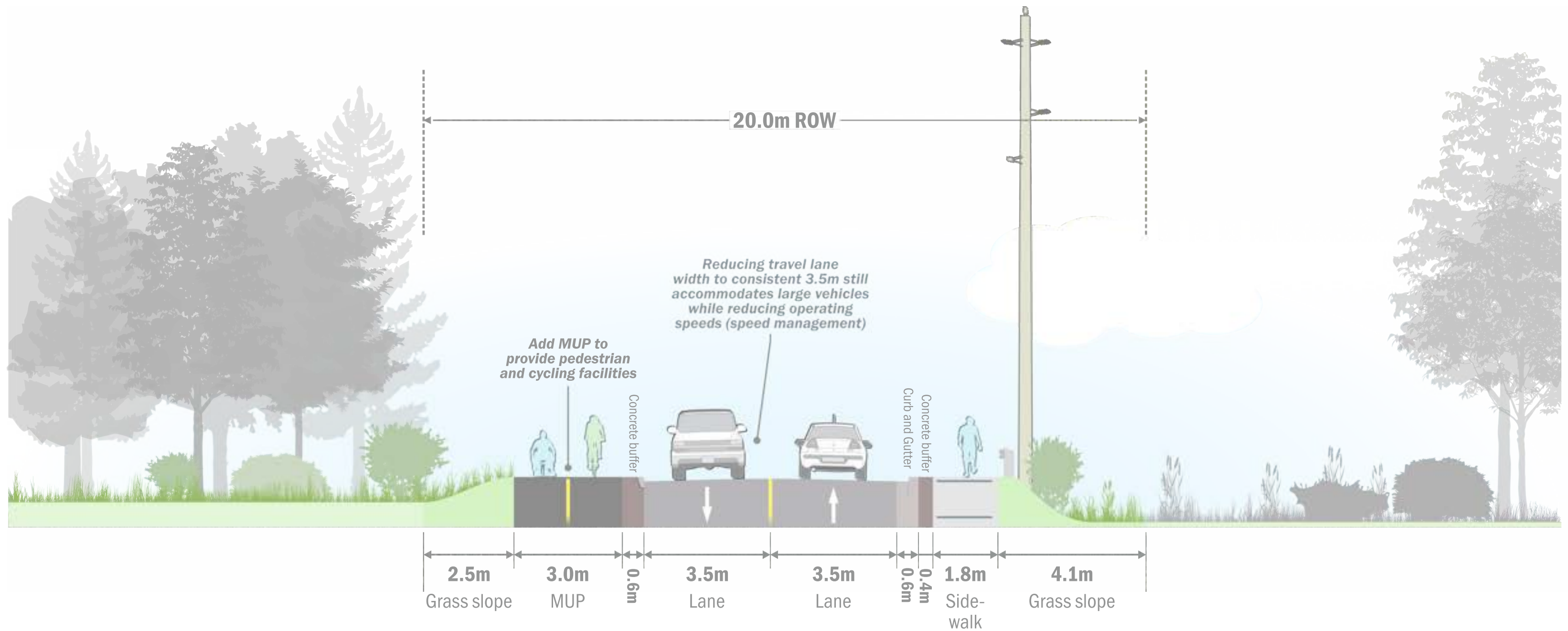
Option 2: Multi-Use Pathways

Appendix L

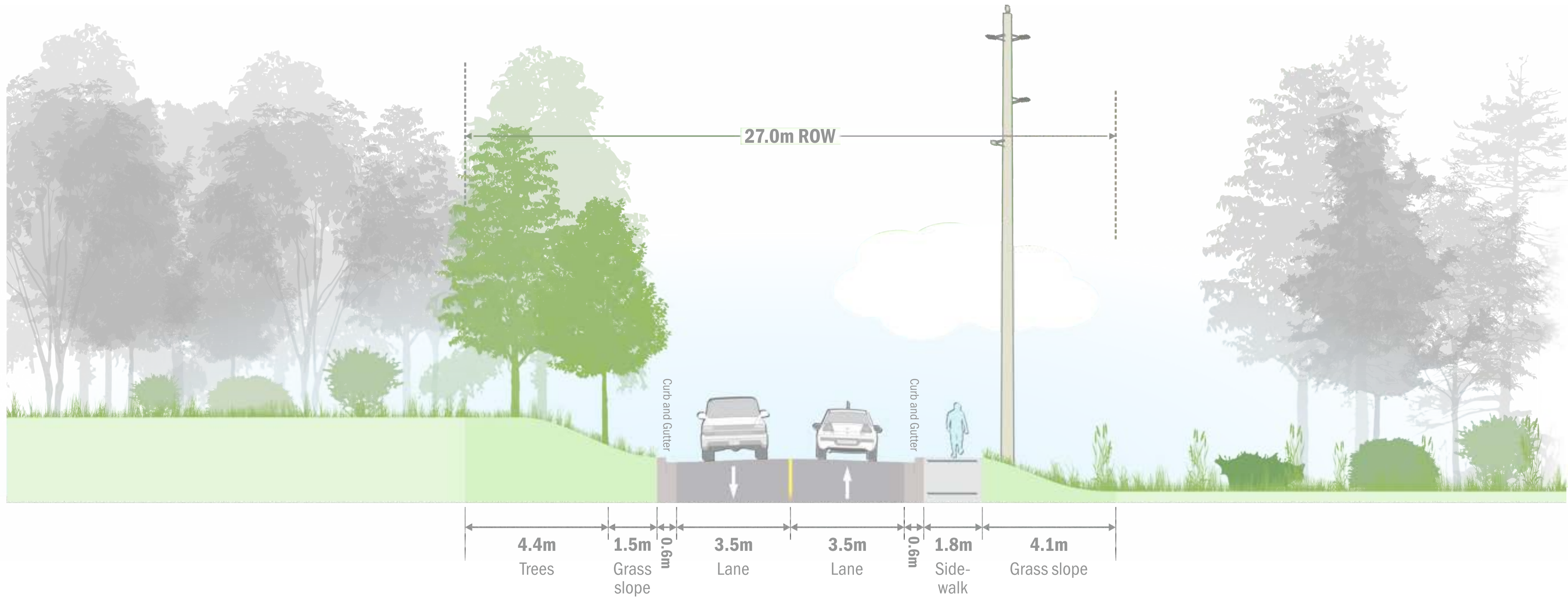
Recommended Retrofit Cross-Sections



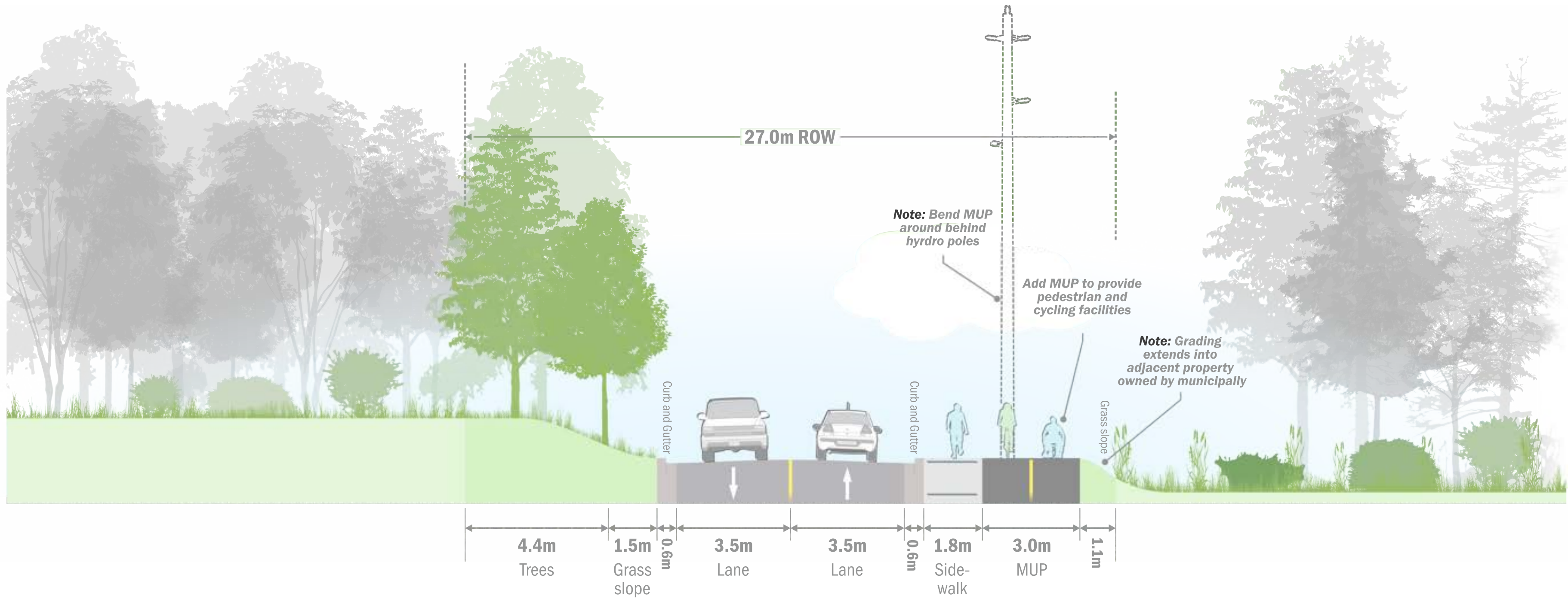
Almonte Street: 60m west Farm Street to Malcolm Street - Existing Condition



