TOWNSHIP OF
WELLESLEY

Transportation and Mobility Master Plan

Final Report | May 2026

CIMA+

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Land Acknowledgement

We acknowledge that the Township of Wellesley is situated on the land of traditionally used by the Anishinaabe, Haudenosaunee, and Neutral peoples. We acknowledge the enduring presence and deep traditional knowledge and philosophies of the Indigenous People with whom we share this land today.

Project Team

We want to express appreciation for the considerable efforts of Township of Wellesley staff, Township partners and stakeholders, and members of the consultant team who guided the development of this plan.

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We would also like to acknowledge the considerable efforts and meaningful input provided by numerous other stakeholders and residents of Wellesley Township.

1.0 PLAN OVERVIEW

The **Township of Wellesley Transportation and Mobility Master Plan (TMMP)** is a long-range strategy that outlines the policies and projects needed to support the Township's transportation needs and goals over the next 25 years. The plan provides guidance on how and where to invest in infrastructure for walking and cycling, road improvements, traffic controls, and public transit. It also identifies strategies to manage growing travel demands and respond to evolving transportation technologies.

While transportation is defined as the act of moving people or goods, the term mobility takes a broader view. Mobility considers the range of transportation options people have available to them to reach their everyday destinations such as work, school, parks, grocery stores, and health care. A strong mobility system supports resident quality of life by creating places and spaces that are safe, functional, and accessible to everyone. Through the TMMP recommendations, the Township will work towards a future where all residents have safe, healthy, affordable, and accessible mobility choices.

This plan is a community-informed document whose development was supported by input from members of the public, key stakeholders, and other groups. As a blueprint for transportation and mobility, the TMMP's implementation will continue to rely on ongoing collaboration and engagement. The plan's recommendations are intended to be feasible to achieve the Township's overall goals and ambitions for mobility, while adapting to evolving local conditions and municipal priorities in the future.

1.1 Plan Process

The TMMP was developed through a planning process that consisted of the following three phases:

1

Project Foundations – July to September 2025

To lay the foundations for the plan's development, early work focused on gathering essential information and conducting preliminary analysis of the existing transportation and mobility context of Wellesley Township. This phase involved launching the project, including notifying the public and stakeholders, as well as First Nations and Indigenous communities. This phase included a review of relevant local plans and policies and an analysis of the existing transportation and road network (as detailed in Chapter 2). Early engagement activities were also carried out during this phase (detailed in Chapter 3).

2

Network & Recommendation Development – October 2025 to January 2026

The second phase of the project focused on analyzing transportation data to assess the Township's future mobility needs. Key activities included examining existing mode shares and developing potential future scenarios, conducting operational traffic assessments of local intersections, and creating a draft mobility network plan including for pedestrian and cycling infrastructure, roads, and transit, along with supportive recommendations related to road safety, street design, rural transportation, programming, and parking. Engagement continued during this phase through website updates and an in-person Public Information Centre.

3

Implementation Strategy and Plan Finalization – January to April 2026

This phase represented the culmination of the TMMP tasks and the finalization of the plan. Work during this phase analyzed the policy and network recommendations to provide a set of actions to implement the TMMP. This included prioritizing network recommendations, the development of high-level cost estimates, an assessment of potential funding sources and other resources required for implementation, as well as implications for other Township plans, by-laws and standards, and for long-term maintenance and monitoring practices. The phase culminated in the preparation of this comprehensive TMMP report, which was finalized through review by Township staff.

1.2 Navigating the Plan

The TMMP has been organized into seven (7) chapters that represent the study process, rationale and outcomes. **Table 1** provides a summary and overview of the plans content and intended use.

Table 1: Overview of the TMMP

Chapter	Content
1.0 Plan Overview	Provides a summary of the plan's purpose and process.
2.0 Existing Context	Establishes the foundation of the TMMP by providing an overview of the existing population demographics and travel patterns within the Township of Wellesley, in addition to the existing conditions of the Township's mobility network, and an analysis of relevant programs and policies.
3.0 Engagement	Presents an overview of how the public and other key stakeholders were engaged during the TMMP's development and highlights how key input and feedback informed the plan's vision, goals, and recommendations.
4.0 Developing a Future Vision	Defines the plan's long-term vision and goals and provides analysis regarding potential future travel mode share scenarios in the Township.
5.0 Mobility Network	Presents the background technical analysis and the resulting road, traffic, active transportation, and transit recommendations to guide the Township's mobility network to 2051.
6.0 Supporting Strategies & Tools	Outlines the supporting policy, process, guideline, program, and implementation recommendations for the TMMP, to help achieve the Township's mobility goals and guide staff decision-making.
7.0 Moving Forward	Provides an implementation strategy for the TMMP including proposed phasing, estimated costing, future roles and responsibilities of staff and stakeholders, potential partnerships and funding streams, and evaluation practices that should be implemented to monitor the condition of the infrastructure network and the plan's long-term success.

2.0 EXISTING CONTEXT

Located in the Northwest corner of Waterloo Region, the scenic Township of Wellesley is predominantly rural in nature. Much of the population, however, resides in the Township's urban settlement areas, including the villages of Crosshill, Hawkesville, Linwood, St. Clements, Heidelberg, Bamberg, Kingwood, and Wellesley. The Township is home to approximately 11,300 residents, including many farming families and a considerable Mennonite community. The village of Wellesley is the largest community, accounting for nearly a third of the Township's population (3,536 as per 2021 census) and serving as a hub for community activity, with a recreation centre, public elementary school, and small commercial area.

2.1 Overview and Demographics

Wellesley Township is a growing community, with the Township's population increasing from 10,713 to 11,318 residents between 2011 and 2021, a rate of 5.6% (as per Statistics Canada Census data). Population growth varied considerably in this time, with a growth rate of 5.1% from 2011 to 2016, which slowed to 0.5% from 2016 to 2021. According to the growth projections prepared for the 2025 Official Plan update, the Township is expected to grow by approximately 23.7% to 14,000 residents by 2051 (approximately 0.8% per year), with much of that growth occurring in the Village of Wellesley.

Wellesley Township has a notably younger population than the provincial average, with many young families. The median age in Wellesley Township is 35.2, well below Ontario's median age of 41.6. Children under the age of 15 make up approximately **24.5%** of the population,

significantly more than the provincial ratio of 15.8%. The Township also has fewer seniors, with just **14%** of residents aged 65 or older, compared to 18.5% across the province.

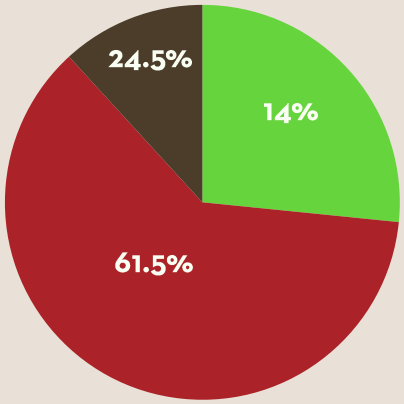
Wellesley Township is known for its significant Mennonite population, which comprises approximately **26%** of the Township's residents, (as per the Township of Wellesley Strategic Plan). While Waterloo Region is home to Canada's largest population of Old Order Mennonites, Wellesley Township's Mennonite community encompasses a wide range of practices, beliefs, and levels of traditionalism. This includes members who adhere to traditional dress and travel via horse-drawn vehicles, as well as those who are more flexible in how they practice their beliefs. German, including various dialects, is commonly spoken among Mennonite families in Wellesley Township. Following English, it is the most prevalent mother tongue, with **27.4%** of residents identifying German as their first language.

Wellesley Township has a relatively small immigrant population. Only **5.4%** of Wellesley residents were born outside of Canada, compared to more than 30% of Ontarians as a whole. Similarly, only **2.2%** of the Township's residents self-identify as visible minorities, compared to 34.3% of Ontarians.

Household incomes in Wellesley Township are higher than average. The median household income in Wellesley Township is **$119,000**, compared to $91,000 across the province. The community is predominantly composed of single-detached homes, which account for 84.5% of residences, with an average household size of 3.4 people.

Wellesley Township Demographics

2021 Census



26%
Mennonite

27.4%
German as first language

2.2 Wellesley Township's Transportation System

The road network in Wellesley Township includes a combination of Township roads managed by the local municipality, as well as Regional roads constructed and maintained by the Region of Waterloo. Regional roads are arterial roads that carry a significant amount of traffic and connect rural communities to highways and major centres. Township roads include both collector roads and quieter local roads, including most roads within the Township's communities.

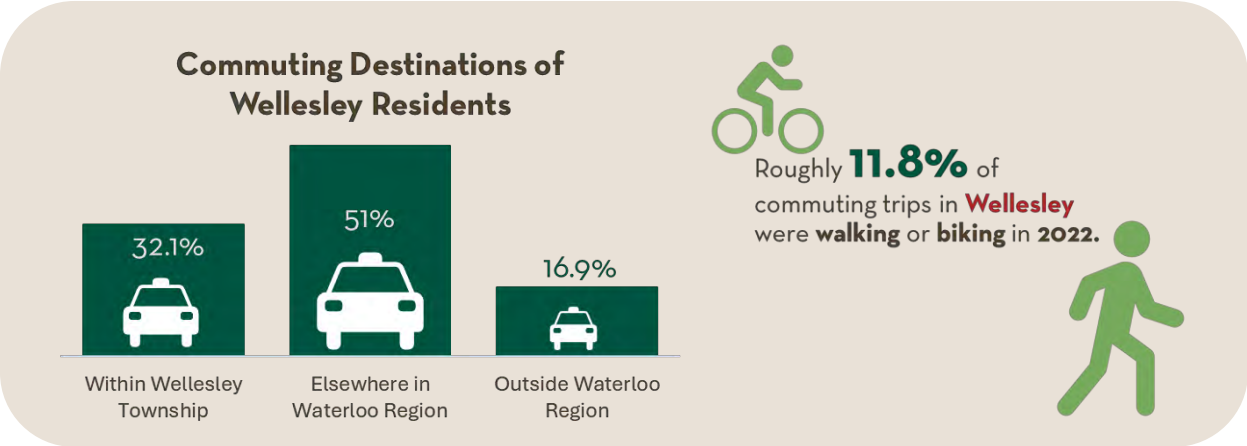
The Township's active transportation network includes sidewalks and multi-use paths within the Township's settlement areas, as well as off-road trails and signed cycling routes through rural lands.

Existing public transit service in Wellesley Township is operated by Kiwanis Transit, which provides on-demand service for seniors, residents with physical or developmental disabilities, and those who have a temporary disability impacting their mobility.

2.2.1 How People Travel in Wellesley Township Today

Passenger vehicles are the most common form of transportation in Wellesley Township for commuting. According to Statistics Canada's 2021 Census of Population, 84% of Township residents use a car, truck or van, either as a driver or a passenger, as their primary mode of commuting. Walking is also a popular mode of commuting in Wellesley Township; 10.4% of residents report walking to work, compared to 5.6% of workers across the province. Meanwhile, 1.4% of Township residents commute by cycling – approximately double the rate of primary bicycle commuters across the province. Most Wellesley Township residents work in Waterloo Region, either within Wellesley Township (32.1%), or elsewhere in the Region (51%).

The Transportation Tomorrow Survey (TTS) offers a broader perspective on travel behavior compared to Statistics Canada. Trends in TTS data demonstrate a modal shift between 2016 and 2022. Auto driver and passenger trips (combined) declined from 86.6% to 73.9%, while walking was the second most common mode of travel and increased its share of trips from 4% to 11.3%. Cycling trips increased from 0.5% to 2.3% of all trips. These data sources generally do not track recreational trips; however, feedback from local engagement efforts suggest that the Township's trails are well-used, both for walking and cycling. A more detailed analysis of travel behaviour and mode share in Wellesley Township, including an analysis of future scenarios, is provided in Section 4.2.



2.2.2 Infrastructure and Network Context

The Township of Wellesley's Transportation Network includes an interconnected set of Regional and Township roads and facilities. Based on the existing conditions review conducted in 2025, the Township's Transportation network includes the following transportation facilities:

- 111.4 km of Regional roads;
- 217.7 km of Township roads, including:
  33.4 km of urban asphalt roads,
  72.4 km of rural asphalt roads, and
  111.9 km of rural gravel roadways.

The Township's multi-modal infrastructure network also includes 31.6 km of sidewalks (comprised of 26.5 km of concrete sidewalks, 3.6 km of asphalt sidewalks, and 1.5 km of stone dust sidewalks), as well as 2.4 km of multi-use paths along portions of Gerber Road and Greenwood Hill Road. Mapping of the existing network in the Township is illustrated in **Figures 1-2. Appendix D** provides more detailed maps of existing conditions in the Township's urban settlement areas.

There are also many other multi-modal transportation assets in Wellesley Township, including:

- **69 km of shared streets/paved shoulders along Regional Roads**. Waterloo Region also promotes cycling routes, mostly along Regional roads, but also along some Township Roads, such as Temperance Road and Broadway Street.
- The Guelph to Goderich (G2G) rail trail (also referred to as the "Kissing Bridge Trail"), a cycling and walking/hiking trail that passes through Linwood in the northern part of the Township. Segments of the Great trail (also known as the Trans-Canada Trail) as well as several Regional and Township walking and cycling trails are also located in Wellesley Township.
- Various pedestrian crossings, including mostly at stop-controlled intersections, and some mid-block pedestrian crossings (PXO's), and school crossings.

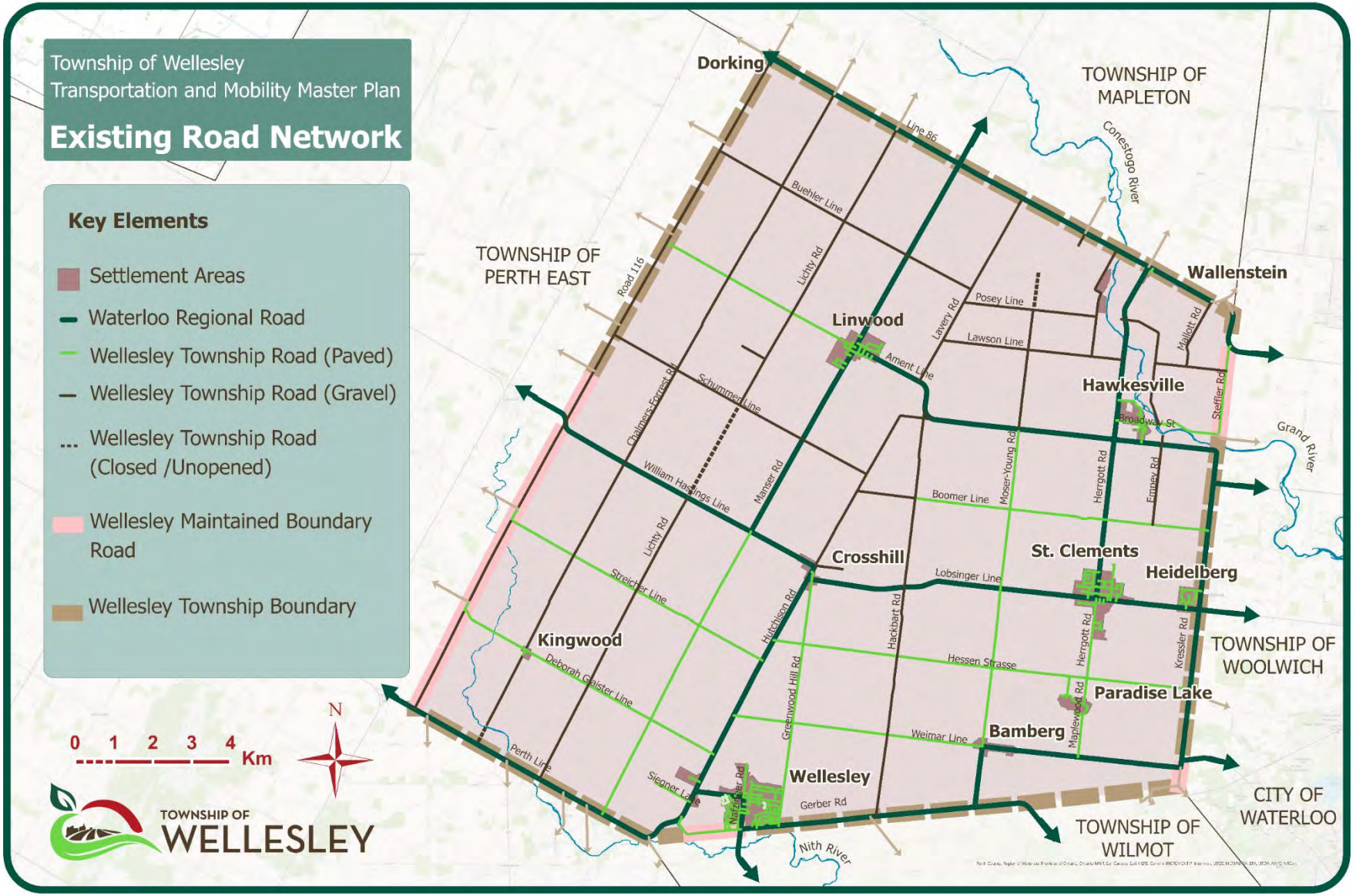


Figure 1: Township of Wellesley Existing Road Network

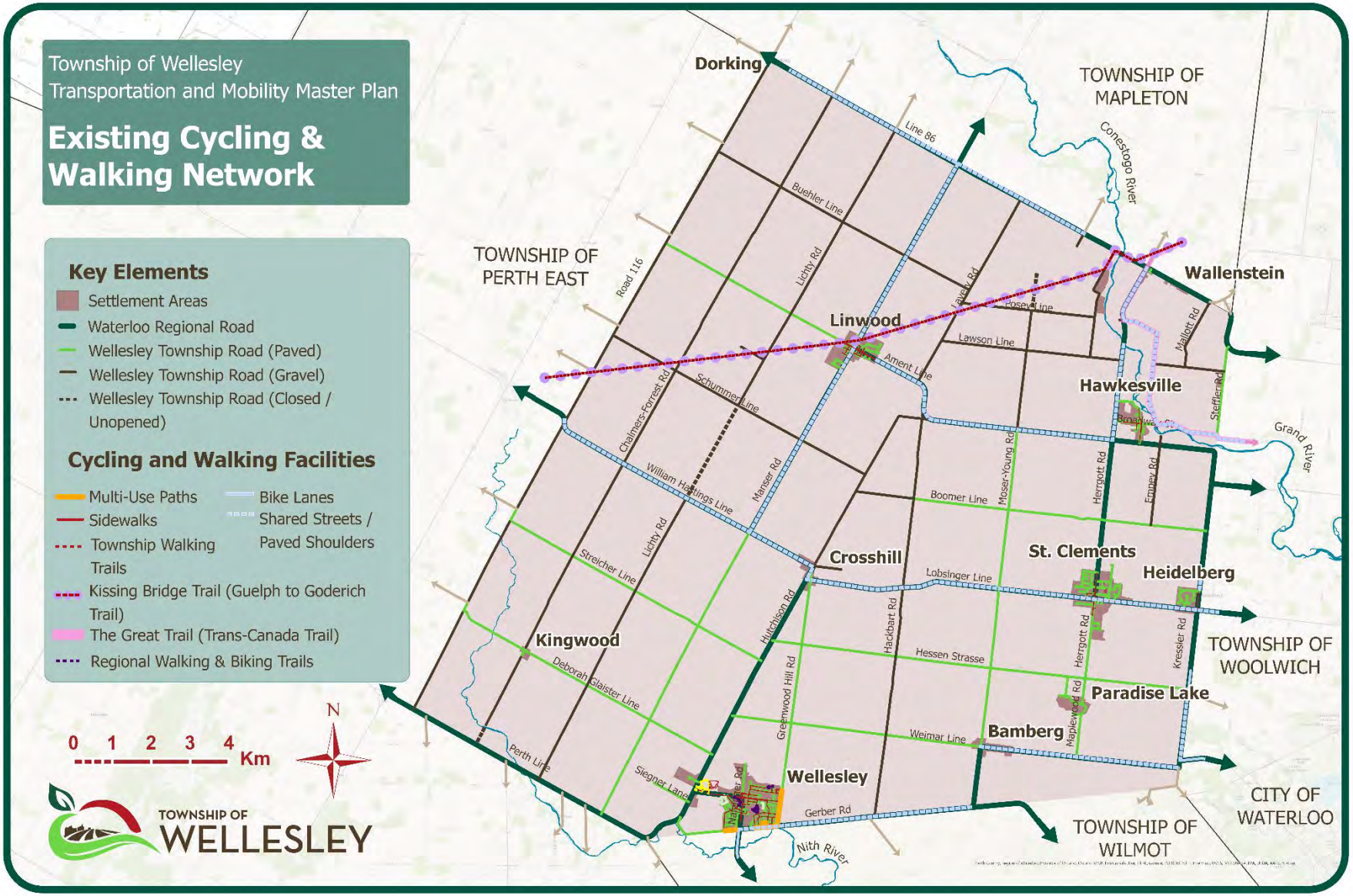


Figure 2: Township-wide Existing Cycling & Walking Network

2.2.3 Programs that Support Mobility

As part of the background review, existing programs, services, or other initiatives that related to the mobility goals of Wellesley Township and the TMMP were reviewed. This provided a more complete picture of the mobility landscape in Wellesley Township. **Table 2** provides an overview of the existing programs in the Township.

