Special City Council
Revised Meeting Agenda

Monday, January 24, 2022, 6:00 p.m.

Remote meeting live streamed on guelph.ca/live

Changes to the original agenda are noted with an asterisk "*".

To contain the spread of COVID-19, City Council meetings are being held electronically and can be live streamed at guelph.ca/live.

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Pages

1. Notice of Electronic Participation

1.1. City Council

This meeting will be held by Electronic Participation in accordance with City of Guelph Procedural By-law (2021)-20649.

2. Call to Order

2.1. O Canada

2.2. Silent Reflection

2.3. First Nations Acknowledgement

2.4. Disclosure of Pecuniary Interest and General Nature Thereof

*3. Moving Guelph Forward - 2022 Transportation Master Plan - 2022-02 *1*

Presentation:
Jayne Holmes, Deputy Chief Administrative Officer, Infrastructure Development and Enterprise Services
Terry Gayman, General Manager, Engineering and Transportation Services
Jennifer Juste, Manager, Transportation Planning
Shawn Doyle, Partner, Dillon Consulting

Delegations:

*Dr. Hugh Whiteley
*James Fedosov, Guelph Cycling Club
*Ted Michalos, Families For Rolling Hills Group
*Sandy Nicholls
*Dianne Mackie
*Marty Williams, Executive Director, Downtown Guelph Business Association
*Mike Darmon, President, Guelph Coalition for Active Transportation
*John Fisher, President, Guelph Hiking Trail Club
*Steven Petric, Transit Action Alliance of Guelph
*Edgar Davidian
*Martin Collier, Residents for a Safe Speedvale Avenue

Correspondence:
Dr. Hugh Whiteley
John Kibbee
*Sandy Nicholls
*Daniel Atlin, Vice-President (External), University of Guelph
*Mathieu Goetzke, Vice President, Planning, Metrolinx
*Dr. Nicola Mercer, Medical Officer of Health, Wellington-Dufferin-Guelph Public Health
*Mike Darmon, President, Guelph Coalition for Active Transportation

Recommendation:
1. That Moving Guelph Forward: 2022 Transportation Master Plan, including associated policies and strategies included in the attachments of report IDE-2022-02, be approved and that staff be directed to file a Notice of Completion for the Master Plan.
2. That the financial implications resulting from IDE-2022-02 titled Moving Guelph Forward: 2022 Transportation Master Plan be referred to the City's Multi-year budget process.
3. That Council approve the proposed policy directions in Attachment 4 of IDE-2022-02, for consideration through a future Official Plan Amendment.

*4. By-laws

Resolution to adopt the By-law (Councillor Gibson)

Recommendation:
That by-law number (2022)-20669 is hereby passed.

*4.1. By-law Number (2022) - 20669 *230*

A By-law to confirm proceedings of a meeting of Guelph City Council held September 22, 2021.

5. Adjournment

Staff Report

To	**City Council**
Service Area	Infrastructure, Development and Enterprise Services
Date	Monday, January 24, 2022
Subject	**Moving Guelph Forward: 2022 Transportation Master Plan**

Recommendation

1. That Moving Guelph Forward: 2022 Transportation Master Plan, including associated policies and strategies included in the attachments of report IDE-2022-02, be approved and that staff be directed to file a Notice of Completion for the Master Plan.
2. That the financial implications resulting from IDE-2022-02 titled Moving Guelph Forward: 2022 Transportation Master Plan be referred to the City's Multi-year budget process.
3. That Council approve the proposed policy directions in Attachment 4 of IDE-2022-02, for consideration through a future Official Plan Amendment.

Executive Summary

Purpose of Report

This report summarizes the Transportation Master Plan (TMP) update. The TMP replaces the 2005 Guelph-Wellington Transportation Study with a new recommended network plan that reflects the approved "Alternative 3: Sustainability + Resilience Focus" preferred solution, and recommends policies, programs and financial considerations to implement the preferred solution.

The TMP is a priority action of the Strategic Plan: Guelph. Future Ready, under the Navigating our Future pillar. It provides direction and guidance to future work to offer Guelph easy, accessible movement through trails, paths, roads and corridors to tie the community together and connect Guelph's economy with other regions.

Key Findings

By approving the TMP, the City of Guelph is adopting a Vision Zero approach to road design and operations - a traffic safety initiative that is based on the philosophy that no loss of life is acceptable on our roadways. Approving the TMP is also committing to building a transportation system that supports a Net Zero Carbon future and improves connectivity for all ages and abilities across all modes of transportation.

The TMP recommends a non-auto modal split of 42% by 2051. The current Official Plan non-auto mode share target is 33% by 2031. The TMP recommends road network improvements, policies and programs to achieve this target.

Some updates to the Official Plan policies and schedules are recommended as a result of this Plan and will be included in a future Official Plan amendment.

Financial Implications

This report provides financial implication estimates for 2021-2031 to align with the capital budget forecast. The cost of designing roads to be complete and more connected represents an increase of up to 7% over 2021 typical road reconstruction costs, or up to $26 million over the next ten years. The operating impact is estimated at $376,200 annually by 2031. Progress reporting to Council on the TMP will be completed on a 5-year cycle with updates on financial implications and TMP performance metrics.

Report

Background and Summary of Previous Work

Guelph is growing to over 200,000 residents by 2051, and how people and goods move around the city is changing. The 2022 TMP: Moving Guelph Forward sets the vision and plans to ensure that transportation in Guelph will be future-ready in a way that is safe, equitable, sustainable, complete, affordable, and supportive of land use. It also serves as a tool for advocating and leveraging investments by others that cannot be funded by the City alone, such as supporting two-way all-day GO train service enhancements, regional bus service, and improvements to Provincial highways 6 and 7.

Road safety and climate change remain ongoing priorities for the City of Guelph. In terms of road safety, societal costs of collisions are estimated to exceed $100 million annually in Guelph, as referenced in the 2015-2019 Collision Report. It is imperative to design our roads to protect all road users equitably, but particularly those most vulnerable to critical injury or death on our roadways. In terms of climate change, the TMP needs to set a sustainable path forward to reducing our dependency on fossil fuels and achieving our Net Zero Carbon goal by 2050.

The COVID-19 global pandemic has reinforced the importance of considering our community's public health and resiliency in the design and planning of our transportation infrastructure. Accordingly, the TMP needs to build in the characteristics of a resilient system into its policies and network plan, including diverse transportation choices, alternative routes, comfortable active transportation and public transit, and flexibility to adapt to change.

The 2022 TMP reflects the Sustainable + Resilient Preferred Solution that Council adopted on May 26, 2021. This master plan sets the vision and goals to direct transportation planning to 2051. The network improvements recommended to implement the preferred solution are shown in Figure 1 and are supported by recommended policies and programs to deliver the vision and goals of this plan.

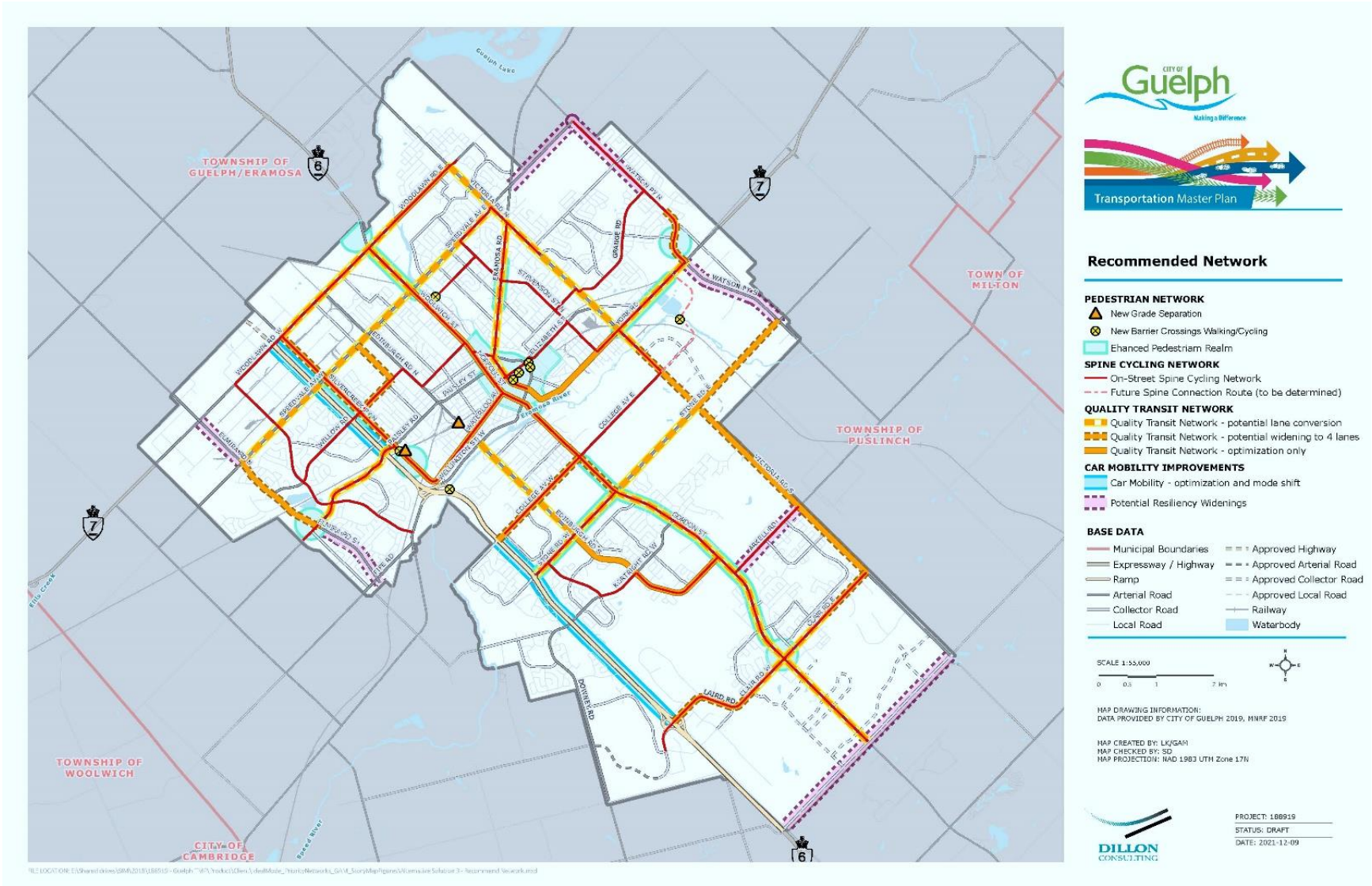

Figure 1 - Recommended network approved on May 26, 2021. A larger, interactive form of this map is available online.

Summary of Engagement

The TMP reflects extensive community engagement input collected throughout the project. Phase 1, Phase 2 and Phase 3 of the TMP engagement strategy were completed between 2019 and 2021 and are summarized in the May 26, 2021 report to City Council. Phase four of the TMP engagement strategy was conducted between September and October, 2021. The engagement results are summarized and found in Attachment 2. The key objectives were to confirm whether there were any final considerations to include in the recommended policies and programs, and to inform the prioritization criteria for ranking TMP projects to assist with coordinating future capital budget forecasts. This phase of the project received 77 survey responses and engaged with stakeholders and community representatives during over 20 hours of focused consultation meetings. Specifically, this stage of community engagement ensured that those historically least represented in city decision making were consulted, including people living in poverty, newcomers to Canada, older adults, and people living with a disability.

The feedback reinforced that the preferred solution is widely supported. From this round of engagement, new topics arose for consideration in the recommended policies, such as:

- Strong support for a Transportation Advisory Committee representative of all road users (people who walk, bike, take transit, drive, etc.)
- Stronger emphasis on equitable delivery of transit and cycling services and infrastructure to low-income communities
- Consideration for more public washroom facilities at major transit stations

Feedback also indicated a preference to use the "resiliency network" for adding cycling and walking capacity (ranked first), followed by curbside loading zones for package or food deliveries (second) or taxi and rideshare drop offs (third). Least popular was to use this space to accommodate driverless vehicles, ranked last.

First Nations and Indigenous Engagement

City staff shared a TMP briefing note with Six Nations of the Grand First Nations and Mississaugas of the Credit First Nation. The briefing note outlined how their previous comments were incorporated into the draft policies and programs and invited them to meet with staff for further discussion. There was no additional feedback or concerns expressed.

Summary of Key Policy Considerations that Reflect What We Heard

The policy recommendations, included as Attachment 3, are organized by mode of transportation with a chapter added for implementation policies. Below are some highlights.

General policies that indicate the City will:

- Commit to Vision Zero (VZ) and implement VZ through the City's road safety program. Note: the City's road safety program is already very aligned with VZ, and the adoption of VZ is expected to bolster the branding and promotion of the City's existing programs

- Develop a Complete Streets Design Guideline to update the road cross-sections in our development standards to reflect the recommendations of the TMP
- Develop local Multi-modal Level of Service guidelines to help in decision-making where multiple priorities compete for space and funding in a road corridor or intersection
- Establish an Emerging Transportation Technology Office (ETTO) to monitor, pilot, study and recommend measures to accommodate evolving technologies into the transportation system, including new modes of micro-mobility, shared mobility, urban mobility vehicles, drones, autonomous vehicles, and others

Pedestrians policies to:

- Create a new Pedestrian master plan to replace the 2017 Sidewalk Needs Assessment, incorporate feedback on improving a process to handle accessibility accommodations, and align the prioritization with the capital budget
- Require road design standards that permit sidewalks to be provided on both sides, and revise the list of exemptions where sidewalks are only required on one side

Cycling and Micro-mobility policies to:

- Build a protected cycling network that supports trips by bike and by emerging micro-mobility modes (e-scooters, one-wheels, etc.)
- Develop and grow a core winter-maintained, on- and off-street active transportation network
- Expand secure long-term bicycle parking downtown

Transit policies that will:

- Implement the stages of a Quality Transit Network as laid out by the plan
  - Stage 1 - Optimize performance represented in the 2021 Guelph Transit Action Plan (route review), which was approved by Council on November 15, 2021.
  - Stage 2 - Implement transit priority measures such as queue-jump lanes
  - Stage 3 - Dedicated transit lanes to be implemented as required to continue meeting Guelph Transit performance standards
- Study park-and-ride facilities to increase use of transit for trips between Guelph and adjacent communities
- Consider opportunities to leverage the trails network to improve access to transit stops
- Prioritize increasing levels of service to support intensification areas and new transit-supportive developments
- Explore Mobility-as-a-Service platforms to support multi-modal trip planning in Guelph

Goods Movement policies to support the economy that ensure the City will:

- Develop a comprehensive goods movement strategy
- Work with industry partners to explore technologies and practices that improve efficiency and enhance competitiveness

Roads policies that will:

- Develop a transportation systems management strategy to address congestion, access, transit priority, intelligent transportation, curbside management (passenger or goods drop-off zones, electric vehicle charging areas, etc.), and data needs
- Consider low-impact development management along road corridors, where appropriate, and as per the guidance in other plans (e.g., Source Water Protection Plan and Stormwater Management Master Plan)
- Develop a roundabout planning and design strategy
- Establish the ETTO to assess new transportation modes and opportunities and position the City to respond
- Consider a city-wide review of on-street and off-street parking regulations and policies

The policies also include implementation recommendations related to communication and engagement on projects, reporting, and the establishment of an Integrated Transportation Advisory Committee, subject to Council's approval.

Updates to the Official Plan

The Official Plan is informed by various technical studies and master servicing plans, including the TMP. Chapter 5 of the Official Plan contains the transportation policies for the City of Guelph. In most cases, the existing policies are recommended to remain unchanged and are already consistent with the TMP. However, some areas require updates.

The proposed Official Plan changes are described in Attachment 4 for consideration in future Official Plan Amendments. The current OP review scheduled for Council in March 2022 will focus on satisfying the requirements of Section 26 of the Planning Act. The scope of this review was approved in November 2020. This includes ensuring that the OP is in conformity and consistency with the Planning Act, the Provincial Policy Statement, the Growth Plan and the Clean Water Act/Source Protection Plan. Once these requirements are satisfied, a future OP amendment (or amendments) will focus on incorporating other legislative requirements and city-approved plans and studies into the OP. This includes amendments to update policies with respect to transportation. In summary, the transportation-related topics for updating include:

- Updated street hierarchy schedule of roads in Guelph to replace Schedule 5 in the Official Plan
- Recommendations for updating Official Plan Table 5.1 Ultimate Right-Of-Ways to reflect 2031 proposed road projects and recommended conceptual cross sections
- Recommendations for updating Official Plan Table 5.2 Intersection Improvements to reflect 2031 proposed cycling spine network and transit priority measures
- Strengthening policies that support transit services and infrastructure delivery to intensification corridors and community mixed-use nodes
- Updated mode share targets
- Updated definitions to include new transportation terms
- Updates to the schedules and policies to support the TMP preferred solution
- Strengthening policies that support sidewalk provisions on both sides of City streets

The recommended updates are to 2031 to reflect the available population and employment data informing the network improvements recommended by this plan. The next TMP update (planned for 2027) will confirm whether there are any changes to the proposed network required and make adjustments to the OP as necessary to reflect the 2051 Official Plan updates.

Programs Summary

The TMP recommends six programs for staff to undertake to ensure the implementation of the proposed network and policies (see Attachment 5). Five of the six programs are considered programs that the City is already delivering, either fully meeting the goals of the TMP or with some additional scope to meet the goals of the TMP. These include:

- Continuing the Active Transportation program and adding other forms of micro-mobility (e.g. push-scooters, one-wheels) to the scope of work;
- Continuing to deliver strategic transportation planning for the City to keep this plan and subsequent studies up to date and relevant;
- Developing a more robust Transportation Demand Management (TDM) program that helps with reducing traffic volumes and congestion by targeting driver behaviour and mode choice;
- Continuing to deliver and expand transportation engineering under the Transportation System Management program so that our roads and networks continue to operate optimally without increasing the physical size of the road; and
- Continuing to establish and grow the Road Safety Program to deliver on Vision Zero

The TMP supports the Strategic Plan recommendation to add one new program: the Emerging Transportation Technologies Office would oversee and support the adoption of appropriate new technologies and services. The goal of the new mobility and emerging technology program is to be a source of research, analysis, partnerships, testing and pilot projects for new transportation technologies and services. Specific new mobility and emerging technology examples in the transportation field include, but are not limited to, ride-hailing, micro-transit, micro-mobility, Mobility-as-a-Service (MaaS), e-commerce, electrification, self-driving technology, drone delivery and connected mobility.

Next Steps

TMP updates at 5-year intervals will be required to ensure the transportation model reflects updated population and employment growth. These updates will also report on key performance indicators (KPIs) tied to the plan to ensure the City is progressing toward achieving the mode share targets and other goals and to align with Official Plan updates.

As part of final completion of the TMP, the attachments in this report and the StoryMaps content online will be assembled into a final accessible complete document and submitted as a Municipal Class Master Plan Environmental Assessment (EA).

Financial Implications

The TMP provides the vision and guidance for the city's future transportation network and outlines design standards and programs to achieve these goals. The

capital and operating budgets are the tool for Council to set and manage the pace and extent to which the plan is implemented.

Staff from Finance and Engineering and Transportation Services worked with Dillon Consulting and Watson and Associates to draft a memo outlining financial considerations to accompany the staff report for the TMP (Attachment 6).

Affordability of transportation options is one of the core values of this plan, and so the following approach is recommended for Council's consideration to scope out and pace the implementation of the TMP in an efficient and affordable manner.

The TMP financial considerations include:

- analysis of impact on the City's capital forecast;
- an assessment of potential development charges revenue, carried out by Watson and Associates on behalf of Dillon Consulting and the City of Guelph;
- comparator costs of a car-focused scenario if no investments were made toward sustainable transportation networks; and
- a high-level assessment of potential sources of revenue for future study and consideration, as required.

Capital Budget Impacts

The TMP should be implemented at a pace that balances affordability with the desire to meet established goals. Too slow, and we risk experiencing worsening congestion; too fast, and it could be an undue burden on property taxes and staff's capacity to deliver.

The 2021 10-year Capital Forecast included 31.25 km of road improvements that the TMP also recommends. Comparing a road reconstruction project designed with 2021 standards against the same road designed with the TMP recommended standard indicates a potential increase between 0% and 7% per road construction project over the next ten years. This represents approximately $26 million in additional funding for the projects included in the forecast between 2021 and 2030 under the "Roads and Right of Way" program of work.

The driver of this cost difference is due to enhancing the level of service standards (better quality of design). For example, capital projects that now fall within the cycling spine network will include fully protected cycling facilities where prior to the TMP, the City may have accepted in-road bike lanes. Similarly, some capital projects fall within the pedestrian priority network requiring wider sidewalks and street trees where otherwise this may not have been costed into the forecast.

The capital cost impact of implementing Stage 1 of the Quality Transit Network, transit optimization, was approved as reported in the 2021 Guelph Transit Action Plan (route review). The staff report indicates a $37.63 million investment for the purchase of electric buses and charging infrastructure over a seven-year period starting in 2022.

Comparative Costs

The TMP financial capacity analysis includes a comparative cost of widening arterial roads, representing the impact if the recommended mode share targets are not achieved as the population grows. This scenario is equivalent to Alternative 4 – car focus and would result in about 15 kilometers of additional road widenings, at a total cost of $65-$100 million.

The opportunity cost of transportation investments is also important to consider. By investing in the TMP, Council is actively reducing the societal health care costs by reducing collisions, increasing active transportation health benefits, and contributing to greenhouse gas emissions reductions. Delivering the TMP presents the stacked benefit of addressing multiple strategic priorities of the community.

Capital Funding

Including the $26 million for implementation of the TMP, the total roads cost to 2031 is $186 million and the potential DC revenues are $104.9 million (56.4% of gross capital costs) between 2021 and 2030. This is a high-level estimate and actual DC revenue will be determined by growth and capital cost estimates in the DC Background Study which will begin in 2022.

The balance of funding will come from a combination of grants and tax funded capital reserve funds. A portion of the work on most roads will be considered a benefit to existing residents and therefore not eligible for DC funding. For portions where that benefit is due to reconstruction of existing infrastructure, the City's Infrastructure Renewal strategy would address the funding needs. Expansion of infrastructure that is not DC eligible would be part of the City Building strategy. Where appropriate, grants would be accessed to support these works as well.

Alternative Sources of Revenue

The TMP considers that the pace and level of infrastructure investment may need to increase in future budget years to achieve the goals set within the plan. To maintain affordability, additional sources of funding may be required. The following may be evaluated and presented to Council for future consideration, where appropriate:

- Exploring funding opportunities with the private sector and non-profits
- Conventional financing tools such as alternative financing and procurement, pay-for-parking strategies, user fee increases such as fares or vehicle registration fees
- Emerging tools such as: utility levy, curbside use fees, various tolling mechanisms, congestion pricing, and new mobility charge

These opportunities would need detailed study to determine their applicability to Guelph, and evaluation for how they would help achieve the goals and core values of this plan, including equity, affordability and supportive of land use. The TMP recommends staff begin to explore these alternate funding models for consideration.

Operating Budget Impacts

Maintaining the Transportation Network

Maintenance of the transportation networks requires growth in staff time, materials and equipment as the network of protected bike lanes and new sidewalks grows.

The 2022 10-year Capital Forecast proposes about 19.7 km of cycling spine network and about 5.9 km of enhanced pedestrian amenities (to implement the Pedestrian Priority Network) could be constructed by 2031. The additional cost of maintenance of enhanced pedestrian and cycling amenities will be approximately $113,000 annually, including staff resources by 2031.

Since the 2031 capital plan does not include any projects that require additional travel lanes because of the TMP, there is no associated operating impact for road widenings.

Beyond 2031, operating impacts will be calculated and reported through future budget cycles and TMP updates.

The recommended projects in the TMP will continue to be aligned to the capital budget unless the key performance indicators suggest an increased pace in delivering capital projects is required. As such, there are no resource requirements for the capital construction component of the TMP to 2031. The pace of capital implementation will be reviewed during future TMP updates.

Implementing the Quality Transit Network

The Guelph Transit Action Plan, approved in November 2021, represents Stage 1 of the Quality Transit network recommended in the TMP. The operating costs of implementing the Quality Transit Network to 2031 are captured in the Transit Route Review staff report that estimates a net operating cost of $13.09 million at implementation.

Staff Resources for Delivering the Recommended Policies and Programs

To optimally deliver on the recommendations of the TMP additional staff resources would be required. There are four full-time equivalent staff resources needed by 2031. These include:

- An additional project manager in the strategic transportation planning program, approved in 2021 through the Capital Resourcing Strategy report
- A road safety technologist II, approved for 2023 of the current multi-year operating budget, with an operating impact fully recovered from automated enforcement programs
- A policy analyst to establish the Emerging Transportation Technologies Office (ETTO), with an operating impact of $128,700 annually
- A future additional active transportation project manager, with an operating impact of $128,700 annually

The ETTO analyst was recommended but not funded for the current 2022-2023 period. The ETTO will be considered again in future budget cycles.

The annual operating impact for staffing not already approved by 2031 represents an additional $257,400 annually from the time the positions are approved.

In summary, total operating costs to deliver the TMP in 2031 are estimated at approximately $370,400, or a 0.15% annual tax impact. This is in addition to the costs of the outlined in the transit route review report.

Consultations

For a summary of community engagement during the final phase of this plan, please see Attachment 2. Previous engagement memos from earlier in the plan are available at Guelph.ca/tmp and will be formally documented as part of the Environmental Assessment documentation for the project upon approval of this plan.

Strategic Plan Alignment

The TMP has been designed to align fully with the Navigating our Future pillar of the Guelph. Future Ready. Strategic Plan 2019-2023. Future Ready Action plan and performance measurement framework, published in September 2021.

Attachments

Attachment-1 Transportation Master Plan (StoryMaps)

Attachment-2 Engagement Memo

Attachment-3 Policy Recommendations

Attachment-4 Recommended Updates to the Official Plan

Attachment-5 Program Recommendations

Attachment-6 Financial Considerations Memo

Departmental Approval

Krista Walkey, General Manager, Planning and Building Services

Robin Gerus, General Manager Transit

Tara Baker, General Manager Finance, City Treasurer

John Regan, General Manager, Economic Development and Tourism

Gene Matthews, General Manager Parks

Doug Godfrey, General Manager, Operations

Dave Elloway, General Manager Fire Services

Report Author

Jennifer Juste, Manager, Transportation Planning

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Moving Guelph forward

Guelph Transportation Master Plan - Phase 4

Understanding TMP Implementation

Community engagement summary, November 2021

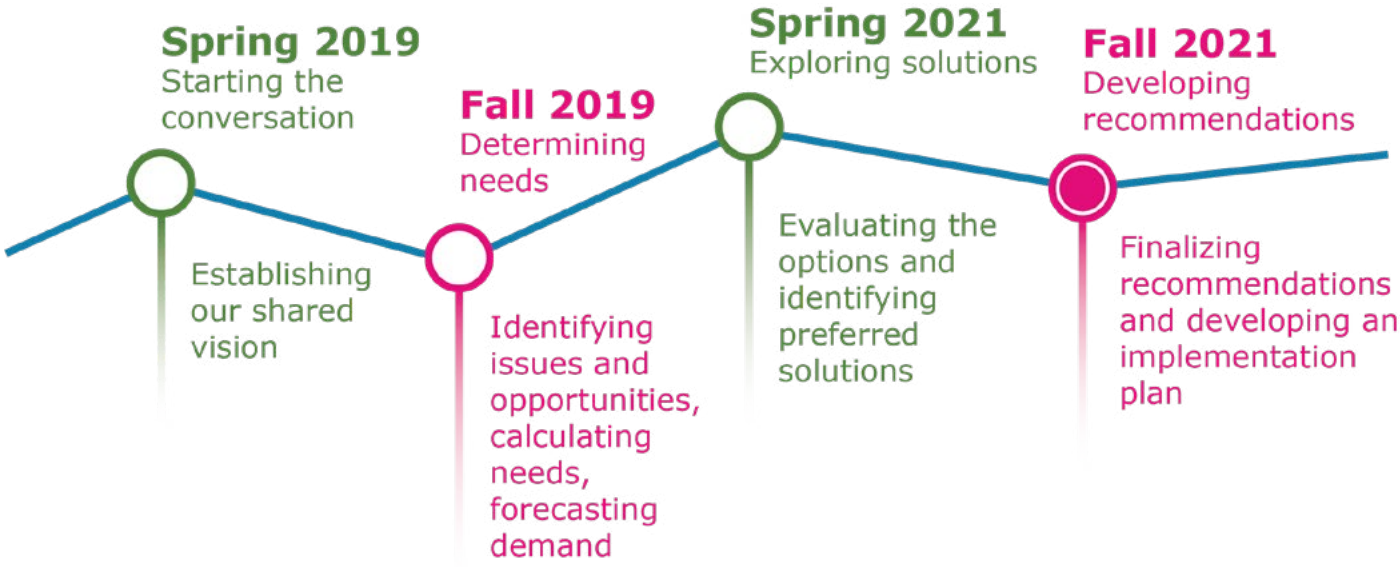
Guelph is growing and how we move around our city is changing. We're exploring transportation options to make our city move better in every way.