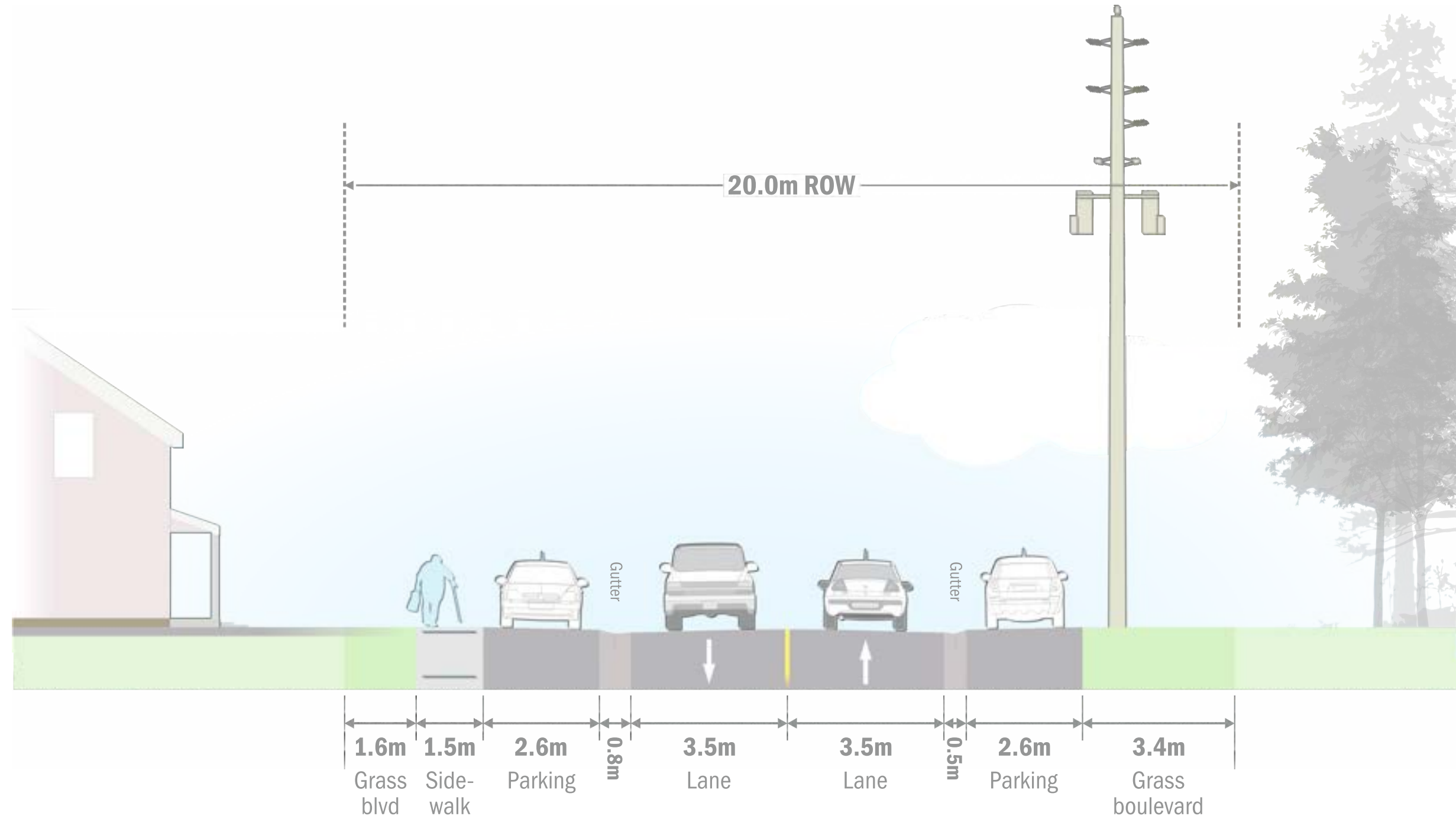
Almonte Street: 60m west of Farm St to Malcolm Street - Proposed Enhancements
 Major Intervention • Multi-Use Pathway on North Side



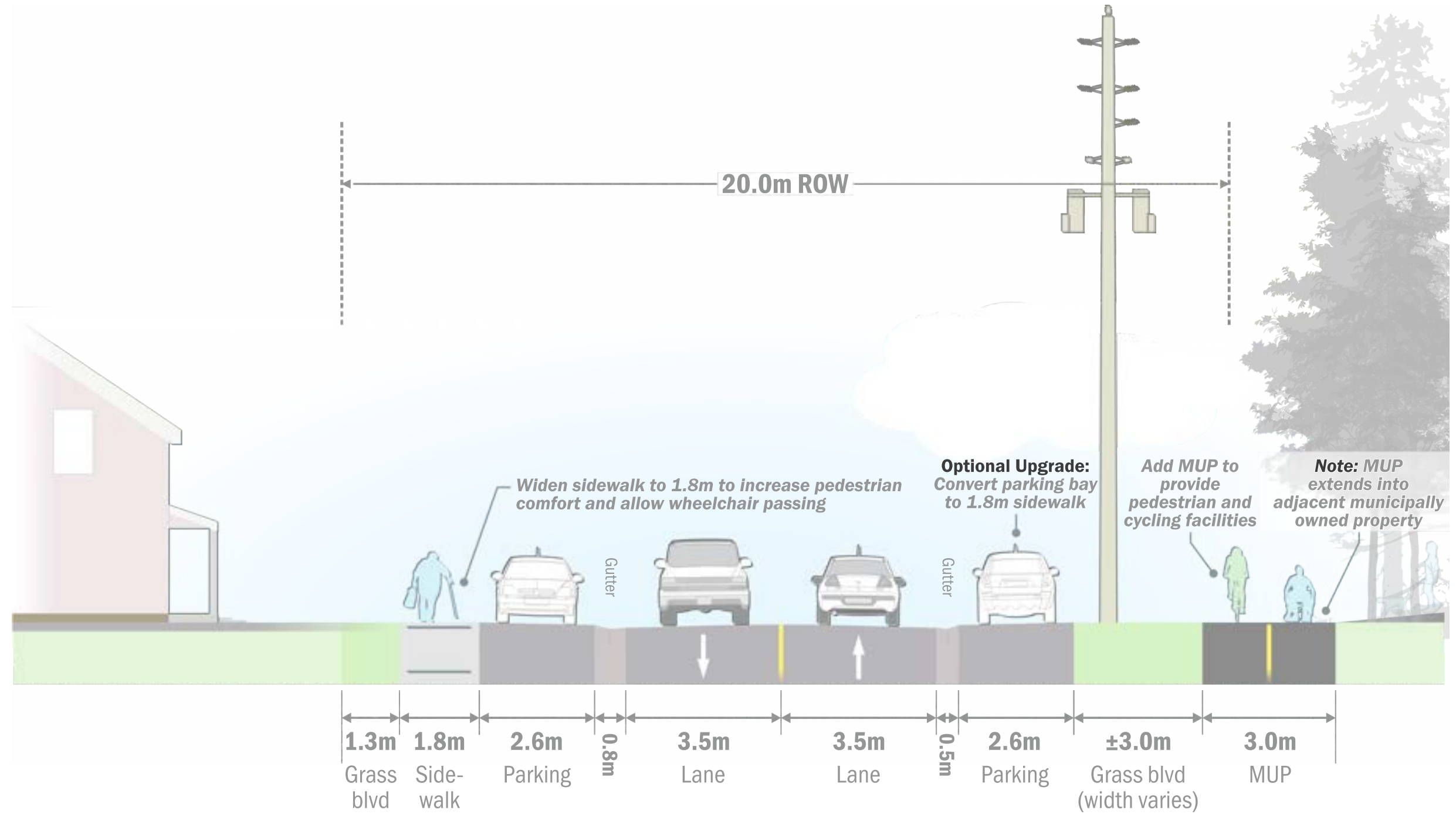
Almonte Street: Malcolm Street to Euphemia Street - Existing Condition



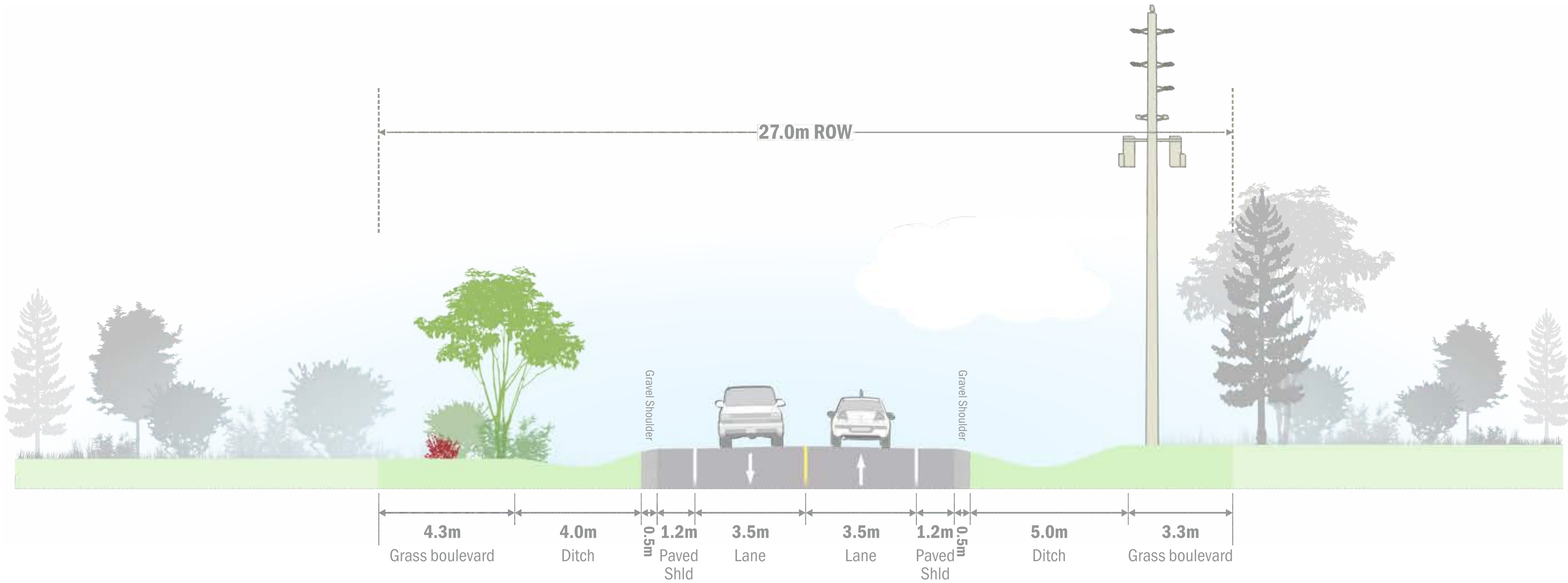
Almonte Street: Malcolm Street to Euphemia Street - Proposed Enhancements
 Major Intervention • Multi-Use Pathway on South Side



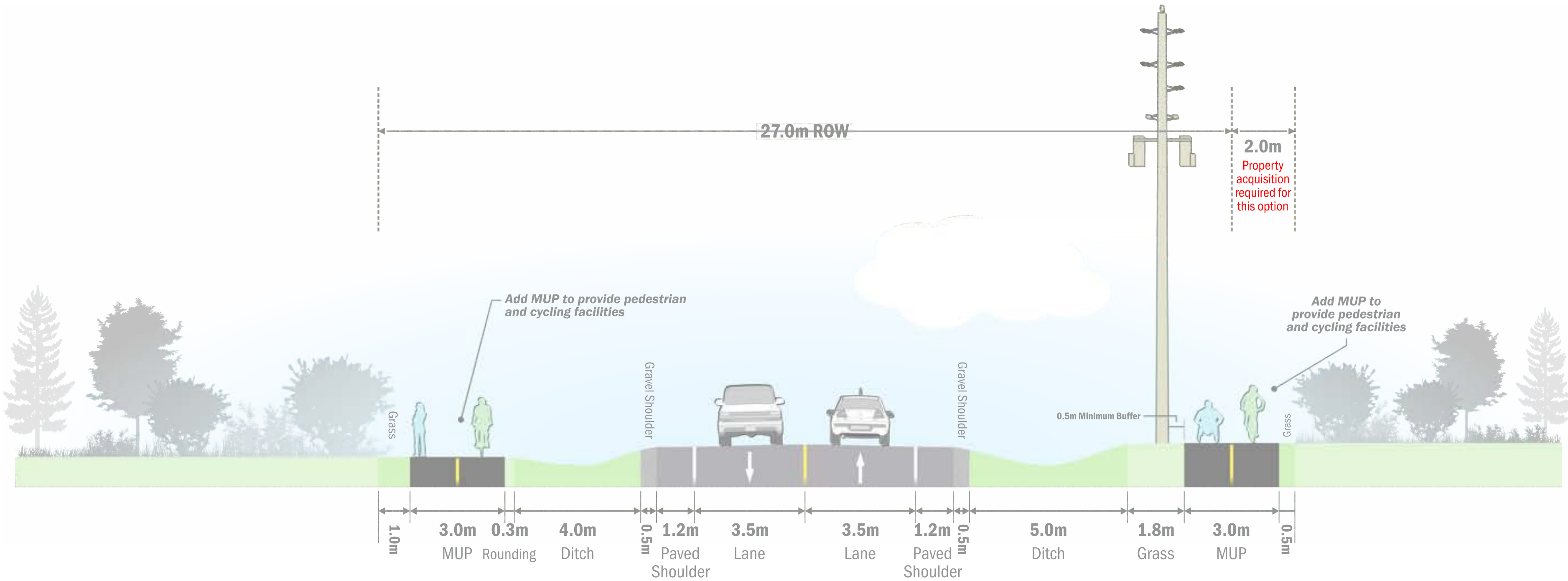
Almonte Street: Euphemia Street to County Road 29 - Existing Condition