Table 2: Summary of Program Review and Relevance

Program	Organization	Summary and Relevance
Self-Guided Heritage Tours	Wellesley Township Heritage and Historical Society	The Wellesley Township Heritage and Historical Society has created a series of walking and driving tours that highlight locations of historical interest within the Township. These tours are available at wellesleyhistory.org. While primarily meant to focus on heritage, the tours also encourage people to walk and explore local areas by various modes.
Community Events	CycleWR	CycleWR is a community group that organizes ongoing events, including group rides and bike skills workshops. These community events promote cycling throughout Waterloo Region, sometimes including Wellesley Township, providing a social and supportive atmosphere to encourage people to cycle more often.
Signature Cycling Routes	Explore Waterloo Region (EWR) Tourism	Waterloo Region promotes tourism throughout the Region, including a variety of destinations and activities to attract visitors to the area including cycling tourism. EWR promotes a collection of signature cycling routes, trails, and bicycle friendly businesses throughout the Region at explorewaterloo.ca.
Specialized Transit Service	Kiwanis Transit	Kiwanis Transit provides reliable, safe, and accessible transportation for eligible riders in Wellesley, Woolwich, and Wilmot Townships. Eligible riders include residents age 65 and older, and those with a physical or developmental disability. This service provides a transportation option for eligible residents to help them get around without a motorized vehicle.

2.3 Planning and Policy Framework

The TMMP is part of a larger policy framework that guides transportation planning in the Province of Ontario. Through the provincial *Planning Act (1990)*, the Ontario Government lays out a framework for growth and development that municipalities must follow, including infrastructure planning. This framework takes the form of a hierarchy that includes provincial and municipal plans and policies.

This hierarchy includes statutory (required) documents, including provincial legislation and municipal Official Plans, as well as non-statutory supporting and functional plans at all levels. The following section provides more detail on relevant provincial, Regional and Township plans and policies, and how they have influenced and guided development of the TMMP. A more detailed summary and analysis was provided to the Township as part of the background work for the TMMP.

In addition to the summaries included in this section, a policy gap analysis of key planning and policy documents from the Township of Wellesley and Region of Waterloo was conducted to determine the frequency of terms related to transportation planning in the Township. This has also been provided to the Township as part of the background information supporting the TMMP. Key findings from that assessment included:

- Transportation is appropriately prioritized throughout relevant planning documents, including an emphasis on sustainable modes such as transit and active transportation.
- Sustainability and the environment are important priorities for the Township and Region.
- Some emerging concepts and terminology, such as “multimodal” transportation, “connectivity” and “Complete Streets” appeared infrequently in plans, representing an opportunity to incorporate these concepts into the TMMP.

2.3.1 Provincial Plans and Policies

Provincial Planning Statement (2024)

The Provincial Planning Statement (PPS) came into effect in 2024, replacing both the *Provincial Policy Statement* (2020), and *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (2019). The PPS provides updated policy direction on matters of provincial interest related to land use planning and development. The PPS contains many policies that relate to transportation and land use planning that support expansion of active transportation, transit, and multi-modal connectivity, including that "transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, are appropriate to address projected needs, and support the use of zero- and low-emission vehicles."

Connecting the GGH: A Transportation Plan for the Greater Golden Horseshoe (2022)

This plan focuses on providing a 30-year vision for mobility across the Greater Golden Horseshoe Region to guide and align planning and investments by the province and other transportation providers, including municipalities, by addressing growth, changing demographics, shifting work-live patterns, climate change impacts, and new technologies. The plan includes a "Vision for Mobility" in 2051, including policy, infrastructure, and service improvements organized under four themes:

- Fighting gridlock and improving road performance
- Getting people moving on a connected transit system
- Supporting a more sustainable and resilient region
- Efficiently moving goods

Other Provincial Plans and Guidelines

Other Provincial plans and guidelines relevant to the TMMP include:

- #CycleON Cycling Strategy & Action Plan 1.0 (2014)
- #CycleON Action Plan 2.0 (2018)
- Minimum Maintenance Standards for Municipal Highways (Ontario Regulation 239/02)
- Ontario Transit Supportive Guidelines (2012)
- Ontario Freight Supportive Guidelines (2016)

2.3.2 Region of Waterloo Plans and Studies

Region of Waterloo Regional Official Plan (2024)

The Waterloo Regional Official Plan (ROP) is a strategic policy framework guiding growth and development in Waterloo Region to 2051. The ROP focuses on the three foundational themes of social equity, thriving community, and environmental sustainability. The plan's vision for sustainability is reflected through policies that aim to provide a full range of mobility options for people of all ages and abilities, including transit and active transportation.

The ROP provides policies governing transportation systems planning, including general policies, the Regional transit system, walking and cycling networks, and the road network. The ROP sets out the function of Regional roads to "provide safe, direct, accessible and multimodal transportation links for moving people and goods throughout Waterloo Region, and to adjacent municipalities."

As of 2025, the ROP became an Official Plan of each of the area municipalities, including Wellesley Township, and thus is now the responsibility of each area municipality to implement and oversee.

Moving Forward 2018 Transportation Master Plan

The Region of Waterloo's 2018 Transportation Master Plan Update (2018 TMP) is a strategic document that makes long-term recommendations related to active transportation, public transit, and Regional roads to the year 2041. The 2018 TMP builds off and consolidates the 2010 Regional Transportation Master Plan and the 2014 Region of Waterloo Active Transportation Master Plan. The 2018 TMP sets out a vision for a Region that is prosperous, sustainable, and healthy, with viable transportation choices for people of all ages and abilities, and for the goods supporting our economy.

The 2018 TMP is built around 5 broad strategies:

- Build a transportation network that supports all modes of travel,
- Promote a healthy community,
- Develop a frequent transit network,
- Enhance inter-regional connections, and
- Position the network for new mobility.

The 2018 TMP identifies all Regional roads in Wellesley Township as part of the Region's existing and proposed cycling network, with largely paved shoulders provided to accommodate cycling. The 2018 TMP recommends sidewalks on both sides of Regional roads in built up areas and calls for increased transit service in urban areas. The TMP's Truck Route Policy states that trucks are permitted on all Regional roads, unless there are valid reasons for restrictions.

Region of Waterloo Strategic Plan 2023-2027

The Region of Waterloo 2023-2027 Strategic Plan: *Growing with Care* includes four key priority areas: homes for all, equitable services and opportunities, climate aligned growth, and resilient and future ready organization. The Strategic Plan is a high-level document that focuses largely on equity and sustainability. It sets out to design equitable services that meet community needs and foster alternatives to the automobile through a focus on complete streets and extended alternative transit networks.

Grand River Transit Business Plan (2025)

Grand River Transit's Business Plan guides future transit service expansion and investments over the next ten years. The plan consists of four parts: the Conventional Bus and Train Plan, the MobilityPLUS and Kiwanis Transit Plan, the Township Transit Strategy, and the Fares Strategy. The plan calls for significant transit expansion over the next few years to improve travel times and better connect communities across the Region.

As part of the Township Transit Strategy, Grand River Transit proposes a fixed transit route connecting the Village of Wellesley to Waterloo via Crosshill, St. Clements, Heidelberg, and the St. Jacob's Farmer's Market. The service would originate at ION Light Rail's Conestoga Station and terminate at the Wellesley Rec Complex. In addition to the fixed route, the Plan proposes a series of on-demand zones, including Zone 1: Northwestern Wellesley/West Woolwich, and Zone 2: North Wilmot/South Wellesley. More details on Grand River Transit's plans for service in Wellesley Township are provided in Section 5.2.2 of the TMMP.

Region of Waterloo By-Laws

The Region of Waterloo's **Traffic and Parking By-Law** (16-023) provides a legal framework for the operation and parking of motorized and non-motorized vehicles within the Region of Waterloo. This by-law prohibits the use of motor vehicles and motor-assisted vehicles on boulevards, multi-use trails, and sidewalks. Bicycles are prohibited on boulevards and sidewalks, with the exception of children's bicycles with wheels less than 50 cm in diameter, which are permitted on sidewalks.

The Region of Waterloo's **By-Law to Designate and Regulate Controlled-Access Roads** (58-87), provides a legal framework for the Region to designate and regulate controlled-access roads. These roads fall under regional jurisdiction and are identified within the by-law. Schedules A & B of the by-law identifies controlled-access roads throughout the Region, including those within Wellesley Township. The by-law states the conditions under which access to these roads can be constructed or altered.

2.3.3 Township of Wellesley Plans and Studies

Township of Wellesley Official Plan

The Township of Wellesley Official Plan (OP) currently in effect has been in place since 2015 and was most recently amended in 2020. The existing OP provides a policy framework for growth and development in the Township of Wellesley until the year 2031. This plan is currently undergoing review and update, which will extend the planning horizon to 2051 and consolidate the Township and Regional OPs. The new Draft OP is expected to be completed and finalized in 2026.

The existing OP aims to maintain and enhance the Township's agricultural, environmental, natural and cultural heritage resources while promoting the development of a livable and sustainable community with a strong economy. Its overarching transportation goal is "To promote the continued development and coordination of a safe integrated and efficient transportation network for the safe and efficient movement of all people and goods to meet the needs of pedestrians, cyclists, horse-drawn vehicles, farm vehicles and motor vehicles." Transportation policies focus on the development and maintenance of the road network, along with direction to support future transit expansion and enhance pedestrian and cycling environments.

Zoning By-Law (28/2026)

Wellesley Township's Zoning By-law (28/2026) supports the directions and policies in the Official Plan by providing a comprehensive legal framework for land use, building regulations, and development within the Township. Key technical components include the designation of specific zones, each with distinct regulations for land use, setbacks, and lot coverage. Sections 4.29-4.34 outline parking and loading restrictions and requirements in Wellesley Township. Additional zone-specific requirements are spelled out within various sections.

Asset Management Plan (2025)

The Wellesley Township Asset Management Plan lays out a comprehensive long-term plan for capital assets, including roads, sidewalks, bridges, and streetlights. The plan quantifies the value of various types of local infrastructure, assesses the condition of township assets and the current level of service, and outlines lifecycle management strategies to maintain current level of service. The Asset Management Plan catalogs Wellesley Township's road network, including sidewalks, bridges, culverts and other features. Roadways and sidewalks are generally assessed to be in a good state of repair, and bridges and culverts are mostly in fair condition. Over the next ten years, average annual expenditures to maintain current level of service are estimated at $650,000 for roads, $1.2 million for structures, and $157,000 for sidewalks and streetlights.

Community Improvement Plan (2025)

The Community Improvement Plan (CIP) consists of programs and strategies designed to support various local goals. The CIP goal to "Cultivate Community Wellbeing through Public and Private Spaces" is most relevant for the TMMP, as it includes objectives to develop pedestrian-friendly neighbourhoods and streetscapes to support the creation of complete communities, and to enhance physical accessibility and signage in public spaces. The CIP identifies a series of potential initiatives to achieve these goals, including a Public Realm and Streetscape Improvement Strategy, parking improvements, and additional signage. Under the CIP's financial incentive program, the Township offers grants to eligible property owners and tenants, including a placemaking and pedestrian grant to assist with the activation of underutilized streetscapes, and a parking optimization grant to encourage the creation of new private parking spaces for commercial uses.

Development Charges Background Study (2024)

The 2024 Development Charges Background Study lays out recommendations for Development Charges and related policies for the Township of Wellesley. Development Charges are fees charged to developers that help municipalities cover the cost of infrastructure required to support new development, including roads and sidewalks. The study details the types of transportation infrastructure that are recoverable through Development Charges, and which are the direct responsibility of the developer. In addition to new roads and roadway improvements required to support new development, development charges can also be applied to help recover the capital cost of streetlights, sidewalks, bike or transit lanes, and street tree planting.

Recreation Master Plan (2024)

The Recreation Master Plan serves as an update to the 2014 Parks, Recreation and Culture Strategic Master Plan and provides direction on Township operations regarding recreational infrastructure and services. The Plan is built around the Strategic Themes of: Financial Sustainability; Community Development & Partnerships; Facilities & Space Allocation; Parks, Trails, & Open Space; Township Administration; and Communication.

The plan includes several recommendations to support the creation of additional trails and/or walking loops, including a walking trail loop at the rear of the Linwood Recreation Complex. The plan also identifies the opportunity for more on-road cycling facilities when roads are redeveloped, provided this is not in conflict with horse-drawn vehicles. The plan also includes recommendations to work with Regional staff to assess off-road cycling routes in the Township, and to "monitor the timing for the expansion of the cycling lane on Queen's Bush Road to ensure timely linkage to the Township of Wellesley Recreation Complex."

Speed Limit Assessment (2024)

In 2024, a Speed Limit Assessment was completed for the Township's Road network to provide technical justification for setting speed limits along typical types of roads, including segments surrounding private parochial schools. The assessment included a review of best practices from similar municipalities, an analysis of local data, field investigation to assess the physical characteristics of different road types, and an application of TAC guidelines to determine general recommended speed limits. These recommendations have not yet been implemented and were reviewed and confirmed as appropriate by the TMMP, as detailed in Section 6.2.

Traffic and Parking By-Law (4/2021)

Wellesley Township's Traffic and Parking By-law (4/2021) provides a legal framework for the operation and parking of motorized and non-motorized vehicles within the Township of Wellesley. The By-law prohibits the use of motor vehicles, motor-assisted vehicles, and bicycles on boulevards and sidewalks. In addition, motorized vehicles are prohibited on multi-use trails. Children's bicycles with wheel diameters of less than 50 cm are permitted on sidewalks. The by-law prohibits cyclists from riding abreast of another cyclist and requires cyclists to exercise care towards pedestrians and other vehicles. Various sections of the by-law document locations of parking restrictions, posted speeds where it differs from the default, and community safety and school zones.

Township of Wellesley Strategic Plan 2019-2023 (2020)

The Wellesley Strategic Plan focuses on 14 strategic issues. Strategic issues related to transportation include: environmental stewardship, health promotion, infrastructure improvement and management, non-motorized vehicle management, and public transit. The Strategic Plan includes tasks to help identify and advocate for the need for public transit in Wellesley Township, noting that transit is the Region's responsibility. The Strategic Plan also recommends the Township develop a detailed plan to manage and promote safer interaction between motorized and non-motorized vehicles for residents and non-residents.

Other Township Plans and Guidelines

Other Township plans and guidelines relevant to the TMMP include:

- Development Standards (2017)
- Employment Lands Strategy (2017)
- Energy Conservation and Demand Management Plan (2019)

3.0 ENGAGEMENT

The consultation and engagement program for the TMMP was divided into two rounds to align with the timing of technical tasks. Engagement efforts throughout the TMMP development process included online surveys, an online mapping tool, engagement at the Wellesley Fall Fair, a workshop with Wellesley Township Council, and a Public Information Centre (PIC). More detail on the engagement activities and input can be found in **Appendix A.**

3.1 Round One Engagement

The first round of engagement to support the TMMP focused on introducing the project process, developing the vision and goals, and gathering feedback about existing conditions, needs, preferences, challenges, and opportunities related to transportation.

The first round of engagement consisted of:

- Launch of a project website at www.engagewr.ca;
- An online survey and mapping tool;
- A booth at the Wellesley Fall Fair; and,
- A workshop with members of Wellesley Township Council.

3.1.1 Online Survey and Mapping Tool

An online survey and mapping tool were posted on the project website at www.engagewr.ca on August 7, 2025. The survey closed on September 30, 2025, while the mapping tool remained open for public comments.

Online Survey

The survey consisted of twelve (12) questions of various formats. The survey was completed by 88 individuals.

Demographics

The first four survey questions related to demographics and were used to gain a better understanding of who was completing the questionnaire. Most respondents were between the ages of 35 and 64, with 35–49-year-olds making up 45% of respondents. Slightly more women answered the survey than men, accounting for 53% of respondents.

Transportation Modes

The survey asked four questions about transportation mode choices and improvements that would encourage modal shifts. The first two questions asked about current transportation mode choices to gain a better understanding of the ways in which respondents currently travel.

Driving was the most common mode of transportation reported, with most respondents saying they **drive at least several times a week (77%)** followed by **68% that walk at least several times a week**. The survey also asked about school travel. Forty per cent (40%) of respondents with school-aged children said their children ride a school bus to school, 38.5% walk, bike, or ride a scooter, while 21% get a ride in a car, truck, or motorized vehicle.

Two additional questions gauged respondents' interest in improvements to multimodal travel options. The most common improvements that respondents want to see are **additional recreational and multi-use trails** (63%), and **improved cycling facilities** (36%).

Road Safety

Respondents were asked to respond with their level or agreement or disagreement about seven statements regarding road safety. Most respondents agreed that urban (town/village) roads are safe for travelling (92%), and that rural roads are safe for travelling (71%). Many respondents highlighted safety concerns about conflicts between farm equipment and vehicles.

Challenges and Priorities

Respondents were asked three questions related to transportation challenges and priorities in Wellesley Township. **Speeding, conflicts between different types of vehicles**, and **lack of public transportation options** were the most commonly identified challenges, closely followed by **road**

conditions/maintenance issues, and **lack of dedicated cycling facilities**. In terms of future priorities for transportation in Wellesley Township, **enhanced road safety, improving multimodal options** (e.g. walk, bike, or take transit), and **improving maintenance/condition of roads** were the most common responses.

The final open-ended question provided respondents with an opportunity to provide additional feedback. Comments related to a few key themes:

- **Active transportation** (26 comments)
- **Road Safety** (16 comments)
- **Public transit** (15 comments)
- **Road maintenance and winter driving conditions** (3 comments)

More detail on the input received related to these themes across all consultation activities is provided in Section 3.1.4.

Online Mapping Tool

The online mapping tool allowed participants to place a pin on a map of Wellesley Township to identify specific areas with problems or opportunities. Most public input was received during the first round of consultation, though the mapping tool remained open until November 14, 2025. During the first round of consultation, the tool generated 19 pins, with an additional 7 pins received during the second round, for a cumulative total of 26. Distribution of the pins is shown in **Figure 3.**

Figure 3: Location of Pins on Online Mapping Tool

Figure 4: Map with comments from the Wellesley Fall Fair

3.1.2 Wellesley Fall Fair

On August 22 and August 23, 2025, the project team hosted a booth at the Wellesley Fall Fair to obtain public input into local challenges and opportunities. Fair attendees were invited to discuss their experiences with the local transportation system by asking questions of the project team, and by providing comments on printed maps of the Township. Comments focused on identifying existing transportation assets and suggestions on how to improve the current transportation system to enhance the active transportation network and improve transportation safety.

3.1.3 Council Workshop

On September 16, 2025, a workshop was held to introduce the project and gather input from Wellesley Township Council. During the workshop, information about the scope and background of the project was presented to Council, and councillors were asked about their vision and goals for transportation in the Township of Wellesley. Councillors were also asked to identify key challenges today and opportunities in the future for transportation in Wellesley Township. Response from Council helped inform Section 3.1.4 below.

3.1.4 Summary of Round 1 Engagement Response

Input received during the first round of engagement activities, including the online survey and mapping tool, the Wellesley Fall Fair, and the Council Workshop, helped shape the development of the TMMP by identifying key priorities and concerns. Comments generally fit into one of the following categories, and are summarized below:

Active Transportation – Many respondents expressed a desire for more walking and cycling infrastructure, including multi-use paths, paved shoulders on rural roads, and a pedestrian bridge on the G2G Trail. Many comments focused on enjoyment of off-road trails, and a desire to see more trails and better connectivity to existing trails. Locations identified for improved walking and cycling infrastructure included Lobsinger Line (between Heidelberg and St. Clements), and Queen's Bush Road (between Nafziger Road and the Bill Gies Recreation Centre). Other comments included the need for additional sidewalks, particularly near schools and community centres.

Road Safety – Many comments focused on road safety issues, particularly at intersections. The corner of Gerber Road and Nafziger Road was the most common location where safety issues were identified. Comments also included concerns about speeding, the narrow width of rural roads, safety around schools, blowing snow, and parking that inhibits visibility. Concerns were also raised about paving gravel roads, noting that this can sometimes result in increased speed and traffic volumes.

Public Transit – While opinions about the expansion of Grand River public transit into Wellesley Township were mixed, most comments were favourable. Those opposed to public transit expansion expressed concerns about increased taxes, a potential increase in crime, and a loss of rural character. Those who expressed support cited a need amongst students, seniors, and those who don't or aren't able to drive.

Road Maintenance and Winter Driving Conditions – Several people commented positively about the roadway conditions; however, there were comments about a need for better road maintenance on some Regional and major roads.

Rural Considerations – Participants expressed a desire to maintain a small-town feel in the Township. Comments also included a need to accommodate farm equipment and horse-drawn vehicles.

Truck Traffic – Concerns were raised about noise and vibration caused by high volumes of truck traffic through the Village of Wellesley. Several people expressed support for the idea of a truck by-pass around this urban settlement area.

3.2 Round Two Engagement

The second round of engagement focused on informing the technical analysis process, findings, and preliminary infrastructure and planning recommendations. Consultation input was used to refine the technical analysis, assess preliminary alternatives, and inform policy and planning recommendations, in addition to clarifying the priorities for implementation and phasing.

Round Two engagement consisted of a Public Information Centre event, as well as continuing online engagement.

3.2.1 Public Information Centre

A Public Information Centre (PIC) was held on November 12, 2025, at the Crosshill Mennonite Church. The PIC was designed to provide information and collect input from the public on the TMMP, including input on the draft vision and goals, and draft recommendations for active transportation, transit, roads and traffic safety. In total, the PIC was attended by 30 people who left 33 comments.

The TMMP PIC was held in conjunction with a PIC for Wellesley Township's new Official Plan. Held as an informal open house in the church lobby, the PIC allowed participants to review information and provide feedback via interactive discussion boards or directly to project team members in attendance.

A short follow-up survey was posted following the PIC. The survey asked questions regarding prioritizing the TMMP's draft goals and recommendations, and provided the opportunity for participants to provide additional comments on these themes.