In January 2022, we will be going to Council with a report containing the recommendations for the policies and programs and the Implementation Plan that will help make the Preferred Solution come to life over the next few decades.

Phase 4 overview

Phase 4 (summer to fall 2021) is the final phase of the Transportation Master Plan. This phase consisted of developing the draft transportation policies and programs and developing a plan for implementing the projects that will transform Guelph's transportation network toward the Preferred Solution.

During Phase 4, we asked for feedback on the Preferred Solution: Sustainability and Resiliency Option, and what it means for how people will move around Guelph in the future. This provided a final opportunity to influence the draft policies and programs recommended by the TMP. We also asked for input on the project prioritization of the Implementation Plan. What we learned from this process has shaped the policies and programs and the Implementation Plan that will go to Council in January 2022. We have been asking Guelph residents: **What will the Preferred Solution: Sustainability and Resiliency Option mean for you?**



Project at-a-glance

The updated Transportation Master Plan will define how our transportation system will support the community as Guelph continues to grow. The update will look at transportation planning in Guelph to 2051. The main objectives are:

1. to ensure the new plan builds upon current policies, including the Official Plan and other master plans that have been approved since 2005;

2. to recommend new policies and guidelines that reflect our community's vision and that balance mobility, environment and efficiency while prioritizing safety and access for all travellers; and

3. to explore how new and evolving technologies and travel services will shape the future of transportation in Guelph.

To do this, we reached out to the broad public and stakeholders for help. We need to understand how you move about in the community today and what will be important to you in the future.

How we engaged: techniques and results

For this phase of community engagement, we used a variety of techniques to reach a diversity of Guelph community members. Our objective was to work with the community to understand how the Preferred Solution of Sustainability and Resiliency will impact how people move around Guelph in the future, and to gather input on the policies, programs and implementation plan.

Virtual open houses

1 **Virtual open house** using an interactive multimedia platform called StoryMaps to share information, data, and maps

The Virtual Open House explored the Policies and Programs and Implementation Plan that support the Preferred Solution and looked at the important transportation topics that emerged throughout the engagement process.

Stakeholder meetings with

- Active Transportation groups
- University of Guelph
- Metrolinx
- Ministry of Transportation
- Key staff from adjacent Municipalities (County of Wellington, Puslinch Township, Town of Halton Hills, Region of Waterloo) and
- Members of Guelph's business community

Community Conversations with

- Older adults
- Accessibility advocates
- Anti-poverty advocates and
- General public

To gather feedback on the Preferred Solution, the policies and programs, the Implementation Plan and the capital plan.

How we engaged: techniques and results

Online engagement hub

The central place to engage with the project online with

306 visitors &

79 contributors

Project email

transportation@guelph.ca

for direct communication with residents

Notifications published in the Guelph Mercury Tribune

Social media used to spread awareness

#MovingGuelphForward
6 tweets generating
27 likes, **42** retweets and **76** clicks

4 Facebook posts generating
14 likes, **5** comments and **48** clicks

Two email newsletters

Sent to

3,803 recipients

1 online survey

with 77 responses received in total online at HaveYourSay.Guelph.ca to gather feedback along side the Virtual Open Houses

Stakeholder meetings

We conducted stakeholder meetings with Active Transportation groups, the University of Guelph, Upper Grand District School Board, Metrolinx, the Ministry of Transportation, staff from adjacent Municipalities (County of Wellington, Puslinch Township, Town of Halton Hills, Region of Waterloo), and members of Guelph's business community to share project updates, review the Preferred Solution and gather feedback.

What we heard

Preferred Solution

- Provide complete streets that prioritize active transportation connections
- Support inter-regional movement for people and goods
- Consider population growth, demographics and land use planning
- Promote land use development that supports active transportation and transit

Prioritize active transportation

- Enhance active transportation connections by controlling vehicular traffic near campus and schools
- Consider coordination of inter-regional cycling connections for travel and tourism
- Prioritize the construction of the Cycling Spine Network
- Address enhanced safety measures at intersections for pedestrians and cyclists
- Extend the Pedestrian Priority Network along Gordon Street to College Ave and consider whether College Ave should also be included
- Consider increasing 2051 cycling mode share target

Enhanced transit system

- Support for inter-community transit extension and coordination with other modes of transit such as train travel
  * commuting University students are projected to increase due to rising housing costs
- Prioritize COVID-19 ridership recovery by redistributing transit routes to essential workplaces and monitoring impacts of "work from home" in the short and medium term

Goods movement

- Ensure there are sufficient loading areas for deliveries in the downtown
- Support for continued coordination with MTO on Hanlon improvements to redirect truck traffic to the Hanlon where possible

Implementation

- Continue collaboration with external stakeholders and improving ongoing 2-way communications
- Continue meaningful engagement during detailed design phase for implementing road projects

Key questions or topics that need to be explored further

- Explore the parking supply and demand arising from the Downtown and University of Guelph campus
- Continue to monitor innovations in big data
- Provide more guidance for planning for emerging technologies like electric bikes, automated vehicles, electric vehicles and electric charging stations
- Consideration for provision of public washrooms

Community conversations

We conducted community conversations with older adults, accessibility advocates, anti-poverty advocates and the general public to share project updates, review the Preferred Solution and gather feedback. Conversations were held with 12 community members from across the city to understand what the Preferred Solution: Sustainability and Resiliency Option will mean for them and others to move around and through Guelph using their preferred modes of transportation.

What we heard

Preferred Solution

- Prioritize transit and active transportation connectivity for low-income communities
- Improve connectivity for active transportation across the city
- Promote land use development that supports active transportation and transit

Prioritize active transportation

- Provide sidewalks and safer walking connections in industrial areas
- Improve lighting on roads/streets for safety
- Explore economically accessible bike share opportunities
- Address signal timing concerns for seniors at intersections
- Prioritize the Cycling Spine Network

Improve transit access

- Consider employment shift times for transit scheduling
- Prioritize transit access for low-income communities
- Provide better transit access to essential services like grocery stores and health services
- Provide first and last mile connectivity in industrial areas
- Provide better transit notifications for those who do not have access to smartphones or mobile devices
- Provide street furniture at every transit stops
- Explore better inter-regional transit connections
- Provide more affordable transit passes and incentives to increase ridership

Key questions or topics that need to be explored further

- Explore a hotline for transportation services, including transit
- Explore locations for electric vehicle charging stations
- Consider the separation of short term and long goals for better planning
- Consider the need for a network of public restrooms along the transit and trail networks
- Explore connection with GRT in Kitchener where existing stops are already very close
- Equitable network planning should consider improved connectivity for Brant, Onward Willow, the Ward and Eastview/East end neighbourhoods
- Support for a transportation advisory committee that is representative of different user groups

Preferred Solution

The Preferred Solution survey ran from October 1st to October 25th and launched alongside Virtual Open House #3 on the project engagement page at Have Your Say Guelph

(https://www.haveyoursay.guelph.ca/transportation)

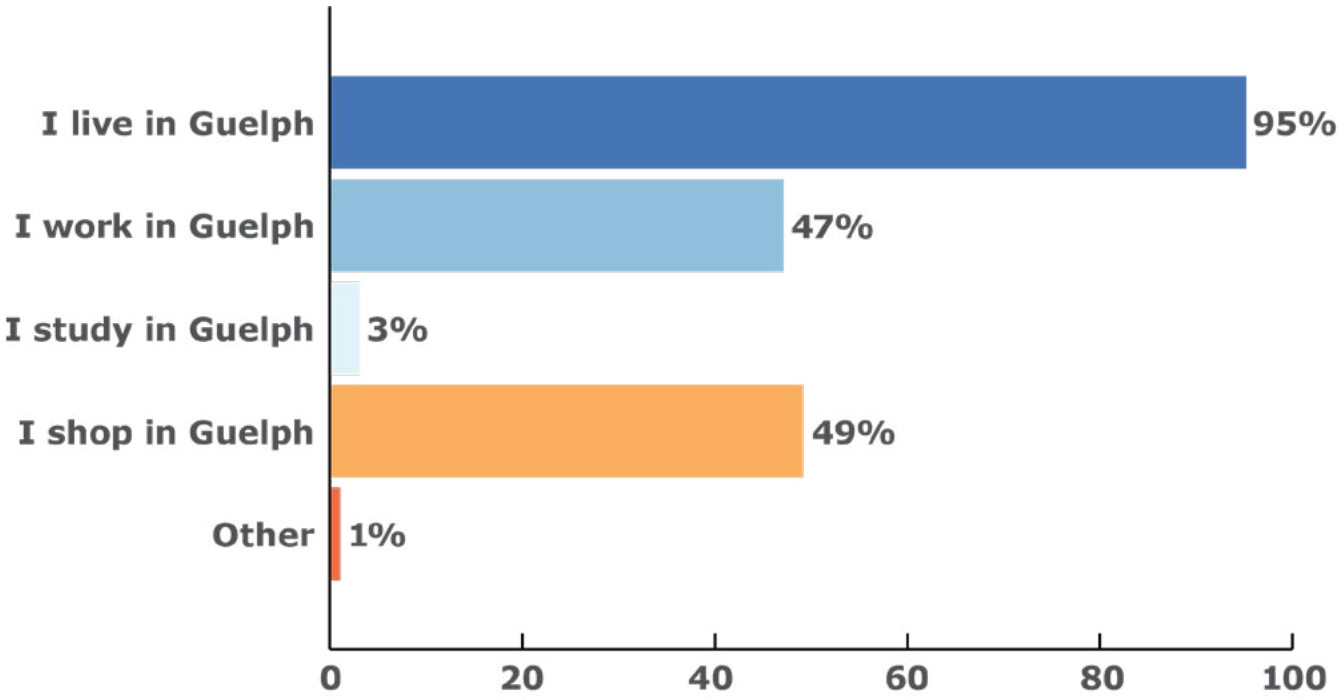
Virtual Open House #3 shared the policies and programs, Implementation Plan and hot topics in transportation issues. Participants were encouraged to complete the survey after reviewing the Virtual Open House. The purpose of the survey was to gather feedback on the policies and programs and the project prioritization for the Implementation Plan.

77 responses were provided to the survey. 81% of survey participants travel by car as the driver, 22% travel by car as the passenger, 58% walk, 44% cycle, 22% take transit and 10% take taxi or ride share to move around Guelph.

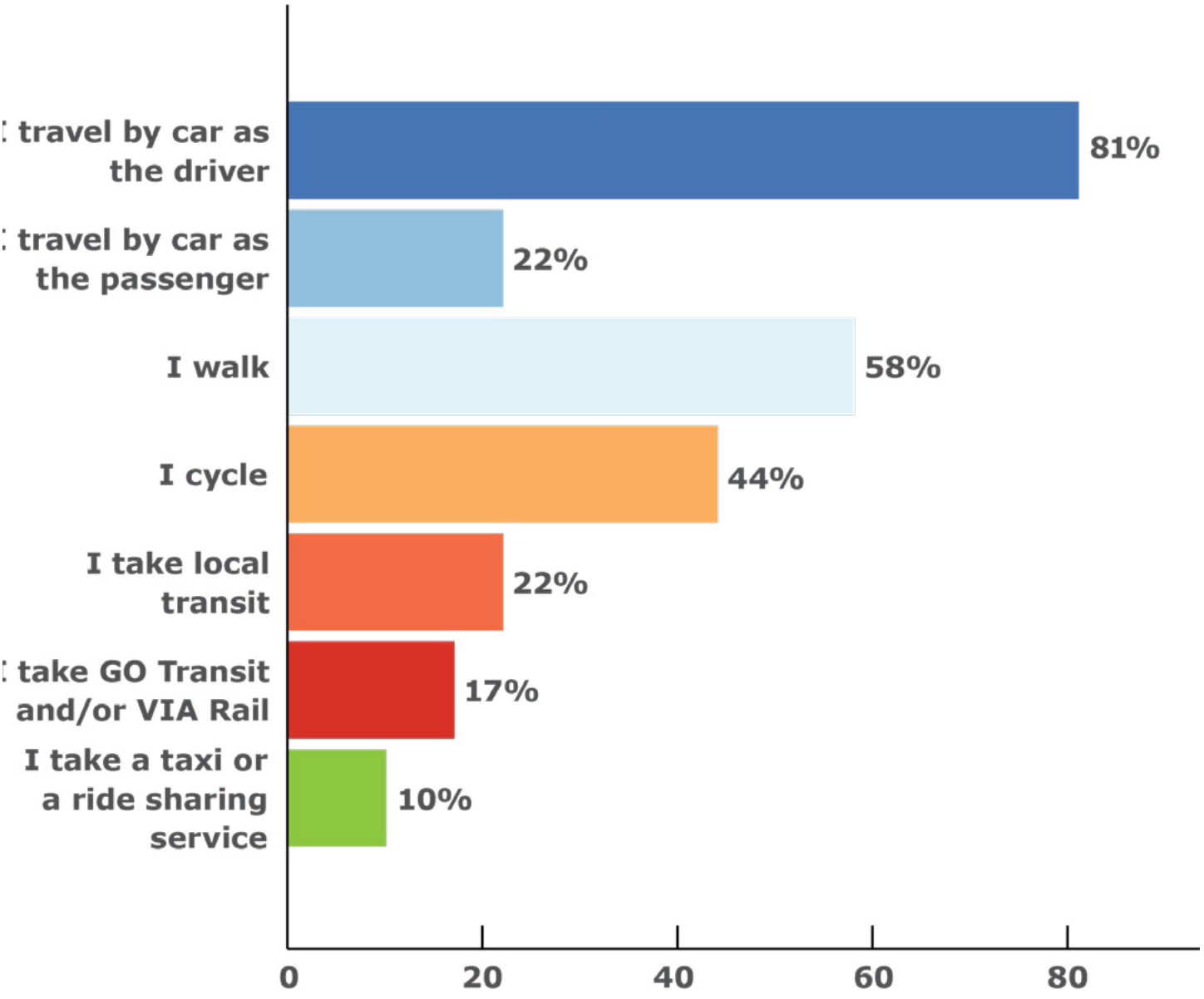
What we heard

Overall there was strong support for the Resilience network to accomodate active transportation with traffic claming measures, and provide frequent and reliable transit from survey participants. Below is a summary of the survey responses.

Which of the following best describes you (select all that apply)?



How do you usually move in, out and about Guelph (select all that apply)?



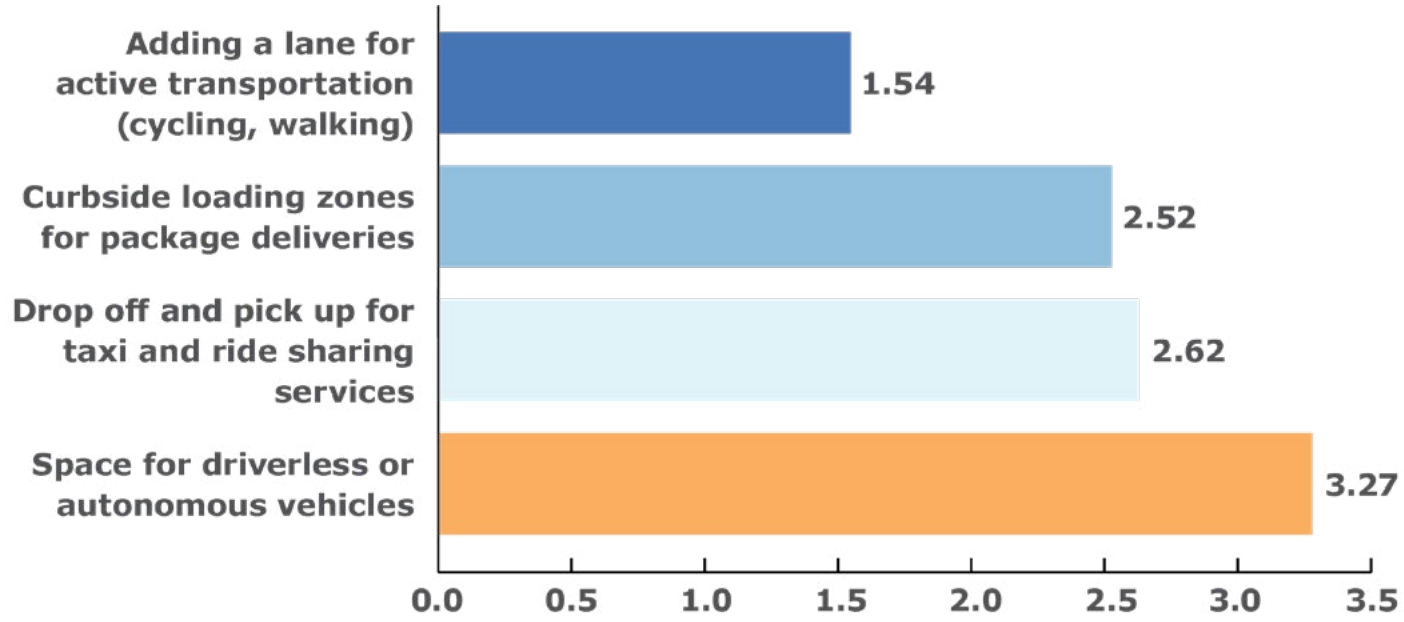
What will the Preferred Solution: Sustainability + Resiliency Option mean for you?

We asked participants to tell us how they think space in the resilience network should be used in the future.

What we heard

Please rank this list from most important to the least important uses of the resilience network

(1 is most important, 5 is least important):



Do you have other ideas for how the resilience network might be used?

- Space for transit priority measures such as dedicated bus lanes
- Protected bike infrastructure
- Pedestrian only spaces

Do you have any other comments on the Preferred Solution: Sustainability and Resiliency Focus that you want to share with us?

- Prioritize sustainable modes of transportation
- Pedestrianize the downtown core
- Improve transit
- Improve the overall safety of streets

Policies

We asked participants to tell us if we missed any policies for the Transportation Master Plan.

What we heard

Are there any general road policies you think we missed?

- Implement traffic calming measures
- Discourage driving to encourage other modes of sustainable transportation
- Use traffic demand management to reduce traffic on streets
- Maintain and repair roads
- Improve intersection designs
- Use promotions and education to encourage safe driving

Are there any pedestrian policies you think we missed?

- Create pedestrian only streets
- Implement traffic calming measures to make walking more enjoyable and safe
- Improve the safety of intersection crossings
- Create more trails and make sure they are connected to travel around the city

Are there any cycling policies you think we missed?

- Improve road infrastructure for cyclists to seperate them from traffic
- Improve bike parking facilities and include bike parking in commercial and residential areas and at Guelph Central Station and bus stops
- Maintain bike lanes in all seasons to remove things like snow, ice, and leaves
- Integrate the city's trails into the cycling network to provide better connectivity across the city

Are there any transit policies you think we missed?

- Increase transit service and frequency
- Make transit more convenient with and attractive
- Prioritize making transit options affordable to all members of the community
- Improve safety at Guelph Central Station and bus stops
- Use transit to advance climate goals and reduce emissions
- Transit should connect to the GO and neighbouring municipalities

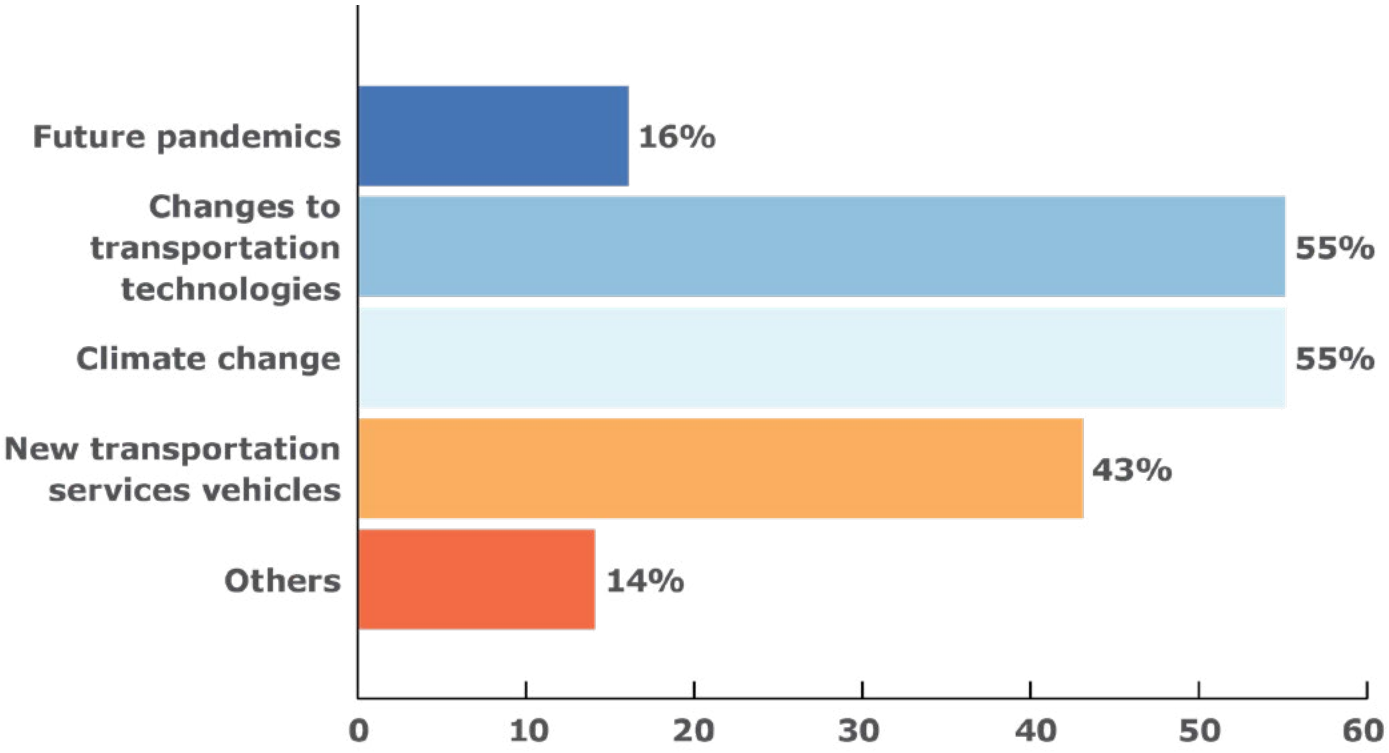
Are there any goods movement policies you think we missed?

- Improve the timing of deliveries and truck movement through the city to avoid disruption to residential and commercial areas
- Balance the needs of trucks with other road users
- Don't allow trucks to block parking spaces during deliveries

Are there any implementation policies you think we missed?

- Review the Implementation Plan on a regular basis to track progress
- Continue to do community engagement and outreach and include other initiatives like pilot projects to demonstrate changes
- Improve enforcement to ensure traffic laws are followed
- Include non-digital forms of communication and engagement for those without smartphones or mobile devices

What future changes to transportation should we consider in the policies (select all that apply)?



Do you have any other comments about the policies that you want to share with us?

- Policy decisions should first examine the climate change impact
- Improve transit options in Guelph and to Kitchener, Waterloo and Toronto
- Connect active transportation routes to neighbouring municipal trails
- Create creative design and street art that support vibrancy and safety
- Allow motorcycles to pass through traffic at red lights
- Improve safe mobility for children and seniors
- Decrease car mode share
- Explore minimum standards for car and bike parking for different land uses
- Improve traffic conditions for drivers

Implementation plan

In order to determine the highest priority projects, we evaluated all of the projects required to transform Guelph's current transportation network into the Preferred Solution using a set of criteria that align with the TMP vision, values and goals, along with available funding and resources within the City of Guelph.

For each value, we asked a standardized question (or a couple of questions) to see how aligned the project was with each value.

We asked participants to tell us if we missed anything for the criteria.

What we heard

Should we ask anything else to check if a project is "safe"?

- What are the traffic conditions?
- What are the health and pollution impacts from vehicles?
- Does the project decrease car dependency to make room for other modes of transportation?
- What are the climate change impacts?
- Does the project consider the needs of all road users?
- Does the project consider the volume of trucks?
- Does the project consider the monitoring of traffic conditions?

Should we ask anything else to check if a project is "equitable"?

- Does the project support all abilities and accessibility?
- Does the project decrease car dependency to make room for other modes of transportation?
- Does the project improve the transit system?
- Does the project Improve the active transportation network?
- Does the project consider the needs of historically underserved communities?
- Does the project consider the impacts of gentrification?

Should we ask anything else to check if a project is "complete"?

- Does the project consider emergency planning?
- Does the project improve inter-regional transit?
- What are the impacts on intersections, safety and visibility conditions?
- What are the climate change impacts?
- Does the project consider the needs of all road users?

Should we ask anything else to check if a project is "sustainable"?

- Does the project decrease car dependency to make room for other modes of transportation?
- Does the project improve the transit system?
- Does the project improve the active transportation network?
- What are the noise and pollution impacts on natural habitats?
- Does the project prioritize maintenance of infrastructure?

- Does the project help reach climate change goals and targets?
- Does the project engage with local communities?

Should we ask anything else to check if a project is "supportive of land uses"?

- Does the project decrease car dependency to make room for other modes of transportation?
- Does the project improve the active transportation network?
- Does the project improve the transit system by increasing access to green spaces and essential services?
- Does the project engage and consult with Indigenous Peoples?
- Does the project help create a road grid network for transportation?

Should we ask anything else to check if a project supports the core value of being "Affordable"?

- Does the project support affordable transportation options city-wide?
- Does the project support inclusive affordability for everyone?
- Does the project decrease car dependency to make room for other modes of transportation?
- Were other funding options from different levels of government considered for the project?

Do you have any other comments about the project prioritization that you want to share with us?

- Consider the climate change impacts
- Consider traffic speed impacts
- Prioritize decreasing car dependency to make room for other modes of transportation
- Prioritize improving the transit system
- Prioritize improving the active transportation network
- Consider the coordination and timing of construction projects
- Prioritize project engage city-wide

What we heard - the key themes

Overall, feedback received from the community and key stakeholders throughout Phase 4 can be categorized into the following overarching themes: **Preferred Solution, prioritize active transportation, improve transit and transit access, goods movement, climate change and sustainability, safer streets, traffic flow, implementation, equity, land use, infrastructure, community engagement process, concerns, key questions and topics.**

These themes will inform the development of the Preferred Solution, which will determine the capital plan for how the TMP is implemented.

The feedback summary below highlights the wide range of diverse opinions that were received during this stage of community engagement.

Preferred Solution

- Improve transit and active transportation connectivity across the city, low-income communities and industrial areas
- Promote land use development that supports active transportation and transit
- Provide complete streets that prioritize active transportation connections
- Support inter-regional movement for people and goods
- Consider population growth, demographics and land use planning

Prioritize active transportation

- Prioritize the construction of the Cycling Spine Network
- Create pedestrian only streets
- Improve safety for active transportation users by providing better lighting and controlling vehicular traffic
- Consider coordination of inter-regional cycling connections for travel and tourism
- Implement traffic calming measures to make walking more enjoyable and safe
- Integrate the city's trails into the cycling network to provide better connectivity across the city
- Address signal timing concerns for seniors at intersections
- Address enhanced safety measures at intersections for pedestrians and cyclists
- Extend the Pedestrian Priority Network along Gordon Street to College Ave and consider whether College Ave should also be included
- Consider increasing 2051 cycling mode share target

Improve transit and transit access

- Explore better inter-regional transit connections
- Improve first and last mile connectivity
- Provide better transit access to essential services like grocery stores and health services
- Provide better transit notifications for those who do not have access to smartphones or mobile devices
- Provide street furniture and improve safety at transit stations and stops
- Provide more affordable transit passes and incentives to increase ridership
- Prioritize COVID-19 ridership recovery by redistributing transit

routes to essential workplaces and monitoring impacts of "work from home" in the short and medium term
- Consider increasing the frequency of service to make transit more convenient

Goods movement

- Ensure there are sufficient loading areas for deliveries with blocking parking spaces
- Improve the timing of deliveries and truck movement through the city to avoid disruption to residential and commercial areas
- Balance the needs of trucks with other road users

Climate change and sustainability

- Prioritize sustainable modes of transportation
- Decrease car dependency to encourage sustainable modes of transportation
- Use transit to advance climate goals and reduce emissions
- Policy and project decisions should first examine the climate change impact to help reach climate change goals and target
- Consider noise and pollution impacts on natural habitats from transportation projects

Safer streets

- Pedestrianize the downtown core and improve the overall safety of streets
- Create creative design and street art that support vibrancy and safety
- Improve safe mobility for children and seniors

Traffic flow

- Implement traffic calming measures and traffic demand management to reduce traffic
- Improve enforcement to ensure traffic laws are followed
- Allow motorcycles to pass through traffic at red lights

Implementation

- Review the Implementation Plan on a regular basis to track progress
- Continue collaboration with external stakeholders and improving ongoing 2-way communications
- Continue meaningful engagement during detailed design phase for implementing road projects

Equity

- Ensure transportation projects support all abilities and accessibility
- Ensure transportation projects consider the needs of historically underserved communities
- Ensure transportation projects support inclusive affordability for everyone

Land use

- Explore minimum standards for car and bike parking for different land uses

Infrastructure

- Maintain and repair roads and infrastructure
- Consider the coordination and timing of construction projects
- Improve intersection designs for safety
- Improve road infrastructure for cyclists to seperate them from traffic
- Improve bike parking facilities and include bike parking in commercial and residential areas and at Guelph Central Station and bus stops
- Maintain bike lanes in all seasons to remove things like snow, ice, and leaves
- Consider road grid network for transportation

Communications, outreach and engagement

- Use promotions and education to encourage safe driving
- Continue to do community engagement and outreach and include other initiatives like pilot projects to demonstrate changes
- Include non-digital forms of communication and engagement for those without smartphones or mobile devices
- Ensure Indigenous Peoples are consulted

Key questions or topics that need to be explored further

- Explore economically accessible bike share opportunities
- Explore a hotline for transportation services, including transit
- Explore locations for electric vehicle charging stations
- Consider the separation of short term and long goals for better planning
- Explore the parking supply and demand arising from the Downtown and University of Guelph campus
- Provide more guidance for planning for emerging technologies like electric bikes, automated vehicles, electric vehicles and electric charging stations
- Continue to monitor innovations in big data
- Consideration for provision of public washrooms along transit and trail networks
- Explore connection with GRT in Kitchener where existing stops are already very close
- Equitable network planning should consider improved connectivity for Brant, Onward Willow, the Ward and Eastview/East end neighbourhoods
- Support for a transportation advisory committee that is representative of different user groups

How we used your feedback

Feedback from the previous rounds of engagement on the Preferred Alternative Solutions, vision and goals, and issues and opportunities informed the Preferred Solution presented in this Phase for further engagement.