Almonte Street: Euphemia Street to County Road 29 - Proposed Enhancements
 Major Intervention • Multi-Use Pathway on South Side and Widen Sidewalk

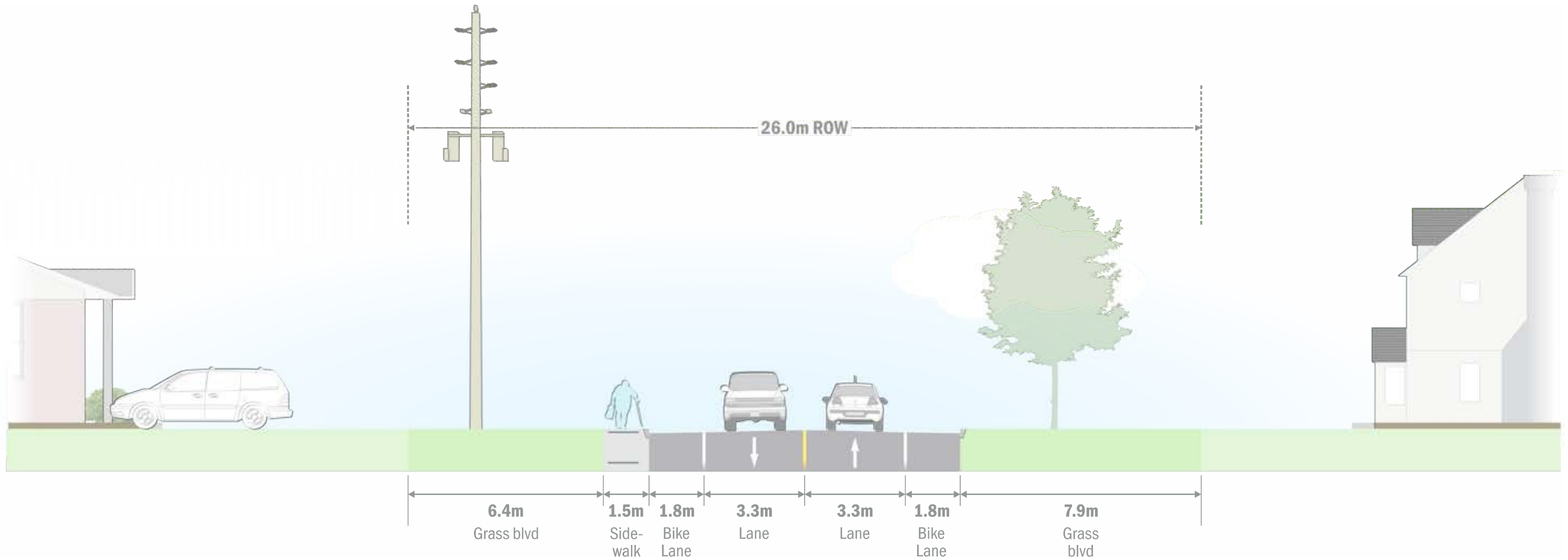


Appleton Side Road (County Road): Ottawa Street to Almonte South Boundary - Existing Condition

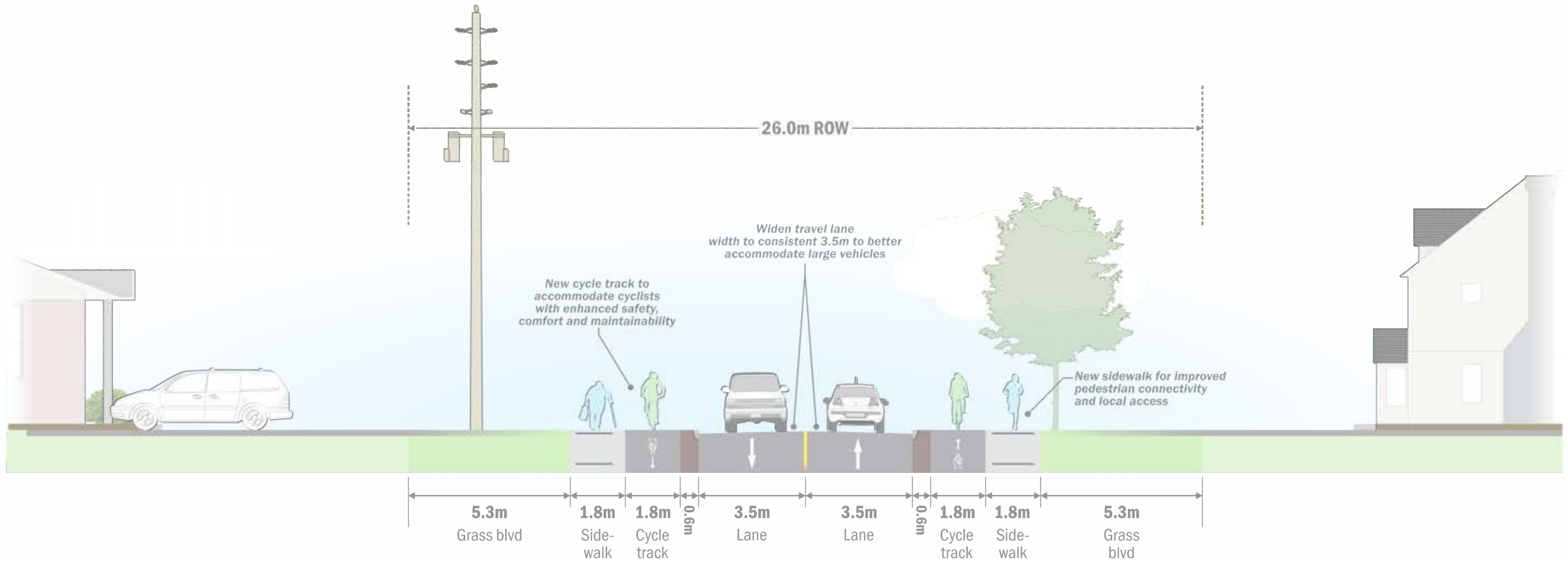


Appleton Side Rd (Country Road): Ottawa Street to Almonte South Boundary - Proposed Enhancements
 Major Intervention • Multi-Use Pathway on Both Sides

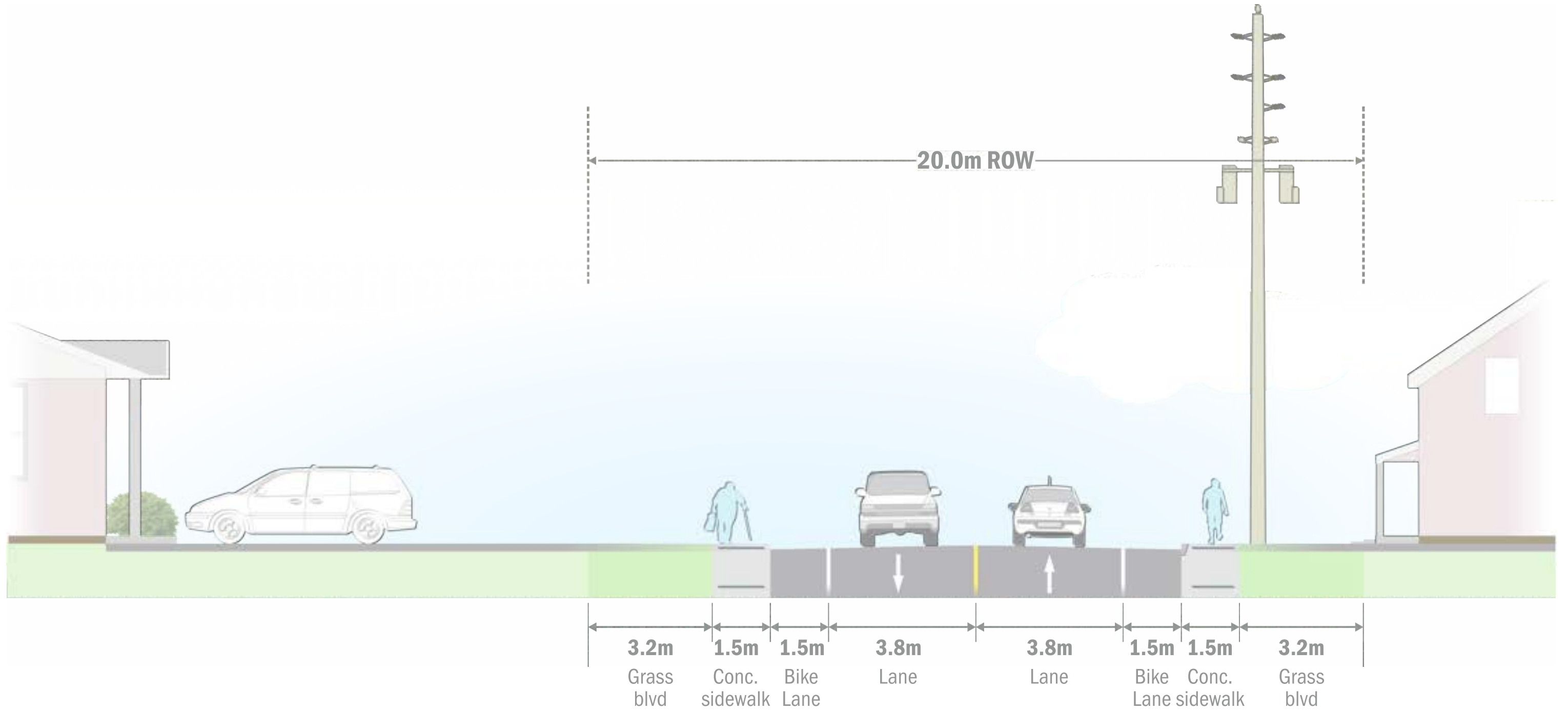
Note: Without property acquisition, hydro pole relocation would be required to fit the west MUP within the current 27.0 m ROW.