Figure 5: Participants attending the Public Information Centre

3.2.2 Summary of Round 2 Engagement Responses

Input collected during Round 2 focus on the TMMP goals and draft recommendations. A more detailed overview of input can be found in **Appendix A**.

TMMP Goals

Broad support was provided for the TMMP's goals. The following goals received the most support from respondents:

- Provide travel options for all
- Protect the environment
- Preserve our rural character
- Safety for everyone

Maps

Comments received on the map boards included support for trails and multi-use paths, including a trail around the soccer field in St. Clements, a trail linking St. Clements to Heidelberg, and a multi-use path on Queen's Bush Road. Safety was also a topic of concern, with comments about sightlines and intersection safety.

Roads and Traffic Safety Recommendations

Comments on road and traffic safety included support for:

- Lowered speed limits in urban areas, particularly near schools
- Paved shoulders on rural roads
- Traffic calming measures
- Increased public education focused on road safety, active transportation, and interactions with slow-moving vehicles
- A truck by-pass route around the Village of Wellesley

Additional comments included a need for wildlife signage, EV charging stations in public spaces, and additional trees along rural roads for winter safety.

Walking, Cycling, and Transit Recommendations

Comments on walking, cycling and transit largely focused on expanding the Township's trail and multi-use path network. Participants also expressed support for:

- Working to expand active school travel and traffic safety education programs
- Safe multimodal transportation facilities within new developments
- Regularly maintaining and assessing sidewalks for improvements
- Increased public transit services
- Sidewalks on at least one side of the street within settlement areas

Other commenters questioned the need for sidewalks on both sides of streets, and a desire to focus on pedestrian safety, particularly for children.

3.3 How Engagement was Incorporated

Public engagement was an important component of the TMMP process. Public comments confirmed the TMMP's vision and goals and guided many of the Plan's final recommendations. **Table 3** below summarizes how engagement was incorporated into the Plan.

Table 3: Summary of Public Input and its Incorporation into the TMMP

Theme	Input Summary	Section(s) Addressing Input
Active Transportation	There is a strong desire in the community for increased walking and cycling infrastructure, particularly trails, multi-use paths, and paved shoulders on rural roads, as well as sidewalks and additional cycling facilities.	5.2.1 - Active Transportation Improvements
Road Safety	Residents expressed concerns about road safety issues, particularly speeding, conflicts between different types of vehicles (such as motorized vehicles, bicycles, and horse-drawn vehicles) on rural roads, safety issues at specific intersections, and concerns about safe active school travel.	5.2.1 – Active Transportation Improvements 6.2 - Road Safety Strategy
Public Transit	While response to expanded public transit was mixed, most residents were supportive of expanded public transit opportunities in Wellesley Township.	5.2.2 – Public Transit
Road Conditions & Maintenance	Many positive comments about roadway conditions were received; however, the potential for improvements was noted, particularly to address winter hazards.	5.1 - Road Network Improvements 6.2 - Road Safety Strategy
Truck Traffic	Community members expressed support for a truck by-pass due to noise and vibration from trucks in the Village of Wellesley.	5.1.3 – Truck Traffic and Goods Movement
Rural Considerations	Community members expressed a desire to maintain a small-town feel and accommodate farm equipment and horse-drawn vehicles.	6.1 - Street Design Guidelines 6.2.3 – Rural Transportation Considerations

4.0 DEVELOPING A FUTURE VISION

The TMMP is intended to shape a future transportation system that reflects the community's values and goals. To support this direction, one of the early stages in the TMMP's development was establishing a vision statement and supporting goals to guide the plan. These key elements form the foundation for all subsequent analysis and recommendations, and ensure the TMMP remains focused, consistent, and aligned with the community's long-term values and aspirations.

4.1 Guiding Vision and Goals

Based on the background review of relevant plans and policies, as well as engagement with the public and key stakeholders during the first phase of the TMMP, several key themes emerged. To support the development of an overarching vision and set of goals for the TMMP, a long list of themes was established. These themes were refined by the project team to create a series of potential vision statements and supporting goals.

Through this process, the following **vision statement** was selected to guide development of Wellesley Township's TMMP:

> **Provide a safe and efficient, multi-modal transportation system that is environmentally sustainable, preserves the Township's authentic rural character, promotes equitable access to active transportation, and delivers reliable and inclusive transportation options for all users.**

The following goals were also developed to support the TMMP's vision statement and provide more detail regarding the Township of Wellesley's key transportation priorities:

Safety For Everyone	Ensure all road users travel to their destination safely, with an increased focus on vulnerable road users, including pedestrians, cyclists, and horse-drawn vehicles.
Improve Health	Enhance the transportation network to create connections to trails and multi-use paths, supporting the integration of physical activity into daily routines and promoting improved community health for all users.
Protect the Environment	Environmental sustainability will prioritize options that conserve energy, improve air quality, and limit impacts on natural areas.
Preserve The Township's Rural Character	Maintain and preserve the character of Wellesley Township's unique rural setting while accommodating the needs of farm machinery, horse-drawn vehicles, and active transportation users.
Provide Travel Options for All	Community members and visitors will be able to access services, recreational and economic opportunities through the road network, increased transit services as well as safe and accessible active transportation facilities.
Accommodate Growth	Transportation infrastructure and transit services will be planned and developed to support equitable access for all community members and ensure the efficient movement of people and goods throughout Wellesley Township as it grows.

4.2 Mode Share in Wellesley Township

Shifting transportation mode share away from single occupancy vehicle use towards more sustainable options, such as walking, cycling, and transit is essential to meeting the TMMP's goals and efficiently accommodating growth. To support this shift, current mode share data was analyzed and used to develop future mode share scenarios, providing a foundation for targeted, evidence-based recommendations.

4.2.1 Existing Mode Shares

There are two main sources of data that can be used to determine the mode share in the Township: Statistics Canada Census data, which collects responses on primary mode of commuting, and the Transportation Tomorrow Survey (TTS), a voluntary travel survey of Ontarians in the Greater Golden Horseshoe and surrounding areas. The most recent data from these sources is summarized in **Table 4** and **Table 5**.

Table 4: Primary Mode of Travel by Percentage from 2021 Census

Travel Mode	Wellesley Township	Ontario
Car, truck or van – as a driver	78.2%	83.6%
Car, truck or van – as passenger	6.0%	7.5%
Walk	10.4%	4.6%
Bicycle	1.4%	0.8%
Public Transit	0%	8.6%
Other	3.9%	2.9%

Table 5: Mode Share from Transportation Tomorrow Survey (TTS), 2016 & 2022

Travel Mode	Wellesley Township		Waterloo Region	
	2016 TTS %	2022 TTS %	2016 TTS %	2022 TTS %
Automobile Driver	71.1%	57.4%	71.6%	62.3%
Automobile Passenger	12.4%	11.6%	13.8%	16.5%
Transit	0.0%	0.0%	4.4%	3.8%
Walk	6.2%	14.6%	5.6%	11.8%
Cycle	1.0%	3.3%	1.4%	1.8%
School Bus	5.7%	8.1%	2.6%	3.2%
Other	3.6%	5.0%	0.6%	0.6%

Data from the TTS is broadly considered a better measure of mode share as the TTS captures much more in-depth and nuanced data, including a range of trip purposes beyond commuting (e.g., other utilitarian trips for shopping, school pickups, etc.), as well as multimodal trips, (e.g., walking trips to and from transit).

The 2016 to 2022 TTS data show a considerable decrease in automotive trips and an increase in walking trips both within Wellesley Township and across Waterloo Region; however, this data should be interpreted carefully for two key reasons:

1. A greater range of walking-related trips were captured in the 2022 TTS survey that were not included in the 2016 survey, including walking trips without a trip purpose with a distinct origin and destination point. Prior to 2022, walk trips were only collected for trips to and from work or school, or when walking formed a connecting segment within a multimodal trip. In 2022, the survey was expanded to include non-work and non-school utilitarian walking trips (while continuing to exclude recreational walks with no destination). This change results in a higher reported walk mode share in 2022 that is not directly comparable to earlier survey years.
2. The 2022 data was captured while trips were still considerably influenced by the COVID-19 pandemic, which may have changed and subsequently returned to pre-pandemic levels to some degree.

Despite these caveats, TTS data in **Table 5** shows some interesting results. For instance, despite the Township's largely rural context, the percentage of trips by car (as a driver or passenger) is roughly the same in Wellesley Township as across the largely urban Waterloo Region. This is a result of the higher percentage of trips by walking, cycling, and school bus in the Township that, when combined, more than exceed the trips by public transit Region-wide. These sustainable trips are also growing in Wellesley Township. The data demonstrates that the small villages where most people in Wellesley Township live are well suited for short, local trips by sustainable modes.

4.2.2 Future Mode Share Scenarios

Forecasting future mode share in Wellesley Township is challenging due to recent disruptions in travel behaviour, including the COVID-19 pandemic, increased remote work, and evolving electric mobility options. Travel patterns are starting to settle into a "new normal," however, more data will need to be collected to determine significant long-term trends.

As a largely rural Township, Wellesley's ability to shift away from automobile use is more limited than in urban municipalities; however, planned growth in the Village of Wellesley and the introduction of future transit service provide opportunities for modest but meaningful change.

As Wellesley Township's transportation network and transit opportunities are interconnected with Waterloo Region, long-term progress will depend on coordinated planning. Wellesley Township's transportation network includes many Regional roads that handle much of the motor vehicle traffic and include many of the paved shoulders and sidewalks that facilitate active transportation and horse-drawn vehicle trips. The addition of public transit service, operated by Grand River Transit (described in more detail in Section 4.2), will require further coordination between the Township and the Region to ensure this service meets community needs throughout Wellesley Township.

Region of Waterloo Mode Share Targets & Implications for Wellesley Township

The Region of Waterloo's Transportation Master Plan (2018) sets out mode share targets for PM peak period travel based on 2016 TTS survey data (**Table 6**). While these targets provide a useful policy framework, there are a few key differences that need to be accounted for. For instance, the Region's mode share data includes more urban areas, such as Cambridge, Kitchener, and Waterloo, which have considerably different travel patterns than Wellesley Township. For this reason, 24-hour resident trip data was used to develop the Township's mode share scenarios, as this data provides a more comprehensive picture of travel demand for all trip types.

While the Region's targets are based on 2016 TTS data, the 2022 TTS uses a revised methodology, so comparing Wellesley Township's 2022 existing mode share data with the Region's 2031 and 2041 target values is not appropriate. Instead, an analysis was done for the TMMP that uses the rate of change implied by the Region's PM peak mode share targets to develop Township-specific mode share scenarios that align with the Region's long-term policy direction.

Table 6: PM Peak Mode Share Targets from the Region's Transportation Master Plan (2018)

Travel Mode	2016 TTS (actual)	2031 (target)	2041 (target)
Automobile Driver	69.8%	63.6%	58.0%
Automobile Passenger	12.3%	12.3%	12.0%
Transit	4.9%	9.7%	14.8%
Walk	7.2%	8.4%	9.0%
Cycle	1.4%	2.3%	3.0%
School Bus	3.8%	3.1%	2.7%
Other	0.6%	0.6%	0.5%

Wellesley Township-focused Mode Share Scenarios

Based on these considerations and analysis of the available data, three scenarios were created for future mode share splits in Wellesley Township for the 2035 and 2051 horizon years:

A. **Maintain 2022 Mode Share + Transit:** This scenario assumes that the 2022 TTS data will be continued, plus a starting transit mode share of 0.5%, growing through shifting 0.05% of driving trips per year. While this scenario may be somewhat ambitious, given that 2022 TTS data may have been somewhat of an outlier, this scenario should be achievable with few changes to existing conditions in addition to planned public transit expansion.

B. **Match Waterloo Region's Rate of Increase for Active Transportation Mode Share:** This scenario applies the same rate of increase in walking and cycling mode shares implied by the Waterloo Region's targets, including:
   - The transit mode shift assumptions in Scenario A are retained.
   - The Region's targeted rate of change for walking and cycling from 2016 to 2031 is applied to Wellesley Township's 2022 mode share to project to the 2035 horizon year.
   - The Region's targeted rate of change from 2031 to 2041 is applied to Wellesley Township's 2035 mode share to project 2051 horizon year.
   - Automobile mode shares are reduced correspondingly.

C. **Match Waterloo Region's Rate of Reduction for Auto Mode Share:** This scenario applies the same rate of reduction in automobile mode share as implied by the Region's targets, with corresponding adjustments to non-auto modes, including:
   - The Region's targeted rate of auto mode share reduction from 2016 to 2031 is applied to Wellesley Township's 2022 mode share to project 2035 horizon year.
   - The Region's targeted rate of reduction from 2031 to 2041 is applied to Wellesley Township's 2035 mode share to project 2051 horizon year.
   - Walking and cycling mode shares increase correspondingly to account for the reduced auto share.
   - The transit mode shift assumptions from Scenario A are used as a baseline, with additional adjustments applied as necessary to ensure realistic and consistent mode share outcomes for walking and cycling.

It should be noted that, in addition to the primary travel modes, the TTS identifies an "Other" mode category. In the context of Wellesley Township, this category primarily consists of farm vehicles and horse drawn vehicles. Given that these trips cannot easily be substituted for transit, walking, or cycling, and recognizing their ongoing functional and cultural importance, the "Other" mode share is assumed to remain consistent with 2022 levels across all future scenarios.

Scenario B is likely the most appropriate goal for the Township to achieve. **Table 7** details the outcomes of this scenario.

Table 7: Preferred Mode Share Scenario

Mode	2022	2035	2051
Automobile Driver	57.4%	55.1%	52.7%
Automobile Passenger	11.6%	11.1%	10.6%
Transit	0.0%	1.0%	1.8%
Walk	14.6%	15.7%	16.6%
Cycle	3.3%	4.1%	5.2%
School Bus	8.1%	8.1%	8.1%
Other	5.0%	5.0%	5.0%

Mode share should be tracked via analysis of future TTS iterations, as well as through regular Township traffic and active transportation counts. As Waterloo Region will soon likely be updating their TMP, this will present an opportunity for the Township to potentially reassess their mode share data and associated scenarios in line with the Region. Over the long-term, if non-automotive mode shares lag behind these projections, the Township should respond through a combination of adjusting potential scenarios and targets and accelerating investments in improvements that foster sustainable modes.

5.0 MOBILITY NETWORK

The following chapter outlines the key infrastructure network analysis and associated improvements and recommendations that make up the Wellesley Township TMMP. These include road network improvements and associated sustainable transportation and traffic improvements to improve conditions for travellers by all modes. Each section includes a mix of specific priorities for infrastructure improvements, along with overarching planning recommendations designed to help shape Township policies and procedures and guide long-term implementation of the proposed transportation network improvements. These network and infrastructure recommendations are supplemented by supportive strategies and planning and program recommendations in Chapter 6 of the TMMP.

5.1 Road Network Improvements

Targeted and evidence-based road network improvements can increase transportation efficiency, safety, and connectivity for people and goods. These enhancements can help improve traffic flow, reduce travel times, increase the overall reliability and safety of the transportation network, and strengthen connections that support regional growth and development, ensuring the road network continues to meet the community's evolving needs.

5.1.1 Road and Traffic Network Analysis

To develop recommendations for road infrastructure improvements, a comprehensive modelling methodology was developed to support the TMMP. This methodology centered on identifying key intersections within the Township that are essential to maintaining optimal traffic flow. The intersection selection process was based on several criteria, including current

and future traffic volumes, levels of service, connectivity to major routes, locations expected to be impacted by future improvement plans, and areas expected to experience increased growth. The goal of the methodology was to provide data to guide decision-making for targeted improvements, focusing on enhancing traffic operations, minimizing congestion, and optimizing travel times.

Key intersections were selected for analysis and modelling based on the following criteria:

- Transportation Tomorrow Survey (TTS) 2016 and 2022 Data Review
- Key landmarks or trip generators
- Proposed developments
- Projected population and employment growth
- Input from Township staff

The selection criteria outlined above was followed to identify key intersections to examine as part of this study, as listed below in **Table 8.**

Table 8: Shortlisted Intersections within the Wellesley Township Study Area

Intersections	Jurisdiction
Peter Street & Park Street	Local
Queen's Bush Road & Molesworth Street	Local
Greenwood Hill Road & Ferris Drive	Local
Broadway Street & Geddes Street	Local
Gerber Road & Lawrence Street	Local
Queen's Bush Road & Greenwood Hill Road	Local
Steffler Road & Bricker School Line	Local
Gerber Road & Greenwood Hill Road	Regional/ Local[1]
Nafziger Road & Maple Leaf Street	Regional/ Local[1]
Hutchison Road & Siegner Lane	Regional/ Local[1]
Ament Line & Manser Road	Regional/ Local[1]
Hutchison Road & Gerber Road	Regional/ Local[1]
Gerber Road & Nafziger Road	Regional/ Local[1]
Lobsinger Line & Herrgott Road	Regional/ Local[1]
Moser-Young Road and Weimar Line	Regional/ Local[1]
Queen's Bush Road & Hutchison Road	Regional
Hutchison Road & Lobsinger Line	Regional

[1] Regional/Local intersection has at least one approach that is owned by the Township

The project team evaluated and simulated various scenarios at the identified priority intersections, considering existing conditions and future growth forecasts. An analysis was conducted using the latest volume data collected to establish a baseline and an understanding of current traffic operations at the key intersections.

To simulate the future traffic volume conditions in Wellesley Township, background growth rates were derived from available historical traffic volume data from the Township, the Region of Waterloo, and the Region's screenline data. The population and employment forecasts from the Township and Region of Waterloo were also reviewed. Upon review of the projected growth rates and discussion with Township staff, a 2% annual background growth rate was determined as a conservative and agreed upon representation of the expected organic traffic growth within the Township. The Traffic Impact Study (TIS) for the Strohvest Development was reviewed, and the anticipated development-related traffic was extracted and added on top of the future volumes with background growth at affected study intersections.

Intersection operations were assessed using the Synchro/SimTraffic 11 software. Intersection operations performance metrics were provided to the Township, including regarding Level of Service (LOS), volume-to-capacity (V/C) ratios, delay, and 95th percentile queues. For this study, critical intersections were established in accordance with the Region of Waterloo's Transportation Impact Study Guidelines.

5.1.2 Traffic Improvement Recommendations

Based on the analysis of future traffic conditions, recommendations were developed to optimize intersection operations within the study areas. These recommendations include appropriate intersection control types tailored to the specific needs of each location, as well as improvements to intersection geometry, such as the addition of turning lanes, are proposed as appropriate to enhance traffic flow and safety.

- **Herrgott Road & Lobsinger Line:** This intersection was projected to operate over capacity for westbound movement in the PM peak period by 2051. Based on a detailed signal warrant analysis conducted for this location, this intersection is recommended to be signalized by 2051.
- **Nafziger Road & Gerber Road:** This intersection was projected to operate over capacity in the PM peak period by 2051, including its shared westbound left/through/right lane and northbound approach. A detailed signal warrant analysis was conducted for this location which found that signalization of this intersection is not warranted by 2051. A westbound left-turn auxiliary lane is recommended to mitigate the observed operational issues at the westbound approach by 2051.

5.1.3 Truck Traffic & Goods Movement

Goods movement and truck traffic is an important element of a municipal road network, as a variety of local businesses and associated jobs rely on delivery and transport of goods by trucks of varying sizes. All Regional roads in Wellesley Township are part of the Regional Truck Network (as per the Waterloo Region TMP) and are thus intended to serve most of the large truck traffic in the Township. Township roads are only meant to serve smaller or local delivery vehicles, and many Township roads have restrictions that limit truck traffic, entirely or in part (e.g., at certain times or for trucks of certain weights). These restrictions are detailed in Wellesley Township's Reduced Load By-law (4/2021) and Traffic and Parking By-law (4/2021).

Throughout public consultation, large truck traffic through the centre of the Village of Wellesley was a key concern raised by local residents. The Regional road / truck network through the Village of Wellesley settlement area includes sections of Nafziger Road and Queen's Bush Road, which is not an ideal route for significant numbers of large trucks.

Recent traffic counts were examined as part of the TMMP and found truck traffic represents between 5 to 13% of traffic along truck routes through the Village of Wellesley. Data should continue to be collected and analyzed to determine how these sections of road compare to other Regional roads, and whether the truck traffic is increasing over time.

The Township has consulted with the Region of Waterloo to develop a designated truck route around the Village of Wellesley using the segment of Hutchison Road between Gerber Road and Queen's Bush Road and the segment of Gerber Road between Hutchison Road and Nafziger Road. This segment of Gerber Road is currently under the jurisdiction of the Township and prohibits trucks at all times. If this segment was uploaded to the Region, the Regional Truck Network would continue on Gerber Road to Hutchison Road, rather than turning on Nafziger Road through the village. The Township should continue to work with the Region to pursue this solution, as it would remove much of the heavy truck traffic from the centre of the Village of Wellesley.

If Gerber Road becomes a truck route, the Region may wish to re-evaluate the proposed traffic improvements at the intersection of Gerber Road and Nafziger Road (as per Section 5.1.2), as the majority of truck traffic would be travelling straight through the intersection, rather than turning.

5.2 Sustainable Transportation Improvements

To support Wellesley Township's mode share targets and create a more sustainable transportation system, there are numerous opportunities to enhance the Township's walking and cycling networks and expand transit options within the Township. A key transportation goal for both the Township and Waterloo Region is to increase the share of trips by sustainable modes (as detailed in Chapter 4) to accommodate existing and future needs of residents, visitors, and businesses in a way that reduces traffic, provides travel options, protects the environment, and is safe, healthy, and equitable.