Feedback from this round of engagement helped us to:

- Understand how the Preferred Solution: Sustainability and Resiliency will impact the day-to-day lives of community members
- Finalize the policies and programs
- Understand priorities for the Implementation Plan

Next steps

Feedback from this Phase of engagement alongside further technical analysis will help us finalize the policies, programs, and Implementation Plan that will help make the Preferred Solution come to life over the next few decades. The policies and programs and Implementation Plan will be presented to Council in January 2022. Following that, the Transportation Master Plan document will be available for review and comment before being fully adopted.

DILLON CONSULTING

City of Guelph Transportation Master Plan

POLICY BOOK

December 2021 – 18-8919

Contents

Glossary of Terms

- A -

Active Transportation – The transport of people or goods through human-powered means, including walking, cycling and skateboarding.

Active Transportation Network – On-road and off-road infrastructure network for pedestrians, cyclists and other active transportation modes.

Advanced Driver Assistance Systems – Technological features that assist drivers in driving and parking functions. They are designed to increase the safety of driving a vehicle. Examples include anti-lock brakes, forward collision warning, and land departure warning.

Alternative Service Delivery (ASD) – Provision of transit service through different transit service options, such as on-demand transit or partnerships with private and/or not-for-profit sectors. ASD is typically used to deliver transit services to unserved or under serviced areas of the city due to low ridership potential.

- C -

Capital Projects – A project that helps maintain or improve an existing City asset or provide a new asset/ facility. This includes new construction, expansion, renovation, or replacement projects for an existing facility or facilities, the purchase of major equipment, or a major maintenance or rehabilitation project for existing facilities.

Complete Communities – A community that meets the basic needs of all its residents through integrated mixed and efficient land use planning and an urban form that is well connected and supports diverse transportation options.

Complete Streets Design Guide – A guide that provides policy and design guidance on the planning, design, and operation of roadways to help implement the City's Official Plan vision for complete streets and other city building objectives.

Cycling Spine Network – A network of cycling routes with high-quality on-street cycling facilities that connect all areas of the City. These spine routes represent the core of the City's larger cycling network. The Cycling Spine Network will be designed to support and encourage cycling by people of all ages and abilities. The Spine Cycling Network will be complemented by connecting cycling links to key destinations like schools, parks, and areas of high activity.

- D -

Downtown Secondary Plan – A comprehensive vision and policies in the Official Plan for revitalizing downtown Guelph up to 2031.

Downtown Streetscape Manual – Provides design guidance for Downtown streets that creates an attractive, accessible and safe environment for all modes of transportation (walking, cycling, vehicular).

- F -

Facility Accessibility Design Manual – Developed in partnership with the County of Wellington, it provides a building standard at a higher level of accessibility than is currently offered in the Ontario Building Code and Accessibility for Ontarians with Disabilities Act (AODA), and is used for new construction as well as renovation projects.

- G -

Goods Movement Strategy – A comprehensive plan to help determine the transportation infrastructure improvements, policies, regulatory tools and programs needed to help the support the goods movement industry.

Goods Movement Priority Network – A network of streets that permit truck traffic for more than just local service. It is designed to allow large vehicles to travel through the city efficiently while safely interacting with people who are walking or cycling on the same streets.

Guelph Junction Railway (GJR) – A shortline railway between Campbellville and Guelph that serves industrial clients. The GJR is owned and operated by its sole shareholder, the Corporation of the City of Guelph,.

- I -

Intelligent Transportation Systems – A combination of information and communication technologies used in transportation and traffic management to improve the safety, efficiency, and sustainability of transportation networks, manage traffic congestion, and enhance drivers' experiences.

Internet of Things (IoT) – Interconnection of everyday devices via the Internet.

- L -

Level of Service (LOS) – A qualitative measure used to determine how well a transportation facility such as an intersection or road segment is operating**.** Levels of service are usually categorized from A to F, with A being the best and F being the worst.

Low-Impact Development – A planning and engineering approach to stormwater management to minimize stormwater runoff and filter, store and return rainwater and snow melt to the ground.

- M -

Major Transit Station Areas (MTSA) – The area including and around any existing or planned higher-order transit station (such as regional rail or bus rapid transit routes) within a settlement area, or the area including and around a major bus depot in an urban core. Station areas are generally defined as the area within an approximate 500 meter radius of a transit station, representing about a 10-minute walk. They are usually planned to be higher-density, mixed-use

and transit-supportive neighbourhoods that provide access to local amenities, jobs, housing and recreation opportunities.

Micro-mobility – Refers to the use of light vehicles that can carry one or two passengers at a time, such as bicycles, scooters, and even small vehicles. Micro-mobility can be human-powered or powered by an electric motor.

Mobility-as-a-Service (MaaS)– An emerging user-oriented philosophy that takes advantage of digital platforms and real-time data to get a person from point A to point B in the most convenient and personalized way possible for one single fee. MaaS leverages modern transportation options to optimize personal mobility. When planning a route, MaaS platforms can link transit, ride-hailing, car-sharing, micro-mobility, walking, and more to create one seamless trip for the user of this service.

Multimodal Level of Service Guidelines – A guide that provides policy and design guidance on the planning, design, and operation of roadways and intersections to help implement the City's Official Plan vision for complete streets. It provides guidance on how to assess the *levels of service* for various modes of transportation and their impacts, and what the specific target service levels for each mode should be given the location and context of the transportation project.

- O -

Official Plan – A regulatory policy tool that sets out the City's vision and goals for the future, and describes policies on how land in the City should be used. In Ontario, every municipality is required to have an approved Official Plan to ensure that future planning and development will meet the specific needs of the community.

Operations Campus – A centralized campus consisting of facilities for City of Guelph Transit, Operations, Fleet Maintenance, and Corporate Building Maintenance to meet its current and future needs.

- P -

Park-and-Ride facilities – Parking lots with public transport connections that allow commuters and other people to leave their vehicles and transfer to a bus, rail system, or carpool for the remainder of the journey.

Pedestrian Priority Network – A network of wide sidewalks and high-quality walking environments in areas of highest pedestrian activity in the city, such as Downtown Guelph. This priority network is designed to support and encourage walking for people of all ages and abilities. It is complemented by the general sidewalk network and Guelph's extensive trail network.

- Q -

Quality Transit Network – A network of corridors with frequent transit service as defined by Guelph Transit service standards, where improvements will be implemented to improve service and reduce travel delay for buses. It is designed to make taking transit more comfortable and more efficient, thus encouraging more people to use transit.

- R -

Retrofit projects – Projects that improve an existing asset's function or efficiency through the addition of new technology or features.

Resiliency Network – A network of key arterial and collector streets that are designed to be flexible. These streets will have the space and potential for flexible operational strategies such as dedicated lanes for different mobility purposes, curbside extensions, by-pass lanes, etc. The intention of these streets is to offer network flexibility so that the City can make quick changes to improve mobility along those streets in response to factors like changing travel patterns/needs, climate change impacts, new mobility technologies, societal disruptions.

- S -

Smart signals – Traffic signals at intersections that detect traffic conditions and automatically adjust operations to optimize flow.

- T -

Transportation Impact Studies – Transportation Impact Studies (TIS) , sometimes called "traffic impact studies", identify on-site and off-site measures to be undertaken by a developer to align the transportation system's performance with City goals once the development is built.

Transportation Demand Management (TDM) – A series of polices, programs and incentives intended to influence whether, when, where and how people travel, and encourage them to make more efficient use of the transportation system.

Transit Priority Measures – A collection of techniques and tools to reduce delay for public transit vehicles.

Transit Supportive Development – A city-building tool that creates vibrant communities that include a balanced mix of housing, jobs, shopping and services – all within walking distance to transit stations.

Transit Master Plan – A strategic planning document that defines policies, programs and infrastructure improvements required to address public transit and growth needs in Guelph and support the visions and principles of Guelph Transit.

-V-

Vision Zero – A traffic safety initiative that is based on the philosophy that no loss of life is acceptable on our roadways. It is based on a safe systems approach to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

City of Guelph Transportation Master Plan

Pedestrian policies

1.0 Pedestrian Policies

This section of the Transportation Master Plan (TMP) presents the policies related to pedestrian movement.

Relevant goals that align with the pedestrian policies:
Goal 1: People of all ages and abilities will be able to travel safely using any transportation mode that they choose
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives

Everyone is a pedestrian at some point in their trip, if only between their bus stop or parking place and their front door. This makes walking or using a mobility device a critical activity, both as a stand-alone mode and as a connection to other modes of transportation. In 2016, the City-wide mode share for walking is 8%. The transportation master plan sets the walking mode share target at 15% by 2051. Achieving this target will require improvements to pedestrian facilities and environments across the city.

The Guelph TMP established the *Pedestrian Priority Network* (Schedule 1) to identify key areas of pedestrian focus in Guelph. The network includes the intensification corridors and community mixed-use nodes identified in Guelph's *Official Plan*. It also includes key connections across travel barriers that were identified in the Downtown Secondary Plan, the Active Transportation Network, the Guelph Innovation District Secondary Plan and the Guelph Trail Master Plan.

1.1 Create a complete and connected pedestrian network

1.1.1 Continue to build the pedestrian network

1.1.1.1 The City will continue to expand the pedestrian network (sidewalks and trails) by using four different approaches, as applicable:

- As part of new development, through the development review process;
- As part of street construction and reconstruction projects, through a complete streets design approach;
- As *retrofit projects,* to fill in "missing links" of the existing pedestrian network; and
- As other *capital projects*, to construct new connections across key barriers to walking.

1.1.1.2 During its review of development applications and during street construction and re-construction projects, the City will continue to require street designs that permit for

sidewalks on both sides of the street for all streets, with the exception of the following situations:

- Rear laneways, where no sidewalks will be required;
- Roads where a rural cross-section is being maintained and paved shoulders are provided;
- Adjacent to the Natural Heritage System where a trail with a high level of service may be provided instead of a sidewalk; or
- Cul-de-sacs-with an overall length of 120 metres or less.

In street corridors where the context is appropriate, a multi-use pathway may be used instead of a sidewalk and should be maintained year-round according to prevailing sidewalk winter maintenance standards.

1.1.1.3 The City will continue to evaluate, identify and prioritize candidate *retrofit* projects (projects that modify and improve existing infrastructure) and implement them as permitted. Prioritization will align with the overall goals and values established through the TMP.

1.1.1.4 The City will continue to ensure that pedestrian facilities include:

a) Direct connections to bus stops and other major walking destinations, including the Guelph Central Station, the University of Guelph, strategic growth areas identified in the Official Plan, employment areas
b) Direct connections between the trails and sidewalk network;
c) Direct connections to schools;
d) Connections to link neighbourhoods that are separated by physical barriers, such as the Hanlon Expressway, the rivers, and the rail lines.
e) Pedestrian connections between subdivisions, cul-de-sacs and developments, where appropriate.

1.1.1.5 The City will continue to consider the provision of active transportation trails along active and abandoned rail corridors, where appropriate and with appropriate consideration of regulatory safety requirements.

1.1.1.6 The City will aim to increase the city-wide pedestrian mode share by developing a comprehensive pedestrian master plan that addresses:

a) An implementation strategy to complete the sidewalk network,
b) Consideration of policy updates to improve connectivity and accessibility,
c) Recommended programs to encourage and promote walking.

1.2 Build a walkable environment

Building and maintaining an accessible and walkable environment requires attention from multiple activities that the City undertakes, such as zoning, development review, community design plans, road designs and maintenance. It also requires attention to factors such as public

spaces, buildings, and transportation infrastructure. This section discusses the elements of enhancing walkability and pedestrian accessibility in Guelph.

1.2.1 Enhance the level of service

The distance that pedestrians must travel across signalized intersections can be a barrier to walking. Design elements that degrade the pedestrian experience include:

- Free-flowing channelized right-turn lanes;
- Large curb radii that might be required for large trucks but enable motor vehicles to turn at higher speeds; and
- Multiple left-turn lanes;
- Multiple traffic lanes (whether for through, left or right turn movements);

The following policies enhance the quality of service for pedestrians:

1.2.1.1 The Pedestrian Priority Network (Schedule 1) identifies locations where the City recommends improvements to the pedestrian realm. The use of double left-turn lanes, three or more straight through lanes, separate right-turn lanes, and deceleration/acceleration lanes should be discouraged in these areas. The City will continue to seek to improve pedestrian levels of service in locations where barriers to walking and/or pedestrian volumes are high.

1.2.1.2 The City will continuously improve network connectivity and convenience for pedestrians through the design of the transportation network by:

(a) Implementing a *Multimodal Level of Service Guidelines* that include safety analysis for links and intersections in accordance with the priority networks recommended by the TMP;
(b) Considering pedestrian safety and user needs at roundabouts;
(c) Continuing to provide direct connections between the sidewalk and trail networks, creating controlled crossings where the street and trail networks intersect where practical; and
(d) Continuing to implement more frequent pedestrian crossings in high activity areas or where distances between a transit stop and a controlled crossing exceeds 500 meters.

1.2.2 Implement quality design

When spaces are designed with pedestrians in mind, there is greater opportunity for pedestrian activity. The design of pedestrian spaces should be inclusive, intuitive and inviting for all people to use. The pedestrian environment should encourage walking and accommodate users of all abilities. The following policies improve the quality of street and pathway design throughout Guelph:

1.2.2.1 The City will maintain its commitment to improving the pedestrian design of main streets in mixed use nodes and intensification areas, and in the Downtown core by prioritizing the following design elements:

a) Limiting block sizes;
b) Introducing midblock crossings, where appropriate;
c) Providing buffers between the pedestrian walkways and road
d) Providing quality street furniture
e) Including street trees; and
f) Upgrading pedestrian lighting.

1.2.2.2 The City will design new and transform existing streets and pathways, through road reconstruction or retrofit projects, to be accessible for all pedestrian users, where possible.

1.2.2.3 The City will develop a process for how, when and where accessibility improvements to existing sidewalks and multi-use paths are identified, prioritized, and funded through the Pedestrian Master Plan.

1.2.3 Provide maintenance and management

The following policies provide maintenance and management of walking routes to ensure safety and accessibility.

1.2.3.1 The City will continue to meet or exceed appropriate Municipal Maintenance Standards of surface conditions, width, and lighting on pedestrian facilities.

1.2.3.2 The City will review the city-wide sidewalk snow plowing strategy along Active Transportation and transit networks both on- and off-road to improve alignment with the Transportation master plan goals.

1.2.3.3 To ensure regular maintenance and management of the off-road trails, the City will continue to follow the *Guelph Trails Master Plan* by:

(a) Developing well-marked trail wayfinding signage that is easily recognizable, attractive and understandable, and coordinated with other networks in the city as applicable;
(b) Monitoring and managing the trail systems;
(c) Providing trail connections to surrounding municipalities, regional, provincial, and national trails;
(d) Providing access to major points of cultural interest, recreation, employment and school destinations in the City;
(e) Improving connection opportunities to other modes of travel (e.g. public transit) with linkages between on-road and off-road routes; and
(f) Exploring creative strategies to improve connectivity across major barriers such as arterial roads, the Hanlon Expressway, rivers and railways

1.3 Improve pedestrian safety and promotion

This section provides an integrated, holistic review of how the City will work to promote walking and make it safer and more comfortable for pedestrians.

1.3.1 Administer pedestrian safety programs

Pedestrian safety has been consistently identified as a top priority by the City of Guelph. The 2020 *Community Road Safety Strategy* provides the City with a high-level road safety plan, which includes a broad range of road safety measures and specific traffic calming policies. The following policies are recommended to provide enhanced safety for the pedestrian environment:

1.3.1.1 The City will continue to implement the Community Road Safety Strategy as a tool to improve pedestrian safety city-wide.

1.3.1.2 The City will require that the pedestrian crossing times be increased at signalized intersections in the Pedestrian Priority Network (Schedule 1).

1.3.2 Promote walking as a mode of travel

1.3.2.1 The City will continue to promote walking and the use of personal mobility devices as a practical mode of transportation, and as a fitness and recreational activity all year round.

1.3.2.2 In order to promote and encourage walking and the use of personal mobility devices for more trips, the City will continue to adjust and improve the existing *Transportation Demand Management* program to influence when, where and how people walk around Guelph, including but not limited to

(a) Walk to school programs
(b) Supportive materials for new developments
(c) Collaborations with employers.

1.4 Future Ready

As new transportation innovations and technologies emerge, the way people and goods move in urban environments will change and disrupt our transportation networks. Anticipating these changes and understanding the challenges and opportunities they present is critical for forecasting what transportation will look like in the future, and enables Guelph to mitigate any negative impacts.

This section outlines innovations and trends in planning for pedestrians that the City should explore, research, anticipate, and/or plan to create a “future-ready” Guelph.

1.4.1 Innovations and trends for further exploration

1.4.1.1 Continue to research, investigate, and implement sustainable transportation strategies by building upon pedestrian and TDM initiatives in the Sustainable Transportation program.

1.4.1.2 Continually monitor pedestrian safety technologies emerging from advanced driver assistance systems and autonomous vehicles, and assess how these can be

integrated in road safety and pedestrian policies and plans. For instance, reduced speed limits give drivers the ability to react to their warning systems to avoid accidents and save lives.

1.4.1.3 Explore the possibilities for integrating digital technology and infrastructure within the public realm to enhance the pedestrian experience and help meet consumer demands for mobile connectivity. For example, digital wayfinding displays or smart street furniture with mobile phone charging.

1.4.1.4 Improve data collection and analysis to identify changes in pedestrian movement patterns, volumes and safety considerations to inform updates to network planning and design considerations as well as the regulatory framework supporting pedestrian movement. Adjust future mode share targets, as appropriate.

DILLON CONSULTING

City of Guelph Transportation Master Plan

Cycling policies

December 2021 – 18-8919

2.0 Cycling Policies

This section of the Transportation Master Plan (TMP) presents the policies related to cycling and micro-mobility movement.

Relevant Goals that Align with the Cycling Policies:
Goal 1: People of all ages and abilities will be able to travel safely using any transportation mode that they choose
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today

Cycling is a popular activity in Guelph that has numerous benefits for both riders and the community which leads to a better quality of life for residents. Its infrastructure can be used by both bikes and *micro-mobility* devices, such as e-scooters, e-bikes, and skateboards. Building capacity for cycling supports cycling and micro-mobility as practical modes of transportation and recreation throughout the city, thus this chapter references and contains policies for both types of mobility.

In 2016, the City-wide mode share for cycling was 3%. The Transportation master plan sets a cycling mode share target of 10% by 2051. Rebalancing the mode share will reduce pressure on the road network. Achieving this mode share will require improvements to the off-road and on-road cycling facilities across Guelph.

The Guelph TMP establishes the *Cycling Spine Network* (Schedule 2), to identify key corridors for cycling and micro-mobility in Guelph.

2.1 Continue to build and maintain a network of quality cycling facilities

2.1.1 Continue to build the cycling network

The cycling network in Guelph includes facilities on street, within street boulevards, and off-street using multi-use trails in dedicated corridors that are part of the Active Transportation Network. The following policies are recommended to continue the development of the cycling network:

2.1.1.1 Where the TMP has identified the *Cycling Spine Network*, the City shall give precedence to implementing the recommended facility types of this plan over the 2013 Cycling Master Plan until the Cycling Master Plan is updated.

2.1.1.2 The City will support the ongoing enhancement of a bicycle network that is well connected and comfortable, serving both commuter and recreational purposes throughout the city by:

a) Implementing a *Multimodal Level of Service Guidelines* that include safety analysis for links and intersections in accordance with the priority networks recommended by the TMP;
b) Providing linkages between intensification areas, and adjacent neighbourhoods
c) Ensuring connectivity from north to south and east to west
d) Providing bicycle paths along rail lines, where appropriate and where they conform with safety regulations;
e) Providing direct connections to bus stops and other major cycling destinations, including the University of Guelph, intensification corridors and community mixed-use nodes, Downtown, employment areas and major shopping areas;
f) Providing direct connections between the off-road trail and on-street networks;
g) Providing direct connections to schools; and
h) Providing connections to link neighbourhoods that are separated by physical barriers, such as the Hanlon Expressway, the rivers, and the rail lines.

2.1.1.3 The City will continue to expand the cycling network through four different approaches:

i. As part of new development, through the development review process;
ii. As an update to the Development Engineering Manual and Linear Infrastructure Design Standards through the development of a complete Streets Design Guide As *retrofit projects,* to fill in "missing links" of the existing cycling network; and
iii. As *capital projects*, to construct new connections across key barriers to cycling.

2.1.1.4 The City will design the *Cycling Spine Network* to serve cyclists and other *micro-mobility* users of all ages and abilities. This means that the facilities are designed to feel intuitive and comfortable for anyone from children to seniors, and people who are new to cycling, or may have disabilities and use adaptive bicycle types, and other modes as permitted by local traffic by-law. When implementing the facilities, the City should review the current and planned roadway characteristics and conditions to ensure that the facility being implemented is still appropriate for the context. Current facility selection guidance, such as from the forthcoming OTM Book 18 and the NACTO Designing for All Ages & Abilities Guide, should be considered.

2.1.1.5 The *Cycling Spine Network* shall be designed to be used by other *micro-mobility* modes as demand grows and as permitted through the Traffic By-Law and Ministry of Transportation regulations.

2.1.1.6 The City will implement intersection improvements to improve connectivity, user experience and safety, particularly along the *Cycling Spine Network*.

2.1.1.7 Through updating the Cycling Master Plan, the City will identify network gaps, continue to evaluate, identify and prioritize candidate retrofit projects. Prioritization and implementation will align with the overall goals and values established through the TMP and be refined through the Capital budget process.

2.1.1.8 The *Downtown Secondary Plan* indicates that it is the City's objective to provide a continuous active transportation trail, interrupted only by streets, along the west side of the river's edge between Royal City Park and Goldie's Mill Park, and on the east side of the river, south of the Guelph Junction Railway. The City will acquire land for such purposes through the dedication of parkland at the time of development, public easements or other methods of acquisition including outright purchase. In addition to, or alternatively, the City may incorporate portions of the trail within street rights-of-way.

2.1.1.9 The City will support connections to and from provincial and regional cycling routes that facilitate opportunities for tourism and travel to, from and through Guelph.

2.1.1.10 The City will give consideration to planning for and accommodating new and emerging modes of micro-mobility that meet the goals of this plan to be sustainable, human-powered, and affordable.

2.1.2 Maintain cycling facilities

Proper maintenance of on-street and off-street facilities is fundamental to provide comfortable and safe cycling year-round. Cyclists are more susceptible to surface irregularities; risking injury from cycling over potholes, road cuts and cracks, ice, snow and debris. The following policies are recommended to continue the maintenance of cycling facilities:

2.1.2.1 The City will continue to maintain infrastructure to provide comfortable and convenient passage for cyclists.

2.1.2.2 The City will continuously refine and implement design and maintenance standards to improve year-round use of the *Cycling Spine Network* and to reduce the risk of collisions and injuries.

2.1.3.3 The City will identify a basic winter network within the Cycling Spine Network and the Active Transportation Network. The winter-maintained network may be expanded as winter cyclist volumes increase, and as the City builds more separated or buffered cycling facilities.

2.2 Create attractive intermodal connections

Creating a cycling-friendly city requires facilities to allow people who bike to transfer conveniently to transit. To improve this process, the City will commit to the following policies:

2.2.1.1 The City will continue to ensure all buses are equipped with bicycle racks.

2.2.1.2 The City will continue to provide bicycle parking facilities at key transit nodes and transfer points, including continuing to expand long-term and short-term bicycle parking throughout Downtown Guelph.

2.2.1.3 The City will seek to provide quality cycling connections to access key transit nodes and transfer points through the implementation of the Cycling Spine Network or the Cycling Master Plan..

2.2.1.4 As *micro-mobility* options become more prevalent in Guelph in future, the City will explore ways to accommodate intermodal connections at transit stops and stations, such as designated storage or parking areas or mobility-as-a-service apps.

2.3 Create attractive trip-end facilities

2.3.1 Provide public bicycle parking

2.3.1.1 The City will continue to provide short- and long-term bicycle parking facilities such as bike racks or bike parking rooms throughout the Downtown and at City-owned properties such as parks museums, libraries and recreational facilities.

2.3.1.2 The City will consider the needs of short-term and long-term bicycle parking when it updates the Downtown Parking Master Plan.

2.3.2 End-of-trip facilities on private property

2.3.2.1 The City will use the Zoning Bylaw to establish minimum provisions for on-site bicycle parking and storage of bicycles and other personal transportation devices for new developments.

2.3.2.2 The City will develop a strategy to address end-of-trip facilities throughout the City at existing developments when it updates the Cycling Master Plan.

2.4 Improve cycling safety and promotion

2.4.1 Administer cycling safety programs and promote cycling as a mode of travel

The promotion of cycling is a critical piece to rebalance the cycling mode share across the city.

2.4.1.1 The City will continue to adjust and improve the existing *Transportation Demand Management* program to influence when, where and how people cycle around Guelph.

2.4.1.2 The City will continue to promote cycling as a convenient and attractive mode of transportation, and as a fitness and recreational activity, particularly through the cycling safety programs.

2.4.1.3 The City will enhance the visibility of cycling as a viable mode of transportation by updating the Cycling Master Plan to:

a) Continue to form partnerships and support advocacy groups to enhance cycling.
b) Coordinate programs for local employers that encourage employees and customers to cycle.
c) Continue to collaborate with partners to reinforce road safety messages and practices;
d) Enhance the visibility and wayfinding of the cycling network; and
e) Continue to enhance recognition and influence of the "Bicycle-Friendly Guelph" brand.

3.4.1.4 The Cycling Spine Network (Schedule 2) identifies locations where the City wishes to improve the quality of the cycling network to be all ages and abilities friendly. Intersection and corridor design and operations in these areas will seek to prioritize the safety and comfort of people on bikes through the use of a Multi-modal Level of Service guideline.

2.5 Future Ready

As new mobility innovations and technologies emerge, the way people and goods move in urban environments will change and disrupt our transportation networks. Anticipating these changes and understanding the challenges and opportunities they present is critical for forecasting what transportation will look like in the future and enables Guelph to mitigate any negative impacts.

This section outlines innovations and trends in cycling and micro-mobility that the City should explore, research, anticipate, and/or plan to create a "future-ready" Guelph.

2.5.1 Innovations and trends for further exploration

2.5.1.1 Explore micro-mobility options and how they can be accommodated in Guelph's transportation network, including opportunities for intermodal connections at transit stops and stations, impacts on facility designs, and updates to the Traffic By-law to permit new types of vehicles in City roads and rights of way.

2.5.1.2 Continue to research, investigate, and implement sustainable transportation strategies by building upon cycling and TDM initiatives in the Sustainable Transportation program.

2.5.1.3 Regularly monitor federal and provincial government funding, pilot projects and program opportunities to assist with investing in cycling and micro mobility technologies and infrastructure.

2.5.1.4 Evaluate the opportunity to introduce or adopt shared mobility services like e-scooters, and e-bikes in achieving the TMP cycling mode share target.

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City of Guelph Transportation Master Plan

Transit policies

December 2021 – 18-8919

3.0 Transit Policies

This section of the Transportation Master Plan (TMP) presents the policies related to transit movement.

Relevant Goals that Align with the Transit Policies:

Goal 1: People of all ages and abilities will be able to travel safely using any transportation mode that they choose

Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.

Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car

Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050

Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives

Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today

The Guelph *Official Plan* indicates that the City's transportation system will be planned and managed to offer a balance of transportation choices that reduce reliance upon any single mode, and promote transit, as well as cycling and walking. The 2016 City-wide mode share for transit is 7%. The City of Guelph is targeting to increase transit mode share to 17% by 2051. Rebalancing the mode share will require the City to make transit more attractive than automobile use for an even greater number of residents. Ongoing efforts to improve the availability, reliability, speed, accessibility and comfort of transit service will improve the transit user experience and make transit a more viable transportation choice.

Transit ridership growth strategies in Guelph will be centered on the *Quality Transit Network*. The *Quality Transit Network* is a network of corridors with frequent transit service where improvements will be implemented to improve service and reduce travel delay for buses. The *Quality Transit Network* will be complemented by the city's larger network of transit routes that will be reviewed through its regular updates to its Transit Master Plan.

3.1 Build and maintain a quality transit network

To encourage people to use transit, the network needs to be direct, affordable, accessible, and safe. This section addresses the need for a quality transit network and user experience.

3.1.1 Implement the Quality Transit Network

3.1.1.1 The implementation of the *Quality Transit Network* (Schedule 3) shall be staged, with elements of the priority network beyond Stage 1 coming online when and if the need for them emerges, according to the following guidelines:

Stage 1 – Increase frequency of service and/or optimize performance for all routes on the Quality Transit Network

Stage 2 – Implementation of transit priority measures where buses continue to experience significant delays (more than five minutes late), as defined by Guelph Transit's on-time metric, even with Stage 1 implemented, and subject to environmental assessment studies.

Stage 3 – Conversion of general traffic lanes to dedicated transit lanes (either at peak times or all-day) on existing four-lane streets and/or widening existing two-lane streets to four lanes to create dedicated transit lanes where delay and ridership warrants it according to Guelph Transit performance metrics, subject to environmental assessment studies

3.1.1.2 The City will implement frequent transit service in all *Quality Transit Network* corridors, as per the 2021 Route Review, and beyond 2031 subject to the future Guelph Transit Master Plan.

3.1.1.3 The City will monitor ridership and performance metrics in all *Quality Transit Network* corridors and initiate the required planning and design studies for Stage 2 network modifications when conditions demonstrate they are needed.

3.1.1.4 The City will improve passenger amenities, including shelters, bicycle racks, and seating, in the *Quality Transit Network* corridors to improve the experience for customers.

3.1.2 Continue to improve the transit level of service across the City

The following policies are recommended to continue the development of the transit network and align it with the TMP Vision and Goals.

3.1.2.1 The City will undertake a Transit Master Plan update.

3.1.2.2 The City will implement an equity lens into regular transit service reviews to ensure that everyone in the community is able to access and use the transit system.

3.1.2.3 The City will continue to ensure that Guelph Transit services and amenities are accessible, inviting and comfortable places to be.

3.1.2.4 The City will continue the transition of buses and fleet vehicles to zero tail-pipe emissions, and implement infrastructure upgrades required to accomplish this.

3.1.2.5 The City will continue to study opportunities for *Alternative Service Delivery* and micro-transit in Guelph.

3.1.2.6 The City will identify if the transit system requires additional maintenance and storage facilities to provide additional service beyond what is planned for the new Operations Campus by 2041.

3.1.2.7 The City will continue to assess where additional terminals are needed in addition to the planned hub in the Clair Maltby Secondary Plan Area.

3.1.2.8 The City will continue to follow the direction of the 2019 Transit Business Service Review, which has set a target for 90% of the population to be within 400 metres of service. Otherwise, it is expected that bus stops be provided at regular intervals, generally within 400 metres of every residence and business.

3.1.3 Prioritize active transportation access to transit

3.1.3.1 The City will continue to plan for trails, sidewalks, or pathways in appropriate locations to increase pedestrian and cyclist accessibility to transit services.

3.1.3.2 The City will continue to improve the integration between public transit and active transportation modes through measures such as installing bicycle racks on buses, bicycle parking at transit terminals, and shelters at stops.

3.1.4 Continue to provide transit access to persons with disabilities

3.1.4.1 The City will meet or exceed the *Accessibility for Ontarians with Disabilities Act* (AODA) and the *Facility Accessibility Design Manual* for accommodating persons with disabilities within the Guelph Transit system and services.

3.2 Develop the Guelph Central Station

3.2.1 Continue to develop the Guelph Central Station

In keeping with the vision for a complete and transit supportive community, Downtown is identified as a *Major Transit Station Area* in Schedule A of the *Official Plan* (July 2021 consolidation), and as designated by the Province of Ontario *in A Place to Grow: Growth plan for the Greater Golden Horseshoe*. The *Major Transit Station Area* supports both inter-city transit service as well as local transit service and functions as the central hub providing connections within and outside the city.

Guelph Transit's main terminal is named Guelph Central Station. It forms part of a central transit hub adjacent to the VIA/Metrolinx rail station and plays a critical role in implementing the City's Transit Growth Strategy.

3.2.1.1 The TMP continues to support the *Official Plan* policies that state that the *Major Transit Station Area* will generally be planned and designed to:

(a) Achieve increased residential and employment densities that support and ensure the viability of existing and planned transit infrastructure and service;

(b) Achieve a mix of residential, office, institutional and commercial development, where appropriate; and
(c) Provide access from various transportation modes to the transit facility including consideration of pedestrians, bicycle parking and commuter pick-up/drop-off areas.

3.2.1.2 The Downtown Secondary Plan (*Official Plan* July 2021 consolidation) recommends transit priority measures on Downtown Primary Streets, Downtown Main Streets and in the immediate vicinity of the *Major Transit Station Area*, such as signal priority and queue jumping lanes.

3.2.1.3 The City will continue to work with VIA, Metrolinx, inter-city transit providers and other stakeholders to ensure all planned transit functions of the Guelph Central Station are accommodated and coordinated in an efficient manner that supports the broad objective to create an attractive and transit-oriented Downtown.

3.2.1.4 The City will continue to work with Downtown property owners, employers and residents to capitalize on the Guelph Central Station and monitor any impacts it may have on its immediate surroundings.

3.2.1.5 The City will investigate the need for a connection linking Neeve Street to Farquhar Street to facilitate vehicular and pedestrian circulation associated with the Guelph Central Station.

3.2.1.6 The City will determine the role the Guelph Central Station will play in supporting the transition of buses to zero tail-pipe emission vehicles.

3.3 Increase cross boundary transit trips

In 2021, Guelph offers inter-regional transit connections with GO Transit (by bus and train), Wellington County on-demand RIDE WELL (ridesharing transit service) and Kasper Transportation (bus). This section addresses the opportunity for more transit trips between Guelph and surrounding communities.

3.3.1 Continue to support the development of two-way all-day GO Rail service

The Metrolinx GO rail service is the primary focus for improving transit service between Guelph and Toronto and Guelph and Kitchener. GO Transit operates trains between Guelph Central Station and Toronto Union Station 20 times a day (as of September December 2021). Metrolinx continues to advance two-way all-day GO service in the near term in the Kitchener corridor, while working towards electrification in the long term, as per the Metrolinx 2041 Regional Transportation Plan.

Forecasts (2041) from the business case suggest that providing two way, all day service in the Kitchener corridor will result in annual boardings at the Guelph Central Station of approximately 650,000 persons, reflecting at a 128% increase over the 285,000 persons forecasted for the

business-as-usual scenario.[1] The improved service is also expected to significantly reduce travel times between Guelph and Union station in Toronto.

Though specific dates for the completion of these studies and the resulting infrastructure expenditure to realize two-way, all-day service are not identified, it is possible that this will be realized in the next 10 years.

Two-way all day GO Service may require closure or safety improvements of a number of existing at-grade crossings to ensure safety for all travellers. Closures of existing at-grade crossings would have a negative impact on active transportation and/or vehicular circulation and access to some downtown neighbourhoods. The level rail crossing transportation study (2022) assesses the requirement for at-grade crossing closures, identifies implications of the closures, and proposes a mitigation strategy to offset the impacts.

3.3.1.1 The City will continue to work with Metrolinx to advance and support delivery of two-way all-day GO service in the near term in the Kitchener corridor, while working towards electrification in the long term.

3.3.1.2 The City will continue to provide the Guelph Transit and GO Transit co-fare program, and will participate in future fare integration programs proposed by Metrolinx.

3.3.1.3 The City will seek to maintain appropriate vehicle, and/or cycling and pedestrian network connectivity across the Metrolinx rail corridor as train frequency and speeds increase.

3.3.2 Increase transit trips to adjacent communities

3.3.2.1 The City will continue to encourage and participate in studies and programs leading to the planning and implementation of inter-urban bus and micro transit services that connect Guelph to other nearby urban centres in southwestern Ontario.

3.3.2.2 The City will complete a study on the feasibility of *Park-and-Ride facilities* to increase the use of transit for trips between Guelph and adjacent communities.

3.3.2.3 The City will continue to work with involved railway companies and other levels of government to increase the availability of inter-city passenger rail transportation for Guelph.

3.4 Strengthen the relationship between land use and transit

Guelph is one of the fastest growing cities in Ontario, and is anticipated to grow its population by 50% by 2051. To continue rebalancing the mode share in the future, public transit will need to

[1] These forecasts were prepared before the COVID-19 pandemic. For more information about anticipated COVID impacts refer to the COVID strategic assessment paper.

keep attracting ridership and accommodating for this growth. This section focuses on strengthening the relationship between land use and transit in order to increase the efficiency and attractiveness of transit service.

3.4.1 Continue to support transit and land use cooperation

Strong transit connections to residential neighbourhoods, and jobs in the intensification corridors and mixed-use nodes (identified in Guelph's *Official Plan*) will allow the City to develop without relying on automobiles. The Guelph *Official Plan* directs the City to ensure the coordination between transportation system planning, land use planning, and transportation investment. The following policies are recommended to strengthen the coordination between transit and land use planning.

3.4.1.1 The transit service guidelines set walking standards for intensification areas and general areas to ultimately achieve ridership goals. The City will use these guidelines to evaluate the road and trail network by identifying areas that do not achieve these standards.

3.4.1.2 To ensure that public transit is an attractive, energy efficient and convenient means of travel, the City will continue to follow the *Official Plan* (July 2021 consolidation), which has set the following objectives for the City:

a) Plan for a compact urban form by promoting mixed and transit-supportive land uses, urban intensification, a strong Downtown and urban structure of nodes and corridors as identified on Schedule 1 of the *Official Plan*;
b) Consider public transit as a high priority for transportation infrastructure planning, second only to active transportation;
c) Ensure the creation of a road network that permits reasonable walking distances to and from transit stops for a majority of residences, jobs and other activities in the area;
d) Ensure that the phasing of new development allows for the provision of transit service in the early phases of new development so that using transit is a viable option for the first occupants;
e) Require development proponents to plan for the provision of transit in an integrated and comprehensive manner including the location of transit routes and facilities, where appropriate; and
f) Consider the impacts on transit when planning the locations for higher density housing, commercial and employment centres.

3.4.1.3 In the review of development applications that involve major traffic generators and of facilities potentially used by transit riders, the City will continue to require the provision of on-site or off-site facilities, such as transit user amenities, integrated mobility options, accessibility accommodations, or road improvements that will facilitate public transit service as appropriate.

3.4.1.4 The City will work with other levels of government and service providers to ensure that any new community facilities are within existing or planned transit supportive development, and/or within a short walking distance to frequent transit service.

3.4.1.5 The City will encourage all future development to take the form of *Complete Communities/Transit Supportive Development*.

3.4.1.6 The City will place priority on increasing the level of service of existing transit to support intensification areas, and expand transit service to areas which have achieved, or plan to achieve, transit-supportive residential and employment densities, together with a mix of land uses whenever possible.

3.4.1.7 The City will consider extending frequent transit service to more employment areas as part of the next Transit Master Plan update.

3.5 Improve transit promotion

The promotion of transit is a critical piece to the rebalancing of mode share across the city. Network improvements and prioritization are very important; but so too is the active management of mode choice through an on-going effort to manage transportation demands. The City of Guelph has an existing *Transportation Demand Management* program that can be leveraged, expanded and strengthened to be the necessary complement to the network strategies.

3.5.1 Promote transit as a mode of travel

3.5.1.1 The City will promote transit as a desirable, affordable, and environmentally sustainable mode of transportation. It is a priority to make transit more convenient and simple to understand, through various communication channels and in partnership with school boards, agencies, police services, Wellington County, developers, employers, and community organizations. A key message will be the practicality of transit and its importance to decreasing carbon emissions and improving air quality.

3.5.1.2 The City will explore opportunities for enhanced trip planning tools to help travelers make multi-modal transportation decisions in real-time.

3.5.1.3 Through the establishment of an Emerging Transportation Technologies office, the City will explore opportunities for Guelph Transit to leverage new service models or technologies that keep Guelph future-ready and resilient.

3.6 Future Ready

As new transportation innovations and technologies emerge, the way people and goods move in urban environments will change and disrupt our transportation networks. Anticipating these changes and understanding the challenges and opportunities they present is critical for forecasting what transportation will look like in the future, and enables Guelph to mitigate any negative impacts.

This section outlines innovations and trends in transit that the City should explore, research, anticipate, and/or plan to create a "future-ready" Guelph.

3.6.1 Innovations and trends for further exploration

3.6.1.1 The City will explore the possibility of using mobility-as-a-service (MaaS) platforms to pay for a variety of mobility options available in Guelph.

3.6.1.2 The City will continue to implement TDM initiatives that promote and support the shift to transit

3.6.1.3 The City should monitor and study the opportunities for autonomous transit buses or shuttles in Guelph.

3.6.1.4 The City should monitor post-COVID-19 transit ridership trends and adjust service forecasts and plans accordingly.

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City of Guelph Transportation Master Plan

Goods movement policies

December 2021 – 18-8919

4.0 Goods Movement Policies

Relevant Goals that Align with the Goods Movement Policies:

Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050

Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives

Goal 6: Investment decisions will be made considering the asset lifecycle costs

Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today

The City recognizes the importance of safe and efficient movement of goods to Guelph's economic livelihood and regional competitiveness. Guelph's goods movement policies consider the connection of Guelph's industries and businesses to the surrounding region and the overall North American freight movement system to facilitate the safe and efficient movement of raw materials and finished products. They also consider the operation of trucks and trains on the Guelph transportation system; looking to offset negative impacts of heavy vehicles on other modes while allowing for the safe delivery and pick up of materials.

The *Goods Movement Priority Network* is a network of streets that facilitate the efficient and safe movement of goods in the City, while striving to minimize associated social and environmental impacts. It is designed to allow large vehicles to travel through the city efficiently while safely interacting with people who are walking or cycling on the same streets.

4.1 Prepare a comprehensive goods movement strategy

Guelph's freight movement system consists of truck and rail freight operating on facilities owned by multiple parties (City of Guelph, Ministry of Transportation, *Guelph Junction Railway*, Metrolinx, and Canadian National Railway). The City of Guelph does not currently have a comprehensive *Goods Movement Strategy*. The *Goods Movement Priority Network* in the TMP reflects the City's existing permissive truck route network.

4.1.1 The City will prepare a comprehensive *Goods Movement Strategy* to reflect the *Official Plan* policies and to inform:

a) Any required updates to Guelph's permissive truck route network (Schedule 4);
b) The required design parameters for trucks on Guelph's streets;
c) The role of the *Guelph Junction Railway* in moving freight in Guelph and opportunities to shift goods to rail;
d) The potential impact of emerging technology and modes, including autonomous drone or vehicle services, cargo-bicycles and e-commerce;
e) Consideration of accommodating long-combination vehicles in designated areas;

f) Designated delivery hours for key neighbourhoods; and
g) Curbside management controls and strategy.

4.2 Enable efficient goods movement with trucks

Trucks are the primary local freight transportation option in Guelph. The City maintains a comprehensive truck route system that consists of arterial and collector roads that connect the region to Guelph's industrial and commercial areas. This section will review the movement of goods with trucks in Guelph.

4.2.1 Designate truck routes to serve the industry and protect neighbourhoods

4.2.1.1 The City will continue to work with the Province, agencies and transportation service providers to implement the recommendations of the *Official Plan* goods movement policies.

4.2.1.2 The City will continue to follow the *Official Plan* trucking and goods movement policies, which identifies that the City is responsible for minimizing the impact of trucks upon residential areas by following these policies:

a) Truck routes may be used to direct through truck traffic to avoid certain residential streets. Truck routes, if provided, will be designed to maximize accessibility to commercial and industrial areas of the city;
b) The City will use the Zoning bylaw to manage land uses, activities and home occupations that generate truck traffic;
c) The City will coordinate with the Province, Wellington County and neighbouring municipalities on the planning and design of an efficient goods movement system that minimizes community and traffic impacts; and
d) Truck use will be regulated through a permissive truck route system and regulations, pertaining to heavy trucks, which is contained in the City's Traffic By-law, as amended from time to time.

4.2.2 Consider truck needs in road planning, design and construction

4.2.2.1 When constructing or rehabilitating roads, the City will consider trucking needs through the use of appropriate design standards and the inclusion of features such as on-street loading areas and separated cycling and/or *micro-mobility* facilities.

4.2.2.2 The City will monitor opportunities to enhance the truck route network through road rehabilitation and through enabling the adjustment or removal of seasonal weight restrictions.

4.2.2.3 On Primary or Downtown Main Streets where blocks do not have secondary access from a Laneway, Secondary Street or Local Street, the City will continue to address loading within the design of the right of way.

4.2.3 Monitor and consult with large truck and logistics users for mutual benefit

Accommodating freight in a community requires continuous knowledge sharing from experts in the field. The following policies are recommended for supporting knowledge sharing and innovation.

4.2.3.1 The City will regularly engage with large truck and logistics users to quantify freight demand characteristics, the use of arterial roads by trucks, and the congestion, noise and safety impacts of truck movements.

4.2.3.2 The City will encourage the industry to explore goods movement technologies and practices that can reduce community impacts, improve efficiency and enhance regional competitiveness. These could include intermodal terminals that enable a transfer of freight tonnage from road to rail.

4.3 Enable efficient goods movement with rail

Guelph is connected to crucial freight corridors through the *Guelph Junction Railway*, Canadian National Railway and the Canadian Pacific Railway. This section will review the movement of goods with rail in Guelph

4.3.1 Continue to provide rail service to industrial areas and protect neighbourhoods

The City recognizes the need for railway freight transportation within and through the City to be safe, sustainable, and efficient. The following policies are recommended for rail service in Guelph.

4.3.1.1 The City will continue to minimize road/rail conflict wherever possible. In light of the potential for significant environmental, social and cost impacts associated with grade separating rail and road crossings, the City will follow Transport Canada Grade Separation Assessment Guidelines. The City has identified the potential for a road/rail grade separation at the following locations:

(a) at Silvercreek Parkway and Canadian National Railway grade;
(b) at Edinburgh Road and the GO rail line; and
(c) at the intersections of the Guelph Junction Railway with Woodlawn Road and Edinburgh Road.

These locations should be subject to further study to determine if and how grade separation is provided.

4.3.1.2 The City will continue to facilitate the provision of rail freight service to employment areas, where feasible, including the continued support of the City-owned Guelph Junction Railway Company.

4.3.2 Continue to consider rail supportive land use

Land use development near railways can presents incompatibility challenges. This section will review the land use planning procedures when in close proximity to railways.

4.3.2.1 The City will continue to follow the *Official Plan* when there are proponents of development in proximity to a railway:

a) Must demonstrate, to the satisfaction of the City, that applicable safety requirements can be satisfied;
b) Meet the requirements of the noise and vibration policies of this *Plan*; and
c) Implement other mitigation and buffering measures such as set-backs, intervening berms and security fencing as may be required as a condition of subdivision approval or other development approval.

4.3.2.2 Where development cannot reasonably achieve standard safety measures, the City, in consultation with the affected railway, may consider a site specific risk management approach to meeting safety and security requirements**.**

4.3.2.3 While the preliminary review does not indicate a strong potential for passenger rail service on the *Guelph Junction Railway* line, the City supports reviewing the case for passenger rail service in concert with future municipal comprehensive *Official Plan* review.

4.4 Future Ready

As new transportation innovations and technologies emerge, the way people and goods move in urban environments will change and disrupt our transportation networks. Anticipating these changes and understanding the challenges and opportunities they present is critical for forecasting what transportation will look like in the future and enables Guelph to mitigate any negative impacts. This section outlines innovations and trends in goods movement that the City should explore, research, anticipate, and/or plan to create a "future-ready" Guelph.

4.4.1 Innovations and trends for further exploration

4.4.1.1 The City will explore ways to accommodate and support new courier network services that have recently emerged to meet the increasing last-mile home delivery demands, such as cargo bikes**.**

4.4.1.2 The City will research effective curbside management practices and technologies to better balance and optimize the rising short-term curb space demands due to the increase of ride hailing services (like Uber), delivery vehicles, curbside pickups and drop-offs, along with transit, accessibility, and vehicle parking.

4.4.1.3. The City should stay up-to-date on emerging delivery technologies that may appear over the next few decades and their potential impacts, including autonomous transport for both long distance and last-mile deliveries, and large-scale drone deliveries.

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City of Guelph Transportation Master Plan

Roads policies

December 2021 – 18-8919

5.0 Roads Policies

Relevant Goals that Align with the General Policies:

Goal 1: People of all ages and abilities will be able to travel safely using any transportation mode that they choose
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives
Goal 6: Investment decisions will be made considering the asset lifecycle costs
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today

The 2016 City-wide mode share for cars is 80%. The City of Guelph is targeting to decrease car mode share to 58% by 2051. Adjusting the mode share through various tools and strategies, will help manage congestion pressure on the road network, and improve equity, accessibility, and quality of life for Guelph residents. The following sections provide some of those tools and strategies.

5.1 Build a sustainable road network

5.1.1 Create new tools and expand existing ones to promote sustainable transportation modes

5.1.1.1 The City will develop a *Complete Streets Design Guide* to inform all future street design. The *Complete Streets Design Guide* will:

a) Continue to reflect the functional street classifications in this plan, as well as the 2014 City of Guelph Downtown Streetscape Manual and the 2021 City of Guelph *Official Plan,* and as noted in the proposed Street Hierarchy of this plan (Schedule 5)

b) Continue to ensure that the design of roads incorporate streetscape and design elements determined through the road design process that are consistent with the Urban Design policies of existing plans, where appropriate, based on the planned function of the road. The City will continue to be guided by the street, mid-block, intersection, and public transit facilities design guidelines found in the following resources, which will continue to evolve over time. The specific direction on how to design streets will need to be confirmed once the *Complete Streets Design Guide* is complete:

- 2021 City of Guelph *Official Plan*
- 2015 Facility Accessibility Design Manual;
- 2014 City of Guelph Downtown Streetscape Manual;
- Development Engineering Manual;

- Linear Infrastructure Standards; and
- Current industry guidelines (e.g. Ontario Traffic Manual, Transportation Association of Canada).

c) Continue to consider road designs that are innovative in terms of multi-modal and environmental considerations which lower environmental impacts and improve sustainability.

d) Be used to update the right-of-way table and intersection improvement table (Table 5.1 and 5.2) in the *Official Plan*

5.1.1.2 The City will develop a *Multimodal Level of Service Guideline* to guide and inform the decision making during the planning, design, and operations of streets and intersections.

5.1.2 Ensure the road network and system can accommodate new residents

The population of Guelph is projected to grow by 203,000 residents and 116,000 jobs by 2051. The road network and system will need to be planned intentionally to accommodate this new growth, and with an eye to achieving mode share targets. Schedule 6 illustrates the car priority network. The following policies recommend how the City will continue to plan for new development.

5.1.2.1 The City will implement the approved road network concepts outlined in the Downtown Secondary Plan, the Guelph Innovation District Secondary Plan and the Clair-Maltby Master Environmental Servicing Plan and Secondary Plan.

5.1.2.2 The City will ensure continuity of sidewalks, bicycle facilities and bus routes in new developments as they are being constructed. The road network design will seek to minimize travel distances for pedestrians, cyclists and transit during all development phases.

5.1.2.3 The City will continue to promote the creation of an arterial-collector grid road system in the undeveloped area of the city, subject to appropriate studies, in order to assist in the dispersion of traffic and to provide appropriate walking distances to transit services on the main roads.

5.1.2.4 To control future land uses that would increase traffic unnecessarily on the arterial-collector grid and at intersections, the City will continue to:

a) Restrict strip commercial development along arterial roads; and

b) Locate service commercial development in designated areas along only one side of the arterial road.

5.1.2.5 The City will continue to require the submission of *Transportation Impact Assessment Studies* for development proposals that are considered as significant traffic generators along arterial and collector roads to determine whether the development is consistent with the vision and goals of the Transportation Master Plan.

5.1.2.6 The City will update its Transportation Impact Study Guidelines to reflect its commitment to multimodal transportation systems planning to include a *Transportation Demand Management* checklist for all development applications.

5.2 Protect neighbourhoods and cultural resources from undesirable road impacts

5.2.1 Continue to address adverse impacts of road projects

New road projects can often result in adverse impacts on the natural and cultural heritage of an area. The following policies are recommended to address these impacts.

5.2.1.1 The City will continue to require noise mitigation studies for urban street corridors with identified noise pollution issues.

5.2.1.2 The City will continue to ensure any impacts on the Natural Heritage System and cultural heritage resources are addressed in the design process for road capital projects in accordance with the provisions of the *Official Plan*.

5.2.1.3 The City will continue to have regard for and, when necessary, require measures to mitigate any negative impacts on cultural heritage resources, especially the character of landscapes, streetscapes, tree lines, bridges, views and points of scenic interest and the prevailing pattern of settlement when considering the construction of new roads and road improvements, including road re-alignment and road widening.

5.2.1.4 The City will have regard for best practices or mitigating impact on habitat / feeding and migration patterns of wildlife when undertaking capital projects.

5.2.1.5 The City will consider installation of best practices in *low-impact development* management along road corridors, where appropriate. The Source Water Protection Plan and the Stormwater Management Master Plan (underway) should be consulted at the onset of all right-of-way construction and re-construction projects for guidance on the appropriateness of *low-impact development* implementation.

5.3 Maximize road safety for all users

5.3.1 Increase safety provisions in planning, design, and operational decisions

Without additional preventative road safety measures, undesirable conditions and behaviours can lead to property damage, injury and death. These risks can be mitigated through multidisciplinary road safety strategies. The following policies are recommended to increase safety provisions.

5.3.1.1 The City Council will formally adopt *Vision Zero* approach to road design, acknowledging that the Community Road Safety Strategy forms part of Guelph's *Vision Zero* plan, and will continue to be implemented and updated as necessary.

5.3.1.2 The City will continue to work with the Ministry of Transportation of Ontario to replace all existing at-grade intersections on the Hanlon Expressway with interchanges, overpasses or underpasses.

5.3.1.3 The City will develop a city-wide strategy for the planning and design of roundabouts.

5.3.1.4 The City will continue to review the need for safety improvements and grade-separations of existing at-grade rail crossings for vehicles and/or active transportation that meet or exceed Transport Canada requirements.

5.4 Prioritize energy reduction and minimize environmental impacts

5.4.1 Promote low or zero emission vehicle technology

The transportation sector is one of the largest contributors to greenhouse gas emissions. The following policies are recommended to promote low and zero emission car technology.

5.4.1.1 The City will explore opportunities to support consumer adoption of low or zero emission vehicles.

5.4.1.2 The City will review and update the City's Municipal Zero Emissions Vehicle and Transit Fleet Strategy at regular intervals, to keep up to date with emerging technologies and practices.

5.4.1.3 The City will continuously review the effectiveness of the existing public electric vehicle charging station network and identify needs and opportunities for growth of the network.

5.4.2 Continue to reduce greenhouse gas emissions and energy use

5.4.2.1 The City will continue to implement urban design and development standards to reduce climate change impacts and enhance climate resiliency for public works and infrastructure including roads, bridges, stormwater systems and energy distribution systems.

5.4.2.2 The City will continue to aim to source 100% renewable energy for all City facilities and fleet operations by 2050.

5.4.2.3 The City will continue to aim to be a net zero carbon community by 2050.

6.4.2.4 The City will review and update anti-idling bylaws and explore enforcement opportunities.

6.4.2.5 The City will continue to meet the growing transport requirements while reducing the transportation energy use by 25% or more, using sensitive urban design, effective alternative transport options, and encouraging vehicle efficiencies.

5.5 Enhance city parking facilities and services

Given the significant costs associated with parking and its influence on mode choice, parking management is increasingly important in municipalities. Effective parking management should strike a balance between supply and demand for various types (e.g. short-term, long-term, and accessible), while limiting the oversupply of parking spaces. Improved parking efficiency can reduce the amount of space needed for parking, providing opportunities to develop more community-oriented spaces and supporting the potential reallocation of on-street parking space for other uses such as active transportation and transit infrastructure. This section addresses the parking needs for Guelph.

5.5.1 Continue to improve parking conditions and options

Public parking has been identified as an area of interest for the City to explore improving. The following policies are recommended to improve parking conditions and options throughout Guelph.

5.5.1.1 The City will conduct a review of on-street and off-street parking to ensure the city-wide parking system is in alignment with the goals and objectives of this plan; recommendations of the study will inform future updates to the traffic, parking and zoning bylaws.