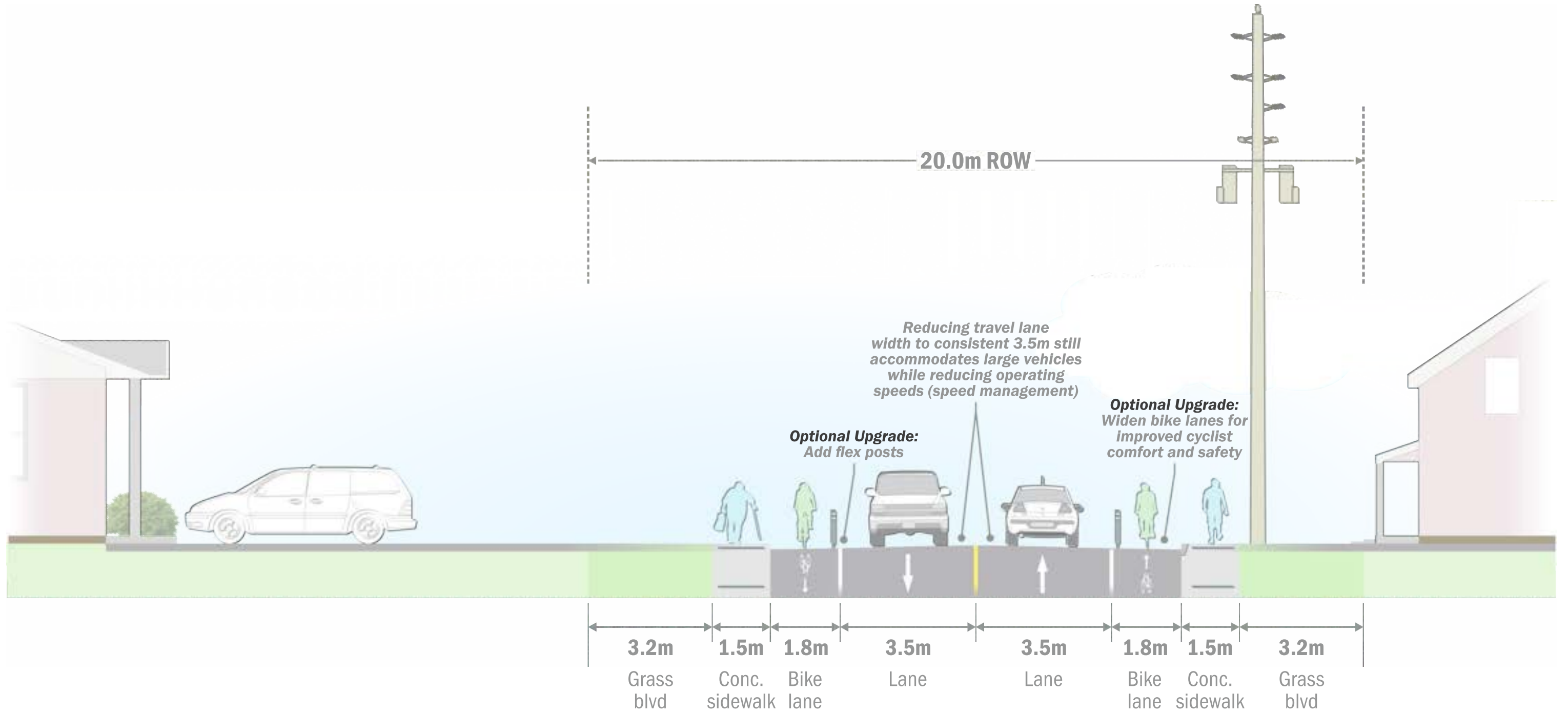
Bridge Street (County Road): Country Street to Perth Street - Existing Condition



Bridge Street (County Road): Country Street to Perth Street - Proposed Enhancements
 Major Intervention • Cycle Track on Both Sides with Sidewalk Enhancements

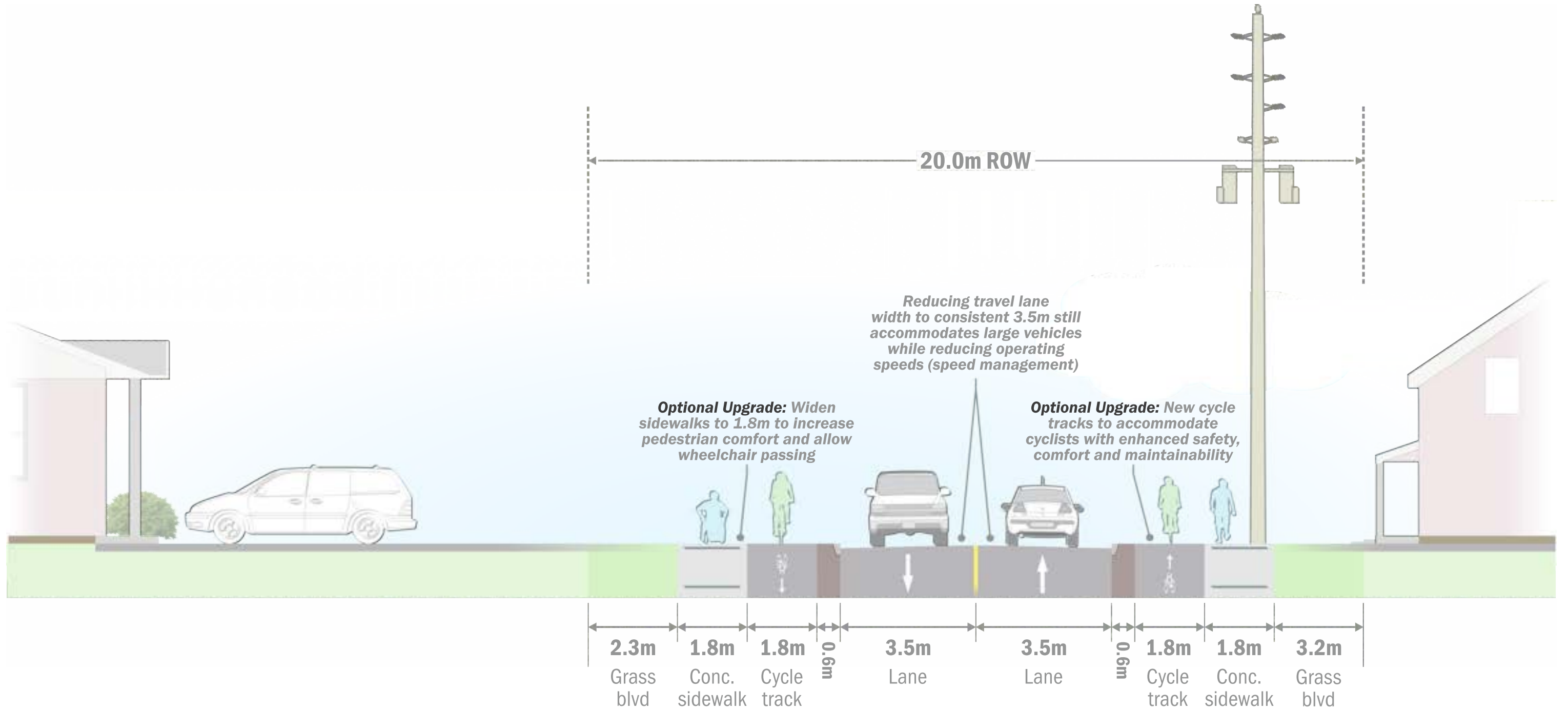


Martin Street (County Road): Ottawa Street to Town Boundary - Existing Condition

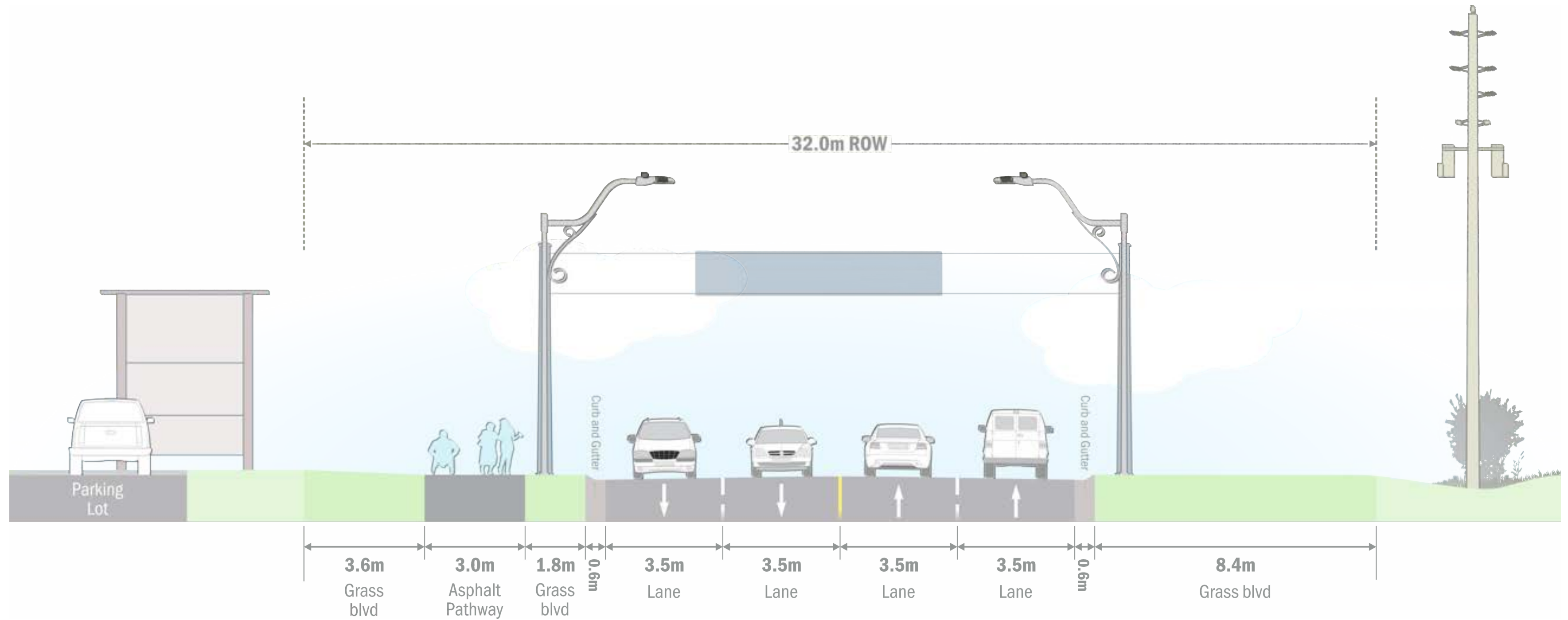


Martin Street (County Road): Ottawa Street to Town Boundary - Proposed Enhancements