Recommendations in the TMMP related to sustainable transportation include specific network infrastructure recommendations, which show key locations for improvements to the existing transportation system, as well as planning recommendations that guide the development of a safer, more sustainable transportation system by leveraging future opportunities as they arise.

5.2.1 Active Transportation Network

Today, active transportation infrastructure within Wellesley Township includes a mix of on-road facilities such as paved shoulders, shared-use cycling routes and sidewalks, and off-road trails. This includes Township roads, Waterloo Regional roads, as well as the Kissing Bridge / Goderich to Guelph (G2G) rail trail. The TMMP builds on this existing infrastructure, providing a safer and more connected network that fills in existing gaps through a mix of rural and urban cycling, pedestrian, and multi-use facility improvements.

Active transportation was also identified as a key priority expressed through public engagement activities for the TMMP. The plan aims to meet these expectations through a set of specific short-term priority projects, supported by planning recommendations that ensure improvements are leveraged when opportunities arise to reconstruct existing and build new roads.

Network improvements were developed by systematically cataloging each street within the Township's road network, including segments based on data provided by the municipality. For each road segment, the project team applied a multi-step analysis process, as outlined in **Table 9**.

Table 9: Active Transportation Analysis Process Overview

1. Existing Conditions	Existing conditions were documented for all road segments across the Township, including roadway features, existing facilities, and traffic data.
2. Candidate Route Identification	To inform potential routes, constraints were identified and network connectivity was analyzed, while incorporating Township information on pavement conditions. This information was assessed to decide which road segments would advance.
3. Facility Identification	The project team applied relevant planning and design guidelines to select potential facility types, including a unique selection process for rural and urban contexts.
4. Facility Confirmation	Facility types were refined based on a more detailed analysis, along with documentation of implementation considerations and opportunities to combine multimodal improvements.
5. Prioritization and Phasing	More details on this process and its outcomes are provided in Chapter 7.

The network development database created as part of this network assessment was developed to guide the TMMP, and for Township staff to adapt, update, and use as a tool for ongoing AT project implementation.

Priority Rural Active Transportation Improvements

The proposed Wellesley Township rural active transportation network builds off the existing Township and Regional active transportation network to create a more continuous long-term network that connects to major destinations including settlement areas and the G2G Rail Trail, as well as existing and planned Regional facilities and routes. The proposed priority rural active transportation network is illustrated in **Figure 6** and detailed in **Table 10**, and includes the following facilities:

- **Paved shoulders** on the Township's paved rural roads, which are anticipated to also accommodate horse-drawn vehicles, stopped vehicles, and pedestrians, providing multimodal safety benefits along the rural road network.
- **Signed bicycle routes** which are lower-volume, lower-speed roads that are generally appropriate for shared use between cyclists and motor vehicles. In addition to signage, opportunities for traffic calming should be incorporated when these are implemented to enhance safety.
- **An off-road trail,** created by adapting an unopened section of Lichty Road is also included as part of the short-term network. Additional off-road trail opportunities are recommended to be explored through further study.

Priority projects for the Township to pursue over the next ten years as part of the Rural Active Transportation Network are detailed in **Table 10.**

Table 10: Rural Active Transportation Network Priority Projects

Road	From	To	Facility Type
Deborah Glaister Line	Road 116	Hutchison Road	Paved Shoulders
Weimar Line	Hutchison Road	Moser-Young Road	Paved Shoulders
Herrgott Road	Lobsinger Line	Hessen Strasse	Signed Bike Route
Maplewood Road	Weimar Line	Hessen Strasse	Signed Bike Route
Lichty Road	Schummer Line	Ament Line	Signed Bike / Hiking Route
Lichty Road (unopened road allowance)	William Hastings Line	Schummer Line	Off-road multi-use trail

The existence of an unopened road allowance on Lichty Road between Schummer Line and William Hastings Line presents an opportunity to open this road to cycling and walking/hiking as an off-road multi-use trail approximately 2.7 km in length. To connect this trail segment with the G2G Rail Trail and the Village of Linwood, it is recommended that a signed cycling/hiking connection route be implemented on Lichty Road between Ament Line and Schummer Road.

In total, these improvements would increase the rural active transportation network by **36 kilometres**.

Note that this is only the priority network; as per the planning recommendations in Section 5.3, all Township roads should be considered for paved shoulders when resurfacing or reconstruction opportunities arise. Additional off-road trails and cycling routes should also be studied and considered over the long term.

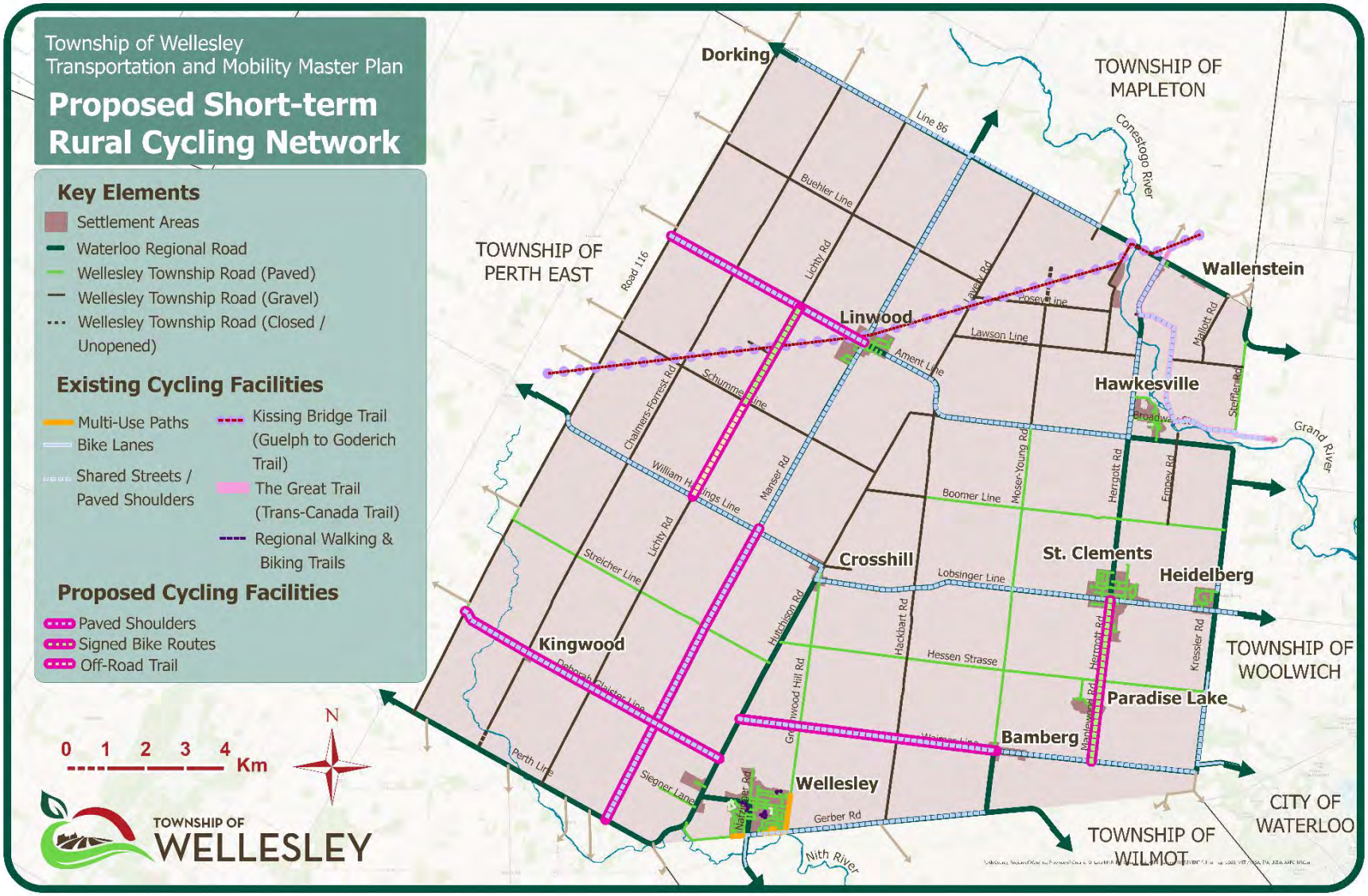


Figure 6: Proposed Short-term Rural Cycling Network

Priority Urban Active Transportation Improvements

Proposed priority active transportation improvements in the Township's urban settlement areas include bike lanes, multi-use paths (MUPs), and sidewalks. These improvements are designed to increase safety for users of all ages and abilities, with a focus on families and children. Many recommendations are centred around improving safe active travel to schools and recreation facilities. Details regarding the design of these facilities are provided in Section 6.1 and **Appendix B**. Mapping of the improvements are shown in **Figures 7-9.**

Streets within Wellesley Township's settlement areas are generally appropriate for providing bicycle lanes or shared spaces for cycling, given their relatively low traffic volumes and speeds. However, there are relatively few opportunities in the short-term for these types of facilities due to existing constraints. These constraints coupled with a desire to efficiently combine pedestrian and cycling improvements have led to recommending MUPs where opportunities exist, particularly where roads abut publicly owned properties.

Additional opportunities for priority walking infrastructure were also identified where gaps exist in the current sidewalk network.

Table 11 lists the road segments that have been identified for priority urban network improvements:

Table 11: Urban Active Transportation Network Priority Improvements

Road	From	To	Community	Facility Type
David Street	Queen's Bush Road	Gerber Road	Wellesley	Signed bike route
Maple Street	Herrgott Road	Park Street	St. Clements	Multi-use path
Park Street	North end of road	Lobsinger Line	St. Clements	Multi-use path
Peter Street	Herrgott Road	Park Street	St. Clements	Multi-use path
Gerber Road	David Street	Nafziger Road	Wellesley	Multi-use Path
Adelaide Street	Manser Road	Isabella Street	Linwood	Sidewalks
Charles Street	Voisin Crescent	Church Street	St. Clements	Sidewalks
Peter Street	Park Street	Anita Drive	St. Clements	Sidewalks
Henry Street	53 m east of Water Street	Nafziger Road	Wellesley	Sidewalks
Henry Street	Catherine Street	70 m east of Catherine Street	Wellesley	Sidewalks

Combined, these improvements would increase the Township's urban active transportation network by a combined total of 4.0 km of facilities.

In addition to the above improvements, the Township should study the potential for an east-west cycling facility through the Village of Wellesley as an additional priority project. Candidate corridors to be studied should include Queen's Bush Road, Ferris Drive, or an off-road trail along the north end of the village.

As well as sidewalks, well-marked pedestrian crossings, including at intersections and mid-block locations, as appropriate, are an important element of the walking network. In the walking network analysis conducted for the TMMP, the locations in **Table 12** were identified for potential enhancements or upgrades by applying relevant guidelines, including those from the Ontario Traffic Manual (OTM) Books 5 and 15.

Table 12: Locations for Potential Pedestrian Crossing Enhancements

Community	Location	Notes
Wellesley	Queen's Bush Road at Village Road	Examine feasibility to upgrade existing School Crossing to Level 2 Type D PXO or stop control
Wellesley	Ferris Drive and Schweitzer Crescent	Upgrade pavement marking and signage to align with Level 2 Type D PXO
Wellesley	Parkview Drive at path to ball diamonds (170 m west of Edgewood Court)	Upgrade pavement marking and signage to align with Level 2 Type D PXO
Linwood	Manser Road (Regional Road 5) and Alfred Street	Request that Waterloo Region consider upgrade to Level 2 Type D PXO
Linwood	Manser Road at G2G/Kissing Bridge Trailway	Request that Waterloo Region consider trail crossing improvement by enhancing uncontrolled pedestrian crossing or provide PXO
Linwood	Ament Line at G2G/Kissing Bridge Trailway	Improve trail crossing, either via enhanced signage for an uncontrolled pedestrian crossing or Level 2 Type D PXO
Linwood	Ament Line and Isabella Street	Request that Waterloo Region study opportunity to provide a Level 2 Type D PXO
St. Clements	Lobsinger Line at St. Clements Catholic Elementary School	Request that Waterloo Region study upgrade from School Crossing to Level 2 Type D PXO
St. Clements	Herrgott Road and Church Street	Request that Waterloo Region study upgrade from School Crossing to Level 2 Type D PXO

These improvements should be considered short-term priority projects; as per the planning recommendations (summarized in Chapter 6), sidewalks should be installed on at least one side of the street when feasible, and both sides in priority areas, whenever existing streets are rebuilt. In new developments, safe multi-modal facilities, including sidewalks on both sides of new streets, will be provided as appropriate.

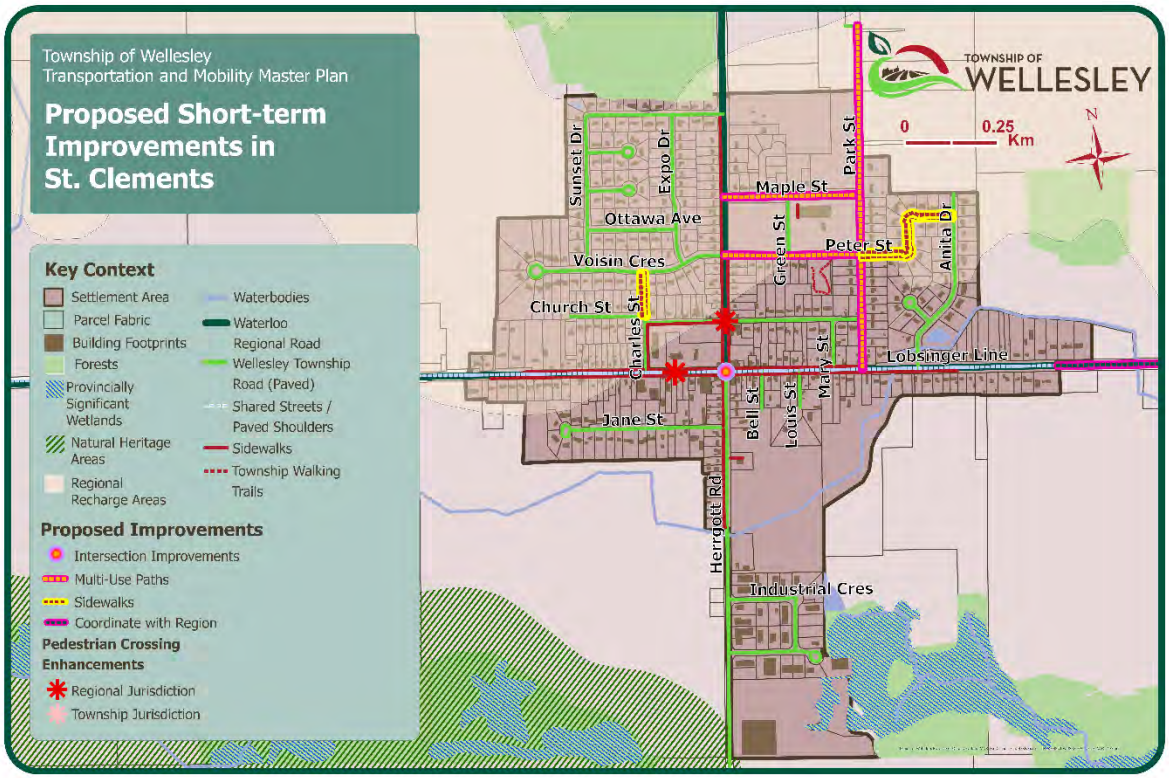


Figure 7: Proposed St. Clements Transportation Improvements

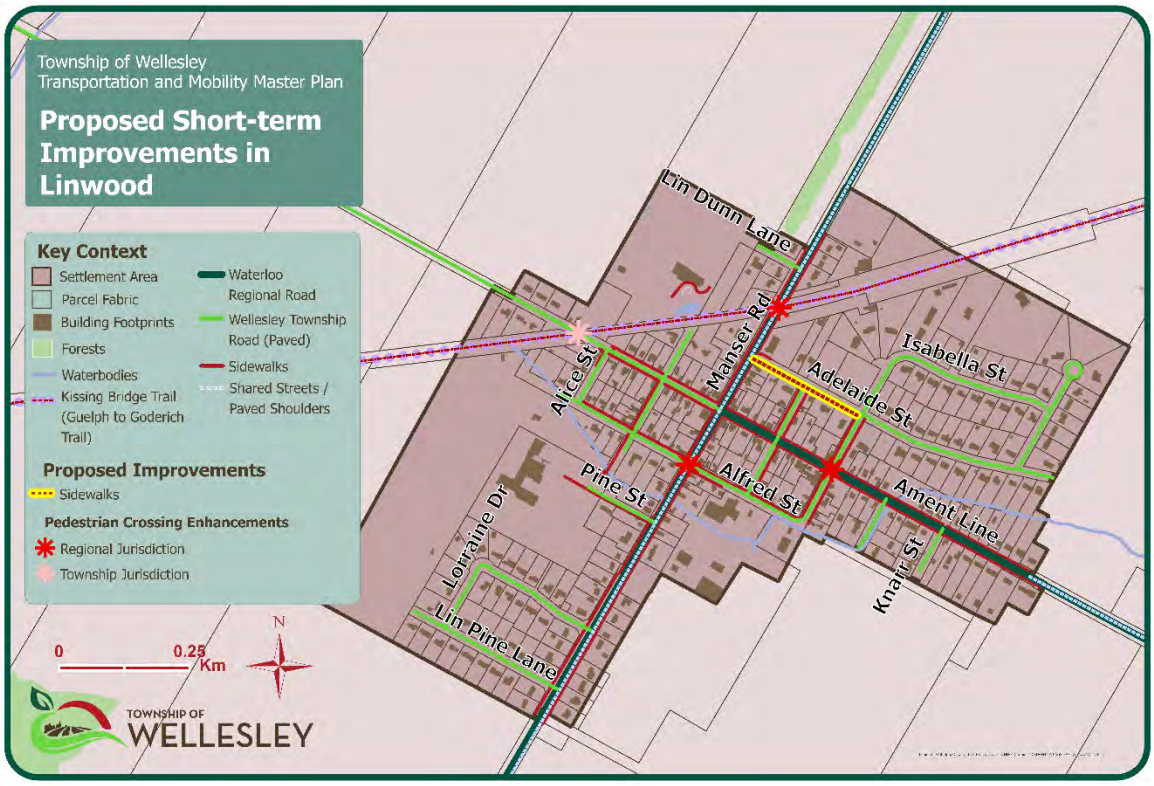


Figure 8: Proposed Linwood Transportation Improvements

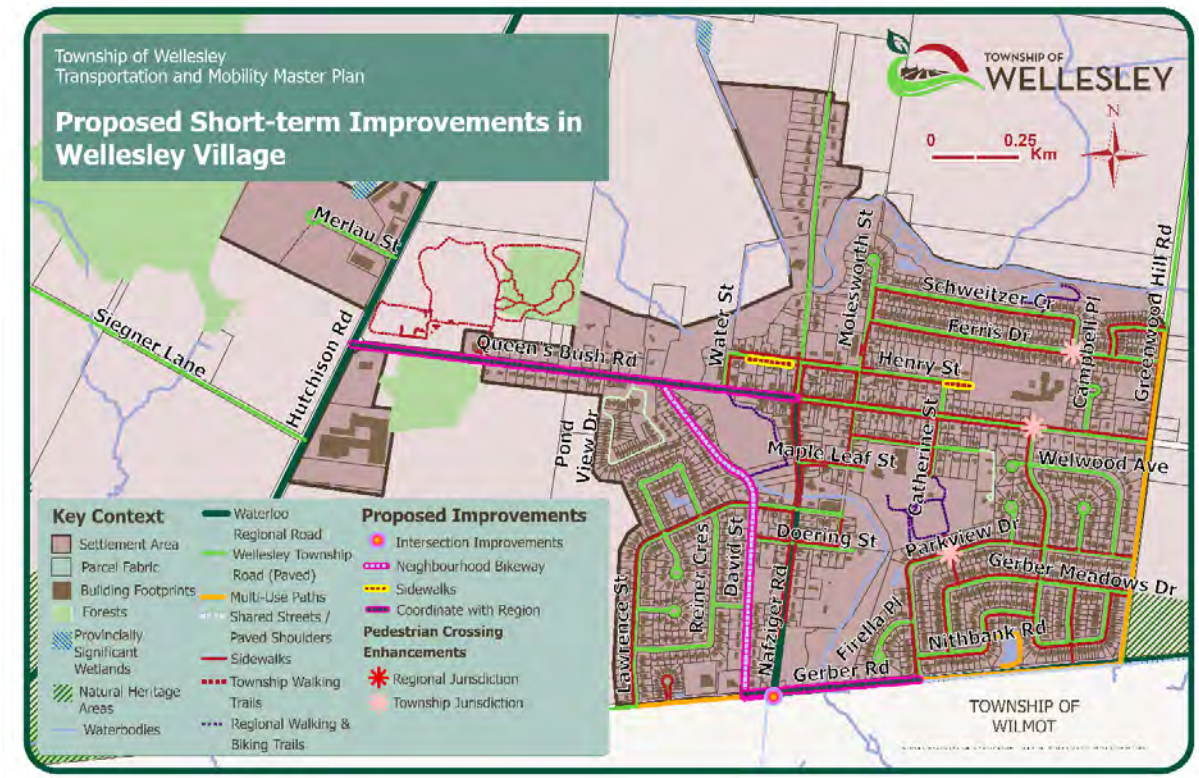


Figure 9: Proposed Wellesley Village Transportation Improvements

Active Transportation Improvements on Regional Roads

In addition to cycling improvements on Township roads, Wellesley Township should work with the Region to advocate for multi-use paths along the following Regional roads:

- Queen's Bush Road between Hutchison Road and Nafziger Road in Wellesley
- Gerber Road between David Street and Parkview Drive in Wellesley
- Lobsinger Line between the villages of St. Clements and Heidelberg

As Regional roads are reconstructed over the long-term in the Township, consideration should be given for expanding the urban cycling network through on-road bike lanes and multi-use paths.