5.5.1.2 The City will periodically review and update the City's Downtown Parking Master Plan to align with the TMP goals to reduce auto mode share.

5.5.1.3 The City will continue to provide parking to meet the needs of Downtown businesses, residents and visitors.

5.5.1.4 The City will continue to play an active role in the supply of off-street parking Downtown.

5.5.1.5 The future Downtown Parking Master Plan updates will recommend best practices of on-street parking management that support the goals and proposed network of this plan, including:

a) Compatibility with proposed *Cycling Spine Network* within the Downtown area
b) Consideration for accessibility and transit access needs
c) Supply management that balances existing and projected demand with the mode share target set out by this plan
d) Integrated management of on-street stalls for loading and short-term stopping needs
e) Consideration of temporary stopping stalls to support automated vehicles or ride-share programs

f) Consideration of specialized uses such as electric vehicle or fleet charging locations

5.5.1.6 The City will continue to specify off-street parking requirements and may establish maximum parking requirements in the Zoning By-law, where appropriate.

5.5.1.7 The City will continue to enforce that off-street parking areas and facilities shall be provided through zoning and site plan requirements.

5.5.1.8 The City will continue to consider cash-in-lieu of required parking in accordance with the *Planning Act*.

5.5.1.9 The City will continue to follow the 2014 *Downtown Streetscape Manual* and 2021 *Official Plan* for on-street and off-street parking guidelines unless superseded by subsequent council-approved road design studies.

5.5.1.10 The City may acquire, develop and operate parking facilities outside of the downtown, if necessary.

5.6 Manage congestion

The Guelph TMP prioritizes rebalancing the existing street network to promote the needs of sustainable transportation modes. This will place pressure on the system; pressure that needs to be actively managed through a *Transportation Systems Management* program.

5.6.1.1 The City will develop a *Transportation System Management* Strategy and Action Plan. The *Transportation Systems Management* Strategy will consider:

a) Congestion Management
b) Access Management
c) Transit Priority
d) *Intelligent Transportation Systems* and *smart signals*
e) The City's approach to curbside management
f) Data collection needs/processes and the potential of big data

5.6.1.2 The City will complete a flex zone/curbside priorities analysis to understand the tradeoffs of how land use impacts areas where curb space is limited and sets priority for flex zone use by function.

5.6.1.3 The City will develop a strategy for smart signal implementation

5.6.1.4 The City will continue to implement a *Transportation Demand Management* program that influences when, where and how people travel around Guelph by:

(a) Developing specific services and programs to deliver *Transportation Demand Management* to the community
(b) Developing branding and marketing to increase public awareness of *Transportation Demand Management*
(c) Increasing collaboration with external partners; and
(d) Ensuring that *Transportation Demand Management* is incorporated into relevant programs of the City of Guelph government.

5.7 Future Ready

Over the last few decades, amidst the rapid evolution of digital technologies and ever improving connectivity, new transportation related innovations have emerged at an unprecedented rate. These innovations are changing how we move, shaking up the transportation sector, and reshaping our cities.

Understanding the changes in how people and goods move in urban environments is critical to forecasting what transportation will look like in the future and knowing what we should plan for. This section discusses a number of new and emerging technology-driven changes to mobility that exist in communities today or are on the horizon.

5.7.1.1 The City will establish an Emerging Transportation Technologies office to assess new transportation technologies including autonomous vehicles and drone technologies, new modes or services including shared micro-mobility, and data collection opportunities and position the City to respond.

5.7.1.2 The City will establish a Resilience Network in the *Official Plan* to protect the full width for future spatial needs for a four-lane road cross section, as per Schedule 7. The resilience network will be implemented, subject to appropriate technical studies, when it meets the following criteria:

a) It aligns with two or more of the core values of the TMP;
b) It contributes to meeting the mode share target;
c) There is a clear benefit to the community that outweighs the potential impacts of widening the right-of-way; and
d) It meets the goals and policies of the Official Plan.

5.7.1.3 The City will explore and evaluate opportunities for connected mobility and the Internet of Things (IoT) applications in the transportation network, such as dynamic speed limits and dynamic parking pricing.

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City of Guelph Transportation Master Plan

Implementation policies

December 2021 – 18-8919

6.0 Implementation and Reporting

6.1 Communication and Engagement

Delivering the vision and goals of the TMP requires ongoing communication and engagement to ensure the City continues to meet the needs of the community.

6.1.1 Continue to communicate in a proactive and inclusive manner

6.1.1.1 Continue to deliver an effective communication strategy to help impacted road users understand the purpose for and benefits of changes, and to mitigate negative reactions where congestion may occur

6.1.1.2 The City will establish a Terms of Reference and mandate for Council's consideration that recommends an Integrated Transportation Advisory Committee composed of community members that represent one or more road user group to provide integrated community feedback into implementation of the TMP.

6.2 Reporting

The City is accountable and transparent to the residents, businesses and other stakeholders using its lands, services and resources. It is important to continuously track the implementation of the recommendations of this Plan and monitor key performance indicators that demonstrate how the City is trending toward achieving our goals. The following policies will assist staff in accurate and timely reporting to the public.

6.2.1 Monitor and track mode share

6.2.1.1 The City will continue to participate in the Transportation Tomorrow Survey every 5 years to collect local and regional data on transportation behaviours, patterns and trends to be used in conjunction with local population and employment growth forecasts and distribution forecasts in order to model and project transportation mode share and network capacity.

6.2.1.2 The City will seek opportunities for enhanced multi-modal transportation data collection methodologies to inform mode share trends on an annual basis, if possible, to assist with tracking and informing capital investment decisions that best advance the City toward meeting the mode share target goals of this plan.

6.2.2 Develop and maintain a connectivity index

6.2.2.1 The City will develop a connectivity index to track how well the various transportation networks, including delivery of the recommended network improvements (Schedule

8) are complete and connected throughout the community. This index will serve as a key performance indicator for the plan 2019-2023 Strategic Plan.

6.2.2.2 Regular progress on the implementation of the TMP will be provided by reporting the connectivity index and the mode share (every 5 years) through the Guelph. Future Ready progress report and dashboard.

6.3 Funding the TMP

There are capital and operating costs to implementing this plan. These costs change with fluctuations in market prices, property values, available external funding opportunities and policy changes to tax and development charge rates. This section outlines the approach recommended to monitor and pay for the recommendations of this plan.

6.3.1 Use the City Budget to manage the affordability of this plan

6.3.1.1 The City will annually review the capital budget forecast and recommend capital projects that implement the TMP and advance toward achieving the desired mode share target while also aligning with infrastructure renewal and strategic priorities.

6.3.1.2 The City will consult the prioritization methodology developed by this plan and informed by community engagement to inform new projects to add for consideration to the capital budget forecast.

6.3.1.3 The City's operating budget forecast for maintaining transportation infrastructure will be compared to actuals on a regular basis to update and refine the operating costs of maintaining the transportation network.

6.3.1.4 The City will regularly monitor staff capacity and make recommendations for increasing staff resources as required to implement the programs and capital plans of the TMP through the multi-year operating budget process.

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City of Guelph Transportation Master Plan

Schedules

December 2021 – 18-8919

Schedule 1 – Pedestrian network

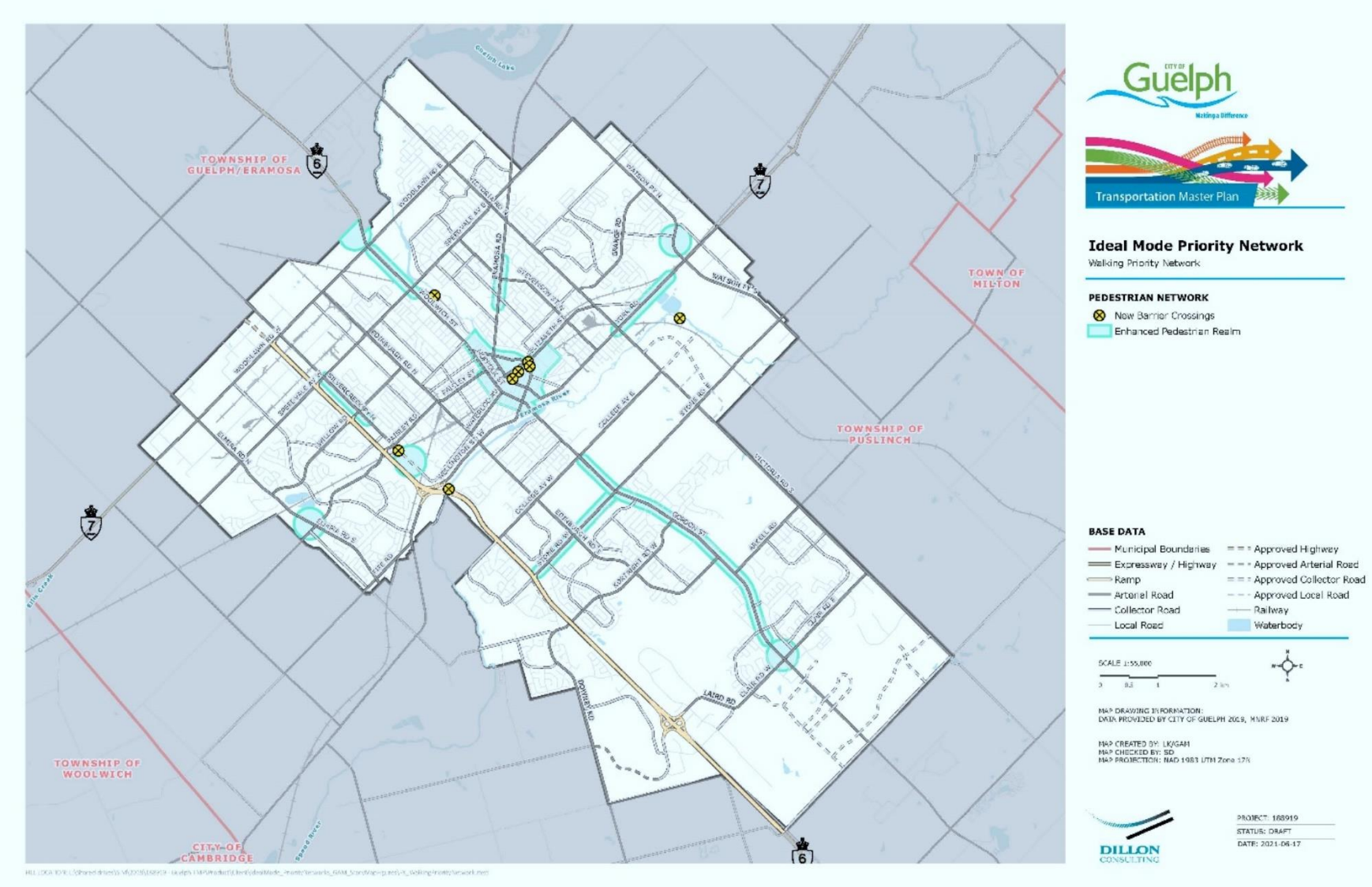


Figure 1 Pedestrian Priority Network

Schedule 2 – Cycling spine network

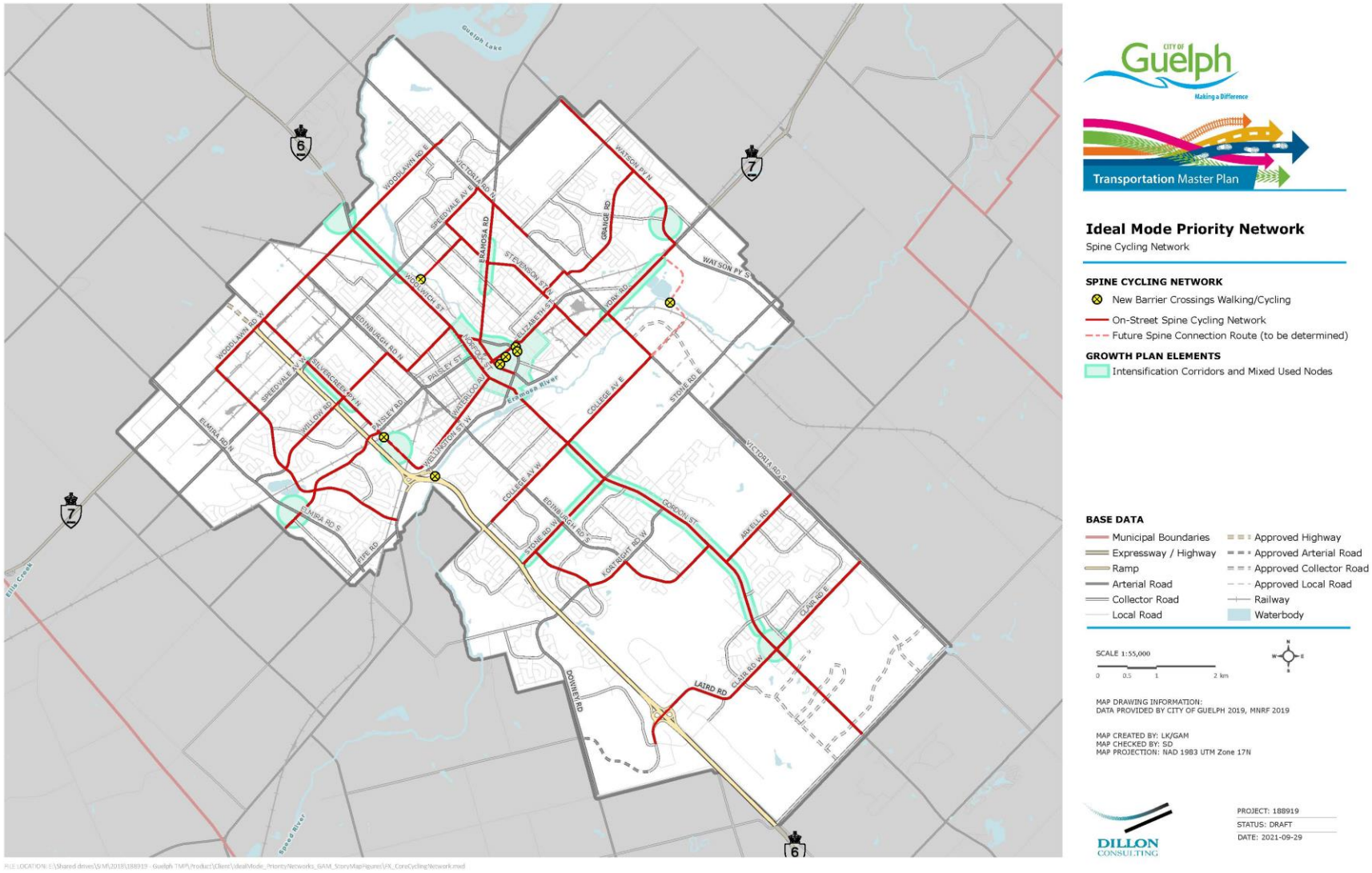


Figure 2 - Cycling Spine Network

Schedule 3 – Quality Transit Network

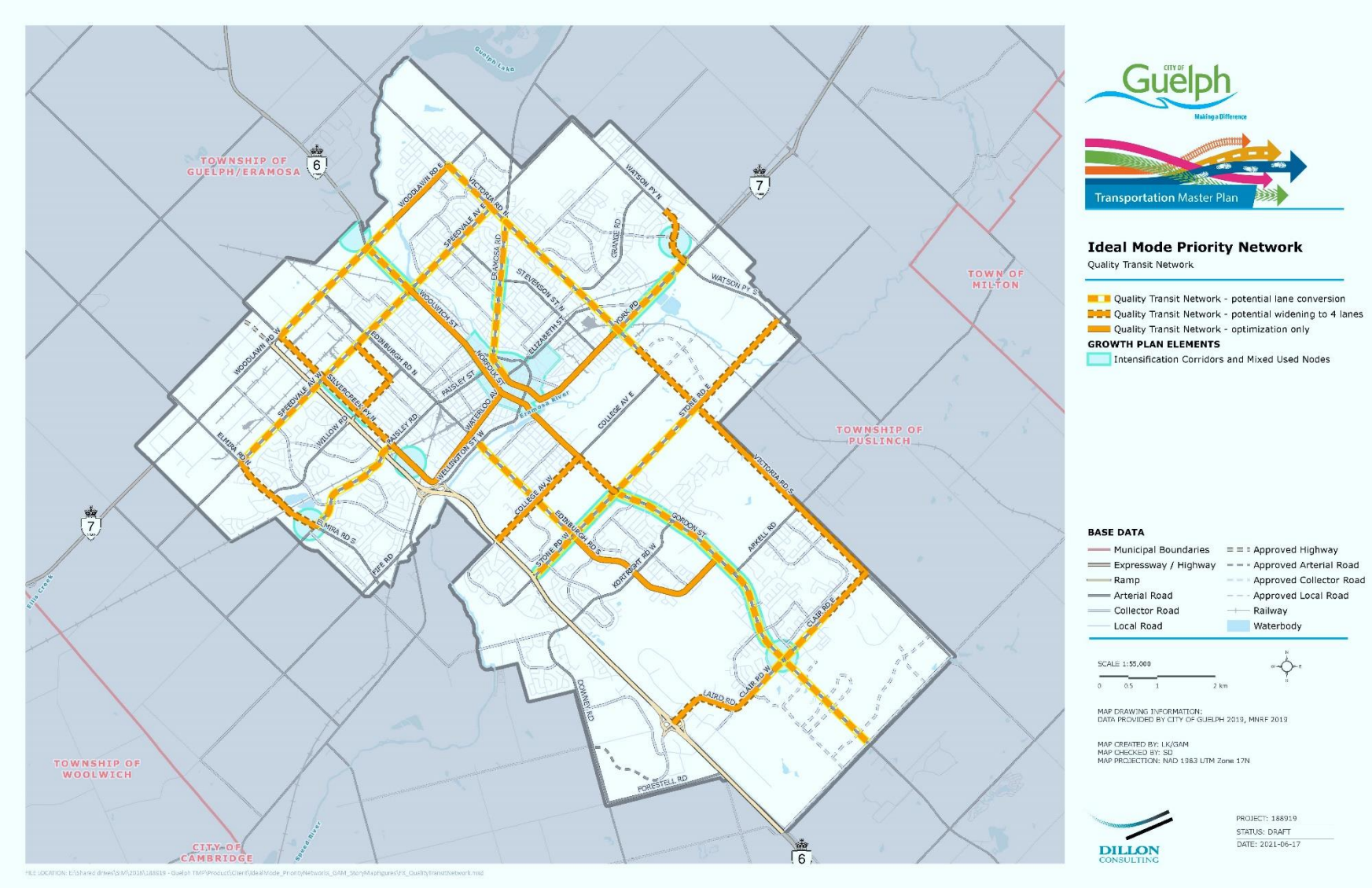


Figure 3 - Quality transit network

Schedule 4 – Existing permissive truck routes

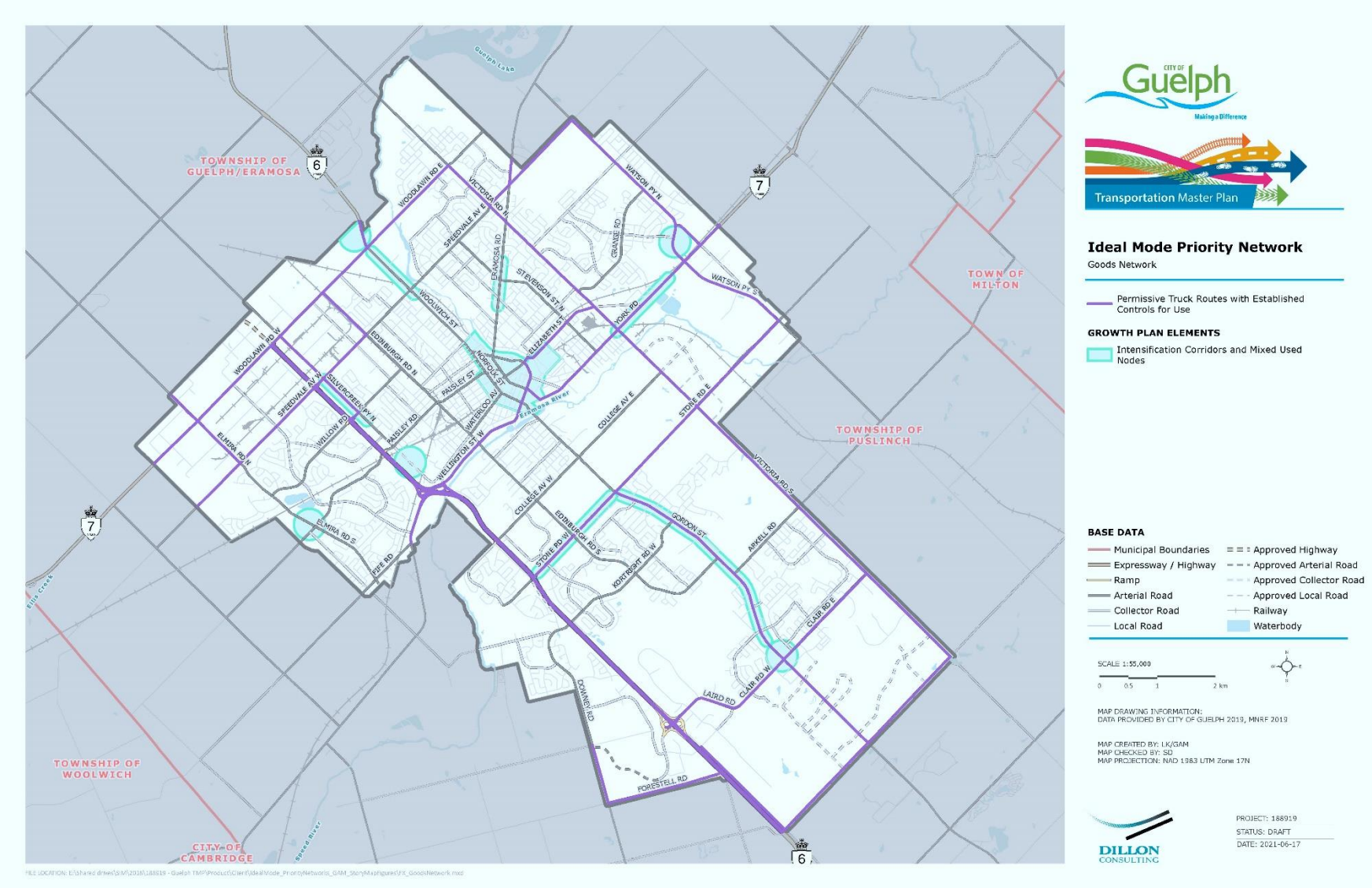


Figure 4 Existing permissive truck route network

Schedule 5 – Updated street classifications

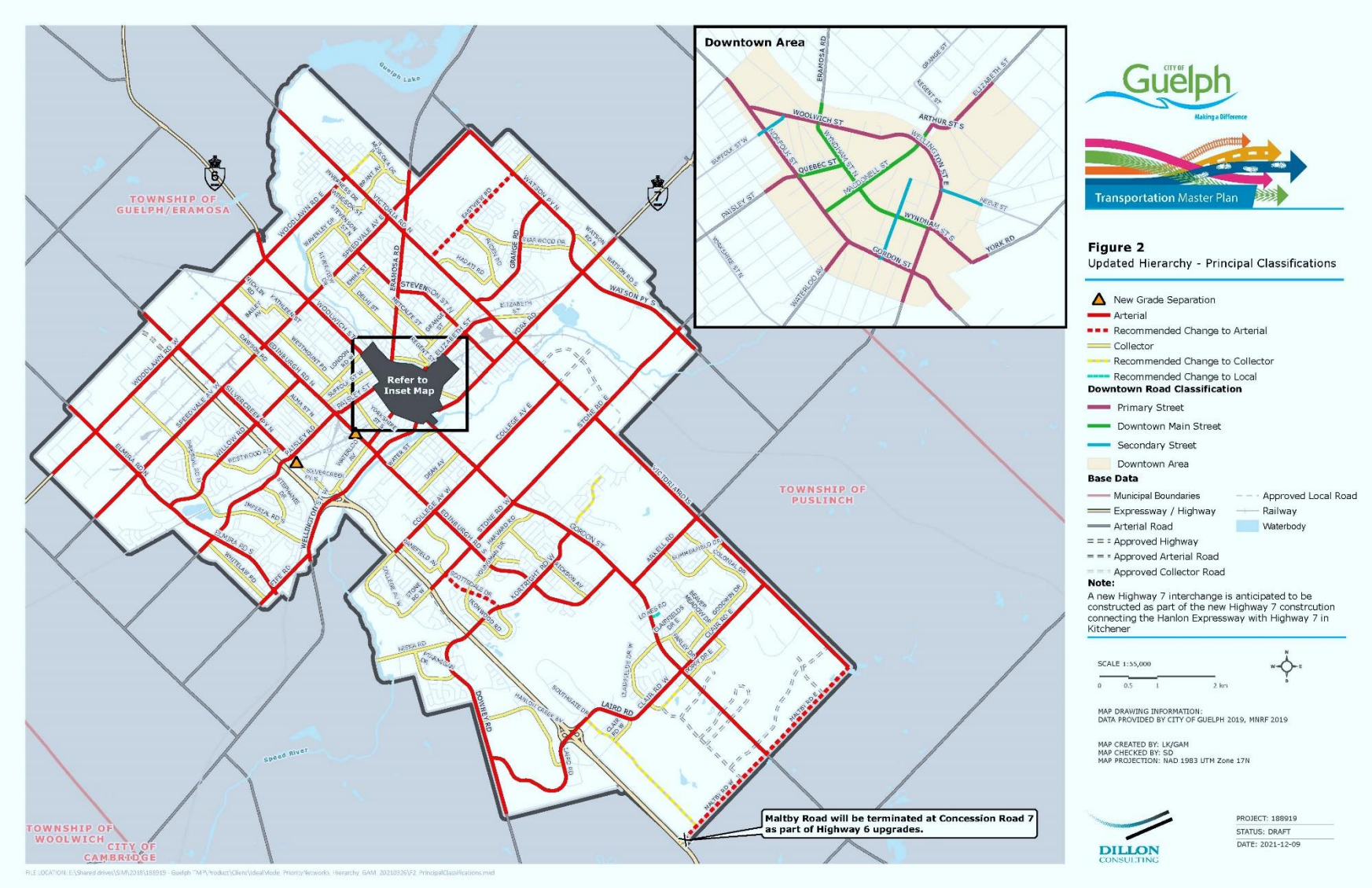


Figure 5 Updated street classification

Schedule 6 – Car network enhancements

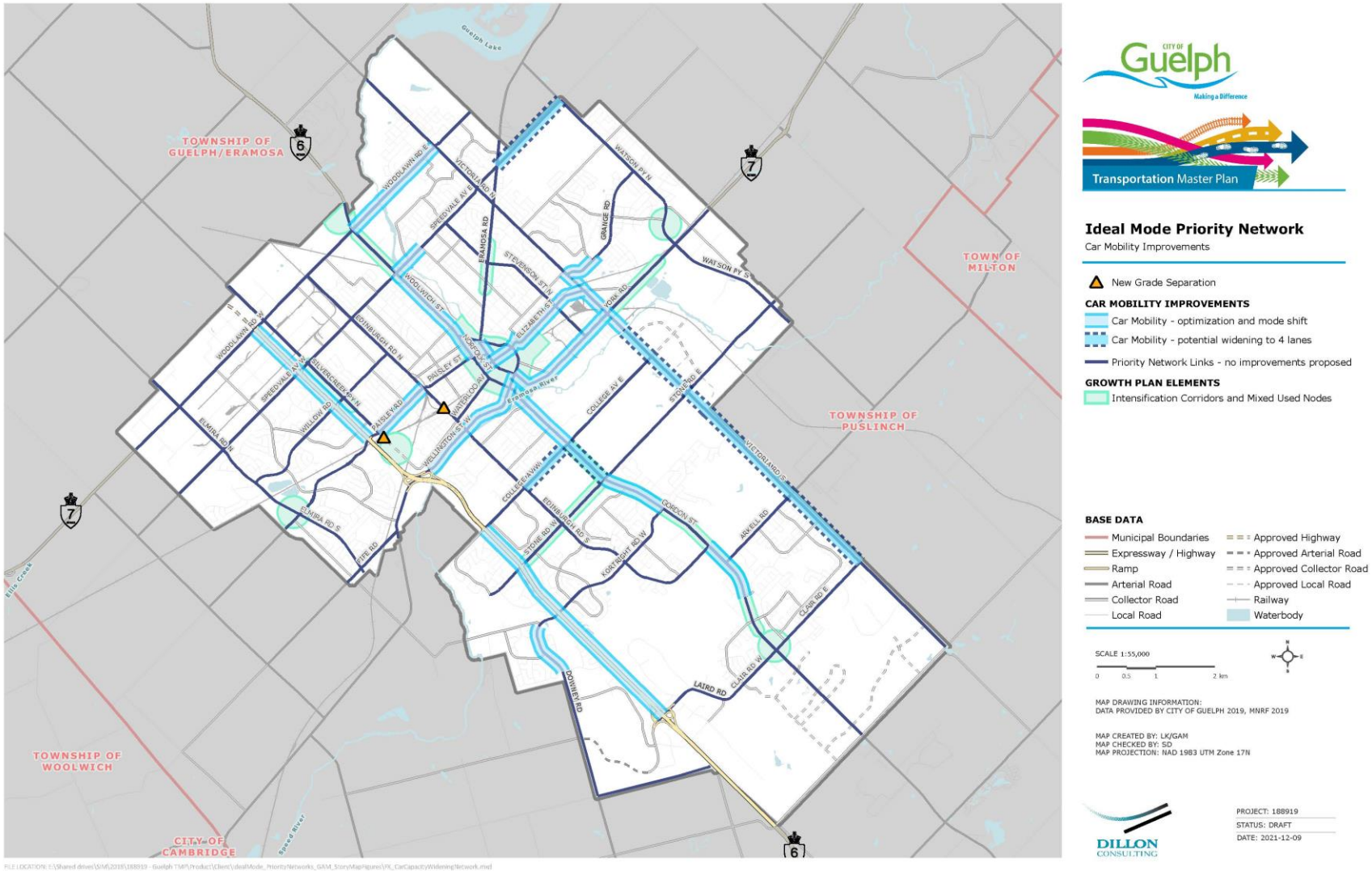


Figure 4 - Car network enhancements are recommended to support population growth and mitigate congestion. These include potential widening of some arterial roads to 4-lane cross sections, and optimizing other road corridors through transportation systems management and mode shifts.