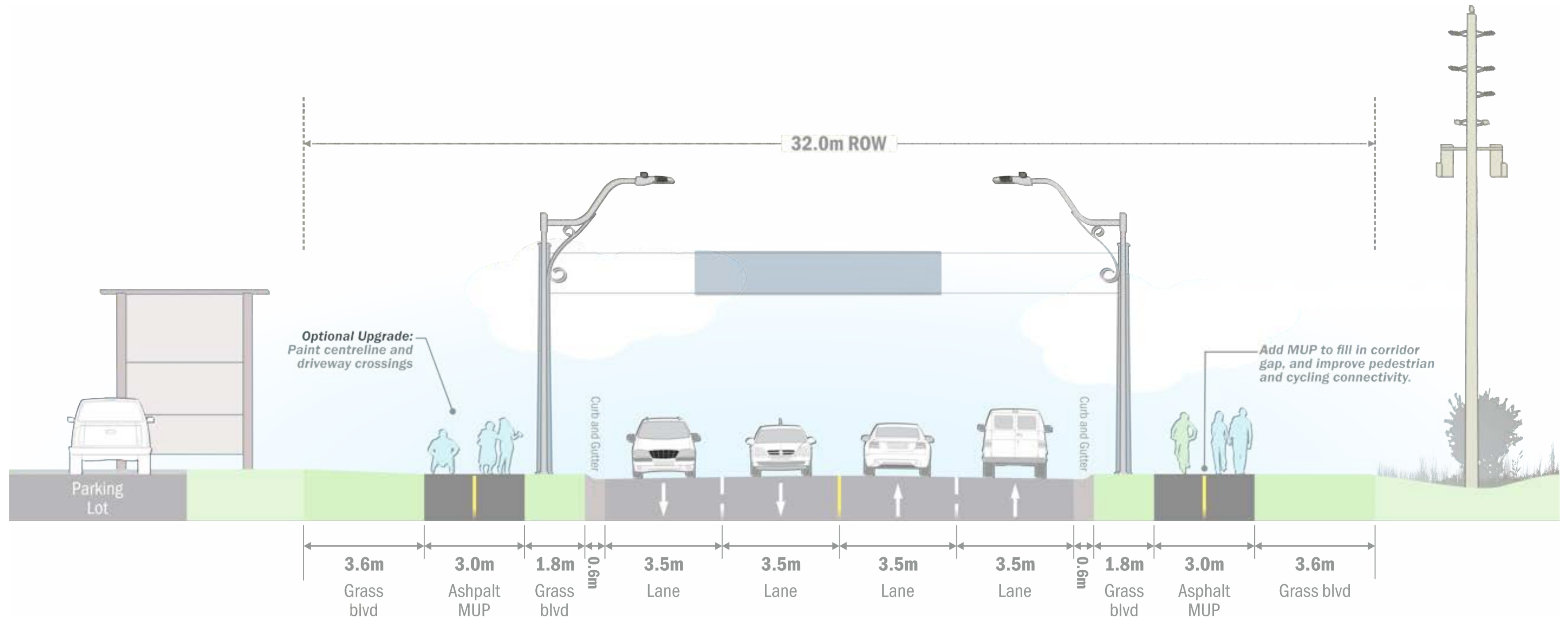
Minor Interventions • Widen Bike lanes



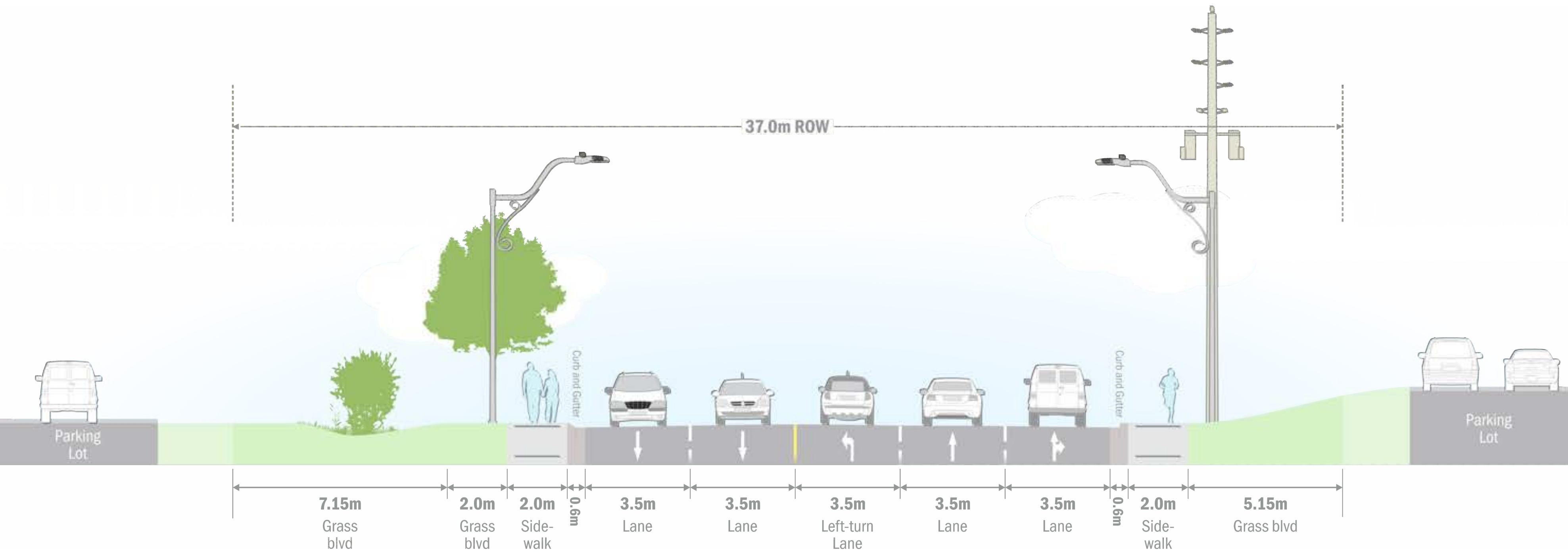
Martin Street (County Road): Ottawa Street to Town Boundary - Proposed Enhancements
 Major Intervention • Cycle Tracks on Both Sides and Widen Sidewalks



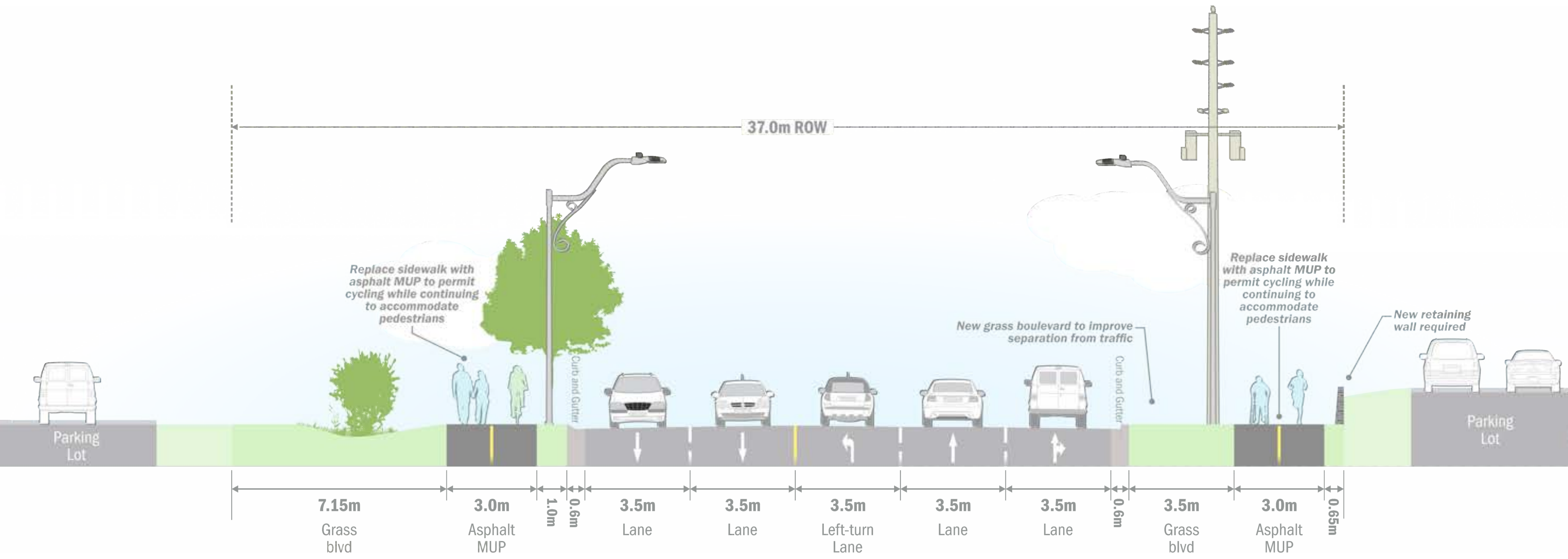
Ottawa Street: Appleton Side Road to Industrial Drive - Existing Condition



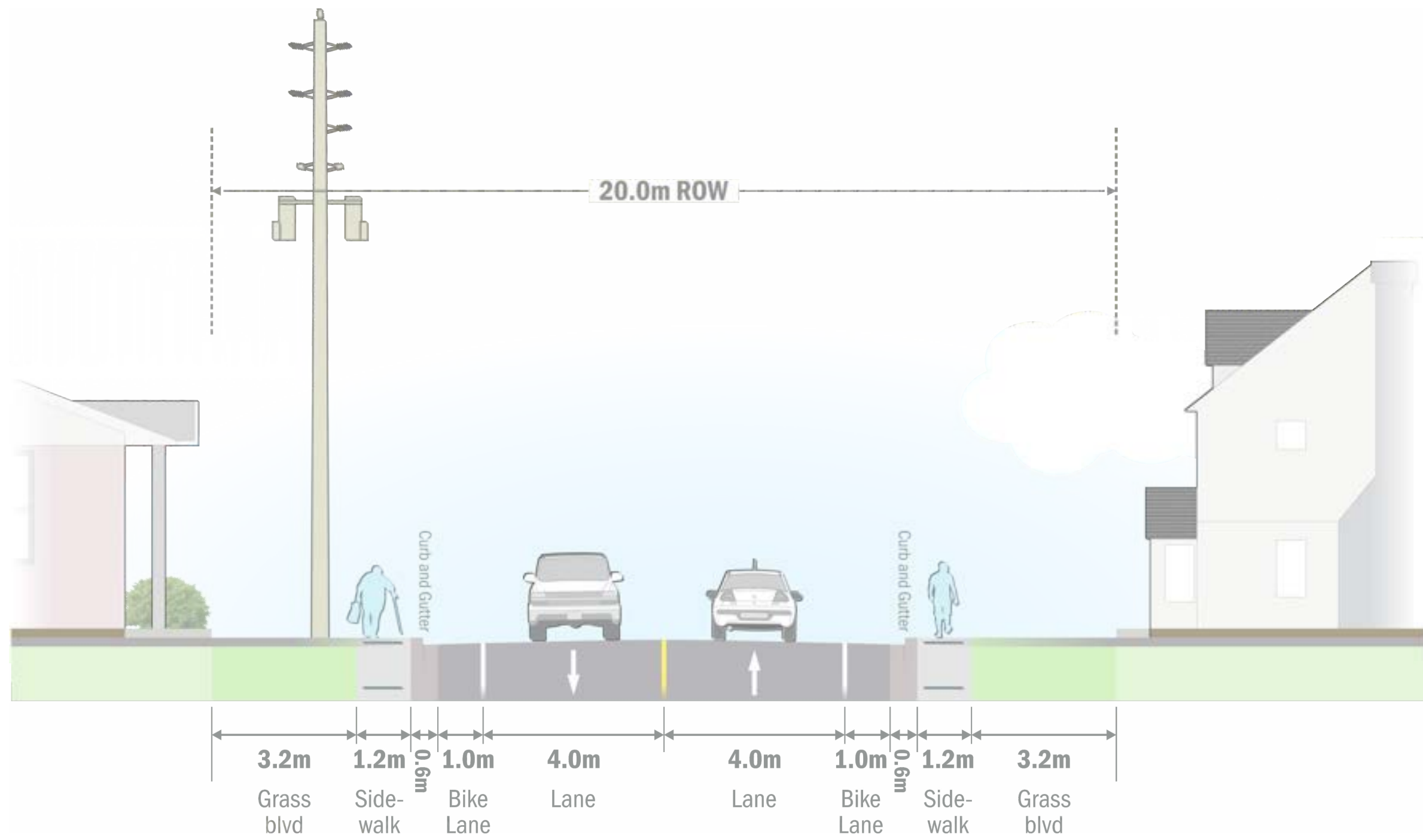
Ottawa Street: Appleton Side Road to Industrial Drive - Proposed Enhancements
 Minor Intervention • Add Multi-Use Pathway on South Side