5.2.2 Public Transit

Currently, transit service in Wellesley Township consists of a specialized transit service, provided by Kiwanis Transit for eligible riders, including those age 65 or older, and people with a physical or developmental disability. The project team heard from many residents who appreciated this existing service and supported its continuation and enhancement.

Grand River Transit (GRT) has plans to extend service to Wellesley Township through their Township Transit Strategy, which aims to provide residents with better access to essential services and employment opportunities. Planned service in Wellesley Township includes:

- Introducing a fixed bus route along Lobsinger Line and Hutchison Road between the Village of Wellesley and Conestoga LRT Station in Waterloo. This route would take 40 minutes, end to end, and connect over 50% of the Township's population (**Figure 10**).
- Introducing zones for on-demand transit service, a shared-ride service in which vehicles travel based on trip requests made by passengers, which can be booked days in advance or spontaneously (**Figure 11**).

This transit service will initially provide 90-minute frequency on the fixed route during weekdays. Both the frequency of the fixed route service and the boundaries of the on-demand zones will be reassessed once service has been established.

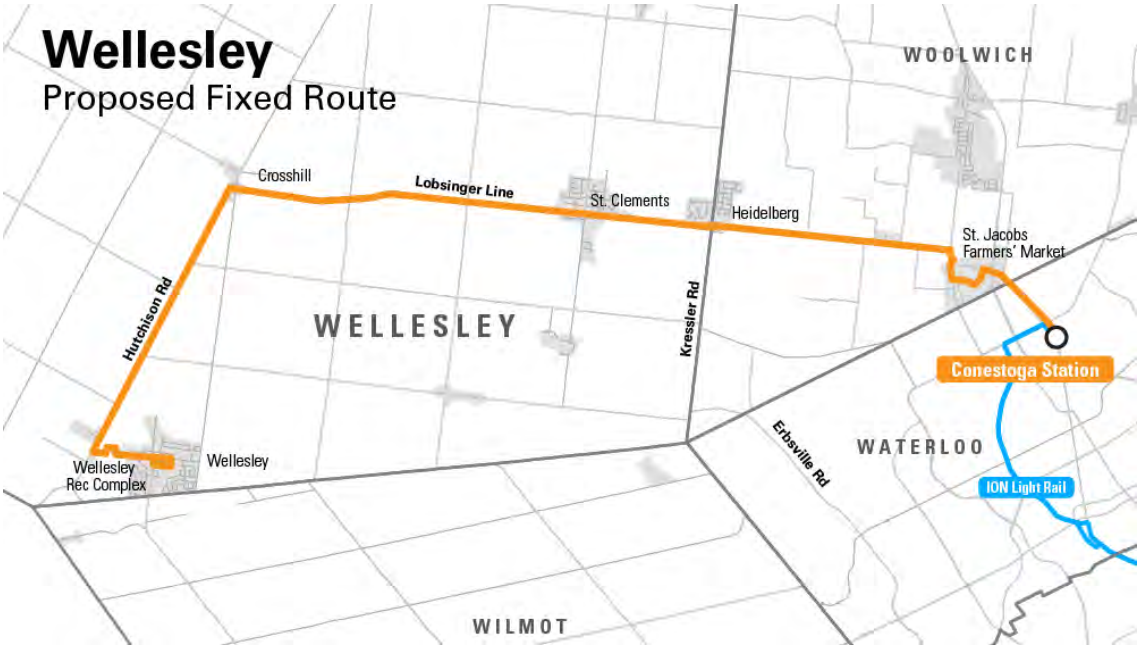


Figure 10: Proposed Fixed Bus Route in Wellesley from GRT Township Transit Strategy

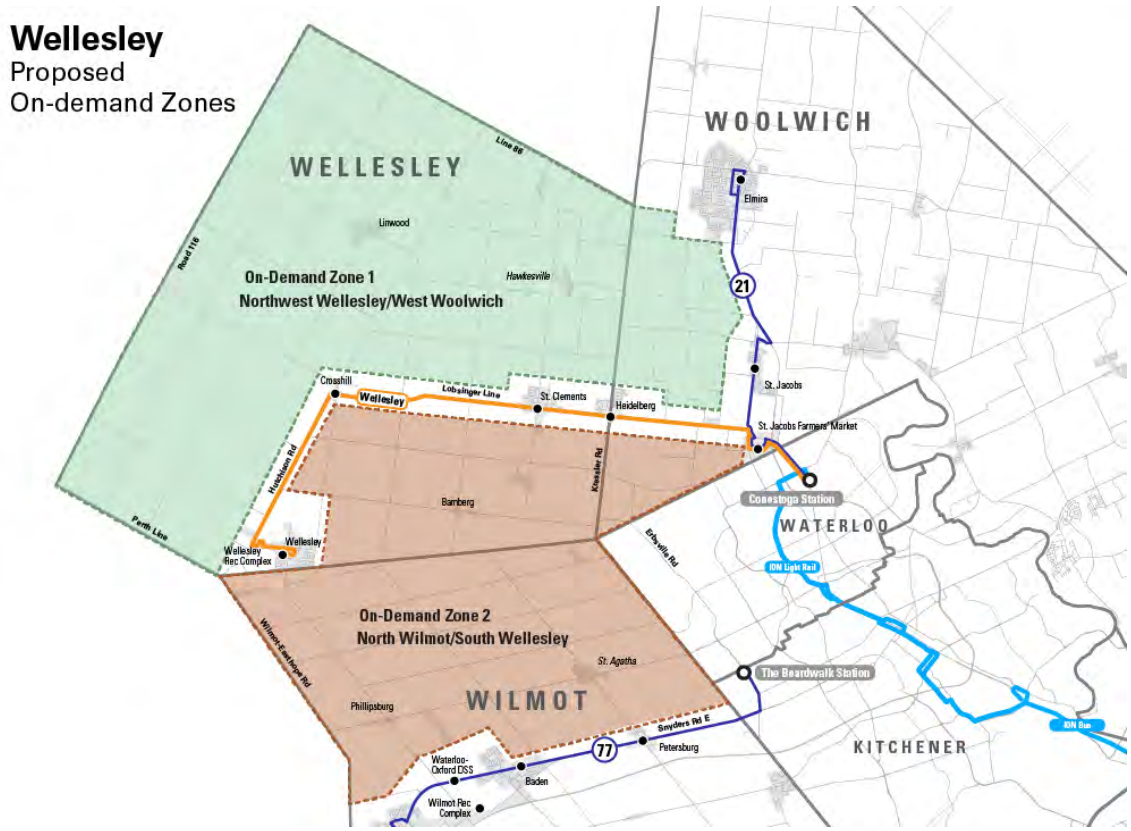


Figure 11: Proposed On-Demand Service in Wellesley from GRT Township Transit Strategy

5.3 Network & Design Planning Recommendations

As noted, the specific projects identified in is Chapter are meant to be priority projects, and only the starting point to implement the long-term Township mobility network. Additional projects and related initiatives to advance TMMP goals should be pursued through a combination of long-term planning recommendations, along with applying the guidance provided in the supporting strategies and tools in Chapter 6. The following recommendations should be implemented to support a more complete multimodal infrastructure network:

N1: The Township will pursue the implementation of the short-term priority projects indicated in the TMMP, with the goal to have them completed by 2035.

N2: The Township will direct developers to provide safe multi-modal transportation facilities as part of new developments, including sidewalks on both sides of new streets, as well as pedestrian crossings and cycling facilities as appropriate, following the TMMP road design guidelines (Section 6.1).

N3: When rebuilding existing streets in settlement areas, the Township will install sidewalks on at least one side of the street when feasible, and both sides in priority areas (e.g., near schools, parks, planned transit routes, busier streets, etc.), with design informed by the TMMP road design guidelines (Section 6.1).

N4: Paved shoulders should be provided on rural paved roads where feasible and prioritized where there are identified conflicts between motor vehicles and slower moving road users such as cyclists, horse-drawn vehicles, and farm equipment, with design informed by the TMMP road design guidelines (Section 5.1).

N5: The Township should continue to work with Waterloo Region to explore options for a truck by-pass route around the Village of Wellesley.

N6: The Township should pursue the planning and design of new off-road trail connections, including potential multi-use trail loops in Linwood, St. Clements, and The Village of Wellesley.

N7: The Township will work with Waterloo Region to advance their planned active transportation network in Wellesley Township, including:

- Rural cycling routes along Regional roads;
- Facilities along Queen's Bush Road and Nafziger Road through the Village of Wellesley; and,
- Exploring a multi-use trail between St. Clements and Heidelberg.

N8: The Township will support Grand River Transit's proposed Township Transit Strategy to increase transportation options for all residents, and advocate to make future enhancements as demand increases.

N9: When opportunity arises, such as through planning applications, the Township should seek to obtain Right-of-Way widths no narrower than 20 metres to accommodate transportation needs, including ditches/drainage and sidewalks.

N10: The Township should seek opportunities to provide additional space at the end of dead-end / cul-de-sac streets to facilitate snow clearing and emergency vehicle movement (turnarounds), aligning with the Township's Development Standards.

N11: The Township should additionally classify all Township roads as Major Collector, Minor Collector, and Local based on volume and purpose through its Official Plan update, in order to simplify and algin with the Region of Waterloo's roadway classifications.

N12: Township staff should investigate opportunities for new pedestrian crossing locations identified in the TMMP by applying the guidance in OTM Book 15 to confirm where they area appropriate, and to refine their design based on specific contexts.

6.0 SUPPORTING STRATEGIES & TOOLS

The following strategies, guidelines, and tools are meant to support the implementation of the TMMP infrastructure network and help the Township achieve the plan's vision and goals in a comprehensive manner.

6.1 Street Design Guidelines

The Street Design Guidelines developed for the Wellesley TMMP provide a summary of provincial and national guidance and best practices on various elements of street design, and describes the common contexts in Wellesley Township, including road classifications and surrounding land uses. This guidance and contextual information is then applied to identify common street types based on local contexts, and to suggest ways that road design elements may be arranged within these street types via illustrative cross-sections. Combined, these street design guidelines apply the principles of Complete Streets to road design, an approach that aims to ensure streets are designed to accommodate all modes, and users of all ages and abilities, by reflecting their surrounding context and anticipated future use.

This section is a summary of the full Street Design Guidelines, which are provided in **Appendix B**. The content in this section is meant to support the Township in implementing the recommended multimodal infrastructure network described in Chapter 5.

6.1.1 Street Design Elements

Comprehensive street design consists of many cross-section elements, including but not limited to motor vehicle lanes, paved shoulders, sidewalks, multi-use paths, and bike lanes. These features provide guidance for road users, ensuring people travelling by car, on foot, or by bike can determine their place on the roadway, make safe and predictable decisions, and can consistently predict where other road users may be encountered. Road design elements are highly context specific, and vary depending on many features, such as the surrounding land uses, roadway surface, levels of traffic volume and speed, and other factors.

Elements of street design relevant for the Wellesley TMMP include:

- **Vehicle Travel Lanes**: General purpose vehicle travel lanes should be designed to safely accommodate a range of users, including but not limited to passenger vehicles, delivery trucks, farm equipment, horse-drawn vehicles, and bicycles. On all streets, especially those shared with vulnerable people, the travel lanes should be designed for appropriate speeds.
- **Paved Shoulders**: Paved shoulders provide designated space for people on foot and on bicycles, and accommodate stopped vehicles, usually through rural areas. Paved shoulders also provide additional roadway space for farm equipment and horse-drawn vehicles, reducing conflicts and allowing motorized vehicles to safely pass these slower vehicles. As roads are reconstructed, paved shoulders should be provided on paved rural roads wherever platform width allows.

- **Bicycle Lanes**: Bicycle lanes designate a portion of the roadway exclusively for the use of people riding bicycles. Bicycle lanes can be marked by a single line or can be supplemented by buffered pavement markings or physical separation such as flexible posts.
- **Multi-Use Paths**: Multi-Use Paths (MUPs) are pathways that run parallel to existing roadways but are physically separated from motor vehicle traffic. Multi-use paths are designed to provide two-way shared travel space for people walking, riding bicycles, and using other forms of active transportation such as scooters and in-line skates. Multi-use paths are a good option in places where sidewalks do not currently exist, and boulevards are wide enough to accommodate an MUP.

- **Sidewalks**: Sidewalks provide a safe space for people to walk separated from moving traffic. Sidewalks should be wide enough to accommodate pedestrians of all ages and abilities, including those using mobility devices and pushing strollers. Within Wellesley Township's settlement areas, sidewalks should be provided on at least one side of the street where feasible.
- **Boulevard Zone**: The area between the roadway and the sidewalk or multi-use path is known as the boulevard zone. This zone provides a buffer between people on foot and motor vehicle traffic, as well as space for utilities, snow storage, signage, street trees and other landscaping, benches, bicycle parking, and other amenities. Where space is limited or there are physical constraints, boulevard zones may be omitted.
- **Pedestrian Crossings**: Pedestrian crossings can be either controlled or uncontrolled. Uncontrolled crossings are locations where pedestrians may cross the street without any form of traffic control or designated pedestrian right-of-way. Controlled crossings provide added protection for pedestrians with traffic control measures that require drivers to yield the right-of-way for pedestrians, such as stop signs, pedestrian crossovers (PXOs), or full traffic control signals. Determining the appropriate treatment for a given location should involve applying the guidance provided in OTM Book 15, "Pedestrian Crossing Treatments."
- **On-Street Parking**: On-street parking is permitted on most roads in Wellesley's urban settlement areas. Regulations for on-street parking are laid out in the Township's Traffic and Parking By-law (4/2021). Parking facilities should consider safety for all road users, convenience for parking users and maintaining traffic operations.
- **Off-Road Trails**: Well-designed off-road trail and cycling facilities provide recreational opportunities for people and can also supplement the utilitarian active transportation network. When designing and implementing off-road trails, it is important to recognize that people use trails for a variety of experiences. Thus, a variety of trail types should be provided as part of an extensive network.

6.1.2 Design Contexts

Roads in Wellesley Township are classified using a scale set out by the Government of Ontario in O/Reg 239-02 of the Municipal Act (Minimum Maintenance Standards). The scale assigns each road a number from 1 to 6, with 1 assigned to roads with the highest volumes and speeds, and 6 assigned to roads with the lowest volumes and speeds. In rural areas, most Township roads are classified as a 3 or 4, with a handful of slower roads classified as a 5 or 6. Within Wellesley Township's urban settlement areas, where speed limits are lower (generally 40 – 50 km/h), most roads are classified as either 5 or 6. Queen's Bush Road in the Village of Wellesley is the only urban Township road classified as a 4, due its higher traffic volumes.

Through its Official Plan update, the Township should look to refine this classification for Township roads as Local, Minor Collector, Major Collector, and Arterial, based on volume and purpose, in order to simplify and align with the Region of Waterloo's roadway classifications.

6.1.3 Street Types

Typical street types and associated cross-sections for the Township of Wellesley's roads have been developed based on applying the best practices in the design, engineering and alignment of the road design elements described in Section 6.1.2.

Cross-sections can be found in **Appendix B**.

These cross sections should be consulted as a starting point whenever existing roads are re-constructed or new roads are designed, or where a retrofit is desired. However, it is expected that designs will often need to be modified based on the specific conditions and context. In all contexts, roadway design should consider all road users, including those driving and riding in motor vehicles, people on bikes, people walking, and those driving horse-drawn vehicles.

All standard cross sections are based on an assumed right-of-way (ROW) width of 20 metres. While existing roadways may not always meet this width, the Township should aim to secure 20-metre ROW wherever feasible, particularly in areas where new development is proposed.

Rural Township Roads

Rural roads travel through various types of lands, including those designated in the Official Plan as Countryside, including Prime Agricultural lands, Protected Countryside, and Rural Areas, and also serve vehicles accessing Rural Employment areas, Rural Settlement areas, and Mineral Resource Aggregate areas. These roads function to move local traffic, including motorized and horse-drawn vehicles, to urban settlement areas and larger Regional roads. They also serve the movement of farm equipment between farms and can also provide a scenic route for cyclists. Rural Township Roads can be gravel or paved, each of which have

unique design considerations. As such, two rural road typologies have been identified: Gravel Rural Roads and Paved Rural Roads.

- **Gravel Rural Township Roads**: Gravel roads typically accommodate relatively low traffic volumes (a few hundred vehicles per day) and are usually class 4 / Minor Collector roads. Gravel rural roads provide shared space for all road users in the roadway. The Township's gravel roads do not generally have posted speed limits at present, defaulting to 80 km/h, but as per Section 5.2, it is proposed to change this so that they are posted at 70 km/h in most locations, and lower near schools and other areas as appropriate.
- **Paved Rural Township Roads**: Paved Township Roads carry a higher volume of traffic (approx. 500-1500 daily) and typically have 80 km/h speed limits unless they are through an urban area. They are generally class 3 / Major Collector roads. Paved Rural Township Roads should ideally include paved shoulders to accommodate bicycles and horse-drawn vehicles.

Urban Streets

In the context of Wellesley Township, the term Urban Street refers to any street that travels through a settlement area. Wellesley Township's urban settlement areas are largely low-rise residential areas designated as Settlement Residential, with some commercial or mixed-use areas designated Settlement Core. Institutional lands dot Wellesley's landscape, including schools, community centres, sports fields, and other uses. The Village of Wellesley includes the Township's only designated urban growth centre, comprised of a commercial area centred around the intersection of Queen's Bush Road and Nafziger Road.

Currently, Urban Streets typically have a posted speed of 50 km/h, although as per Section 6.2, this is recommended to be lowered to 40 km/h. Efforts should be made when designing streets to align the design speed with this 40 km/h posted speed. Two urban road typologies have been identified as relevant for most urban Township roads: Neighbourhood Collector Street and Neighbourhood Local Streets.

- **Neighbourhood Collector Streets**: Within urban settlement areas, Neighbourhood Collector Streets carry the most traffic and serve a mix of residential, commercial and institutional areas. These streets provide greater network connectivity than local streets, often transitioning to Rural Township Roads outside of settlement areas. On Neighbourhood Collector Streets, parking may be provided to increase convenience and provide an additional buffer between the sidewalk and roadway, including through dedicated parking lanes or areas, which are ideally provided via lay-by areas.
- **Neighbourhood Local Streets:** Neighbourhood Local Streets are primarily residential streets within urban settlement areas. These corridors usually serve the function of moving people to and from their homes and are often important neighbourhood public spaces. Slow vehicle speeds should be encouraged, given that these streets serve local trips, and are often adjacent to where children are playing.

6.2 Road Safety Strategy

Enhancing safety along Township roads for all multi-modal road users is an important goal of the TMMP. Achieving improvements in road safety involves taking an evidence-based approach that leverages available data on collisions and associated injuries and fatalities, while considering the multi-modal nature of Wellesley Township's transportation network and addressing conflicts between different users.

6.2.1 Speed Limits

As noted in Section 2.3.3, in 2024, a Speed Limit Assessment was completed for the Township's Road network to provide technical justification for speed limits along typical types of roads with specific guidance provided in front of schools. The TMMP examined the Speed Limit Assessment recommendations to ensure they align with the overall TMMP recommendations and presented them for public input.

As a result of this analysis, the recommendations for speed limits on Township roads are generally recommended to be carried forward, with modifications and considerations for implementation detailed below in **Table 13**.

Table 13: Summary of Recommendations from 2024 Speed Limit Assessment

Road Context	Recommended Speed Limit	Additional Considerations
Rural Paved (Major Collector)	80 km/h	Consider lower speed limits (not less than 60 km/h) on roads identified for paved shoulder improvements for cycling & horse-drawn vehicle use, or where safety issues are identified.
Rural Unpaved (Minor Collector)	70 km/h	Consider lower limits on some unpaved roads where operating and average speeds are lower (which is quite common as per the traffic data analysis) or where safety issues are identified.
Residential (urban, semi-urban, or rural)	40 km/h	Start by implementing along roads that are clearly urban and evaluate stretches of rural roads through urban settlement areas on a case-by-case basis.
Roads fronting rural parochial schools	Existing 80 km/h, lower to 60 km/h Existing 70 km/h, lower to 50 km/h	There are ten private Mennonite parochial schools located primarily on rural roads in the Township. Despite being on rural roads, many students travel on foot, bicycle, or in horse-drawn vehicles.

6.2.2 Traffic Calming

Traffic calming plays a key role in enhancing road safety by reducing vehicle speeds and promoting safe driving behaviour. Traffic calming involves a series of strategies that modify road design and/or signal to drivers to slow down. Traffic calming is often implemented reactively on roads where driver behaviour does not match the roadway's intended function, surrounding land use, or the needs of other road users, such as pedestrians and cyclists. However, traffic calming measures should also be incorporated into the design or redesign of streets and new developments. By creating road conditions that promote lower traffic operating speeds, traffic calming makes streets safer for everyone.

Traffic calming measures may include:

- Pavement markings and/or signage
- Changes to the roadway surface texture and/or colour
- Changes to the vertical and/or horizontal alignment of the roadway
- Changes to the travelled portion of the roadway through pavement and/or lane narrowing

The Traffic Calming Strategy developed for the TMMP outlines a systematic process for determining when traffic calming measures are warranted and provides guidance in selecting appropriate measures. The process ensures that traffic calming is applied where it is most effective in enhancing safety for all road users, while minimizing cost and impacts on emergency services.