Schedule 7 – Resiliency network

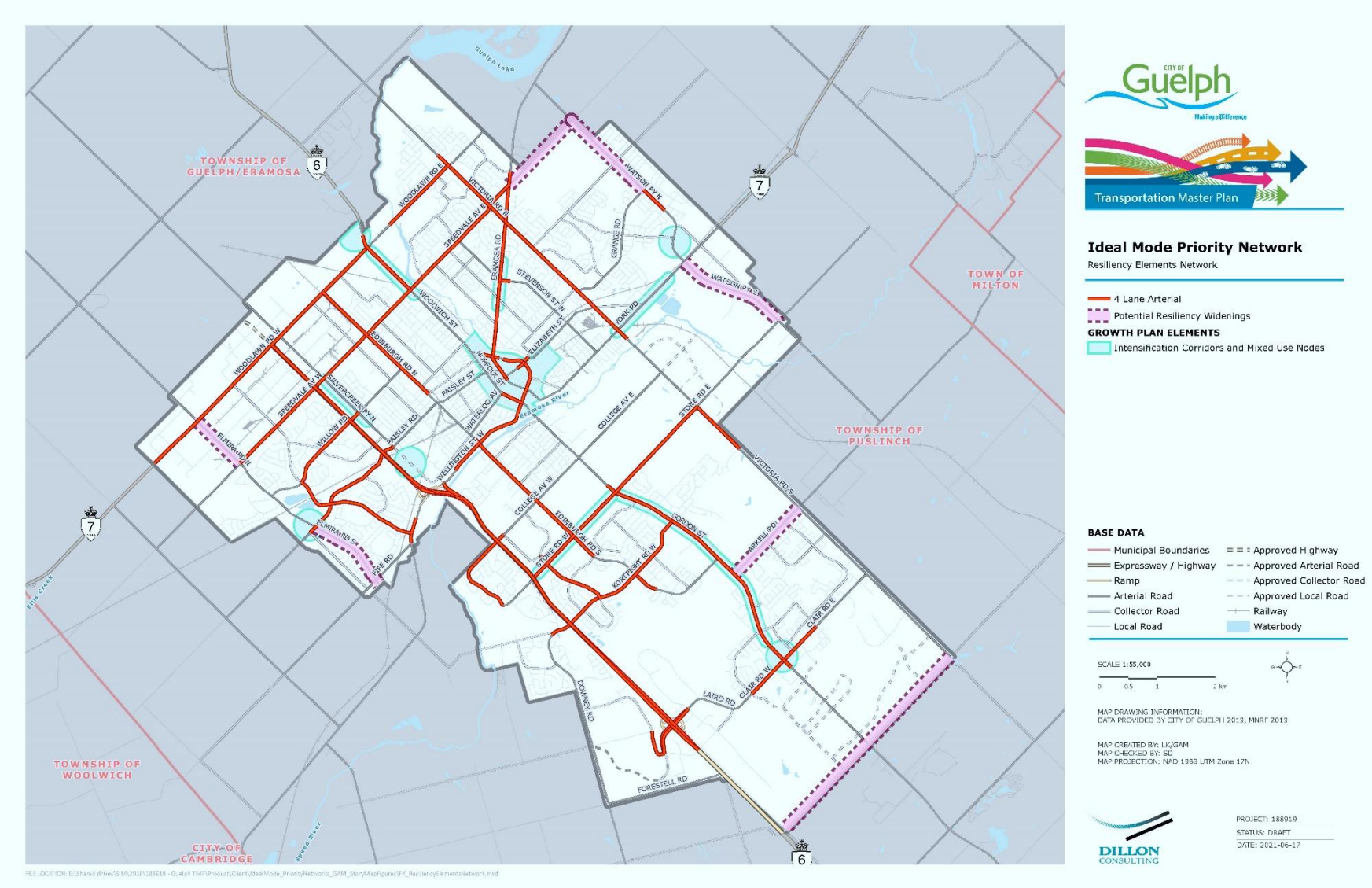


Figure 7 Resiliency network improvements are intended to protect public space in the ROW for future unknown needs and services.

Schedule 8 – Recommended road network improvements

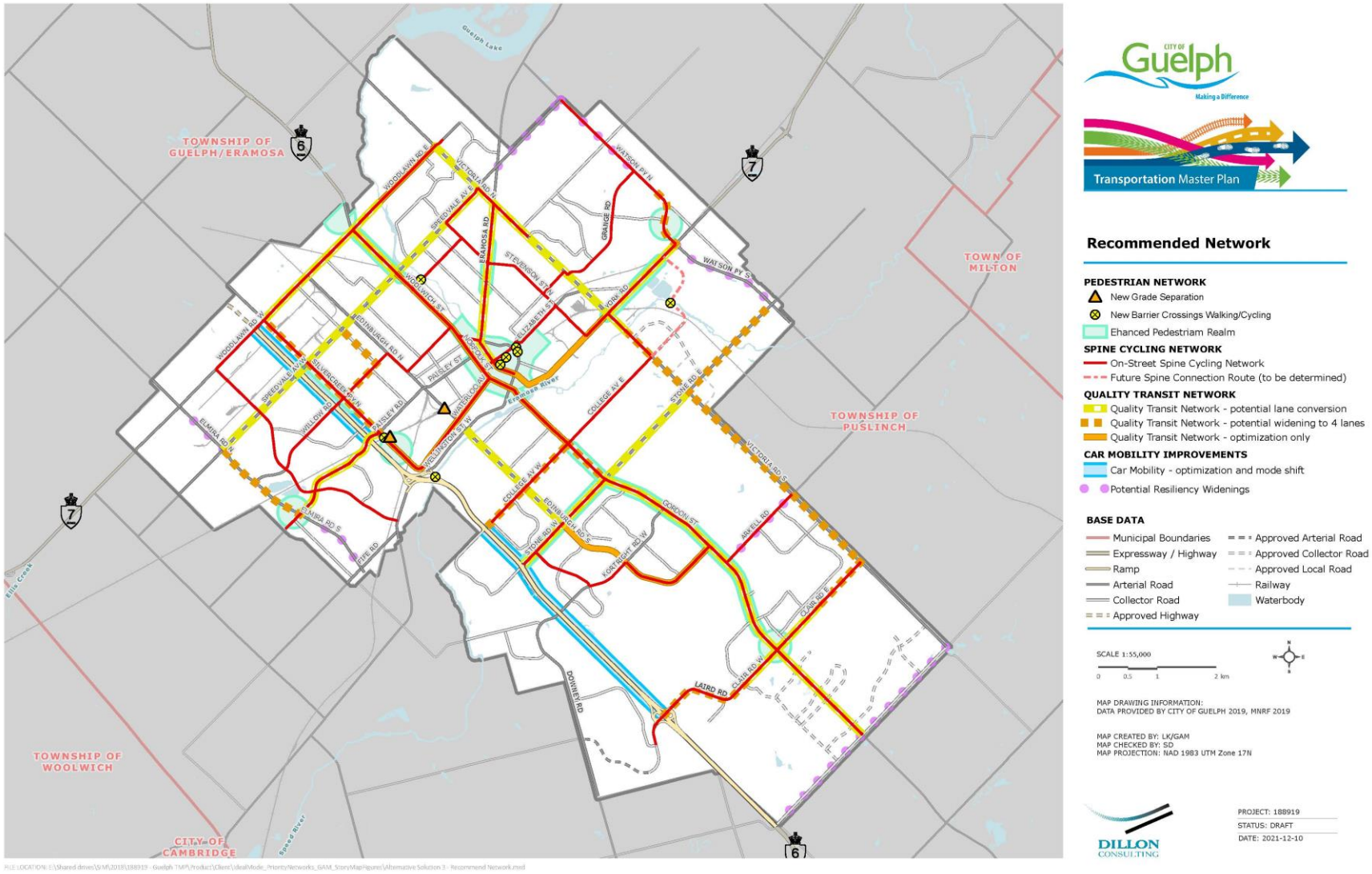


Figure 8 Recommended road network improvements

Memo

To: Jennie Juste, City of Guelph

From: Shawn Doyle, Dillon Consulting Limited

cc: Kate McNamara, Dillon Consulting Limited

Date: October 29, 2021

Subject: Recommended directions for updating the Official Plan

Our File: #18-8919

This memo provides the directions to update the City of Guelph Official Plan to align it with the Guelph Transportation Master Plan Update.

Note: The **bolded and italicized** text is recommended policy text for the Official Plan.

3 Planning a Complete and Healthy Community

3.9 Major Transit Station Area

Maintain:

- MTSA will generally be planned and designed to:
  - Provide access from various transportation modes to the transit facility including consideration of pedestrians, bicycle parking and commuter pick-up/drop-off areas.

3.10 Intensification Corridors

Add:

- Add sites and road network will be designed to prioritize and encourage transit, walking and cycling

3.11 Community Mixed-Use Nodes

Add:

- Add sites and road network will be designed to prioritize and encourage transit, walking and cycling

5 Movement of People and Goods – An Integrated Transportation System

Modify:

- Objectives
  - Align wording with the TMP Goals

5.1 Transportation System

Modify:

- 5.1.1 i) - Update mode share targets and greenhouse gas reduction targets

Add:

- definition of 'essential active transportation infrastructure' and where it is/isn't permitted

5.2 Barrier-Free Transportation

Add:

- Add language referencing designing cycling facilities on the Cycling Spine Network to an All Ages and Abilities benchmark

5.3 Transportation Demand Management

Add:

- Add reference to supporting programs being important actions for achieving the transportation goals and objectives
- The TDM strategy will be implemented through development applications
- Replace the list of TDM measures in 5.3. 2 with a direction for a TDM strategy to inform appropriate measures centred around changing attitudes (through promotion/ education), cost and convenience related to travel in Guelph to achieve the transportation objectives of the OP

Maintain:

- Commitment to adjust and improve the existing TDM program to influence when, where and how people cycle around Guelph

5.4 Active Transportation - Walking and Cycling

Networks

Add:

- Add policies to reflect the Pedestrian Priority network
- Add a Schedule to reflect the Cycling Spine Network
- Add commitment to preparing Pedestrian Master Plan
- Add commitment to maintaining the Guelph Trails Master Plan (off-road outside right-of-way) and Cycling Master Plan (within right-of-way)
- Add commitment to implement the Cycling Spine Network and update the Cycling Master Plan
- Add the need to provide direct connections between the sidewalk and trail networks, creating controlled crossings at the intersection of the street and trail networks, where practical
- Add definition of Pedestrian Priority Network
    - **The Pedestrian Priority Network is a network of wide sidewalks and high-quality walking environments in areas of highest pedestrian activity in the city, such as Downtown Guelph. This priority network is designed to support and encourage walking for people of all ages and abilities. It will be complemented by the general sidewalk network and Guelph's extensive trail network.**
- Add definition of Cycling Spine Network
    - **The Cycling Spine Network is a network of cycling routes with high-quality on-street cycling facilities that connect all areas of the City. These spine routes represent the core of the City's larger cycling network. The Cycling Spine Network will be designed to support and encourage cycling by people of all ages and abilities. The Cycling Spine Network will be complemented by connecting cycling links to key destinations like schools, parks, employment and areas of high activity.**

Modify:

- 5.4.3 (vii) provide linkages between intensification areas, adjacent neighbourhoods and transit stations.
    - Provide linkages between intensification areas, adjacent neighbourhoods, transit stations, **bus stops, schools, parks, employment areas and the University of Guelph**
- 5.4.3.7 should revise the list of exemptions to support and promote sidewalks on both sides of the street, in support of accessibility, equity and connectivity goals of the TMP

Maintain:

- Commitment to providing barrier crossings and trails in abandoned rail corridors
- Commitment to ensuring that bikeways and pedestrian walkways are integrated into and designed as part of new road and other infrastructure projects

- Commitment to minimum provisions for on-site parking and storage for bicycles and other personal transportation devices in the Zoning Bylaw
- Commitment to require, provide and maintain infrastructure that maximizes safe and convenient passage for cyclists through the city
- Commitment to sidewalks on both sides of the road in new developments with exception to situations listed

Design

Add:

- Add reference to designing the Cycling Spine Network to serve cyclists and micro-mobility modes of All Ages and Abilities, meaning that the facilities are designed to feel intuitive and comfortable for anyone from children to seniors, and people who are new to cycling, or may have disabilities and use adaptive bicycle types, and other modes as permitted by local traffic by-law.
- Add reference to maintain commitment to improving the pedestrian design of Main Streets, Intensification Corridors and the Downtown core by prioritizing the following design elements: limiting block sizes, introducing frequent midblock crossings, respecting the guidance for current provincial guidelines, providing buffers between the pedestrian walkways and road, including street trees, pedestrian lighting.
- Add definition of **micro-mobility** to glossary**: Micro-mobility – Refers to the use of light vehicles that can carry one or two passengers at a time, such as bicycles, scooters, and even small vehicles. Micro-mobility can be human-powered or powered by an electric motor.**

Modify:

- 5.4.3 (v) Implement design and maintenance standards which can reduce the risk of collisions and injuries
    - Implement design and maintenance standards which can reduce the risk of collisions and injuries **and improve year-round use of the cycling spine network**

Maintain:

- Commitment to provide for unobstructed pedestrian movement by using ramped sidewalk facilities
- Commitment to providing two sidewalks on all streets where feasible, except in listed scenarios
- Commitment to ensure that streets, spaces and public facilities are designed to be safe and comfortable for pedestrians and cyclists
- Commitment to ensure that bikeways are integrated into and designed as part of new road and other infrastructure projects in the City. Special consideration will be given to matters listed.

Operations and Maintenance

Add:

- The City should establish a Winter Cycling network with appropriate winter maintenance standards that consider safety

5.5 Public Transit

Networks

Add:

- Add a schedule for the Quality Transit Network (QTN)
- Add definition of QTN
    - **The Quality Transit Network is a network of corridors with frequent transit service where improvements will be implemented to improve service and reduce travel delay for buses (frequent transit service is defined as operating every 10-20 minutes or better during the peak periods, and 20-30 minutes during all other periods). The corridors in this priority network are designed to make taking transit more comfortable and more efficient, thus encouraging more people to use transit. The design or operational elements along each corridor that improve transit service would vary depending on the context and the need of that particular street.**

Modify:

- 5.5.1 - The City shall continue to increase connectivity and integration between public transit and other modes of travel through measures such as installing bicycle racks on buses, including bicycle parking at transit terminals, designing for pedestrian and cyclist access to terminals.
    - The City shall continue to increase connectivity and integration between public transit and other modes of travel through measures such as installing bicycle racks on buses, including bicycle parking at transit terminals, **transit nodes, transit transfer points, Downtown, City parks, cultural facilities, and other City-owned properties, and** designing for pedestrian and cyclist access to terminals.
- 5.5.2 - To ensure that public transit is an attractive, energy efficient and convenient means of travel the City will: (iii) ensure the creation of a road network that permits reasonable walking distances to and from transit stops for a majority of residences, jobs and other activities in the area
    - (iii) ensure the creation of a road network that permits reasonable walking distances to and from transit stops for a majority of residences, jobs and other activities in the area **and more frequent pedestrian crossings in high activity areas or where distances between a transit stop and a controlled crossing exceeds 500 meters, to promote accessibility to all areas.**

- 5.5.3 - In addition to transit-supportive land use development, a high level of service, reliability and amenities are needed to attract riders. The City will promote greater use of transit by: (v) facilitating access to public transit for persons with disabilities by providing special equipment and services where warranted, designing stops, shelters and terminals for accessibility and taking other actions that facilitate improved access to transit services
    - facilitating access to public transit for persons with disabilities **in accordance with the Accessibility for Ontarians with Disabilities Act and Facility Accessibility Design Manual within the Guelph Transit system and services**

Maintain:

- Plan for a compact urban form by promoting mixed and transit-supportive land uses, urban intensification, a strong Downtown and urban structure of nodes and corridors as identified on Schedule 1
- Consider public transit as a high priority for transportation infrastructure planning, second only to active transportation
- Ensure the creation of a road network that permits reasonable walking distances to and from transit stops for a majority of residences, jobs and other activities in the area
- Ensure that the phasing of new development allows for the provision of transit service in the early phases of new development so that using transit is a viable option for the first occupants
- Require development proponents to plan for the provision of transit in an integrated and comprehensive manner including the location of transit routes and facilities, where appropriate
- Consider the impacts on transit when planning the locations for higher density housing, commercial and employment centres
- In addition to transit-supportive land use development, a high level of service, reliability and amenities are needed to attract riders. The City will promote greater use of transit by:
  i) maintaining efficient transit service through improvements to travel time, reliability, overall routes and regularity of service, especially for those routes that link areas of population and employment concentrations; and ii) providing transit priority measures to lessen delays on transit vehicles caused by traffic congestion and traffic control signals, where appropriate;

5.6 Road Network

Modify:

- 5.6.5 - Where necessary, traffic calming measures shall be incorporated into the design of the street network in accordance with the City's Neighbourhood Traffic Management Policy, or successor thereto.

- Where necessary, traffic calming measures shall be incorporated into the design of the street network in accordance with the City's Neighbourhood Traffic Management Policy and **the 2020 Community Road Safety Strategy (CRSS)**

5.7 Functional Hierarchy of Roads

Modify:

- Replace Schedule 5: Road & rails network with the updated street hierarchy in Figure 1.

Add:

Add policies:

- **Work with MTO to replace all existing at-grade intersections on the Hanlon Expressway with interchanges, overpasses or underpasses.**
- **Commitment to prepare a Complete Streets Design Guide to review and update all rights-of-way parameters**

5.8 Road Design

Add:

- Add the Resilience Network as a schedule
- Add definition of Resilience Network
  - **A network of key arterial and collector streets that are designed to be flexible. These streets will have the space and potential for flexible operational strategies such as dedicated lanes for different mobility purposes, curbside extensions, by-pass lanes, etc. The intention of these streets is to offer network flexibility so that the City can make quick changes to improve mobility along those streets in response to factors like changing travel patterns/needs, climate change impacts, new mobility technologies, societal disruptions**
- Add policy direction to reduce climate change impacts and enhance resiliency of the transportation system
  - **The City will continue to implement urban design and development standards to reduce climate change impacts and enhance climate resiliency for public works and infrastructure including roads, bridges, stormwater systems and energy distribution systems.**

Modify:

- 5.8.4 - The City will promote the creation of an arterial-collector grid road system in the greenfield area of the city to assist in the dispersion of traffic and to provide appropriate walking distances to transit services on the main roads.
    - The City will promote the creation of an arterial-collector grid road system in the **undeveloped areas** of the city to assist in the dispersion of traffic and to provide appropriate walking distances to transit services on the main roads.

Maintain:

- The City will ensure there are no negative impacts on the Natural Heritage System and cultural heritage resources are addressed in the design process for road capital projects in accordance with the provisions of this Plan.
- Have regard for and, when necessary, will require measures to mitigate any negative impacts on cultural heritage resources, especially the character of landscapes, streetscapes, tree lines, bridges, views and points of scenic interest and the prevailing pattern of settlement, when considering the construction of new roads and road improvements, including road re-alignment and road widening.
- Using strategies to control future land uses that would increase traffic unnecessarily on the arterial-collector grid and at intersections.
- Consider road designs that are innovative in terms of environmental considerations and that support pedestrians, cycling and transit.

5.9 Trucking and Goods Movement

Add:

- Add commitment to maintain a Goods Movement plan
- Add definition for Goods Movement Priority Network
    - **The Goods Movement Priority Network is a network of primary streets that facilitate the efficient and safe movement of goods in the City, while respecting the existing Natural Heritage System policies as per section 4.1 of the Official Plan. It is designed to allow large vehicles to travel through the city efficiently while safely interacting with people who are walking or cycling on the same streets.**

Maintain:

- The City will coordinate with the Province, Wellington County and neighbouring municipalities on the planning and design of an efficient goods movement system that minimizes community and traffic impacts

- Truck use will be regulated through a permissive truck route system and regulations, pertaining to heavy trucks

5.10 Railway

Add:

- City will work with Metrolinx to implement Two-Way All Day GO service to Guelph and identify required road network modifications

Modify:

- 5.10.3 - The City will support the future use of the Guelph Junction Railway for potential passenger rail service as illustrated on Schedule 5.
    - Remove reference to using GJR or studying use of GJR for passenger rail

Maintain:

- Follow the Official Plan when there are proponents of development in proximity to a railway in specific circumstances
- Consider a site specific risk management approach to meeting safety and security requirements when development cannot achieve standard safety measures
- Facilitate the provision of rail freight service to employment areas, including the Guelph Junction Railway Company

5.11 Parking

Add:

- **The City will require infrastructure to support personal electric vehicles through the zoning bylaw.**

Maintain:

- Specify off-street parking requirements and need to establish maximum parking requirements in the Zoning By-law
- Off-street parking areas and facilities provided through zoning and site plan requirements
- Cash-in-lieu for required parking.

5.12 Transportation Networks

Maintain:

- The Transportation Master Plan will be updated on regular intervals, generally every 5 years.

5.13 Road Widenings and Intersection Improvements

Modify:

- **Table 5.1** lists rights-of-way that are planned for widening. **Table 5.2** lists intersections that are planned to be improved or widened to accommodate on-street parking. As a condition of development approval, the City may require that a portion of lands be dedicated to the City for road widening or intersection improvement without compensation. However, these tables are not intended to specify that such roads will necessarily be widened or intersections improved.

Table 5.1: Official Plan

Road	Ultimate ROW (OP)	Widening Specification (OP)	Revision (TMP)
Clair Road	30 m		32 m ROW from Beaver Meadow Drive to Victoria Road
Edinburgh Road	26 m	2–3 m both sides, College Avenue West to Suffolk Street West	30 m ROW, by taking 4-10 m on the east side and 0-5 m on the west side, from Willow Road to London Road
Edinburgh Road	26 m		32 m ROW by taking 5-6 m both sides, Kortright Road to Rodgers Road
Eramosa Road	30 m	2–5 m both sides, Metcalfe Street to Meyer Drive	32 m by taking 3-6 m both sides, Metcalfe to Meyer Drive
Gordon Street	26 m	1–3 m both sides College Avenue to Stone Road	32 m by taking 4-6 m both sides, College Avenue to Stone Road
Gordon Street	30 m	3–5 m both sides, Stone Road to Clair Road	32 m by taking 4-6 m both sides, Stone Road to Clair Road
Gordon Street	30 m	5 m both sides, Clair Road to Maltby Road	32 m by taking 2-5 m both sides, Clair Road to Maltby Road
Maltby Road	30 m	5 -10 m both sides, west City Limit to east City Limit	32 m by taking 5-10 m both sides, east city limit to west city limit
Paisley Road	30 m	5 m both sides, Silvercreek Pkwy to west City Limit	32 m ROW by taking 6 m both sides, Silvercreek Parkway to Elmira Road
Silvercreeek Parkway	30 m	5 m both sides, Wellington Street to north City Limit	36 m ROW by taking 8 m both sides, Woodlawn Road to Willow Road

Road	Ultimate ROW (OP)	Widening Specification (OP)	Revision (TMP)
Silvercreeek Parkway	30 m		32 m ROW, Paisley Street to Waterloo Avenue
Speedvale Avenue	30 m	2–5 m both sides, West City Limit to East City Limit	32 m ROW by taking 4-6 m both sides, Elmira Road to Imperial Road
Speedvale Avenue	30 m		32 m ROW by taking 3-6 m both sides, Imperial Road to Eramosa Road
Victoria Road	30 m	2–5 m both sides, Woodlawn Road East to York Road	Change the segment to "Woodlawn Road to Speedvale Avenue"
Victoria Road	30 m		32 m ROW by taking 1-2 m both sides from Speedvale Avenue to York Road
Victoria Road	26 m	3 m both sides, York Road to Eramosa River	32 m ROW by taking 6 m both sides and change the segment to "York Road to Stone Road"
Victoria Road	30 m	2–5 m both sides, Eramosa River to Stone Road East	36 m ROW, 5-8 m both sides, Stone Road to Clair Road
Woodlawn Road	30 m	2 m both sides, Hanlon Expressway to Woolwich Street	32 m ROW by taking 3 m both sides from Hanlon Expressway to Speed River Bridge
Woodlawn Road	30 m	5 m south side, Woolwich Street to Victoria Road N	Change segment to "Speed River Bridge to Victoria Road North"
Woolwich Street	24 m	Up to 2 m both sides, London Road to Speedvale Avenue	26 m ROW by taking up to 3 m both sides, London Road to Speedvale Avenue
Woolwich Street	30 m	5 m both sides, Speedvale Avenue to north City Limit	update to 32 m ROW by taking 6 m both sides, Speedvale Avenue to North City Limit

Road	Ultimate ROW (OP)	Widening Specification (OP)	Revision (TMP)
Clair Road	30 m		32 m ROW from Beaver Meadow Drive to Victoria Road
Edinburgh Road	26 m	2–3 m both sides, College Avenue West to Suffolk Street West	30 m ROW, by taking 4-10 m on the east side and 0-5 m ont eh west side, from Willow Road to London Road
Edinburgh Road	26 m		32 m ROW by taking 5-6 m both sides, Kortright Road to Rodgers Road
Eramosa Road	30 m	2–5 m both sides, Metcalfe Street to Meyer Drive	32 m by taking 3-6 m both sides, Metcalfe to Meyer Drive

Table 5.2: Intersection Improvements (V1)

Road	Intersection Improvement (Existing OP)	Intersection Improvement (Recommended in TMP)
Alma Street	Paisley	
Arkell Road	Gordon Street Victoria Road	Colonial Drive
Campbell Road		Silvercreek Parkway North
Clair Road	Laird Road Victoria Road	Gordon Street Farley Drive Poppy Drive Beaver Meadows Drive
College Avenue	Edinburgh Road Gordon Street Victoria Road	Scottsdale Drive
Dawson Road	Speedvale Avenue West Woodlawn Road	
Delhi Street	Speedvale Avenue East	
Downey Road	Laird Road Forestell Road	
Dunlop Drive	Watson Parkway	
Eastview Road	Watson Parkway Victoria Road	
Edinburgh Road	College Avenue Gordon Street London Street Suffolk Street Willow Road Water Street Waterloo Avenue Woodlawn Road	Kortright Road West Stone Road West
Elizabeth Street	Stevenson Street Victoria Road York Road	Macdonell