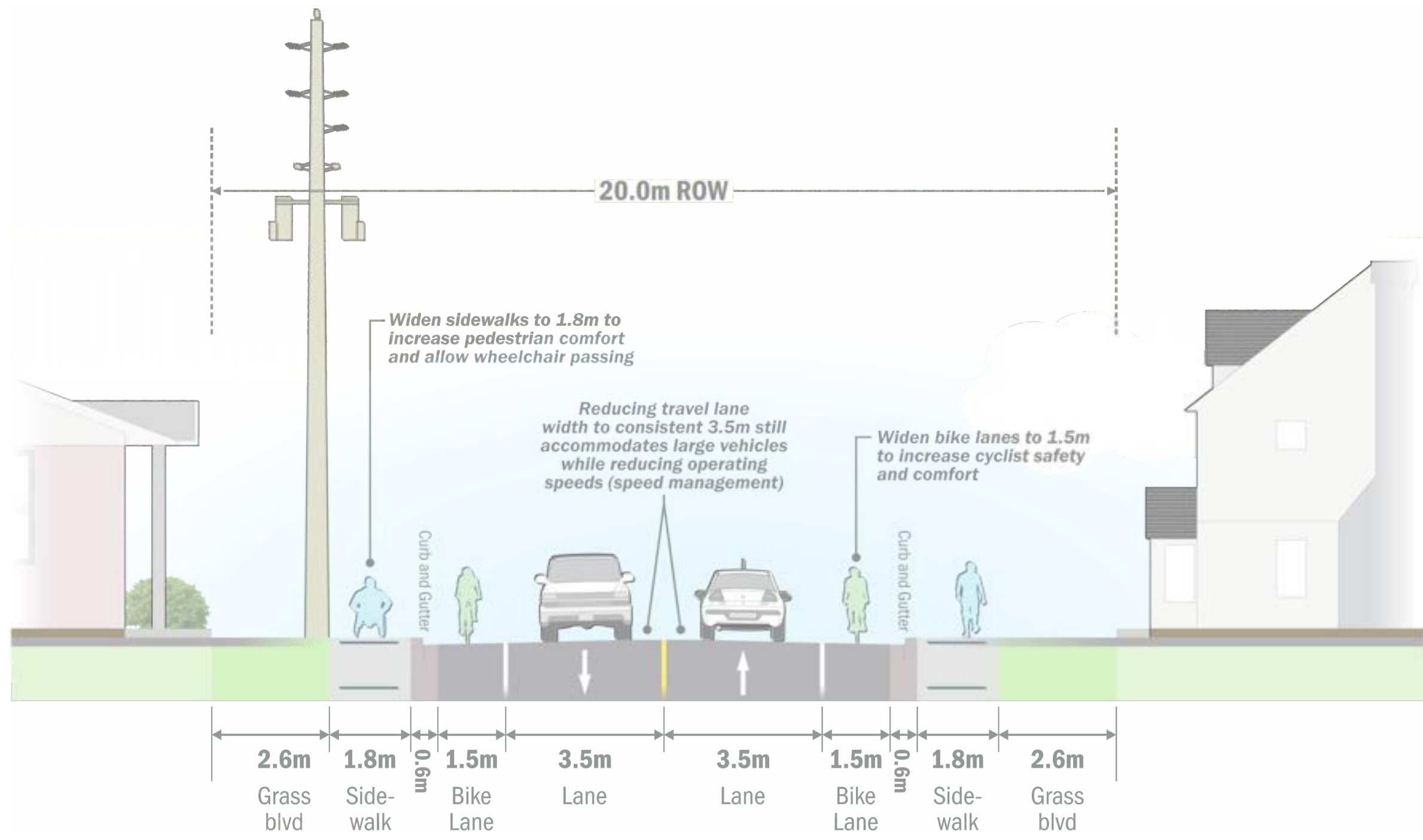
Ottawa Street: Industrial Drive to Paterson Street - Existing Condition



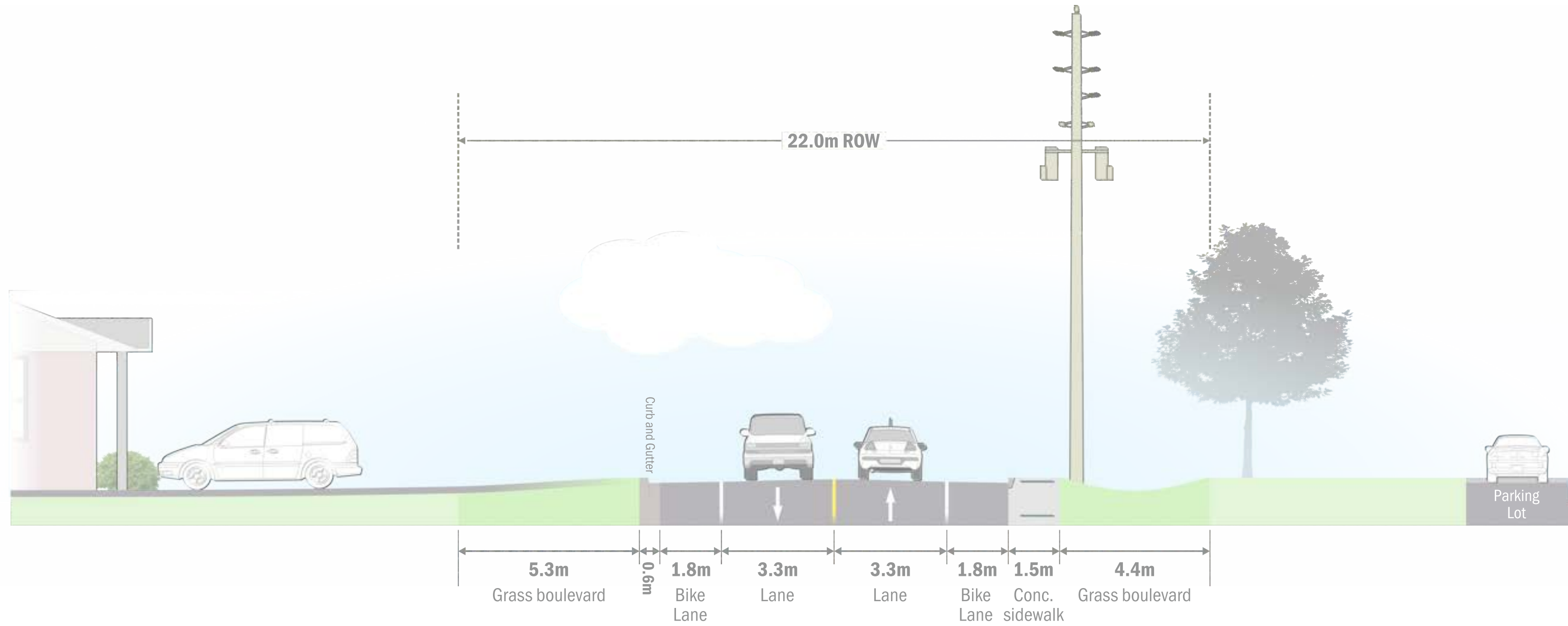
Ottawa Street: Industrial Drive to Paterson Street - Proposed Enhancements
 Major Intervention • Replace Sidewalks with Multi-Use Pathways on Both Sides



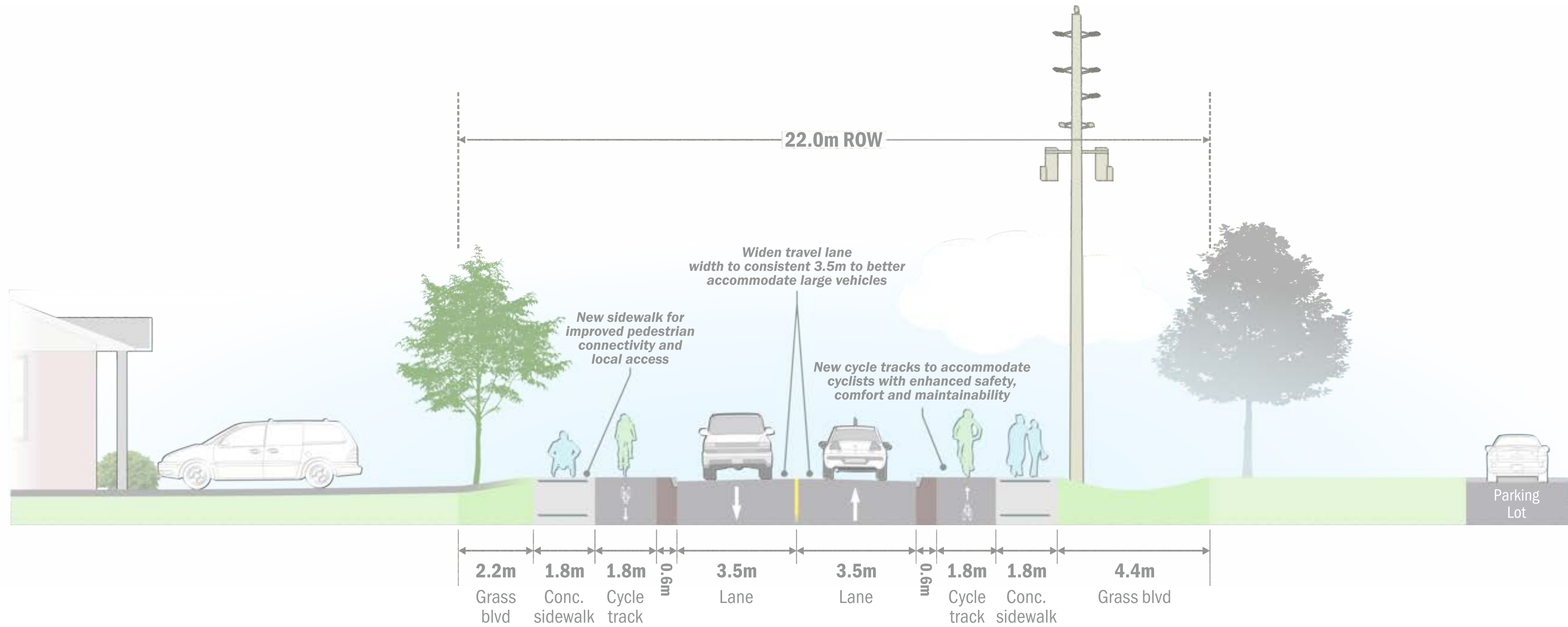
Ottawa Street: Paterson Street to Martin Street - Existing Condition