This section provides a summary of the TMMP Traffic Calming Strategy, with the full document provided in **Appendix C.**

Principles of Traffic Calming

The following traffic calming principles are commonly applied by Ontario municipalities when selecting and implementing traffic calming measures. These principles ensure that chosen measures are appropriate for the surrounding context, align with the community's needs, and minimize potential negative impacts. Applying these principles will strengthen the effectiveness of traffic calming plans and foster greater community acceptance and support for final traffic calming plans.

- Quantify the Problem
- Maintain and Minimize Impacts on Delivery of Emergency Services
- Maintain and Minimize Impacts on Delivery of Public Services
- Use Cost Effective Measures
- Minimize Impacts on Adjacent Residential Streets
- Target Automobiles and Not Non-Motorized Modes

Traffic Calming Process

A two-step process to identify and prioritize potential locations for traffic calming is recommended for Wellesley Township.

First, potential locations should be screened to determine whether they would be suitable for traffic calming. Criteria should include road classification, block length, speed limits, traffic volume, and grades.

Eligible locations should then be evaluated using a point-based system that establishes a minimum threshold and helps rank sites based on need and priority. This assessment should consider data on speeds, volume, collisions, and the presence of pedestrian facilities and key destinations/pedestrian generators.

Note that the proposed process is designed for roads within the Township's urbanized settlement areas, rather than for rural roads. Rural roads may benefit from passive traffic calming measures, such as signage and pavement markings, which are described in the subsequent sections, as well as other measures such as targeted enforcement. Physical traffic calming measures (such as speed humps and curb extensions) are typically not applicable, due to high vehicle speeds and the need to accommodate farm equipment and horse-drawn vehicles.

Types of Traffic Calming

Types of traffic calming measures include:

- **Horizontal Deflections -** These measures create a lateral or side-to-side shift in the vehicle path, forcing drivers to reduce their speed to comfortably navigate the measure. Examples of horizontal deflections include chicanes and lateral shifts. At intersections, roundabouts can be considered a form of horizontal deflection for traffic-calming purposes.
- **Vertical Deflection -** Vertical deflections create an upward movement of a vehicle as it passes over the feature. Examples include speed humps and raised crosswalks.
- **Roadway Narrowing -** Roadway narrowing alters the cross-section of a road by reducing the number of travel lanes or decreasing their width. This encourages lower speeds, as drivers naturally slow down to avoid potential or perceived hazards. Examples of roadway narrowing include curb extensions and raised median islands. In commercial and residential areas, on-street parking can also function as a form of roadway narrowing.
- **Pavement Markings -** On rural roads and other areas where more obtrusive traffic measures would be unsuitable, pavement markings can provide an effective alternative. Pavement markings create a visual illusion that narrows travel lanes without making physical changes to the roadway. Pavement markings may include converging chevrons and on-road sign pavement markings.

- **Signage** – Road signs reminding drivers to check their speeds and alerting drivers to school areas, cycling routes, and pedestrian crossings can encourage safer driver behaviour. Dynamic speed signs, which detect and display a vehicle's speed, can also improve awareness and remind drivers to slow down.

6.2.3 Rural Transportation Considerations

Wellesley Township's rural setting creates several distinct transportation considerations, shaped by the Township's strong agricultural base and significant Mennonite community. The Township's rural roads regularly accommodate slow-moving farm equipment and horse-drawn vehicles alongside faster-moving motor vehicles, resulting a range of travel speeds along the same corridor. In addition, the Township's natural landscape and surrounding wooded areas also contribute to regular wildlife encounters. Together, these conditions create unique safety and design considerations, including opportunities for various mitigation strategies, including signage and paved shoulders to enhance visibility, reduce conflicts, and lower the risk of collisions.

Agricultural and Horse-drawn Vehicles

As noted in Chapter 2, Wellesley Township is home to many farming families and businesses. As such, farm vehicles, including tractors and combines are common sights on the Township's rural roads. Compared to other motor vehicles, farm equipment moves slowly and is required to adhere to a 40 km/h speed limit when travelling on a public road. This can lead to safety issues, particularly when farm equipment is overtaken or passed by faster moving motor vehicles.

Another unique consideration in Wellesley Township and its surrounding area is its considerable Mennonite population. These residents primarily live in the rural areas of the Township and are often involved in farming. While beliefs vary among Mennonite groups, many of the Township's Mennonite people believe in limiting their access to technology, and thus often forego the use of motor vehicles in favour of horse-drawn vehicles, bicycles, or walking. Horse-drawn vehicles can range from smaller two-person carts to larger buggies that carry multiple passengers or cargo. The Township has found that the use of roadways by horses can quickly degrade pavement and create maintenance issues. Public feedback during the TMMP's development highlighted the need to better accommodate horse-drawn vehicles in Wellesley Township, including concerns from drivers about safety when sharing the road with them, and from the Mennonite community that a lack of shoulders and mixed surfaces within existing shoulders create difficult travel conditions.

Since farm machinery and horse-drawn vehicles are both slow-moving vehicles, there can be challenges in terms of safety and traffic flow when they share roads with faster moving motor vehicles. Both farm machinery and horse-drawn vehicles are allowed to use roadways, but they both must display orange and red slow-moving signs on the rear of their vehicles. Farm

equipment operators, regardless of width, must give up half of the roadway when being overtaken or passed by vehicles travelling in the opposite direction.

Farm equipment and horse-drawn vehicle operators should generally travel as far to the right of roads as feasible and use roadway shoulders where they exist. Both types of vehicles are best accommodated by wide shoulder spaces that provide additional space for farm equipment and allow motor vehicles to safely pass.

The needs and issues associated with slow moving farming and horse-drawn vehicles have been considered throughout the TMMP. Key recommendations and considerations that the Township should implement and follow in the future include:

- The recommendations regarding providing paved shoulders in Chapter 5 should be implemented to help accommodate farm machinery and horse-drawn vehicles, as well as bicycles and other active uses. The priority cycling facilities identified in 5.2 were selected in part to link to adjacent Regional roads, where more space exists for paved shoulders.
- Paved shoulders should be designed with sufficient width where feasible to accommodate horse-drawn vehicles and provide more space for farm machinery. Priority should be given to locations where the Township is aware of significant numbers of slower vehicles, or where conflicts exist.
- It may be advisable to lower speed limits or implement rural traffic calming measures (as per 6.2) on a case-by-case basis in locations where the Township is aware of significant numbers of slower vehicles or associated conflicts.

Wildlife Interactions

Collisions with wildlife are a concern in rural areas, and an issue that came up during TMMP consultation. According to the conservation organization Ontario Nature, 14,000 wildlife collisions are reported in Ontario each year, accounting for approximately 10% of all collisions across the province. This number only accounts for collisions with large animals, such as deer, bears, and moose, and does not include smaller animals, like raccoons, opossums, and skunks.

To help address this issue, the Township should analyze collision data and information from the public to identify locations where interactions with wildlife pose a particular concern, particularly along the edge of wooded habitat. In these locations, signage should be installed to alert drivers to potential conflicts. Where specific wildlife concerns are identified, the Township should consider other measures such as fencing and culverts to direct wildlife away from the roadway. The Township should also work with Waterloo Region and the local conservation authority to educate drivers about how to avoid collisions with wildlife and what to do in the event of a collision.

6.2.3 Road Safety Planning Recommendations

The following planning recommendations are the key directions for the Township to support the implementation of the road safety strategy and associated guidance:

S1: The recommendations from the 2024 Speed Limit Assessment should be implemented, incorporating the considerations and guidelines from the TMMP (as per Section 6.2), including posted speed limits generally being set at:

- 40 km/h for residential and urban roads;
- 80 km/h for Rural Paved Major Collector Roads;
- 60-70 km/h for Rural Unpaved Minor Collector Roads;
- Lowered by 10-20 km/h near schools, depending on the context (generally no lower than 40 km/h).

S2: The Township will implement a traffic calming program that aims to ensure motor vehicles are travelling appropriate speeds through neighbourhoods, following the guidance provided in the TMMP (as per Section 6.2).

S3: The Township should install wildlife warning signs in areas where interactions with wildlife have been identified as a concern. Where concerns about particular species are identified, the Township should study other location-specific measures, such as fencing or culverts to divert wildlife away from the roadway.

6.3 Transportation Program Strategy

Transportation programming includes outreach, education, and other measures that support the development of a safe and efficient multi-modal transportation network by promoting use of the multimodal infrastructure network and encouraging desired changes in transportation choices and driver behavior. Programming is a cost-effective way of encouraging sustainable travel by raising awareness and easing participation in active transportation, carpooling, and transit. In conjunction with traffic calming measures, programming can also increase awareness about safe driving behaviour and encourage good road use etiquette.

The following recommendations are designed to increase sustainable transportation mode share and help the Township achieve its transportation vision and goals.

6.3.1 Active School Travel

Active school travel is the act of walking, cycling, or scooting to school. It has numerous health, social, and environmental benefits, including increasing students' physical activity, supporting physical and mental health, reducing air pollution and congestion associated with driving, enhancing social engagement and community wellbeing, and contributing to safer school and community environments.

Student Transportation Services of Waterloo Region runs several programs aimed at enhancing safety and increasing rates of participation in active school travel. These programs include Walking School Bus and Bike Bus programs, the Sidewalk Smarts educational program for students in Grade 3-4, and the Trailblazers program for older student leaders.

The Township should support these programs by:

- Promoting ongoing programs to local schools, and consider supporting by providing local incentives (e.g., recreation passes, promotional items, etc.);
- Coordinating with local schools, boards, Region of Waterloo and other partners through meetings and other communication;
- Prioritizing infrastructure and safety improvements near schools.

6.3.2 Transportation Demand Management

Transportation Demand Management (TDM) consists of a set of policies, programs, and services designed to influence travel behaviour to reduce traffic and contribute to a more sustainable transportation system in a cost-effective manner that does not involve costly infrastructure projects. TDM initiatives aim to reduce the number of people driving motor vehicles by encouraging them to choose other more efficient and sustainable modes, shorten or limit the frequency of driving trips, and encourage drivers to avoid travel during congested times. TDM is most effective when combined with infrastructure and service enhancements that make choosing walking, cycling, carpooling, and transit as convenient as – or more convenient than - driving. Public education and outreach that promotes walking, cycling, carpooling, and transit can increase participation rates, improve health outcomes, support environmental, social, and economic sustainability, and lead to safer, cleaner communities.

The Region of Waterloo developed a TDM Strategy as part of its 2018 Transportation Master Plan. The Strategy recommends various initiatives focused on active transportation, transit, ridesharing, and new mobility, and targets area developers, employers, and residents. These measures include:

- Coordinating the *TravelWise* program that works with employers to encourage employees to use sustainable modes of travel through services such as transit pass discounts, carpool matching, and emergency rides home;
- Incorporating TDM measures in development application requirements and approvals;
- Developing and supporting school-based TDM programs;
- Increasing and enhancing commuter options for Regional employees; and
- Supporting the delivery of transportation network improvements.

Throughout Waterloo Region, various organizations deliver programs and events promoting active travel, including trail guides, the Cycling Guide App, Self-Guided Heritage Tours, the Bicycle Friendly Business program, and community cycling events.

In addition to carpooling and active transportation, the expansion of Grand River Transit into Wellesley Township provides additional opportunities for sustainable travel. It will be important to spread the word about this coming transit service through promotional efforts.

The Township should support TDM and sustainable travel outreach programs by working with the Region, Grand River Transit, local employers, and other partners to expand existing programs to Wellesley Township and ensure that programs reflect the Township's local needs and opportunities. In addition, the Township should investigate opportunities to develop its own programming focused on unique context of Wellesley Township. This may include:

- Developing and promoting local online active transportation information, maps, and promotional materials that encourage various forms of active and sustainable travel, and coordinating with the Region of Waterloo to add information to their bike map and tourism promotion website and initiatives;
- Providing incentives for sustainable behaviour, such as discounts at local businesses, or promotional items with Township branding such as bike bells, bike lights, or water bottles;
- Organizing community events such as bike rides or group walks or hikes;
- Providing cycling education via municipal recreational programs or by partnering with area groups (e.g., CycleWR, KW Cycling Academy);
- Pursuing Bicycle Friendly Community Designation through Share the Road Cycling Coalition, joining nearby communities such as the Cities of Kitchner and Waterloo.

6.3.3 Road Safety Outreach

Road safety awareness and outreach campaigns support safer streets by building knowledge, skills, and awareness of potential hazards, and aiming to reduce risky behaviours such as speeding and distracted driving and fostering a greater sense of responsibility among road users.

Existing initiatives include Waterloo Region's Safe Roads campaign, which encourages road users to stay alert and take the time to look around them. This campaign focuses on traffic signals and roundabouts, where most collisions occur. While this campaign largely applies to urban roads, Wellesley Township's rural context brings with it unique safety issues.

In Wellesley Township, safety concerns largely centre around speeding, compliance at stop-controlled intersections, and interactions between motor vehicles and slow-moving vehicles on rural roads. Intersection safety, particularly on rural roads, was a concern heard repeatedly during public consultation. In addition to infrastructure such as flashing beacons, dynamic speed signs, and additional signage, a road safety awareness campaign focused on all-way stops could help improve safety at these locations.

Concerns about safety on rural roads, particularly around wildlife and slow-moving vehicles, are not currently the focus of Waterloo Region's road safety campaigns. The Township should work with the Region to expand road safety campaigns to raise awareness about safe interactions with wildlife and slow-moving vehicles, and other rural concerns, such as speeding and all-way stops. The Township should also consider developing their own awareness and outreach messaging and material, such as social media posts, dedicated online content at Wellesley.ca, and print material distributed via tax bills or at municipal locations. These initiatives should tie into the overall road safety strategy set out in Section 6.2.

6.3.4 Wayfinding

Figure 12: Example of Cycling Route Wayfinding Signage

Signage and other visual cues that provide information for people to find their way and reach their desired destinations can have many benefits. Wayfinding provides practical information to help people get around – which is especially important for tourists, newcomers, or when facilities are newly built. Wayfinding signage can also serve as an effective tool for marketing key destinations and attractions, helping both residents and visitors become aware of the services and amenities that Wellesley Township has to offer. Wayfinding can also promote safety by directing people to safer areas to travel, such as cycling routes or trails, or help manage parking by directing people to appropriate parking areas, especially where parking demand is higher.

Effective wayfinding provides clear, easily understandable information directing people travelling by various modes to key landmarks and destinations. Multi-modal wayfinding should consider the unique needs of people travelling by various modes, including potential trip distances, signage sizes, and orientation. When implementing wayfinding signage, the following guidance should be considered:

- Provide clear and concise messages and imagery, including the names of relevant destinations, directional arrows, and optional information such as distances or travel times by mode to the relevant destinations;
- Consistent municipal branding and design elements should be included;
- Signage should be strategically placed at key intervals and decision points (e.g., intersections).

A key place to start for a potential Township wayfinding program will be to implement signage to highlight the rural cycling facilities identified in Section 5.2. Wayfinding signage associated with these facilities will both improve the usability of these routes, encourage and promote their use, and help redirect people from roads that are less safe or appropriate for cycling. This should include, at minimum, green Bicycle Route Marker signs (M511) along identified cycling routes. Wayfinding signage may also be considered by the Township to guide horse-drawn vehicles or farm machinery to roads that are more appropriate for their use.

Longer-term, the Township may consider developing a comprehensive wayfinding signage strategy that includes more detailed guidance, including signage designs and implementation and maintenance direction.

6.3.5 Promote Zero-Emission Electric Vehicles

Waterloo Region has adopted a long-term strategy to reduce local greenhouse gas (GHG) emissions in order to address the global climate crisis. The TransformWR Strategy identifies local action required to reduce emissions by a target of 50% by the year 2030 (50by30) and 80% by 2050 (80by50). This Strategy has been endorsed by all eight municipalities in Waterloo Region, including Wellesley Township.

As identified in Section 4.2, Wellesley Township is committed to reducing GHG emissions through mode share targets that prioritize a move towards more active transportation and transit usage. The transition from gasoline-powered to zero-emission and electric vehicles can also play an important in achieving GHG targets. As such, Wellesley Township should support the expansion of electric vehicles in the Township by supporting Waterloo Region efforts, and by pursuing its own initiatives, including prioritizing the purchase of electric vehicles for the Township's municipal service vehicles/fleet, and examining potential municipally owned locations to install electric vehicle charging stations.

6.3.6 Cycling, Trail and Streetscaping Amenities

End of trip facilities such as bicycle parking, street furniture, rest areas and other amenities provide valuable assets to support active transportation trips by overcoming barriers and enhancing user experience. This can also help create more welcoming and visually appealing spaces for people to gather and socialize, especially when combined with aesthetic improvements such as landscaping, plantings, and public art.

A program to expand trail and cycling end-of trip amenities should involve multiple avenues, including the following considerations:

- Bicycle parking provisions should be incorporated into the Township's Zoning By-law (more detail on this is in Section 6.5).
- The Township's Public Works and Recreation, Parks and Leisure Departments should work together to identify responsibilities and existing internal sources and potential external sources of funding for bicycle parking and trailhead amenities.
- Consider a program to provide bicycle racks or other amenities to private businesses or schools to support active transportation.

Trailhead Amenities

Trailheads are critical transition points along trail networks that act as an intersection for entry and exits along the trail, a crossing point to continue along the network, and also a rest stop for weary travelers. Trailheads provide access to the trails, help users identify and confirm that they have arrived, and communicate expectations about the trail experience ahead. Potential amenities at these locations could include:

- Rest areas, including seating, tables, waste bins, etc.
- Wayfinding and interpretive signage
- Informational signage
- Maps or informational pamphlets in a waterproof container
- Water fountains / refill stations
- Landscaping
- Vehicle and bicycle parking facilities
- Toilets
- Public art.

Based on the location, jurisdiction, and context, Township staff should use their judgement to determine which amenities and street furniture are necessary for creating or improving prominent trailhead locations.

Figure 13: Trailhead Amenities Including Bike Parking, Bike Repair Stand and Wayfinding Signs

Bicycle Parking

In addition to the above-mentioned amenities, bicycle parking is an essential but often overlooked component of a successful multi-modal transportation system. Bicycle parking provides many benefits for current cyclists and helps remove barriers for those who wish to ride more often in the future. Visible, well-maintained bike racks create a sense of security by reassuring cyclists that their bicycle will be there when they return. They also help make cycling trips more convenient and send a message that trips by bike are welcomed and prioritized in a community. Properly designed and located bicycle parking contributes attractive and aesthetically pleasing public spaces, and can help prevent parked bicycles from damaging trees, blocking pedestrian passage, or becoming an eyesore. Bicycle parking can be especially important to link to transit.

Not only can a lack of bicycle parking discourage cycling trips, issues with design, installation, or maintenance can make racks difficult to use, impacting user experience. Bicycle parking may also be unused if it is in a location that is not desirable. There are also challenges associated with the growing variety of bicycles, such as e-bikes, cargo bikes, and adaptive bicycles, as well as similar vehicles such as e-scooters that are growing in popularity.

Comprehensive bicycle parking should include short-term parking, such as bicycle racks close to the entrances of key destinations, as well as long-term parking for residents and employees, that may involve more comprehensive facilities, such as weather-protected racks, or more secure spaces via lockers, sheds, or rooms integrated into building designs.

6.3.7 Program Planning Recommendations

The following planning recommendations are the key directions for the Township to support the implementation of transportation outreach programming:

P1. The Township should promote Transportation Demand Management (TDM) and sustainable travel options, including outreach to encourage greater adoption of active transportation, transit, carpooling, and remote work, including by:
   a. Working with the Region, Grand River Transit, and other partners to expand and enhance existing programs to Wellesley Township; and,
   b. Consider developing Township-specific TDM and sustainable transportation outreach programs.

P3. The Township should work with local schools, boards, and the Region of Waterloo to expand local Active School Travel programs that teach students about safe and sustainable school travel and support these programs locally by prioritizing road safety and active transportation improvements near schools.

P3. The Township should partner with the Region of Waterloo to develop and implement a public awareness and outreach program focused on rural transportation concerns, such as speeding, driving near wildlife habitat, and interactions with slow moving vehicles, such as farm equipment, bicycles, and horse-drawn vehicles.

P4. The Township should provide consistent wayfinding to support exploration and travel through the Township by vehicle, on foot and by bicycle.

P5. Bicycle parking facilities, rest areas, and other amenities should be provided within new developments and at community centres, commercial areas, trailheads and other appropriate locations.

P6. The Township should support the expansion of zero-emission and electric vehicles in the Township, supporting Waterloo Region goals, and exploring Township initiatives including:
   a. prioritizing the purchase of electric vehicles for the Township's municipal service vehicles/fleet, and
   b. providing electric vehicle charging stations at municipally owned locations.

6.4 Parking

Parking, loading, and drop-off areas are key parts in any transportation system, providing essential end-of-trip facilities for various road users and purposes, including motor vehicle drivers, passengers, goods delivery, and people riding bikes. Parking can also be implemented and designed to help facilitate access to transit and encourage carpooling. Without a sufficient supply of parking, mobility can be impeded by discouraging trips to certain areas by certain modes, and traffic issues can be created by cars circling area streets looking for spots. However, it should also be noted that if parking is oversupplied or poorly designed it can be detrimental to Township goals in various ways. Oversupply of parking can encourage car trips at the expense of other modes or create an undesirable urban realm through large surface parking lots. If poorly designed or located, street parking can impede sightlines, cause safety issues, or prevent appropriate streetscaping or other advantageous roadway features. Effective parking strategies need to balance and weigh these factors, while also considering the context of specific areas and key destinations.