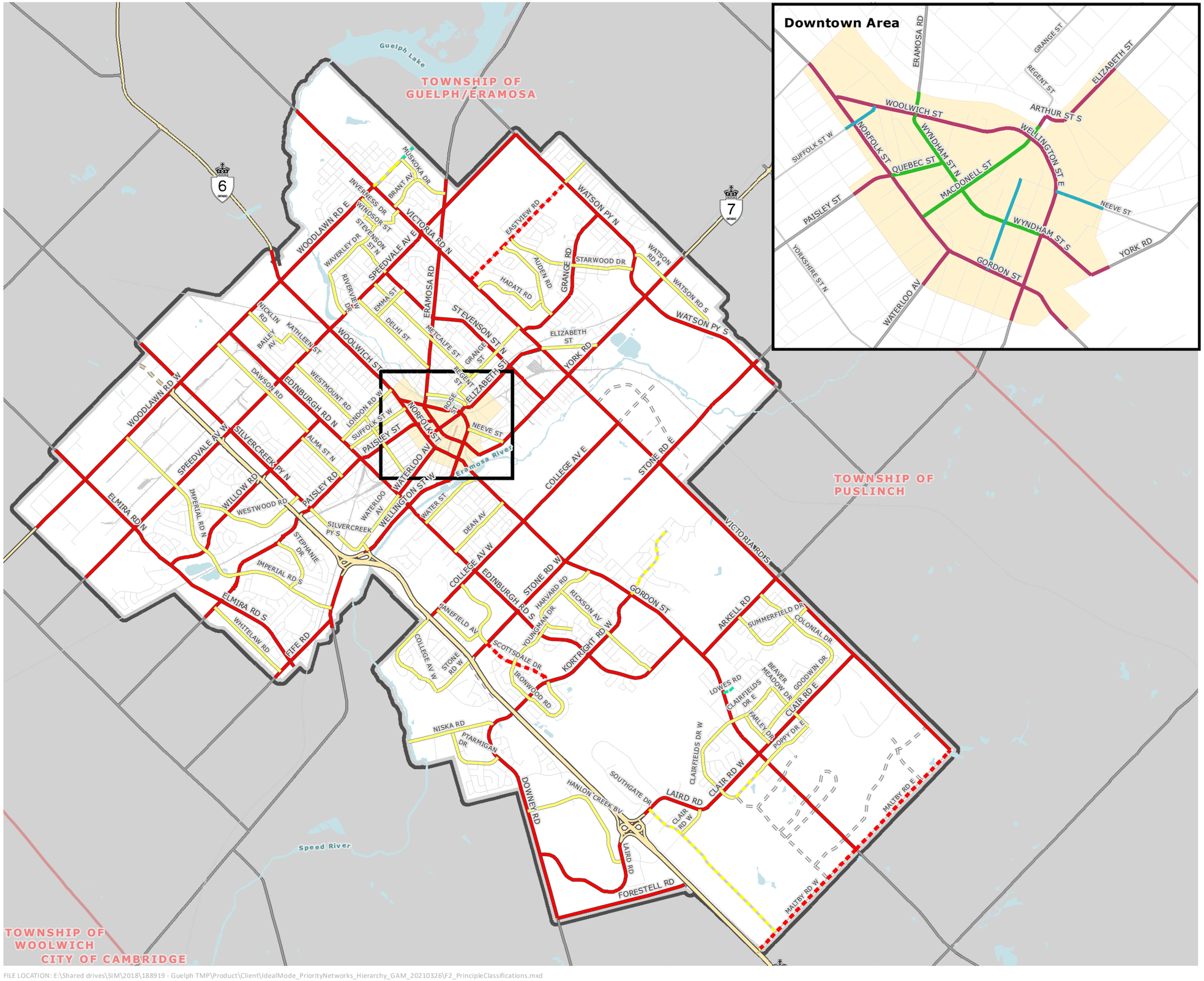
Road	Intersection Improvement (Existing OP)	Intersection Improvement (Recommended in TMP)
Elmira Road North		Speedvale Avenue West Willow Road
Elmira Road South		Paisley Road
Eramosa Road		Arthur Street Delhi Street Stevenson Street Victoria Road
Forestell Road	Downey Road	
Grange Road	Victoria Road Watson Parkway	Starwood Drive
Grange Street		Victoria Road
Gordon Street	Arkell Road Edinburgh Road Wellington Street Maltby Road College Avenue	Clairfields Drive Clair Road Kortright Road West Lowes Road Poppy Drive
Imperial Road North		Massey Road Paisley Road Speedvale Avenue West Westmount Road Willow Road Woodlawn Road West
Kathleen Street	Speedvale Ave W	
Kortright Road West		Scottsdale Drive Edinburgh Road
Laird Road	Clair Road Downey Road	
London Road	Edinburgh Road Woolwich Street	
Massey Road		Imperial

Road	Intersection Improvement (Existing OP)	Intersection Improvement (Recommended in TMP)
Maltby Road	Gordon Street Southgate Drive Victoria Road	
Metcalfe Street	Eramosa Road	
Meyer Drive	Eramosa Road	
Nicklin Road	Woodlawn Road	
Niska Road	Pioneer Trail	
Paisley Road	Silvercreek Parkway	Imperial Road North Stephanie Drive Whitelaw Road
Pioneer Trail	Niska Road	
Poppy Drive		Clair Road
Regal Road	Woodlawn Road	
Scottsdale Drive		Kortright Road West
Southgate Drive	Maltby Road	
Silvercreek Parkway	Paisley Willow Road Speedvale Ave W Woodlawn Road	Campbell Road
Speedvale Avenue	Dawson Road Delhi Street Kathleen Street Silvercreek Parkway Woolwich Street Watson Parkway	Elmira Road North Edinburgh Road Imperial Road North Metcalfe Street Royal Road Stevenson Street Westmount Road Victoria Road
Starwood Drive	Watson Parkway	

The following table provides the roads that are in the existing OP Table 5.2 and are not to be included the 2021 list.

Road	Intersection Improvement (Existing OP)	Intersection Improvement (Recommended in TMP)
Arthur Street	Elizabeth Street	
Elizabeth Street	Arthur Street	
Eramosa Road	Metcalfe Street Meyer Drive	
Gordon Street	James Street	
James Street	Gordon Street	
Paisley Road	Alma Street Yorkshire Street	

Figure 1: Recommended street hierarchy



CITY OF Guelph
Making a Difference

Transportation Master Plan

Figure 2
Updated Hierarchy - Principle Classifications

- Expressway / Highway
- Arterial
- Recommended Change to Arterial
- Collector
- Recommended Change to Collector
- Recommended Change to Local
- Local; Private Roads

Downtown Road Classification

- Primary Street
- Downtown Main Street
- Secondary Street
- Downtown Area

BASE DATA

- Municipal Boundaries
- Expressway / Highway
- Arterial Road
- Approved Highway
- Approved Arterial Road
- Approved Collector Road
- Approved Local Road
- Railway
- Waterbody

SCALE 1:55,000

0 0.5 1 2 km

N W E S

MAP DRAWING INFORMATION:
DATA PROVIDED BY CITY OF GUELPH 2019, MNRF 2019

MAP CREATED BY: LK/GAM
MAP CHECKED BY: SD
MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 188919
STATUS: DRAFT
DATE: 2021-06-21

FILE LOCATION: E:\Shared drives\SIM\2018\188919 - Guelph TMP\Product\Client\IdealMode_PriorityNetworks_Hierarchy_GAM_20210326\F2_PrincipleClassifications.mxd

City of Guelph Transportation Master Plan

Program Charters

November 2021 – 18-8919

Contents

Glossary of Terms

- A -

Active Transportation – The transport of people or goods through human-powered means, including walking, cycling and skateboarding.

Active Transportation Network – On-road and off-road infrastructure network for pedestrians and cyclists.

All Ages and Abilities (AAA) facilities – Bicycle facilities which are comfortable and attractive to use for people of all ages and abilities (including barrier-free, age-friendly, and universal design), with an additional focus on intersection safety.

- C -

Complete Streets Design Guideline – A guide that provides policy and design guidance on the planning, design, and operation of roadways to help implement the City's Official Plan vision for complete streets and other city building objectives.

Cycling Spine Network – A network of cycling routes with high-quality on-street cycling facilities that connect all areas of the City, and designed to support and encourage cycling by people of all ages and abilities. These spine routes represent the core of the City's larger cycling network.

- G -

Goods Movement Strategy – A strategy to help determine the transportation infrastructure improvements need to be made to help the support the goods movement industry.

- I -

Intelligent Transportation Systems – A combination of information and communication technologies used in transportation and traffic management to improve the safety, efficiency, and sustainability of transportation networks, reduce traffic congestion, and to enhance drivers' experiences.

Internet of Things (IoT) – Interconnection of everyday devices via the internet.

- L -

Level of Service (LOS) – A qualitative measure used to determine how well a transportation facility is operating**.**

Low-Impact Development – A planning and engineering approach to storm water management to minimize storm water runoff and filter, store and return rainwater and snow melt to the ground

- M -

Major Transit Station Areas (MTSA) – The area including and around any existing or planned higher-order transit station within a settlement area, or the area including and around a major

bus depot in an urban core. Station areas generally are defined as the area within an approximate 500 metre radius of a transit station, representing about a 10-minute walk.

Micromobility – Refers to the use of light vehicles that can carry one or two passengers at a time, such as bicycles, scooters, and even small vehicles. Micromobility can be human-powered or powered by an electric motor.

Micro-transit – a form of demand responsive shared transport that offers flexible routing and/or scheduling.

Mobility-as-a-Service (MaaS)– An emerging user-oriented philosophy that takes advantage of digital platforms and real-time data to get a user of the service from point A to point B in the most convenient and personalized way possible for one single fee. MaaS leverages modern transportation options to optimize personal mobility. When planning a route, MaaS platforms can link transit, ride-hailing, car-sharing, micromobility, walking, and more to create one seamless trip for the user of this service.

Multimodal Level of Service Guidelines – A guide that provides policy and design guidance on the planning, design, and operation of roadways and intersection to help implement the City's Official Plan vision for complete streets. It provides guidance on how to assess the *levels of service* for various modes of transportation and their impacts, and what the specific target service levels for each mode should be given the location and context the transportation project.

- O -

Official Plan – Sets out the City's vision and goals for the future, and describes policies on how land in the City should be used. The Official Plan helps to ensure that future planning and development will meet the specific needs of your community.

- P -

Park-and-Ride facilities – Parking lots with public transport connections that allow commuters and other people to leave their vehicles and transfer to a bus, rail system, or carpool for the remainder of the journey.

Pedestrian Priority Network – A network of wide sidewalks and high-quality walking environments in areas of highest pedestrian activity in the city, such as Downtown Guelph, designed to support and encourage walking for people of all ages and abilities.

- S -

Smart signals – Traffic signals at intersections that detect traffic conditions and automatically adjust operations to optimize flow.

- T -

Transportation Demand Management (TDM) – A series of polices, programs and incentives intended to influence whether, when, where and how people travel, and encourage them to make more efficient use of the transportation system.

Transit Priority Measures – A collection of techniques and tools to reduce delay for public transit vehicles.

Transportation Systems Management (TSM) – uses operating strategies to increase capacity on the road network without increasing its physical size. Transportation system management includes measures such as transit signal priority at intersections, signal coordination, or dedicated lanes for high-occupancy vehicles.

-V-

Vision Zero – a global movement based on a safe systems approach to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

CITY OF GUELPH TRANSPORTATION MASTER PLAN

Active Transportation Program

November 2021 – 18-8919

1.0 Active Transportation

1.1 Definition

Active Transportation requires a person to move themselves to a destination through non-motorized means. Examples of active transportation include, walking, cycling, scootering, and rollerblading. It can also include electric-powered bicycles, scooters and other 'micro-mobility' devices that require human power to move them.

1.2 Background

1.2.1 Purpose

The City aims to reduce greenhouse gas emissions, promote healthy, active living amongst residents, and manage vehicle congestion. To achieve these goals, the City focuses on providing easily accessible active transportation infrastructure and resources.

1.2.2 Goal

The goal of Active Transportation Program is to support the mobility needs of a community in a manner that least damages the environment, while also balancing current and future transportation needs. The main actions include:

- Increase walking mode share target to 15% by 2051;
- Increase cycling mode share target to 10% by 2051;
- Design new and transform existing streets and pathways to meet All Ages and Abilities (AAA);
- Promote, facilitate, and design for micro-mobility;
- Update and implement the Cycling Master Plan, *Active Transportation Network* and Pedestrian Master Plan;
- Increase bicycle parking throughout the Downtown and other commercial/employment centres;
- Develop a comprehensive list of active transportation initiatives currently underway in the City;
- Support efforts to reduce annual community greenhouse gas emissions by 60% from 2007 levels to 7 tonnes of carbon dioxide (equivalent) per capita by 2031;
- Support City efforts toward 100% renewable energy for all City facilities and operations by 2050;
- Form partnerships and support advocacy groups to enhance cycling; and
- Fill connectivity gaps within the active transportation network.

1.2.3 Program Description:

Active transportation is part of the sustainable transportation group at the City of Guelph. The Active Transportation Program supports the mobility needs of a community in a manner that is the least harmful to the environment as possible, while also providing equitable and affordable options for getting around. The Active Transportation program is responsible for implementing context-appropriate cycling and pedestrian infrastructure for road corridors and intersections in the city to complete the planned cycling and sidewalk networks.

The mandate also includes data collection and analysis, network planning, policy development and development review. Active Transportation staff coordinate with Public Works, Parks Planning and Engineering Services regularly to implement the various master plans under its supervision.

The Active Transportation program was initiated with the City's 2013 Cycling Master Plan, and expanded to include the Active Transportation Network and Sidewalk Needs Assessment plans, along with the coordination efforts with other City departments to implement these plans.

In future, the Active Transportation Program will also encompass other forms of *micro-mobility* such as push-scooters and other technologies.

1.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future of the Sustainable transportation program.

- Coordinate data collection to support evidence-based policy and planning decisions
- Coordinate the implementation and update of the various plans for active transportation, such as the cycling master plan, pedestrian plan and active transportation network with (Policies 1.1, 2.1.1.2, 2.1.1.3, and 2.1.1.7)
- Incorporate an equity lens into active transportation planning and strategy
- Provide input into road design projects to facilitate implementing the various active transportation networks
- Provide input into city policies such as master plans, zoning by-law, and secondary plans to support the goals of the Transportation Master Plan (TMP) for active transportation
- Review development applications and subdivision applications to ensure compliance with Official Plan and TMP policies that support active transportation
- Deliver *Multimodal Level of Service Guidelines* and *Complete Streets Design Guidelines* (Policy 1.2.1.2)
- Support efforts to expand winter maintenance of the *Cycling Spine Network* and active transportation network (Policy 2.1.2)

1.4 Potential Partnerships

- Community advocacy groups;
- Seniors associations;
- Guelph-Wellington Local Immigration Partnership;
- *Micro-mobility* service providers such as bike-shares or scooter-share programs;
- Local public health agency;
- Other levels of government for infrastructure funding opportunities;
- Chamber of Commerce; and
- Internal partnerships: Economic Development and Tourism, Solid Waste (bike reuse program), Public Works (maintenance and operations), Trails (off-road connectivity).

1.5 Resource Requirements

It is important to reflect the mode share targets in the proportionate staff and budget resourcing for the sustainable transportation program.

There are currently ten full-time positions in Transportation and Engineering Services dedicated to ensuring road design and traffic operations are maintained to support the current mode share of 80% of daily trips made by car. Two full time positions are currently dedicated to sustainable transportation, one of which is fully dedicated to Active Transportation and the other who offers some support but focuses on Transportation Demand Management (Chapter 2).

To support the mode shift to sustainable modes, it is recommended to grow the Sustainable transportation program staff complement between now and 2051 to six full-time positions. Two of these positions would be for supporting the planning, design, construction and use of active transportation facilities.

CITY OF GUELPH TRANSPORTATION MASTER PLAN

Transportation Demand Management (TDM) Program

November 2021 – 18-8919

2.0 Transportation Demand Management (TDM)

2.1 Definition

Transportation Demand Management (TDM) is a term used to describe a suite of initiatives aimed at reducing traffic volumes (demand) on the road network, particularly in the commuter peak hours, by targeting driver behaviour and mode choice. It is different than *Transportation System Management* (covered in Chapter 4.0), which focuses on reducing traffic volumes through physical changes to infrastructure.

TDM include such broad strategies as:

- Influencing how people travel and what mode they choose
- Influencing when people travel to reduce congestion during peak hours
- Influencing where people travel through land use and transportation planning decisions

Approaches to TDM include education, marketing and outreach, policies, development/land use, and travel incentives/disincentives.

2.2 Background

2.2.1 Purpose

TDM is the active management of travel demand in a transportation system to increase system efficiency and achieve a variety of objectives, such as reducing greenhouse gases or improving congestion, by influencing how, why, when, and where people travel. It is an economical and efficient way to maximize the return on investment for transportation services and infrastructure.

2.2.2 Goal

The goal of the Transportation Demand Management (TDM) program is to reduce congestion and shift more trips to sustainable options like walking, cycling, and taking the bus. The main actions include:

- Supporting the TMP's mode share target of 40% by non-auto modes by 2051;
- Develop robust TDM guidelines for development application approvals;
- To influence the shape of development, develop a TDM checklist for development applications;
- Incorporate an equity lens approach to TDM planning and strategy (Policy 3.1.2.2)
- Deliver effective communications and marketing about TDM ;
- Engage with businesses and organizations to encourage the development of TDM programs;
- Support the development and maintenance of a Connectivity Index to track the multimodal connectivity of the City's transportation networks; and
- Develop a comprehensive list of TDM initiatives currently underway in the City.

2.2.3 Program Description

The program targets education and outreach efforts related to walking and cycling, carshare and carpooling. It also participates in development application review to ensure new

development is built according to the Official Plan policies to support sustainable transportation and reduce trip generation where possible.

The 2005 Guelph-Wellington Transportation Strategy led to the creation of the TDM program in 2006. The program has covered educational outreach activities in schools and employers, This section reviews the TDM program in Guelph today, which operates as part of the larger Sustainable transportation program. This program is run by staff from Engineering and Transportation Services.

Both Guelph's *Official Plan* and the 2005 Guelph-Wellington Transportation Study mandate the development of a TDM program. As a result, the existing TDM program was launched in 2006 under the direction of the sustainable transportation program. Below are examples of a few of the initiatives.

Active and Safe Routes to School
Public Health and the TDM group have been co-leads on the Active and Safe Routes to School initiative since 2006. The consortium of stakeholders overseeing this initiative also includes local school boards and Guelph Police Service. As part of the initiative, the TDM group helps develop school travel plans and walk to school programs.

Development Reviews
The TDM group also helps apply a TDM lens to development reviews. Members of the TDM group review site layout and site-specific context in order to inform comments on site plans and development applications. They then use an internal TDM checklist to identify and recommend additional TDM measures if required (e.g. adding bicycle parking, limiting car parking).

In the future, the TDM program has a goal of providing more TDM resources to developers. It also intends to launch a TDM strategic plan that will provide context-sensitive strategies for different areas of Guelph, including industrial areas, institutional areas, and downtown. The strategic plan will identify performance metrics that will be regularly reported to identify the initiative's progress and areas for improvement.

Carshare
The TDM groups works with local carshare providers to help find convenient locations for them to park, and promote these services to the community.

2.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future TDM program.

- Develop a comprehensive TDM strategic plan to guide the work of this program
- Update and implement TDM strategies that reflect the needs and opportunities of the community to achieve the TMP's mode share targets and maximize the efficient use of existing transportation infrastructure

- Form partnerships and support community collaborations to facilitate sustainable transportation and TDM initiatives
- Implement a coordinated branding, marketing and wayfinding strategies with active transportation, transit and trails
- Ensure that TDM is disseminated and effectively communicated to both Guelph staff, council and residents. (Policy 5.1.2.7)
- Ensure land use and urban design sustainable transportation include appropriate TDM measures through the development review process (Policy 5.1.2.7)
- Support the City's net zero carbon target by encouraging low or zero-emission transportation options including carsharing, ridesharing, and transit (Policy 5.4.2.1)
- Develop and maintain a TDM checklist for development applications (Policy 5.1.2.7)
- Increase the amount of park and ride and rideshare facilities near transit facilities
- Investigate micro-mobility options (Policy 5.6.1.1)
- Collaborate with regional TDM programs to support inter-city travel

2.4 Potential Partnerships

- School boards;
- University of Guelph and Conestoga College;
- Chamber of Guelph and Downtown Guelph Business Association;
- Guelph-Wellington Local Immigration Partnership;
- Large employers / Chamber of Commerce;
- Local environmental and transportation-related organizations;
- Our Energy Guelph;
- Internal partnerships: Economic Development and Tourism;
- Community advocacy groups;
- SmartCommute / Travelwise and
- Carshare providers

2.5 Resource Recommendations

It is important to reflect the mode share targets in the proportionate staff and budget resourcing for the sustainable transportation program. There are currently ten full-time positions in Transportation and Engineering Services dedicated to ensuring road design and traffic operations are maintained to support the current mode share of 80% of daily trips made by car. Two full time positions are currently dedicated to sustainable transportation.

There is currently one position dedicated to Transportation Demand Management, with some duties to support the Active Transportation program as well. To support the mode shift to sustainable modes, it is recommended to grow the Sustainable transportation program staff complement between now and 2051 to six full-time positions. Two of these positions would be for supporting the Transportation Demand Management program.

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CITY OF GUELPH TRANSPORTATION MASTER PLAN

Strategic Transportation Planning Program

November 2021 – 18-8919

3.0 Strategic Transportation Planning

3.1 Definition

Strategic Transportation Planning is the process of designing the transportation network, facilities, and services to align with the Vision and Goals of the TMP. Strategic Transportation Planning requires a strong understanding of the impact of social and economic aspects that impact how, when, and why people move.

3.2 Background

3.2.1 Purpose

Strategic Transportation Planning is required to ensure population and employment growth can be accommodated by the transportation network. It considers regional and provincial policy and development impacts on the local transportation network.

3.2.2 Goal

The goal of Strategic Transportation Planning is to ensure people and goods can move safely and effectively throughout the City. It will inform policies, development and road design decisions through the collection, analysis, and interpretation of multimodal transportation data. The main outcomes include:

- Confirm and prioritize streets, trails, and routes for improvements in the Capital budget;
- Develop a *Complete Streets Design Guide* to guide all future street design by 2023;
- Develop a *Multimodal Level of Service* Guideline to evaluate the multimodal performance of streets by 2023;
- Develop a comprehensive *Goods Movement Strategy*;
- Maintain the City's Travel Demand Forecasting Model;
- Approach transportation planning with an equity lens;
- Support the required studies and assessments to implement TMP road network improvements; and
- Ensure development is compatible with the road network and transportation safety regulations and guidelines.

3.2.3 Program Description

The City's (Strategic) Transportation Planning group is currently responsible for:

- Maintaining the City's Travel Demand Forecasting Model;
- Leading all transportation network planning studies and corridor studies / Environmental Assessments
- Providing City input to network planning studies and corridor studies/ Environmental Assessments that are of interest to the City that are led by others (e.g., Metrolinx, the Ministry of Transportation of Ontario, County of Wellington)
- Providing transportation planning expertise on multi-disciplined City projects (e.g., the Clair-Maltby Master Servicing Plan, the Downtown Secondary Plan, etc.)

- Review development applications to ensure the road network and road geometrics can support the development and that safety standards are met

Guelph has already begun implementing and incorporating many Transportation Planning network trends including complete streets, complete networks, place-making for transportation corridors, and equity-based initiatives.

3.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future Transportation Planning program.

- Prepare and maintain the Comprehensive *Goods Movement Strategy* (Policy 4.1.1)
- Prepare and maintain a City-wide guideline for preventative road safety measures (Policy 5.3.1)
- Develop a city-wide strategy for roundabouts (Policy 5.3.1.3)
- Ensure all related City plans are periodically reviewed and updated to align with the TMP goals (Policy 5.5.1.1)
- Update and maintain the City's transportation model
- Incorporate an equity lens approach to strategic transportation planning (Policy 3.1.2.2)
- Support the completion of Environmental Assessments required to implement the TMP Sustainability and Resiliency network plan
- Review development applications to ensure compatibility with the road network and transportation safety regulations and guidelines
- Continue to ensure the road network and system safely accommodate new development (Policy 5.1.2)
- Review (and if necessary, update) the City's Downtown Parking Strategy to support park-and-ride opportunities;

3.4 Potential Partnerships

Strategic Transportation Planning has the following potential partnerships:

- Metrolinx
- Ministry of Transportation of Ontario
- Adjacent municipalities

3.5 Resource Recommendations

There is currently one Transportation Planning Engineer fulfilling these objectives. To effectively keep up with population and employment growth projections and resulting transportation planning needs, it is recommended that this program be staffed by two full-time strategic transportation planners.

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CITY OF GUELPH TRANSPORTATION MASTER PLAN

Transportation System Management (TSM) Program

November 2021 – 18-8919

4.0 Transportation System Management (TSM)

4.1 Definition

Transportation System Management (TSM) uses operating strategies to increase capacity on the road network without increasing its physical size. TSM includes measures such as transit signal priority at intersections, signal coordination, or dedicated lanes for high-occupancy vehicles. It differs from *Transportation Demand Management* (TDM), which focuses on reducing traffic volumes by targeting driver behaviour and mode choice.

There is no formal TSM program at the City. However, groups and individuals fill many of the common TSM functions, including:

- Data collection
- Traffic signal design and operations
- Traffic investigations related to speed, driver behaviour, local congestion
- Intersection modifications and optimization
- Development review

4.2 Background

4.2.1 Purpose

Existing transportation infrastructure is not always equipped to manage an increase in traffic congestion. To make the transportation system as efficient as possible, communities often turn to TSM.

4.2.2 Goal

The goal of TSM is to increase the safety, capacity, efficiency, or level of service of a transportation facility without the need for new and expensive transportation infrastructure. The main actions include:

- Manage peak period congestion without increasing the physical size of the roadway
- Develop innovative intersection design to reduce delay and emissions from idling;
- Support *transit priority* measures to increase transit service and convenience;
- Accommodate all modes and reduce both delay and emissions by investing in selected capacity improvements to existing major street network operations; and
- Manage parking supply and demand both on- and off-street in the Downtown, and on-street city-wide
- Explore parking regulations and strategies city-wide and update the traffic and parking bylaws accordingly;
- Implement traffic flow improvements on regionally significant roads;
- Maintain the Traffic Bylaw to reflect changes to new infrastructure designs and standards that support active transportation and new technologies in micro-mobility.

4.2.3 Program Description

Transportation Systems Management uses various low-cost strategies to maintain or reduce travel time, maximize the efficiency of the transportation network, and improve the utilization of existing transportation facilities. Key examples include higher frequency public transit, eliminating on-street parking to add lanes, and making active transportation more convenient.

4.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future TSM program.

- Develop a Transportation Systems Management Strategy and Action Plan that considers congestion management, access management, *transit priority*, *intelligent transportation systems* and *smart signals,* curbside management, and data collection (Policy 5.6)
- Manage congestion on road network during peak periods through signal optimization, smart signal technologies, alternative transportation facilities, and by maximizing the use of roadway before investing in new or expanded facilities
- Incorporate an equity lens approach to Transportation Systems Management planning and strategy
- Develop planning and design guidelines for roundabouts (Policy 5.3.1.3)
- Implement traffic flow improvements on important arterial roadways
- Collect and manage traffic count and turning movement data
- Coordinate the management of operational impacts of Metrolinx and other rail providers on the city's road network

4.4 Potential Partnerships

This section outlines the potential local partnerships the City can further develop or establish. It is recommended that Guelph continue to research, investigate, and implement Transportation Systems Management strategies. It is recommended that future partnerships be leveraged for engagement and public participation activities when TSM is a priority.

The following partnerships can be levied by the City:

- Wellington County;
- First Responder Committee / Guelph Police Services;
- Business Improvement Association / Downtown Guelph Business Association.
- Metrolinx

4.5 Resource Recommendations

It is recommended that the existing eight positions be maintained to continue to manage and operate the City's traffic signals, road operations and road safety programs.

An additional full-time employee is recommended to support expanding and maintaining the data collection program.

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CITY OF GUELPH TRANSPORTATION MASTER PLAN

Road Safety Program

November 2021 – 18-8919

5.0 Road Safety

5.1 Definition

Road safety refers to the strategies, tools, and measures cities can use to prevent collisions resulting in injuries and deaths. All road users are impacted by road safety.

There are four important areas of focus in current industry discussions about improving safety of roads: street function and design, intersection design, designing cycling facilities for all ages and abilities (*AAA facilities*), and *Vision Zero*, a global movement based on a safe systems approach to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

Additionally the safe systems approach is a helpful framework for managing road safety and is based on the principles that life and health should not be compromised by the need to travel and that no level of death or serious injury is acceptable in our transportation network. According to the safe systems approach, safe transportation systems consist of four main elements: safer roads, safer road use, safer speeds, and safer vehicles.

5.2 Guelph's History with Road Safety

5.2.1 Purpose

Road-related incidents of injury and death continue to be a persistent challenge in many jurisdictions. Therefore, communities across Canada and around the world are emphasizing road safety in long-range planning and day-to-day operational decisions.

Many communities have developed road safety programs to address the safety concerns impacting all road users. For example, the Safe Roads Waterloo Region campaign is dedicated to reducing injuries and deaths caused by traffic collisions on roads. The program aligns with the global Vision Zero movement. More information can be found on the campaign website.

5.2.2 Goal

The goal of road safety programs is to provide strategies that improve road safety to benefit all users, regardless of their age, ability, or mode of transportation. The main outcomes include:

- Recommend formal Council adoption of Vision Zero
- Reduce roadway speeds on selected streets, as required
- Improve cooperation, communication and collaboration among stakeholders in existing initiatives and programs;
- Reduce the number of collisions and collision severity on roadways;
- Implement safer road and intersection design practices;
- Update and follow the City's Traffic Calming Strategy; and
- Support the development of *Multimodal Level of Service* Guidelines that include safety analysis for links and intersections.

Although the City of Guelph has not formally adopted a Vision Zero approach, many of the safe systems principles and preferred strategies to address road safety are in line with Vision Zero.