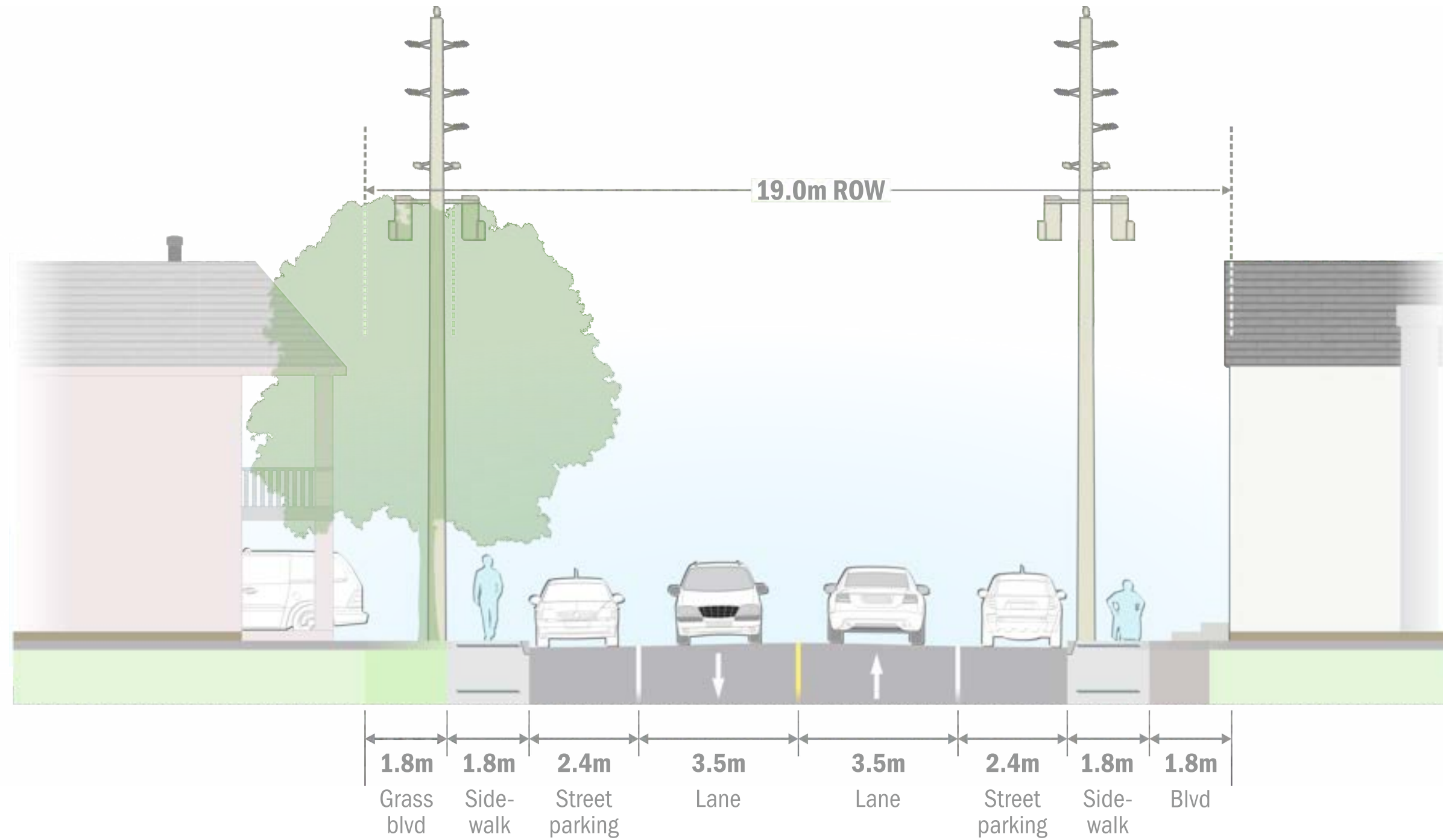
Ottawa Street: Paterson Street to Martin Street - Proposed Enhancements
 Minor Intervention • Widen Bike Lanes and Sidewalks



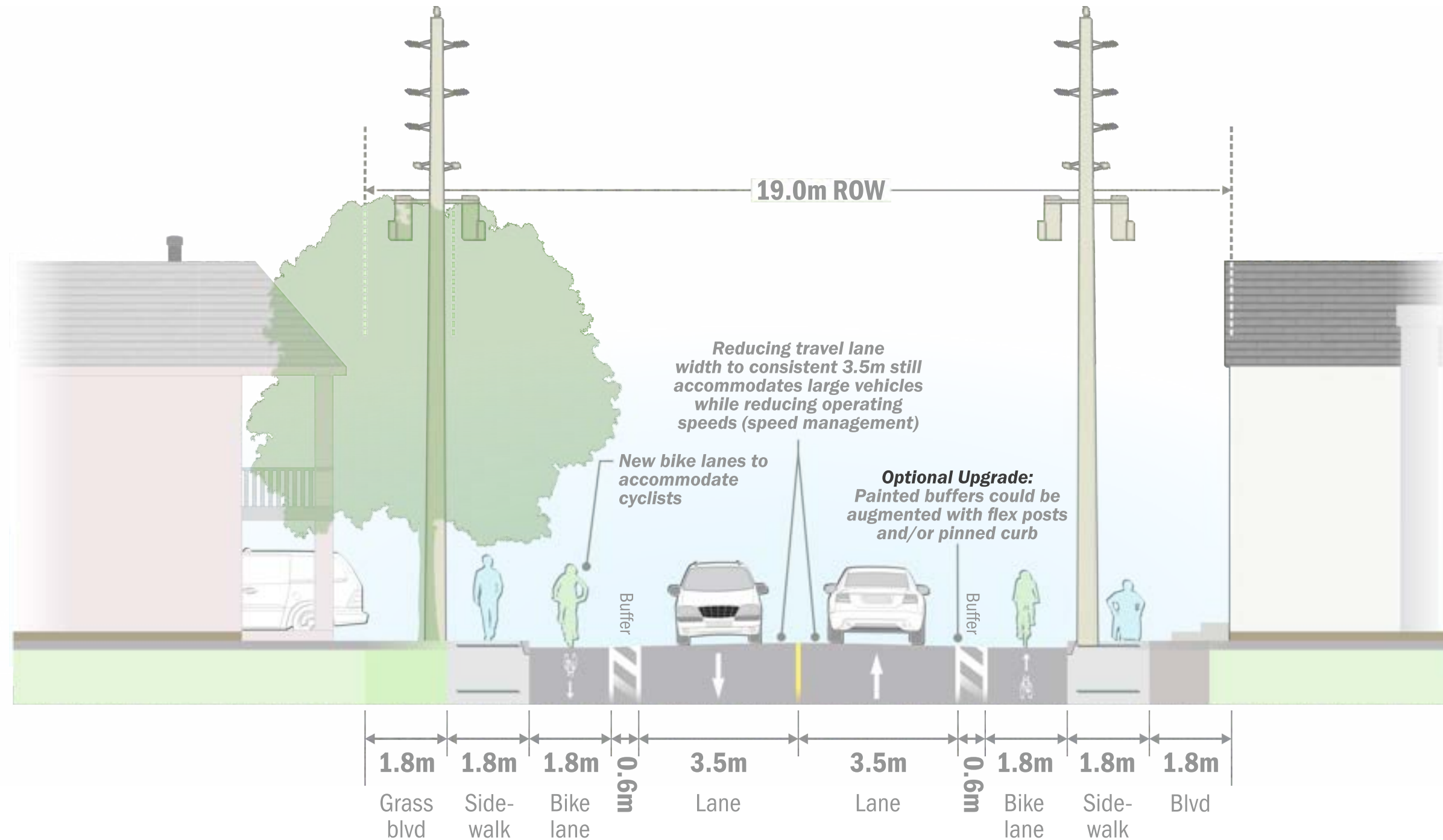
Perth Street (County Road): Bridge Street to County Road 29 - Existing Conditions