6.4.1 Existing Conditions, Guiding Plans and Regulations

Generally, Wellesley Township has appropriate parking supply for its needs, with most parking being provided on private lands, supplemented by on-street parking on most local streets to provide overflow and short-term parking spaces. Future parking needs should mostly be provided within new developments, in keeping with the Township's Official Plan guidance and Zoning By-law provisions.

Parking in Wellesley Township is guided by various plans and by-laws, including:

The Official Plan

The Township's current Official Plan has numerous policies to direct the provision of parking, including:

> 6.7.1 – "All uses shall be supplied with adequate off-street parking and, in the case of institutional, commercial and industrial uses, adequate off-street loading facilities. Access points to off-street parking or loading areas shall be limited in number and designed in a manner that provides for the adequate and safe movement of vehicular or pedestrian traffic."
>
> 6.7.2 – where minimum parking standards are not possible, Council may allow a parking exemption (pursuant to Section 40 of the Planning Act).
>
> 6.8.2.7 – "Through the review of development applications, the Township may provide reduced parking standards for developments within the Wellesley Urban Area where the owner/applicant agrees to incorporate transportation demand strategies as part of the proposed development."
>
> 6.8.5.4 – "cycling amenities... such as bicycle racks... that are required by the Township or the Region through a development application or site plan will be the financial responsibility of the owner/applicant."

Zoning By-Law (28/2006)

Wellesley Township's Zoning By-law (28/2006) provides a comprehensive legal framework for land use, building regulations, and development within the Township, including regulations regarding required parking for various land uses and development types. Specific parking requirements vary among land uses. Parking requirements for residential uses range from 1-2 parking spaces per dwelling unit, while requirements for commercial, employment, or institutional uses vary based on gross floor area. These parking requirements are for motor vehicle parking; the Township Zoning By-law currently does not have any specific requirements or guidance regarding bicycle parking. In keeping with the Township's sustainable transportation goals, the next update to the Township's Zoning By-law should consider including bicycle parking requirements for new developments.

Traffic and Parking By-Law (4/2021)

Wellesley Township's Traffic and Parking By-law (4/2021) and associated amendments provides a legal framework for the operation and parking of motorized and non-motorized vehicles within the Township.

Part V of the By-law outlines parking and stopping restrictions on Wellesley Township's roads. Under the bylaw, on-street parking should be parallel to the roadway in the direction of travel. Parking is permitted on both sides of Township streets, except where "no parking" zone signs are displayed, or according to the general provisions of the By-law where parking is always restricted, including but not limited to:

- Within 9 metres of an intersecting road (or 15 metres of an intersection controlled by traffic signals or a roundabout),
- Within 1.5 metres of driveway entrances,
- Within 3 metres of fire hydrants,
- In a manner to obstruct traffic or a crosswalk.

No Parking and Limited Parking Zones are listed under Schedules 1 and 2 of the By-law. Part IV of the By-law allows for the provision of Parking Permits and Meter Zones, though the Township does not currently have any locations where these restrictions apply.

Community Improvement Plan (2025)

Wellesley Township's Community Improvement Plan includes recommendations to improve parking supply for small businesses within the Core Areas of the Village of Wellesley and St. Clements. Within these areas, many small businesses have limited parking facilities and largely rely on on-street parking to serve their customers. If parking supply is a concern, the Township's Community Improvement Plan recommends delineating on-street parking spaces to maximize available space. The Township could also consider time limits for on-street parking in commercial areas to promote increased turnover.

Within the Wellesley Urban Area, a small public lot on Nafziger Road serves both local businesses and the Albert Erb Conservation area. To maximize the use of space within this lot, the Community Improvement Plan recommends the Township consider marking parking lot spaces or reconfiguring the lot.

6.4.2 Parking Planning Recommendations

Recommendations to guide long-term parking management in Wellesley Township include:

P7. The next update to the Township's Zoning By-law should consider including more specific bicycle parking requirements for new developments, including potential minimum bicycle parking requirements for some land uses and examine lower motor vehicle parking requirements as appropriate, in keeping with the Township's sustainable transportation goals.

P8. The Township should review the Traffic and Parking By-law (4/2021) to ensure it continues to meet the needs of the Township as new developments and infrastructure are built, including ensuring that parking is restricted within a minimum distance (6m+) of crosswalks.

P9. Township staff should investigate adding appropriate timed parking restrictions in the range of 12-24 hours to the general provisions of the Township's By-law.

P10. As per the Community Improvement Plan recommendations, the Township should:
   a. Consider marking on-street parking spaces within the Village of Wellesley and St. Clements' core commercial areas to optimize customer parking for small businesses.
   b. Work with the local conservation authority to mark spaces in the public lot at the Albert Erb Conservation Area and/or reconfigure the lot to maximize available parking.

7.0 MOVING FORWARD

This chapter provides direction toward the implementation and management of the various recommendations outlined in the Plan. This includes an implementation strategy that provides phasing, costing, and funding of the proposed network improvements, considering the Townships capacity, coordination with partners, implementation processes. This section also lays out a recommended set of inputs for the Township's policies, by-laws and standards that have connections to the TMMP. Guidance is also provided regarding the maintenance, monitoring and assessment of the Township's transportation infrastructure to ensure the Plan's recommendations support the Township's goals. The final section of the Plan provides a summary of the recommendations included within the TMMP including the planned improvements to the Township's multimodal infrastructure network, road safety, road design, programming and parking, as well as specific implementation-focused recommendations.

7.1 Implementation Strategy

Long-term planning is an important process to guide transportation priorities and investments. The TMMP is intended to be implemented over a period of approximately twenty-five years, to 2051, with flexibility for ongoing review, revision, and adaptation as municipal priorities evolve.

7.1.1 Infrastructure Network Phasing

The Wellesley Township TMMP splits projects into two primary horizons: **short-term priority projects (2026-2035)** and **long-term projects (2036-2051).**

To guide the infrastructure network prioritization process, a comprehensive database was developed including all Township road segments and potential improvements. As described in Chapter 5, traffic improvements were guided by the traffic network analysis process, while active transportation projects were guided by an analysis of existing conditions to identify gaps and network opportunities, and appropriate facilities based on the road context. Since the traffic network analysis only identified longer-term traffic improvements (by 2051), the prioritization and phasing process focused on active transportation improvements. The prioritization process was embedded into the overall active transportation network development process described in Section 5.2.1. This involved analyzing a long list of projects associated with Township road segments through assessment of two primary factors for each project:

- **Complexity -** determined via an analysis of physical constraints and anticipated costs.
- **Expected demand -** determined from available data, network and destination connectivity, and input received from engagement;

Potential opportunities to coordinate with planned municipal projects or private development were also considered and factored into the prioritization and phasing process. Higher priority projects were selected as short-term projects, while lower priority projects, or those that may require more complex study or changes to existing conditions were generally categorized as longer-term.

It should be noted that, as detailed below, only a limited number of specific locations were identified as long-term projects, but additional projects are expected to be identified as opportunities arise, such as when roads require reconstruction or resurfacing, by applying the overall planning recommendations.

Short-term Priority Projects (2026-2035)

Short-term priority projects are described in detail in Chapter 5, with a summary provided in **Table 14**.

Table 14: Summary of Short-Term Priority Infrastructure Network Projects

Road	From	To	Area	Improvement
Adelaide Street	Manser Road	Isabella Street	Linwood	Sidewalk
Ament Line	At G2G Trailway	N/A	Linwood	Improve trail crossing
Charles Street	Voisin Crescent	Church Street	St. Clements	Sidewalk
Maple Street	Herrgott Road	Park Street	St. Clements	Multi-use path
Park Street	North end	Lobsinger Line	St. Clements	Multi-use path
Peter Street	Herrgott Road	Park Street	St. Clements	Multi-use path
Peter Street	Park Street	Anita Drive	St. Clements	Sidewalk
David Street	Queen's Bush Road	Gerber Road	Wellesley	Signed bike route
Ferris Drive	At Schweitzer Crescent	N/A	Wellesley	Upgrade crossing
Gerber Road	David Street	Nafziger Road	Wellesley	Multi-use path
Henry Street	53m east of Water Street	Nafziger Road	Wellesley	Sidewalk
Henry Street	Catherine Street	70m east of Catherine Street	Wellesley	Sidewalk
Parkview Drive	At path 170 m west of Edgewood Court	N/A	Wellesley	Upgrade Crossing
Queen's Bush Road	At Village Road	N/A	Wellesley	Upgrade school crossing to PXO
Ament Line	Road 116	Manser Road	Rural	Paved shoulders
Deborah Glaister Line	Road 116	Hutchison Road	Rural	Paved shoulders
Herrgott Road	Lobsinger Line	Hessen Strasse	Rural	Signed bike route
Lichty Road	Schummer Line	Ament Line	Rural	Signed bike / hiking route
Lichty Road (unopened road allowance)	William Hastings Line	Schummer Line	Rural	Off-road multi-use trail
Manser Road	William Hastings Line	Perth Line	Rural	Paved shoulders
Maplewood Road	Weimar Line	Hessen Strasse	Rural	Signed bike route
Weimar Line	Hutchison Road	Moser-Young Road	Rural	Paved shoulders

In addition to the specific improvements listed in **Table 14**, as noted in Section 5.2.1, the Township should also study a potential east-west cycling / active transportation facility through the Village of Wellesley, considering Ferris Drive, Queen's Bush Road, and the lands at the north end of the Wellesley Urban Area as candidate routes.

While no specific traffic calming projects are identified through the TMMP, it is expected that traffic calming projects will be identified by staff in the short-term by applying the recommendations in Section 6.2. All of the urban road segments in **Table 14** should go through the traffic calming identification and selection process, with measures installed in combination with the proposed infrastructure improvements.

In addition to improvements along Township roads, many Regional improvements are planned over the next ten years on Waterloo Regional roads. The Township should work with the Region to advance these projects as appropriate. These projects include the pedestrian crossing enhancements identified in Section 5.2.1, as well as the projects identified in the Region's Ten Year Capital Plan - these are summarized in **Table 15**, along with potential improvements that the Township should advocate for as part of these projects. Priorities for the Township (as per recommendation N7) are listed in bold.

Table 15: Wellesley Township Road Projects in the Waterloo Region Capital Plan

Road	From	To	Area	Potential Improvement
Ament Line	Linwood (east limits)	Manser Road	Linwood	Maintain existing sidewalks & bike lanes, study PXO at Isabella St.
Nafziger Road	Gerber Road	Queen's Bush Road	Wellesley	**Sidewalks / Multi-use paths**
Queen's Bush Road	Nafziger Road	Hutchison Road	Wellesley	**Sidewalks / Multi-use paths**
Lobsinger Line	600 m west of Kressler Road	Anita Drive	Rural - Heidelberg to St. Clements	**Multi-use trail/path**
Ament Line	Lavery Road	200 m east of Knarr St.	Rural	Maintain / widen existing paved shoulders
Gerber Road	Moser-Young Road	Nafziger Road	Rural	Maintain / widen existing paved shoulders
Herrgott Road	Ament Line	Line 86	Rural	Provide paved shoulders throughout
Hutchison Road	Perth Line	Crosshill (south limits)	Rural	Provide paved shoulders throughout
Kressler Road	Erbsville Road	Lobsinger Line	Rural	Provide paved shoulders throughout
Line 86	Lavery Road	Road 116	Rural	Maintain / widen existing paved shoulders
Lobsinger Line	Moser-Young Road	Hutchison Road	Rural	Maintain / widen existing paved shoulders
Manser Road	William Hastings Line	Linwood (south limits)	Rural	Maintain / widen existing paved shoulders
Moser-Young Road	Gerber Road / Notre Dame Road	Weiman Line	Rural	Maintain / widen existing paved shoulders
Weimar Line	Erbsville Road	Bamberg (east limits)	Rural	Maintain / widen existing paved shoulders
William Hastings Line	Crosshill	Lichty Road	Rural	Maintain / widen existing paved shoulders

Long-term Projects (2036-2051)

It is necessary to be more flexible in longer-term master planning recommendations, as much can change over the next 10-25 years. It is envisioned that much of the recommended long-term network will be implemented by applying the Network and Design Recommendations when opportunities arise. However, **Table 16** provides an overview of key infrastructure projects that should be monitored by Township staff for opportunities to implement.

Table 16: Summary of Identified Long-Term Infrastructure Projects.

Road	From	To	Area	Improvement
Lobsinger Line*	Intersection at Herrgott Road	N/A	St. Clements	Signalization
Gerber Road*	Intersection at Nafziger Road	N/A	Wellesley	Add west-bound left-turn lane
Ament Line	Road 116	Manser Road	Rural	Paved shoulders
Diefenbacher Street	Broadway Street	Geddes Street	Hawkesville	Sidewalk
Anita Drive	Lobsinger Line	Peter Street	St. Clements	Sidewalk
Church Street	Herrgott Road	Park Street	St. Clements	Sidewalk
Peter Street	Park Street	Anita Drive	St. Clements	Sidewalk
Sunset Drive	Voisin Crescent	Herrgott Road	St. Clements	Sidewalk
Voisin Crescent	End of road	Herrgott Road	St. Clements	Sidewalk
David Street	Lawrence Street	Queen's Bush Road	Wellesley	Study feasibility of multi-use path
Doering Street	East end of road	Parkview Drive	Wellesley	Study potential off-road trail
Reiner Crescent	Lawrence Street	Lawrence Street	Wellesley	Sidewalk

* Indicates Regional intersections identified for potential improvements based on the TMMP traffic analysis. Future improvements to these Regional intersections will require coordination with Waterloo Region and Wellesley Township.

7.1.2 Costs and Funding

As part of the TMMP, high-level costing for the identified short-term projects has been prepared based on knowledge of comparable projects in other jurisdictions. This estimated costing is intended to be reviewed and refined when projects are implemented. A summary of costs is provided in **Table 17,** with more detailed costing provided to Township staff as part of the TMMP network database.

Table 17: Short-Term Infrastructure Costing Summary

Improvement Type	Length	Cost	Primary Funding
Paved Shoulders	13.83 km	$2,420,250	Capital budget
Shared Cycling Routes	10.67 km	$96,200	Operating budget
Multi-Use Paths	1.50 km	$557,250	Capital budget
Sidewalks	1.18 km	$259,600	Capital budget
Pedestrian Crossings (PXOs)	N/A	$24,000	Operating budget
Total	27.18 km	$3,357,300	

Implementing these improvements within the short-term horizon is expected to require a financial commitment of approximately $3,357,300, which over the intended ten-year span would work out to approximately $330,000 per year. Funding for shared cycling routes and PXO's would primarily be covered by the Township's existing operating budget. Other infrastructure projects would primarily need to be incorporated into the Township's Ten-Year Roads Capital Plan, either as part of larger road reconstruction or repaving projects, or as separate line items for active transportation, and could be supplemented by external funding where possible.

Funding Sources

Municipal investments are complex and require balancing competing interests and trade-offs in the public interest. Wellesley Township has historically focused on identifying capital road infrastructure improvements through its Capital Plan, while funding active transportation projects (e.g., trails, sidewalks, etc.) on a case-by-case basis. Going forward, the Township should consider a more consistent budget for active transportation improvements to spread out the cost of infrastructure improvement projects.

Funding strategies to support the implementation of new active transportation infrastructure should consider a range of options to offset the allocation of capital budget funds. The following is an overview of potential internal and external funding opportunities that the Township should explore. Staff are encouraged to assess, monitor, and adapt their approach to infrastructure investment on an ongoing basis.

Internal Funding Sources

Internal funding sources consist of Wellesley Township's Capital and Operating Budgets. In both budgets, transportation infrastructure, including roads, sidewalks, and cycling facilities fall under the category of Public Works. Some related infrastructure, such as off-road trails, as well as programs or other projects recommended by the TMMP, may be more appropriately covered by other department budgets, such as Recreation.

Operating Budget

The Township's Operating budget includes day-to-day expenses associated with the operation of municipal services, including employee salaries, service delivery, and infrastructure repair and maintenance. These funds can be used for minor upgrades including road painting and new signage. Some TMMP upgrades, such as shared cycling routes, pedestrian crossing enhancements, and lower-complexity traffic calming measures could be covered by the Operating budget. The Township's Operating budget will likely need to increase to some degree with Township growth, and to ensure sufficient resources for the implementation of TMMP recommendations. This should be determined on an annual basis based on analysis by Township staff.

Capital Budget

Wellesley Township's Capital budget is a long-term, multi-year plan for funding major infrastructure projects and Township assets, such as roads, bridges, sidewalks, and fleet vehicles. The Township's Public Works Capital budget includes dedicated funding for road work, as well as sidewalks and trails.

The Township's Capital Budget for Public Works varies from year to year, depending on when major roadworks are undertaken. The budget for 2026 is $2.45 million, though the budget has exceeded $4 million in previous years. The short-term priority projects identified above would require an average of approximately $330,000 per year over the next ten years that is not currently included in the Township's ten-year Capital budget, although it is expected this may need to vary considerably from year to year. This increase can potentially be offset by external funding sources, including project-specific grants and transfers from senior levels of government, as described below.

External Funding Opportunities & Other Support

While many of the TMMP recommendations will rely on funds from the Township's internal Capital and Operating budgets, other funding sources should be explored, as one-time or ongoing funding is sometimes available for certain types of projects, such as active transportation improvements. The following is a list of external funding opportunities that should be considered:

- Green Municipal Fund
- Canada Community-Building Fund
- Canada Public Transit Fund (includes funding for active transportation)
- Provincial Gas Tax
- Ontario Trillium Foundation
- Ontario Rural Economic Development Fund
- Ontario Community Infrastructure Fund

These opportunities often come with specific and detailed application requirements, but submitting applications is worthwhile, as the value of funding can be significant. While most opportunities are tied to specific projects, some funding options may be used to generate funding for the Township to use over time. If such funding is obtained, the Township should establish an account or dedicated holding fund for transportation infrastructure improvements.

Staff should review potential funding opportunities on an annual basis, as requirements and criteria for these funding opportunities will likely change over time. New opportunities may also arise.

It should also be noted that not all external funding opportunities may result in monies being provided to the Township. Various types of "In-kind" support (e.g., staff or volunteer time, equipment, etc.) may be provided, particularly to support specific maintenance, promotion, and programming activities.

External support may also come from local clubs or other organizations, who may be able to provide financial or in-kind support. For some types of infrastructure, such as off-road trails or supportive amenities such as wayfinding or rest areas, as well as programming such as local events, it may be possible to solicit donations from private businesses or citizens to generate revenue to support these initiatives. Programming initiatives may also benefit from external donations or volunteer support.

7.1.3 Capacity and Coordination

Implementation, management and coordination of the TMMP is intended to be led by the Township's Public Works department, with support from other Township departments and external partners as appropriate.

The Township's Public Works Department currently consists of three full-time positions: Director of Public Works, Public Works Supervisor, and Public Works Technologist. The Director of Public Works is responsible for managing all public works operations, including preparing and monitoring operating and capital budgets for council consideration, and providing advice to Council and its Standing Committee on the development of plans, policies, and priorities for public works. This position is supported by the Public Works Supervisor, who is responsible for supervising unionized public works staff, and the Public Works Technologist, who provides coordination, technical, and administrative support for capital projects and the maintenance of roads, sidewalks, bridges, culverts, and storm water management.

Implementation of the TMMP will require substantial staff resources to manage network implementation and coordinate with the Region of Waterloo and other key partners. Given the scope and timelines of the plan, current staffing levels are unlikely to be sufficient to support effective and timely implementation of TMMP recommendations. To enhance the Township's capacity, the Township should hire one new position (full-time equivalent) for the Public Works Department for a Project Management Role to help guide the implementation of the recommended TMMP network.

In addition to increased internal capacity, Public Works will need to closely coordinate with other Township departments and teams, most significantly the Planning and Recreation departments.

External partnerships with the Region of Waterloo and Grand River Transit will be essential for implementing recommendations involving transit and Regional roads. The Region also plays an important role in delivering programs, such as educational campaigns and transportation demand management in initiatives.

Partnerships with local school boards (Waterloo Region District School Board and Waterloo Catholic District School Board) will also play an important role in the delivery of school-focused recommendations, such as increased school zone safety and promotion of active school travel. In addition to these key partners, the Township could also benefit from increased coordination with local businesses and community groups, such as CycleWR, the Goderich to Guelph (G2G) Rail Trail advisory committee, The Wellesley Township Heritage and Historical Society, and local Lions clubs, particularly on programming recommendations.

7.1.4 Implementation Process

In order to proceed toward building infrastructure and implementing programs and policies, there will be various processes and work that is necessary by Township staff before recommendations can be fully implemented. Not all projects or programs are the same, but this section outlines some of the typical steps that will need to be completed for project implementation. These processes can be adapted, as needed, to reflect the unique conditions and considerations associated with specific projects.

The majority of TMMP recommendations relate to transportation infrastructure projects. These projects can fall into various categories, each of which have unique considerations, including:

- **Projects within planned development areas –** during the approval process for new development proposals, the Township can leverage its role in land use planning processes to ensure new developments provide appropriate transportation infrastructure to accommodate the associated multi-modal travel demand, including for traffic and active modes, as well as related features such as streetscaping and parking, in keeping with the direction in the Township's Official Plan.
- **Capital road projects –** capital road projects often involve significant costs, which can include resurfacing or reconstruction of roads, improvements to bridges and culverts or other structure, and other infrastructure built within the municipal road right-of-way. These types of projects could trigger a Municipal Class Environmental Assessment (MCEA) Study if projects are combined, although the projects among the TMMP recommendations are not anticipated to meet this threshold. These projects may also involve additional study or design, that may require support from external consultants.
- **Stand-alone projects –** projects that do not require extensive road reconstruction or further study and are not associated with any planned development tend to be low complexity projects that do not require significant changes to a roadway. These projects usually consist of simple features such as pavement markings, signage, or other minor features which would generally be covered by the Township's Operating budget.

For Township-led infrastructure projects, the following high-level outline is provided for application as appropriate given the context and specifics of a given project. Note that some steps (i.e., Consultation and Detailed/Refined Design) are optional, depending on the nature and complexity of a given project.

1. **Planning:** Review details provided in the TMMP and determine if the project can be coordinated with other planned road improvements, and if further study is required based on project complexity. If necessary, the Township may need to retain a consultant to support the planning and design of the project.
2. **Site Review & Feasibility Analysis:** Undertake an additional review of site conditions, including collecting site specific information and assessing this information to confirm the feasibility of the planned project and to inform a preliminary design.
3. **Preliminary Design:** Prepare a preliminary design concept based on TMMP recommendations, in consideration of applicable design and engineering guidelines.
4. **Consultation* (optional):** If staff think it would be useful to inform and refine the project, they may inform local residents or other stakeholders about the project to gather feedback. This can be especially useful for traffic calming projects or more complex projects. Consultation may involve localized mailings or information on the Township's website; a formal public meeting is unlikely to be necessary, but may be considered depending on the project details.
5. **Detailed/Refined Design* (optional):** If necessary, refine an updated design concept of the preferred solution, reflecting any input from consultation activities or more detailed site review.
6. **Schedule:** Identify the preferred schedule for construction to occur and identify funding sources and allocated budget. If appropriate, release a public tender for construction and award to the preferred candidate. Residents in the nearby area may be informed about construction as necessary.
7. **Construction:** Administer and monitor construction through to the completion of the project.

In addition to infrastructure projects, the TMMP also recommends a series of programs and policies to achieve the Township's mobility goals. The programs are intended to be pursued by the Township and its partners through a collaborative approach that builds on existing initiatives, including support for ongoing Regional initiatives, as well as developing new programs and initiatives as appropriate. Program and policy implementation should involve the development of a clear work plan by staff, and regular evaluation to identify lessons learned, and progress towards program and policy objectives.

7.1.5 Implications for Municipal Policies, By-laws and Standards

Many of the recommendations in the TMMP are either expected to be carried forward to other plans, by-laws, and standards, or have implications that need to be considered when opportunities arise for updates to these other planning and regulatory documents. Key documents that have a relationship with the TMMP include: the Township Official Plan, Zoning By-law (28/2006), Development Standards, and Traffic and Parking By-Law (4/2021). Other opportunities to incorporate TMMP recommendations into future new or updated municipal plans and strategies should be pursued by Township staff as appropriate.

Township Official Plan & Zoning By-law

Functional master plans such as the TMMP are non-statutory documents, meaning their policy recommendations are not legally binding. To become official Township policy, these recommendations should be incorporated into the Township's Official Plan (OP). With the OP under review at the time of the TMMP's development, this has been a key opportunity to embed transportation recommendations into formal land use and infrastructure planning policy.

As part of the TMMP, the existing OP was reviewed to identify opportunities to add TMMP recommendations and enhance the current policies to better achieve the Township's mobility goals. An internal memo was prepared as part of the TMMP and provided to Township staff. This memo includes general recommendations that apply broadly across key transportation-related sections of the OP, as well as recommended changes to specific sections. These recommendations are not meant to be prescriptive but are provided to the Planning department and Official Plan Review team for consideration and review to ensure any edits or changes made align and complement overall Official Plan direction.

It is expected that upon the completion of the OP Review, the Township's Zoning By-law will also be updated. This update should consider TMMP recommendation P7 to consider including minimum requirements for bicycle parking for developments and examine lower motor vehicle parking requirements as appropriate. Other Zoning By-law updates should also be considered in keeping with the overall TMMP and other Township goals and objectives.

Township Development Standards

The street design guidance and recommendations in Section 6.1 align with provincial and national guidelines and best practices, while reflecting common local contexts in Wellesley Township. The project team referred to the Township's existing Development Standards in the development of these TMMP recommendations; however, there are some sections in the Township Development Standards that should be updated at the next opportunity to ensure they are fully aligned. These changes generally related to either narrowing pavement widths, as wider pavement widths tend to encourage faster motor vehicles speeds, or to provide more space for active transportation

facilities in keeping with updated guidelines. These proposed Development Standards changes are detailed in **Table 18.** It is envisioned that these changes would be applied as part of a future overall review and update to the Development Standards undertaken by staff.

Table 18: Recommended Changes to the Existing Township Development Standards

Design Element / Parameter	Recommended Change	Commentary
Major Collector and Arterial Road	Delete from Development Standards	No Township roads are expected to qualify as Major Collector or Arterial Roads for the foreseeable future. For Regional roads, the Development Standards should refer to the appropriate Region of Waterloo standards and guidelines.
Local Road – Pavement Width	Change from 8.5 m to 7.0 m pavement width.	There could be some flexibility in this parameter to allow for 8.5 m where parking demand is higher or is expected to be allowed on both sides of the road. If wider road widths are provided, these should be narrowed via curb extensions at intersections and pedestrian crossing locations.
Minor Collector – Pavement Width	Change from 10 m to 9.0 m pavement width	There could be some flexibility in this parameter to allow for possibility of parking on both sides, or on-road bicycle lanes.
Sidewalks	Change from 1.5 m to 1.8 m width	To align with updated guidelines. Note that 1.5 m widths may still be acceptable along local roads where constraints exist.
Urban roads	Provide barrier curbs (rather than rollover curbs)	Barrier curbs will provide better protection for adjacent sidewalks and landscaping.

Traffic and Parking By-law

As per recommendation P8, it is recommended that the Township should review the Traffic and Parking By-law (4/2021), including its general provisions regarding parking, to ensure it continues to meet the needs of the Township as new developments and infrastructure are built. More immediate revisions to the By-law may be necessary as new infrastructure is built, such as pedestrian crossings, traffic calming, or other features that may change conditions and make new parking restrictions advisable.

There are two main issues identified related to the Traffic and Parking By-law that were identified through the TMMP review process:

- While currently the By-law prohibits parking "in such a manner as to obstruct a crosswalk," the design guidance review found that parking should generally be restricted within a minimum distance (e.g., 6 metres or more) of crosswalks. This issue could be addressed either through adding a general provision to the By-law, or by adding location-specific parking restrictions to segments of roads near crosswalks, including adding to Schedule 1 or Schedule 4 of the By-law along with appropriate signage at the given locations.
- The current By-law does not have any timed restrictions as part of its general provisions limiting parking to a set number of hours or overnight. Staff have indicated that there have been some issues with long-term parking in the Township. Many By-laws from other municipalities include some form of timed restriction to avoid issues with vehicles being parked in one location for days or weeks at a time. It is recommended that staff investigate appropriate timed parking restrictions in the range of 12-24 hours and add these provisions to the Township's By-law.

7.2 Maintenance, Monitoring and Assessment

The following section outlines guidance for ongoing maintenance and identifies opportunities for monitoring and assessing progress towards the TMMP's recommendations and goals. Proper maintenance of new and existing transportation infrastructure ensures that facilities remain safe, functional, and appealing year-round. Likewise, continuous monitoring and evaluation of TMMP recommendations will help determine the Plan's effectiveness and identify opportunities for continuous improvement to help reach the Township's goals and adapt to changing community need.

7.2.1 Maintenance

The Township of Wellesley is responsible for the maintenance of all Township roads, and all sidewalks and multi-use paths within the Township, regardless of whether the facility runs along a Township or Regional road.

To ensure transportation facilities are properly maintained, the Township should continue to follow the Minimum Maintenance Standards (MMS) for Municipal Highways (O. Reg. 239/02). These maintenance standards include minimum standards for the repair of potholes, dropped shoulders, and sidewalk surface discontinuity, as well as requirements for snow removal and ice prevention on roads, bike lanes, and sidewalks.

To aid snow removal efforts, the Township's Traffic and Parking By-law (4/2021) prohibits parking on Township streets between the hours of 4:00 am and 9:00 am from December 1st to March 31st. In addition to this restriction, the Township has granted the Director of Public Works or his/her designate the authority to declare a snow event. During a snow event, residents may not park on any road until the declaration has been lifted. This effort allows snowplows to effectively clear

snow and ice from all roadway surfaces. Snow events come into effect at midnight and must be declared by 5:00 pm to give residents time to move their vehicles.

Under Removal of Snow and Ice By-law (12/2011), sidewalks must be cleared within 24 hours of the end of a snow event. The owner or occupant of every building is responsible for clearing all snow and ice from sidewalks in front of or adjacent to their property. While this approach is fiscally prudent for the Township, it can result in uneven snow-clearing efforts and open the Township to potential claims if not proactively enforced. To ensure high-quality sidewalk clearing and encourage active travel throughout all seasons, the Township may wish to identify priority sidewalks in locations along major roads, and in key locations such as near schools or seniors facilities. The Township should also consider a program to offer assisted sidewalk clearing for residents who need extra support, e.g., seniors or disabled people, similar to the program in place in the Cities of Kitchener and Waterloo.

7.2.2 Monitoring and Assessment

The TMMP is a living document that must be regularly reviewed and updated to reflect changing transportation needs. To assess the progress and effectiveness of the Plan, changes in travel behaviour, system performance, and the completion of recommended projects should be monitored on an ongoing basis. The monitoring program will help guide ongoing implementation and future updates by determining what recommendations have been completed and assessing their effectiveness in furthering the TMMP's goals.

Table 19 details metrics that should be tracked to ensure TMMP implementation is on schedule and that projects are continuing to support the Township's goals.

Of note is that while greenhouse gas (GHG) emissions are not explicitly included as a metric, many of the metrics can be used as a proxy towards the Township's and Region's GHG reduction goals, and the Township may consider undertaking additional calculations to model the GHG impacts of metrics such as mode share shift or electric vehicle adoption.

The Township is committed to being accountable and transparent to its residents, businesses, and other stakeholders. To support this commitment, Township staff should provide an annual report to Council that gives information about the progress of the implementation of the TMMP, incorporating the above metrics as appropriate. These updates will help ensure recommendations remain on schedule, allow opportunities for council and public feedback, and highlight areas where priorities or efforts may need to shift to improve effectiveness.

As Wellesley Township continues to grow and change, TMMP goals and priorities may also evolve. To remain current and responsive to community needs and emerging technologies, the Township should review and update the TMMP within five to ten years.

Table 19: Metrics to Monitor and Assess TMMP Progress

Metric	Data Source	Frequency	Goals supported
Mode shares (%)	Transportation Tomorrow Survey (TTS), Census data	Every 5 years	Improve Health Protect the Environment Travel Options for All Accommodate Growth
Reduction in number and severity of collisions	Waterloo Regional Police	Annually	Safety for Everyone Improve Health
Traffic level of service (volume/capacity)	Traffic counts at key locations	Every 3 years	Accommodate Growth
Transit ridership (#)	Grand River Transit ridership counts	Annually	Protect the Environment Travel Options for all Accommodate Growth
Percentage / number of kilometres of AT facilities implemented	Staff documentation	Annually	Improve Health Protect the Environment Travel Options for All Accommodate Growth
Increase in cycling / pedestrian network usage (#/%)	Bicycle and pedestrian counts at key locations	Every 3 years	Improve Health Protect the Environment Travel Options for All Accommodate Growth
Bike racks or other amenities provided	Staff documentation	Annually	Improve Health Protect the Environment Travel Options for All
Reduction in collisions involving pedestrians and cyclists (#)	Waterloo Regional Police	Annually	Safety for Everyone Improve Health
Municipal fleet vehicles converted to EV / hybrid (#)	Staff documentation	Annually	Protect the Environment
Electric vehicle charging stations provided by Township	Staff documentation	Annually	Protect the Environment Travel Options for All

7.3 Overview of Planning Recommendations

This section summarizes the key planning recommendations to support the TMMP, including those related to the multimodal infrastructure network, road safety, road design, programming, and parking. It also sets out specific Implementation Recommendations, which are described in more detail in the subsequent sections of Chapter 7.

Guidance is also provided regarding the implementation of these recommendations, grouping recommendations into categories and identifying leadership and partnerships required for each recommendation:

Recommendation categories include:

- **Policy Direction Recommendations**, which should be carried forward to include in the Township's Official Plan, which was under review at the time of the TMMP's development and finalization.
- **Standards / Guideline Recommendations**, which either relate to specific guidance in the TMMP, and in some cases should be carried forward to existing or potential future municipal standards or guidelines (e.g., the Township's Development Standards), as appropriate.
- **Process Recommendations**, which are meant to guide Township staff in their decision-making processes and analysis while implementing projects.

Implementation leadership and partnership options include:

- **Internal single lead** – recommendations which should be led by and primarily implemented by a single department within the Township, with no/minor support from other departments or teams.
- **Internal coordination** – recommendations which will be implemented primarily by Township staff, but which are likely to require coordination within multiple municipal departments and teams. There may be some external partner involvement and consultation, but they are not involved in a lead or key role.
- **External coordination** – recommendations which will require coordination with external organizations or agencies, most commonly the Region of Waterloo.

7.3.1 Network and Design Recommendations Implementation

Table 20: Summary of Network and Design Recommendations

#	Recommendation	Type	Leadership & Partners
N1	The Township will pursue the implementation of the short-term priority projects indicated in the TMMP, with the goal to have them completed by 2035.	Process	Internal Single Lead
N2	The Township will direct developers to provide safe multi-modal transportation facilities as part of new developments, including sidewalks on both sides of new streets, as well as pedestrian crossings and cycling facilities as appropriate, following the TMMP road design guidelines (Section 6.1 and Appendix B).	Policy Standards/ Guideline Process	Internal Coordination
N3	When rebuilding existing streets in settlement areas, the Township will install sidewalks on at least one side of the street when feasible, and both sides in priority areas (e.g., near schools, parks, planned transit routes, busier streets, etc.), with design informed by the TMMP road design guidelines (Section 6.1 and Appendix B).	Policy Standards/ Guideline Process	Internal Coordination
N4	Paved shoulders should be provided on rural paved roads where feasible and prioritized where there are identified conflicts between motor vehicles and slower moving road users such as cyclists, horse-drawn vehicles, and farm equipment, with design informed by the TMMP road design guidelines (Section 6.1 and Appendix B).	Policy Standards / Guideline Process	Internal Coordination
N5	The Township should continue to work with the Region to explore options for a truck by-pass route around the Village of Wellesley.	Policy Process	External Coordination w/ Waterloo Region (WR)
N6	The Township will pursue the planning and design of new off-road trail connections, including potential multi-use trail loops in Linwood, St. Clements, and the Village of Wellesley.	Policy Process	Internal Coordination
N7	The Township will work with Waterloo Region to advance their planned active transportation network in Wellesley Township, including: a. Rural cycling routes along Regional roads; b. Facilities along Queen's Bush Road and Nafziger Road through the Village of Wellesley; and, c. Exploring a multi-use trail between St. Clements and Heidelberg.	Process	External Coordination w/ WR

#	Recommendation	Type	Leadership & Partners
N8	The Township will support Grand River Transit's proposed Township Transit Strategy to increase transportation options for all residents, and advocate to make future enhancements as demand increases.	Policy Process	External Coordination w/ WR & Grand River Transit (GRT)
N9	When opportunity arises, such as through planning applications, the Township will seek to obtain Right-of-Way widths no narrower than 20 metres to accommodate transportation needs, including ditches/drainage and sidewalks.	Policy	Internal Coordination
N10	The Township will pursue opportunities to provide additional space at the end of dead-end / cul-de-sac streets to facilitate snow clearing and emergency vehicle movement (turnarounds), aligning with the Township's Development Standards.	Policy	Internal Coordination
N11	The Township should additionally classify all Township roads as Major Collector, Minor Collector, and Local based on volume and purpose through its Official Plan update, in order to simplify and align with the Region of Waterloo's roadway classifications in addition to MMS classifications.	Policy	Internal Coordination
N12	Township staff should investigate opportunities for new pedestrian crossing locations identified in the TMMP by applying the guidance in OTM Book 15 to confirm where they area appropriate, and to refine their design based on specific contexts.	Process Standards / Guideline	Internal Single Lead

7.3.2 Road Safety Recommendations

Table 21: Summary of Road Safety Recommendations

#	Recommendation	Type	Leadership & Partners
S1	The recommendations from the 2024 Speed Limit Assessment should be implemented, incorporating the considerations and guidelines from the TMMP (as per Section 6.2), including posted speed limits generally being set at: • 40 km/h for residential and urban roads; • 80 km/h for Rural Paved Major Collector Roads; • 60-70 km/h for Rural Unpaved Minor Collector Roads; • Lowered by 10-20 km/h near schools, depending on the context (generally no lower than 40 km/h).	Policy Process	Internal Single Lead
S2	The Township will implement a traffic calming program that aims to ensure motor vehicles are travelling appropriate speeds through neighbourhoods, following the guidance provided in the TMMP (as per Section 6.2).	Process	Internal Single Lead
S3	The Township should install wildlife warning signs in areas where interactions with wildlife have been identified as a concern. Where concerns about particular species are identified, the Township should study other location-specific measures, such as fencing or culverts to divert wildlife away from the roadway.	Process	Internal Single Lead

7.3.3 Programming & Parking Recommendations

Table 22: Summary of Programming and Parking Recommendations

#	Recommendation	Type	Leadership & Partners
P1	The Township should work with local schools, boards, and Waterloo Region to expand local Active School Travel programs that teach students about safe and sustainable school travel.	Process	External Coordination – WR, schools & boards, community groups
P2	The Township should promote transportation demand management (TDM) and sustainable travel options, including active transportation, carpooling, remote work and transit by working with the Region, Grand River Transit, and other partners to expand and enhance existing programs to Wellesley Township, and consider developing area-specific TDM and sustainable transportation outreach programs.	Process	External Coordination – WR, GRT, community groups
P3	The Township should partner with Waterloo Region to develop and implement a public awareness and outreach program focused on rural transportation concerns, such as speeding, driving near wildlife habitat, and interactions with slow moving vehicles, such as farm equipment, bicycles, and horse-drawn vehicles.	Process	External Coordination – WR, GRCA
P4	The Township should provide consistent wayfinding to support exploration and travel through the Township by vehicle, on foot and by bicycle.	Process	Internal Coordination
P5	Bicycle parking facilities, rest areas, and other amenities should be provided within new developments and at community centres, commercial areas, trail heads and other appropriate locations.	Process	Internal Coordination
P6	The Township should support the expansion of zero-emission and electric vehicles in the Township, supporting Waterloo Region goals, and explore Township initiatives including: a. prioritizing the purchase of electric vehicles for the Township's municipal service vehicles/fleet, and b. providing electric vehicle charging stations at municipally owned locations.	Policy Process	Internal Coordination

#	Recommendation	Type	Leadership & Partners
P7	The next update to the Township's Zoning By-law should consider including minimum requirements for bicycle parking for developments and examine lower motor vehicle parking requirements as appropriate.	Standards / Guidelines	Internal Single Lead
P8	The Township will review the Traffic and Parking By-law (4/2021) to ensure it continues to meet the needs of the Township as new developments and infrastructure are built, including ensuring that parking is restricted within a minimum distance (6m+) of crosswalks.	Standards / Guidelines	Internal Single Lead
P9	Township staff should investigate adding appropriate timed parking restrictions in the range of 12-24 hours to the general provisions of the Township's By-law.	Standards / Guidelines	Internal Single Lead
P10	As per the Community Improvement Plan recommendations, the Township should: a. Consider marking on-street parking spaces within Wellesley and St. Clements core commercial areas to optimize customer parking for small businesses. b. Work with the local conservation authority to mark spaces in the public lot at the Albert Erb Conservation Area and/or reconfigure the lot to maximize available parking.	Process	Internal / External Coordination - GRCA

7.3.4 Implementation Recommendations

Table 23: Summary of Implementation Recommendations

#	Recommendation	Type	Leadership & Partners
I1	Implementation management and coordination of the TMMP will be led by the Township's Public Works department, with support from other Township departments and external partners as appropriate.	Process	Internal Coordination
I2	The Township should incorporate the priority TMMP network projects into its Capital Plan and implement as appropriate.	Process	Internal Coordination
I3	Township staff should review external funding opportunities on no less than an annual basis, and pursue external funding as appropriate to advance TMMP recommendations.	Process	Internal Single Lead

#	Recommendation	Type	Leadership & Partners
I4	The Township should hire one new position (full-time equivalent) for the Public Works Department for a project management role to help guide the implementation of the recommended TMMP network.	Process	Internal Coordination
I5	The Township should consider incorporating the commentary from the TMMP into its Official Plan review process, to ensure there is alignment between these plans.	Policy	Internal Coordination
I6	The Township should undertake a review and update of its Development Standards, incorporating the recommended changes set out in the TMMP.	Standards / Guidelines	Internal Single Lead
I7	The Township will regularly maintain and assess for road improvements on an annual basis, including to ensure roadways, sidewalks, and cycling facilities are kept in a state of good repair in all seasons, and pursuing opportunities to upgrade to meet accessibility (AODA) standards when feasible.	Process	Internal Single Lead
I8	The Township will monitor transportation data and information including conducting multimodal location-specific counts at key locations, and monitoring data regarding mode share, e.g., Transportation Tomorrow Survey.	Process	Internal Coordination
I9	Township staff should provide an annual report to Council that provides information about the progress of the implementation of the TMMP.	Process	Internal Single Lead
I10	The Township will review and update the TMMP within five to ten years to account for changing conditions in Wellesley Township including new developments, infrastructure, and emerging technologies.	Process	Internal Coordination