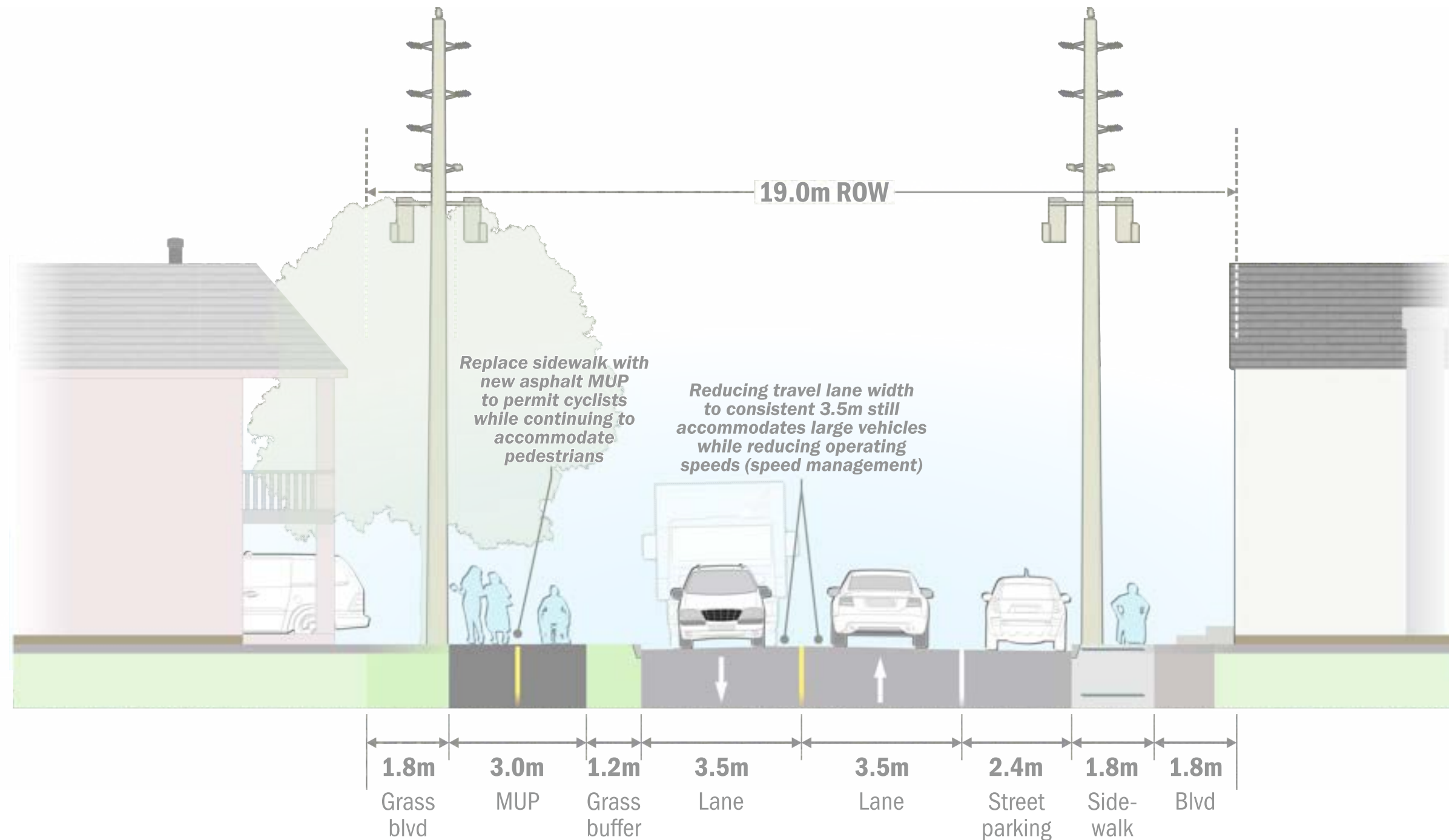
Perth Street (County Road): County Road 29 to Bridge Street - Proposed Enhancement
 Major Intervention • Cycle Track on Both Sides with Sidewalk Enhancements



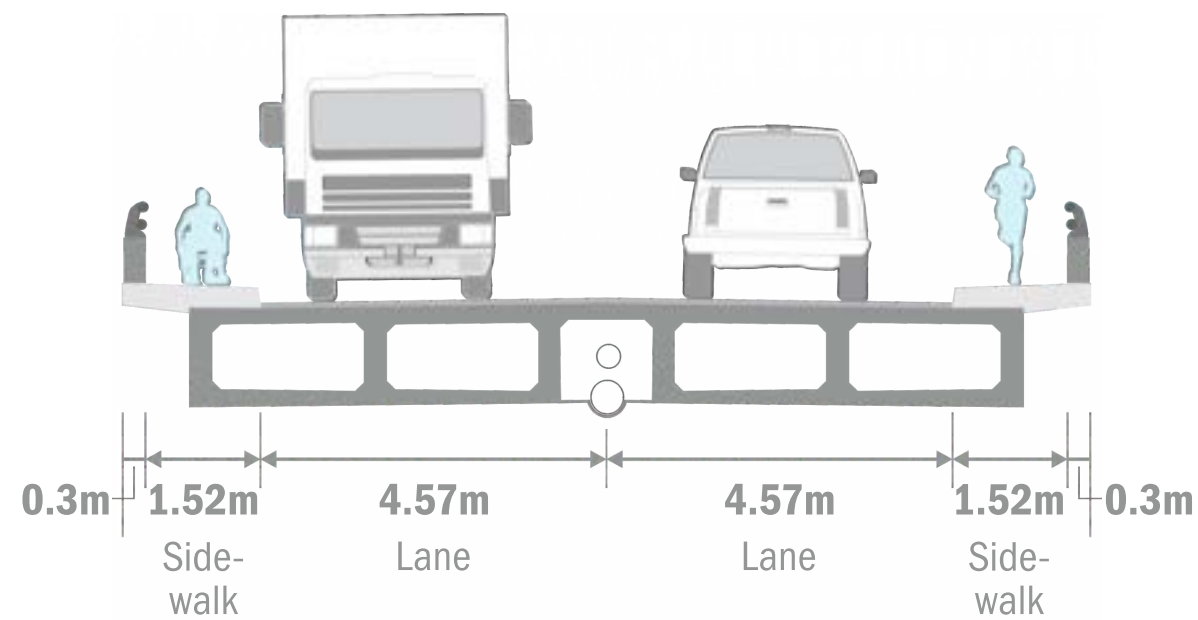
Queen Street (County Road): Ottawa Street to Union Street - Existing Condition



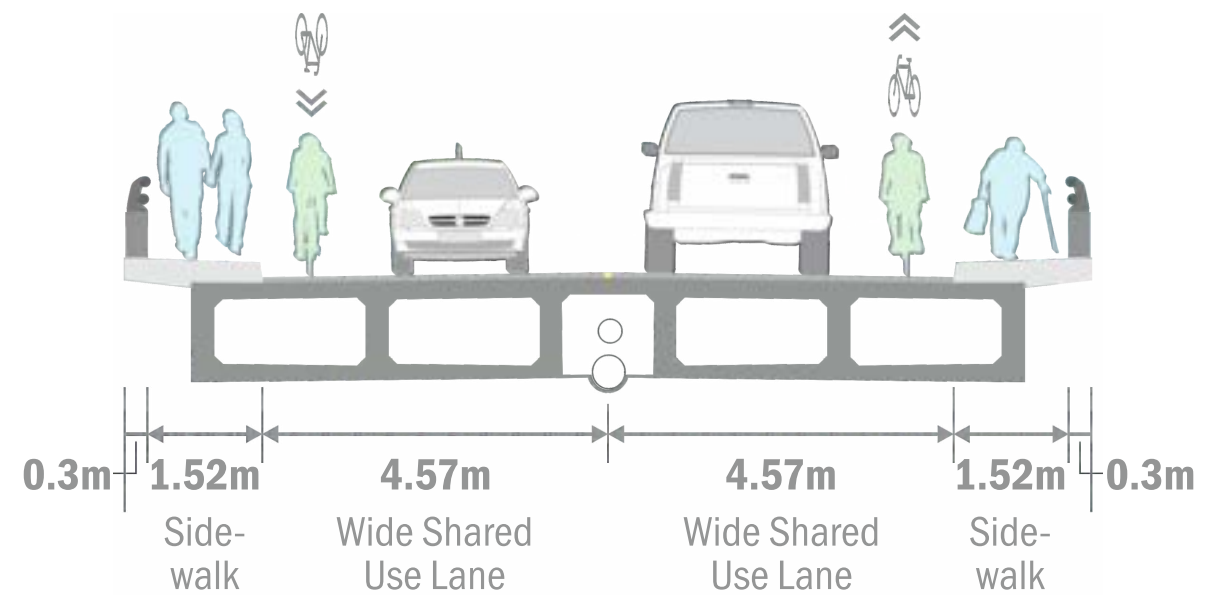
Queen Street (County Road): Ottawa Street to Union Street - Proposed Enhancements
 Minor Intervention • Bike Lanes on Both Sides (No On-Street Parking Option)



Queen Street (County Road): Ottawa Street to Union Street - Proposed Enhancements
 Major Intervention • Multi-Use Pathway on North Side (On-Street Parking on One Side Only)



Queen Street Bridge (County Bridge)
Existing Condition



Queen Street Bridge (County Bridge)
Proposed Enhancements
Minor Intervention • Shared Road Treatments

Note: Traffic volumes and speeds may be higher than the recommended upper threshold for shared use lanes, however increasing driver awareness may help with cyclist safety. Consider speed management measures on both approaches to the bridge to slow traffic down in addition to the recommended pavement marking and signage measures.

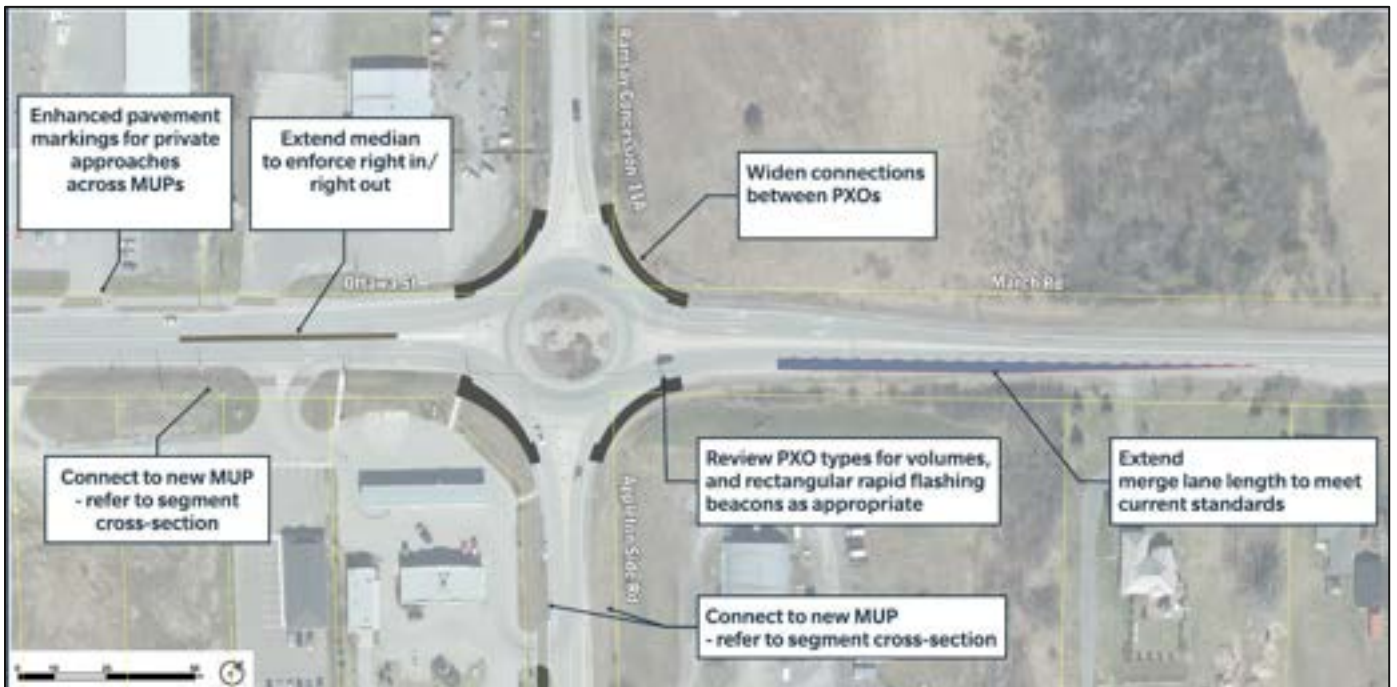
Appendix M

Recommended Municipal Intersection Modification Concepts

Ottawa/Martin



Ottawa/Ramsay Concession 11A



Bridge/Perth