5.2.3 Program Description

Guelph has several plans and strategies already in place to improve the safety on the roads for its communities, which are actively managed through a number of initiatives and programs. These initiatives and programs are briefly described below:

- The City recently developed a Community Road Safety Strategy, which provides a high-level road safety plan that outlines emphasis areas and appropriate mitigation strategies for safety.
- The Community Speed Awareness Program installs temporary dynamic radar boards in residential neighbourhoods to raise awareness of speeding issues.
- The Guelph Road Safety Coalition coordinates and bolsters road safety efforts in the city through educating the public, raising awareness, building capacity, and sharing resources.
- The Active and Safe Routes to School Committee, established in 2009, supports the development and assessment of safe routes to school.

The Community Road Safety Strategy proactively and reactively reviews the operations of the road network and makes recommendations for localized modifications to improve road safety for all users and modes of travel. Three groups from the Engineering and Transportation Services department contribute to the City's Road Safety program. The groups include:

- Transportation Safety Specialists, who develop and update the City's strategy for improving road safety and associated policies like the City's Traffic Calming Policy;
- Traffic Investigations and Operations, who are responsible for the implementation and operation of smart signals and red light cameras. This group also reviews citizen concerns about road network operations, road marking plans, construction drawings, signage, etc. to recommend localized improvements
- Adult School Crossing Guard Program

5.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future Road Safety program. To enhance the program further, it is recommended that Guelph formally adopt and endorse Vision Zero. The philosophies of Vision Zero will guide Guelph's objectives with the goal of improving road safety for all users by reducing collision severity and eliminating traffic fatalities.

Key objectives include:

- Formally endorse and adopt the Vision Zero approach to road design (Policy 5.3.1.1)
- Continue to implement the Community Road Safety Strategy, which forms part of Guelph's Vision Zero Plan, and update as necessary (Policy 5.3.1.1)
- Research and test new and innovative street function and design, and intersection design to reduce the likelihood of collisions

- Continue to work with the Ministry of Transportation of Ontario to replace all existing at-grade intersections on the Hanlon Expressway with interchanges, overpasses or underpasses. (Policy 5.3.1.2)
- Continue to review the need for grade-separations of existing at-grade rail crossings (Policy 5.3.1.4)
- Improve cooperation, communication and collaboration among stakeholders in existing initiatives and programs
- Continue to follow the City's Traffic Calming Strategy Policy to reduce collision severity, and improve road safety and update as necessary

5.4 Potential Partnerships

This City has already developed multiple partnerships throughout various communities in Guelph. It is recommended that future partnerships be leveraged for engagement and public participation activities when Road Safety is a priority.

The following partnerships can be levied by the City:

- Schools
- Neighbourhood groups
- Public Health Agencies
- Guelph Police and Ontario Provincial Police
- University of Guelph
- Ministry of Transportation

5.5 Resource Recommendations

To support the Vision Zero efforts, additional road safety staff will be required to support new road safety initiatives and expansions of existing programs as a part of a Vision Zero community.

One full-time Transportation Safety Supervisor and one full-time Road Safety Technologist is recommended to support expanding and maintaining the road safety program.

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CITY OF GUELPH TRANSPORTATION MASTER PLAN

New Mobility and Emerging Technology Program

November 2021 – 18-8919

6.0 New Mobility and Emerging Technology

6.1 Definition

New Mobility and Emerging Technology are becoming ever more relevant to today's transportation industry. Amidst the rapid evolution of digital technologies and ever improving connectivity, new transportation related innovations continue to emerge at an unprecedented rate, helping residents travel in a more personalized and seamless multimodal way. Specific new mobility and emerging technology examples in the transportation field include, but are not limited to, ride-hailing, micro-transit, micro-mobility, *Mobility-as-a-Service* (MaaS), e-commerce, electrification, self-driving technology, drone delivery and connected mobility.

Today, a common theme amongst municipalities and transit agencies is that they are becoming integrated mobility providers. This means that they are no longer focused on exclusively providing public transit service, but they are integrating public transit with other supporting modes such as car-share and subsidized ride-hailing. Similarly, there is also a call for municipalities and public transit agencies to develop partnerships with new private transportation providers with the goal of maximizing efficiencies and providing benefits to travelers.

6.2 Background

6.2.1 Purpose

The City of Guelph 2019-2023 Strategic Plan calls for Guelph to be "future-ready". To ensure the City is prepared for opportune or disruptive new technologies or services in the transportation sector, the TMP recommends establishing an Emerging transportation technology office. This office is responsible for the study, analysis and recommendations of which technologies and services to pursue, test or avoid to protect the best interests of the community.

6.2.2 Goal

The goal of new mobility and emerging technology programs is to be a source of research, analysis, partnerships, testing and pilot projects for new transportation technologies and services. The main actions include:

- Support the implementation of smart signals and other emerging "smart" transportation technologies
- Explore opportunities to adopt *Mobility-as-a-Service* in Guelph;
- Monitor and recommend micro-mobility technologies and services suitable for Guelph;
- Develop curb space management strategies to support and develop policy and programs for e-commerce delivery services;
- Develop policy and programs to support future autonomous vehicle technology; and
- Develop a strategy to incorporate connected - or "smart" - features of transportation to make travel more convenient;

6.2.3 Program Description

To embrace the existing and future trends of New Mobility and Emerging Technology, the City will need to ensure a transition that is as seamless as possible and support the anticipated changes.

Micro-mobility
Bikeshare is an example of new transportation service model that changed how we move around cities. Many cities were on the cutting edge of providing Bikeshare services to their communities, but it turned out best adapted to larger cities with strong public transit.

E-scooters (push-scooters that have a small electric throttle) are another emerging popular trend in micro-mobility, and may have more potential for a mid-sized city like Guelph.

Micro-transit
Guelph Transit is currently using elements of *micro-transit* for Transit Mobility Services, its accessible transit service. For this service, Guelph Transit has partnered with a third-party technology provider for automated dispatch and routing to make the service more efficient.

Zero Emissions Vehicles
In 2018, Community Energy Initiative (CEI) set a target of having Guelph produce net zero carbon emissions by 2050. The CEI task force provided 20 potential actions for the City to help Guelph achieve this target. Guelph was one of the first Canadian communities to install an electric vehicle charging station. Today, there are over 20 city-owned public charging ports within 15 kilometres of the city. Most recently, Guelph Transit announced that it will replace 35 older diesel buses with electric buses, and add 30 brand new electric buses to their fleet by 2027.

Connected Mobility
Similar to many other municipalities, Guelph uses traffic signal preemption at select intersections for Fire Services emergency vehicles. Preemption is used to halt conflicting movements in advance of the emergency vehicle arriving at the intersection. This helps improve emergency response times and makes the roads safer for everyone. The City does not currently have any other forms of traffic signal priority measures. In 2020, the City piloted new traffic counting and detection technologies which enabled the City to have real-time traffic counts at select locations during all hours of the day. In the next 5 years, it is anticipated this technology will be installed at up to 50 intersections. Having real time traffic data will help the City make more informed operational decisions about its transportation network.

Mobility-as-a-Service
Mobility-as-a-Service is the integration of various forms of transport services into a single mobility service accessible on demand, usually through a digital platform. It enable users to access, pay for, and get real-time information on a range of public and private mobility options through the use of a single digital application, instead of multiple ticketing and information operations.

6.3 TMP Objectives for the Program

This section provides an overview of the key objectives the City should fulfill for the future New Mobility and Emerging Technology program.

- Review (and if necessary, update) the City's Municipal Zero Emissions Vehicle and Transit Fleet Strategy at regular intervals, to keep up to date with emerging technologies and practices (Policy 5.4.1.2)
- Develop a strategy for increasing the rate of consumer adoption of electric vehicles (Policy 5.4.1.1)
- Develop a strategy for appropriate locations of electric vehicle charging stations, including consideration for public transit facilities (Policies 5.4.1.3)
- Establish an Emerging Transportation Technologies office to assess new transportation modes and opportunities and position the City to respond (Policy 5.6.1.1)
- Consider opportunities for *Alternative Service Delivery and micro-transit*
- Explore opportunities to adopt *mobility-as-a-service* in Guelph and support its digital platforms through private partnerships (Policy 2.2.1.4 and 3.1.2.5)
- Develop and maintain a strategy for the implementation of smart signals and other emerging “smart” transportation technologies (Policy 5.6.1.3)
- Complete bi-annual reviews of autonomous vehicle technology for transit in order to identify the implications on the planning and operation of the transit system (Policy 4.1.1)

6.4 Potential Partnerships

The following partnerships can be leveraged by the City:

- the Ministry of Transportation of Ontario;
- Municipal Alliance for Connected & Autonomous Vehicles Ontario;
- Post-secondary institutions (research and development);
- Private industry;
- Large employers / Chamber of Commerce; and
- First Responder Committee / Guelph Police Association.

6.6 Resource Recommendations

There are no current positions that include researching and analysis of new technologies for the transportation sector. As such, it is recommended that two full-time employees be retained over the course of the next 30 years to resource this program. The *Guelph: Future Ready* strategic plan identifies this need, and the 2022 multi-year operating budget includes a request for one Emerging Transportation Technology analyst.

Appendix:
Alignment with TMP Problem Statements

Alignment with TMP Problem Statements: Active Transportation

This section of the TMP aims to align the TMP Goals and Problem Statements with the Sustainable transportation program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the Sustainable transportation program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	● We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. ● We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	● Provide transportation to all through sustainable options
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	● We need strong (i.e. fast and direct) transit connections to existing and future jobs ● We need more safe crossings of the rivers, rail lines and highways for people walking and cycling ● We need better walking and cycling connections to transit stops and hubs	● Support mode shift to sustainable modes
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	● We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	● Prioritize transit as a sustainable mode of transportation
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	● We need to reduce the percentage of trips made by car. ● We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. ● We need to tap Guelph's unrealized potential for electric vehicles.	● Prioritize moving away from car dependency and move towards renewable energy for transportation
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	● We need to redesign streets in key growth areas to prioritize walking, cycling and transit. ● We need to update our road designs to reflect the unique priorities of different areas.	● Focus on active transportation and transit to support land use density
Goal 6: Investment decisions will be made considering the asset lifecycle costs	● We need to account for lifecycle costs in financial decisions on transportation projects.	● Consider environmental impact of new

		purchases (i.e. diesel buses) ● Plan future facilities to be sustainable and adaptable
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today	● We need to improve the resiliency of Guelph's transportation system. ● We need to better prepare for the future of mobility.	● Support shift to sustainable modes

Alignment with TMP Problem Statements: Transportation Demand Management

This section of the TMP aims to align the TMP Goals and Problem Statements with the TDM program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the TDM program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	• We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. • We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	• Make transportation more accessible to all
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	• We need strong (i.e. fast and direct) transit connections to existing and future jobs • We need more safe crossings of the rivers, rail lines and highways for people walking and cycling • We need better walking and cycling connections to transit stops and hubs	• Design strategies, measures and tools to respond to changes in traveler behaviours • Support mode shift to sustainable modes
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	• We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	• Support mode shift to sustainable modes • Align demands with network development strategy
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	• We need to reduce the percentage of trips made by car. • We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. • We need to tap Guelph's unrealized potential for electric vehicles.	• Reduce GHG and other environmental impacts
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	• We need to redesign streets in key growth areas to prioritize walking, cycling and transit. • We need to update our road designs to reflect the unique priorities of different areas.	• Align demands with network development strategy
Goal 6: Investment decisions will be made	• We need to account for lifecycle costs in financial decisions on transportation projects.	• Plan future facilities and infrastructure to

considering the asset lifecycle costs		accommodate for demand ● Make the network more affordable by reducing peak demands for travel
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today	● We need to improve the resiliency of Guelph's transportation system. ● We need to better prepare for the future of mobility.	● Support mode shift to sustainable modes

Alignment with TMP Problem Statements: Strategic Transportation Planning

This section of the TMP aims to align the TMP Goals and Problem Statements with the Transportation Planning program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the Transportation Planning program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	• We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. • We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	• Provide access and mobility to everyone, regardless of abilities
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	• We need strong (i.e. fast and direct) transit connections to existing and future jobs • We need more safe crossings of the rivers, rail lines and highways for people walking and cycling • We need better walking and cycling connections to transit stops and hubs	• Provide simple and safe connections for all modes
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	• We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	• Enable the transit system to be competitive with other modes
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	• We need to reduce the percentage of trips made by car. • We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. • We need to tap Guelph's unrealized potential for electric vehicles.	• Build new connections and diversify modes to address climate change issues
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	• We need to redesign streets in key growth areas to prioritize walking, cycling and transit. • We need to update our road designs to reflect the unique priorities of different areas.	• Respond to the changing interests of where people want to live and work through the road network planning

Goal 6: Investment decisions will be made considering the asset lifecycle costs	● We need to account for lifecycle costs in financial decisions on transportation projects.	● Improve network planning facilities and services
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today	● We need to improve the resiliency of Guelph's transportation system. ● We need to better prepare for the future of mobility.	● Track and respond to future trends for land use and transportation planning

Alignment with TMP Problem Statements: Transportation System Management

This section of the TMP aims to align the TMP Goals and Problem Statements with the Transportation Systems Management program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the Transportation Systems Management program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	• We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. • We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	• Monitor existing infrastructure to accommodate new growth
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	• We need strong (i.e. fast and direct) transit connections to existing and future jobs • We need more safe crossings of the rivers, rail lines and highways for people walking and cycling • We need better walking and cycling connections to transit stops and hubs	• Safe and efficient infrastructure and services
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	• We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	• Provide higher level of service for public transit through low-cost strategies
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	• We need to reduce the percentage of trips made by car. • We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. • We need to tap Guelph's unrealized potential for electric vehicles.	• Provide greater efficiency and reduce congestion, which would result in higher air pollution rates
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	• We need to redesign streets in key growth areas to prioritize walking, cycling and transit. • We need to update our road designs to reflect the unique priorities of different areas.	• Change infrastructure to accommodate future growth
Goal 6: Investment decisions will be made considering the asset lifecycle costs	• We need to account for lifecycle costs in financial decisions on transportation projects.	• Plan for low-cost changes

Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today	● We need to improve the resiliency of Guelph's transportation system. ● We need to better prepare for the future of mobility.	● Focus on developing strategies instead of changing infrastructure

Alignment with TMP Problem Statements: Road Safety

This section of the TMP aims to align the TMP Goals and Problem Statements with the Road Safety program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the Road Safety program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	● We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. ● We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	● Provide safe and easy to access facilities and infrastructure
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	● We need strong (i.e. fast and direct) transit connections to existing and future jobs ● We need more safe crossings of the rivers, rail lines and highways for people walking and cycling ● We need better walking and cycling connections to transit stops and hubs	● Provide safe connections for all modes
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	● We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	● Provide safe transit options on board and street at stops
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	● We need to reduce the percentage of trips made by car. ● We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. ● We need to tap Guelph's unrealized potential for electric vehicles.	● Rebalance mode share by improving safety of other sustainable modes
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	● We need to redesign streets in key growth areas to prioritize walking, cycling and transit. ● We need to update our road designs to reflect the unique priorities of different areas.	● Review how density impacts the usability and safety of surrounding road network
Goal 6: Investment decisions will be made considering the asset lifecycle costs	● We need to account for lifecycle costs in financial decisions on transportation projects.	● Safety improvements need to be prioritized
Goal 7: Guelph's transportation system	● We need to improve the resiliency of Guelph's transportation system.	● Future growth accommodated by

will plan for the changes of tomorrow, while delivering great service today	● We need to better prepare for the future of mobility.	improved safety of network

Alignment with TMP Problem Statements: New Mobility and Emerging Technology

This section of the TMP aims to align the TMP Goals and Problem Statements with the New Mobility and Emerging Technology program. The Goals have been used to structure the Problems Statements. In the table below, a connection to the New Mobility and Emerging Technology program has been identified for each Goal and the complimentary Problem Statements.

Goal	Problem Statements	Connection
Goal 1: People of all ages and physical ability will be able to travel safely using any transportation mode that they choose	• We need to design our streets to serve the needs of a diverse group of people, of all ages and abilities. • We need to design our streets to safely serve all modes of transportation, including walking, cycling and transit.	• Consideration of future modes
Goal 2: Guelph's transportation system will be easy-to-use, reliable and give people and businesses the options they want when they need them.	• We need strong (i.e. fast and direct) transit connections to existing and future jobs • We need more safe crossings of the rivers, rail lines and highways for people walking and cycling • We need better walking and cycling connections to transit stops and hubs	• Diverse modes and new features are easy to use
Goal 3: Transit service will provide travel times and traveler convenience at levels that are competitive with travel by car	• We need to reduce transit travel times and improve traveler convenience to most destinations, particularly between neighbouring areas of the city	• Newer technologies improve convenience and reliability
Goal 4: The carbon footprint from the transportation sector will aim for net zero by 2050	• We need to reduce the percentage of trips made by car. • We need to update the downtown parking strategy to align with the objectives of the TMP to reduce downtown car use. • We need to tap Guelph's unrealized potential for electric vehicles.	• Electric vehicles and infrastructure considered • Increased ridesharing minimizes need for parking • Improved reliability of other modes to reduce trips by car
Goal 5: Guelph's streets, trails and rail networks will align with the City's land use objectives	• We need to redesign streets in key growth areas to prioritize walking, cycling and transit. • We need to update our road designs to reflect the unique priorities of different areas.	• New technology to improve functionality of existing network • New tools to respond to changes in traveler behaviours

Goal 6: Investment decisions will be made considering the asset lifecycle costs	● We need to account for lifecycle costs in financial decisions on transportation projects.	● Plan future facilities and infrastructure with new mobility and emerging technology in mind
Goal 7: Guelph's transportation system will plan for the changes of tomorrow, while delivering great service today	● We need to improve the resiliency of Guelph's transportation system. ● We need to better prepare for the future of mobility.	● Support change in mode share shift with new and emerging trends

Memo

To: Jennifer Juste, City of Guelph

From: Adam Prokopanko, Dillon Consulting Limited

cc: Shawn Doyle, Dillon Consulting Limited

Stephanie Magnanelli, Dillon Consulting Limited

Date: December 10, 2021

Subject: Financial Considerations

Our File: 18-8919

1.0 Overview

This memo summarizes the four individual memos prepared to examine different aspects of the financial considerations required to evaluate transportation alternatives and inform the recommendations of the Guelph Transportation Master Plan (TMP).

- The Cost of Building True Multi-modal Transportation Networks
- Stepping Away from a Car-centric Approach
- Potential Development Charges Recovery
- Funding Sources

Taken together, these components form the financial strategy of the Guelph TMP and provide direction to ensure that the TMP can be implemented in a sustainable and cost-effective manner.

The Cost of Building True Multi-modal Transportation Networks

This memo estimates the impact on future Capital Budgets of transitioning to design practices that represent the Complete Streets philosophy proposed by the Transportation Master Plan from existing road design practices. Details are provided in **Section 2.0**.

Stepping Away from a Car-centric Approach

This memo provides a brief explanation as to why the City of Guelph chose a sustainability approach for the Transportation Master Plan, instead of continuing the auto-centric, business-as-usual approach. Details are provided in **Section 3.0**.

Potential Development Charges Recovery

This memo was prepared by Watson & Associates Economists Limited to assess the capital projects contained within the Transportation Master Plan and identify their potential development charges eligibility. The listing of capital projects is based on the Recommended Network, as approved by Council. Details are provided in **Section 4.0**.

Funding Sources

This memo identifies existing funding options and possible non-property tax revenue tools, which informs an evaluation of preferred revenue tools the City of Guelph may use in future toward funding of the infrastructure projects recommended as part of the Transportation Master Plan. Details are provided in **Section 5.0**.

2.0 The Cost of Building True Multi-modal Transportation Networks

There is a cost associated with building a transportation network that is greener, safer, and more accessible than what currently exists within much of the City of Guelph. This section determines the additional cost (delta) of building infrastructure to the standards set out in the TMP recommendations.

Comparison of Right-of-Way Design Components

The City's Development Engineering Standards

The Development Engineering Standards include road design standards that reflect the industry state of practice from 2010/2011 when the latest update was completed. The standards contain a mix of rural and urban cross-sections, with only the urbanized sections being considered as part of the memo. The City's Standard Drawings include the following within the road right-of-way:

- 1.5 m sidewalks provided on one or both sides of all urbanized section;
- No provisions for cycling facilities;
- No defined space for transit amenities though boulevards are generally wide enough to include them;
- No inclusion of street trees; and
- Vehicular lanes that vary in width from 3.5 to 4.5 m for urbanized cross-sections.

A Move in the Right Direction (2021 Design Approach)

In recent years, City staff have endeavored to create more modern, multi-modal transportation corridors despite the absence of a formal policy document or design standard to guide decisions. When (re)constructed by the City, modern arterial and collector right-of-way designs have aimed to include both pedestrian and cycling amenities per the recommendations of OTM Books 15 and 18. This more modern standard has typical included the following within the available road right-of-way:

- 1.5 m sidewalks on both sides of every collector and arterial roadway;
- 1.5 m on-road cycle lanes or 3.0 m multi-use pathways on both sides of every arterial or collector roadway;
- Space for transit pads within the boulevard for arterial or collector cross-section;
- No standard requiring the inclusion of street trees; and
- Vehicular lanes that vary between 3.5 and 3.75 m.

A City for the Future (TMP Design Recommendations)

The Guelph of the future is a City in which people can safely choose walking, cycling, or transit for local trips – leaving road capacity for goods movement and longer distance travel. The types of right-of-way amenities envisioned through the TMP Update include the following:

- All Ages and Abilities (AAA) cycling facilities on all arterial and collector roadways. Facility types include a mix of: wider, physically separated on-road cycling lanes, off-road cycle tracks, and multi-use pathways where space is limited;
- Wider, AODA-compliant sidewalks on both sides of all arterial and collector roadways. Sidewalks will have a minimum width of 1.8 m and may be wider where anticipated pedestrian volumes are higher or where the need is supported by adjacent land uses;
- Transit shelters provided at every transit stop on arterial and collector roadways; and
- Street trees within grassed and/or landscaped boulevards on both sides of all arterial and collector roadways wherever space permits.
- Underground relocation of above-ground hydro wires and other utilities is likely required to maximize efficient use of the Right-of-Way and reduce the property impacts. Placing utilities underground can add up to $2M per kilometer to a project assuming full underground relocation on two sides of a street. These costs are project-specific and have not been included in the cost comparison below.

Summary

Table 1 provides an overview of the differences between the design standards discussed in the previous three sections.

Table 1: Overview of Proposed Changes to Design of Guelph's Arterial and Collector Right-of-Ways

Design Standard	Guelph's Development Engineering Standards	2021 Approach to Design	TMP Recommendations
Vehicular Facilities	3.5 to 4.5 m lanes, minimum 8.1 m curb face to curb face	3.5 to 3.75 m lanes, minimum 8.0 m curb face to curb face	3.3 to 3.5 m lanes, minimum 8.0 curb face to curb face
Pedestrian Facilities	1.5 m sidewalks, both sides	1.5 m sidewalks, both sides	Minimum 1.8 m sidewalks, both sides
Cycling Facilities	None	1.5 m cycle lanes or 3.0 m multi-use pathways	AAA Cycling Facilities (including physically separated on-road lanes, 2.0 cycle tracks, or 3.0 m multi-use pathways)
Streetscaping	Grassed Boulevards	Grassed boulevards with some street trees	Grassed boulevards with street trees on both sides
Transit Amenities	Undefined	Shelters at some stops	Shelters at all stops
Location of Electrical Lines	Overhead	Mix of overhead and underground[1]	Fully underground on both sides[2]

[1] For comparison purposes, electrical lines have been assumed to be overhead in the 2019 approach.
[2] Generally required to facilitate the placement of street trees within the right-of-way on both sides of the roadway.

The Cost of Driving Change

While the TMP endeavors to mitigate the need to widen roadways by shifting mode choices, implementing enhanced sidewalks, AAA cycling facilities, higher quality transit amenities and improved streetscapes is not without cost. Without the need for costly widening projects, more space and capital resources will be made available to improve road right-of-ways beyond the curb. This will include the resources to improve the equity of the overall transportation network, maintain or improve the character of existing historic corridors, and enhance the public realm with street trees and other amenities to encourage a sense of community.

Table 2 and 3 provides a comparison of capital costs associated with planned transportation facility improvement categories. The comparison of costs indicates that implementation of the enhanced multi-modal corridors put forward through the TMP can be expected to increase overall capital costs by an average of 3%[3].

Note that these costs include new street trees but do not include underground utility relocations, transit shelters, or contingencies to account for complexity of the installations. Transit shelters are not included because the pad designs are consistent across the design standards. The only change for the TMP Recommendations is that shelters be provided at all stops instead of at limited stops. An average of four shelters per kilometre is anticipated, at a cost of $8,000 per shelter. These costs are not significant enough to affect the delta % value. All calculations are in 2021 dollars.

Table 2: Comparison of Facility Costs by Design Standard

Design Standard	Guelph's Development Engineering Standards	2021 Approach to Design	TMP Recommendations[4]
Pedestrian Facilities	1.5 m sidewalk	1.5 m sidewalk	1.8 m sidewalk
Pedestrian Facilities	$280	$280	$335
Cycling Facilities[5]	None	New 1.5 m on-road	New 2.0 m cycle track
Cycling Facilities	$0	$1,185	$410

[3] Not including corridor retrofit solely to implement AAA cycling facilities.
[4] Costs for TMP Recommendations include street trees but do not include potential need to relocate overhead utilities.
[5] Presented costs represent retrofits to widen the roadway for cycle lanes or install cycle track in the boulevard. Note cost to relocate transit amenities or modify intersections are not included in these unit costs.

Design Standard	Guelph's Development Engineering Standards	2021 Approach to Design	TMP Recommendations[4]
Cycling Facilities			New 2.8 m buffered lane
Cycling Facilities			$1,489
Two Lane Arterial	4.1 m lanes, sidewalks	4.0 m lanes, cycle lane and sidewalk	4.0 m lanes, cycle track and sidewalk
Two Lane Arterial	$2,953	$3,491	$3,727
Three Lane Arterial	3.5 m lanes, TWLTL[c], sidewalks	3.5 m lanes, sidewalks, cycle lanes, and TWLTL[6] or parking	3.5 m lanes, sidewalks, AAA cycling[7], and TWLTL[c] or parking
Three Lane Arterial	$3,264	$3,740	$3,715
Four Lane Arterial	3.5 and 3.75 m lanes, sidewalks	3.3 and 3.5 m lanes, cycle lanes and sidewalk	3.3 and 3.5 m lanes, cycle track and sidewalk
Four Lane Arterial	$3,670	$3,845	$3,945
Five Lane Arterial	No standard	3.5 and 3.75 m lanes, TWLTL[c] cycle track, sidewalk	3.3 and 3.5 m lanes, TWLTL[c] cycle track, sidewalk
Five Lane Arterial	n/a	$4,395	$4,450
Two Lane Collector	3.95 m lanes, sidewalks	3.3 – 3.5 m lanes, sidewalks and cycle lanes	3.3 – 3.5 m lanes, sidewalks and buffered cycle lanes
Two Lane Collector	$3,100	$3,350	$3,565

[6] Two way left turn lane, 4.0 m wide.
[7] Either cycle track or buffered on-road cycle lanes.

Design Standard	Guelph's Development Engineering Standards	2021 Approach to Design	TMP Recommendations[4]
Three Lane Collector	3.5 m lanes, TWLTL[c], sidewalks	3.5 m lanes, TWLTL[c], and multi-use pathways	3.5 m lanes, TWLTL[c], and multi-use pathways
Three Lane Collector	$3,265	$3,465	$3,465

Table 3: Comparison of Facility Costs by Design Standard

Facility Type	Estimated cost per km (000) and Delta		
	2021 Cost	TMP Cost	Delta (TMP-2021)
Two Lane Arterial	$3,491	$3,727	7%
Three Lane Arterial	$3,740	$3,715	0%
Four Lane Arterial	$3,845	$3,945	3%
Five Lane Arterial	$4,395	$4,450	3%
Two Lane Collector	$3,350	$3,565	6%
Three Lane Collector	$3,465	$3,465	n/a

3.0 Stepping Away from a Car-centric Approach

Guelph is growing to a population of 203,000 people and an employment base of 116,000 jobs by 2051; an increase of about 50% from today's levels. An equivalent increase in the demand for travel is expected, and Guelph faces a choice about how to meet the demand of the future. Guelph has not chosen to continue the current auto-centric approach to transportation, for several reasons.

Why not continue with the current auto-centered approach?

Guelph cannot continue to follow its current auto-centred approach to transportation service. Today's approach is:

- **Unaffordable**, for both the City and for travelers
- **Unsustainable,** with significant negative impacts on the climate and natural and human environments
- **Less equitable**, in that it fails to provide a variety of travel options and it does not meet the needs of all travelers
- **Less safe**, as more cars and wider streets leaves pedestrians and cyclists more vulnerable to serious injury

Unaffordable

The current auto-centred approach to transportation service (as represented by *Alternative Solution 4: Car Efficiency Focus)* would require almost 15km of road widening more than *Alternative Solution 2: Sustainability Focus*. At costs ranging from $4.5M to $7.0M per km for road widening, this translates to between $65M and $100M in additional capital costs. The larger network would also have higher asset management and operating/maintenance costs.

An auto-centred approach would also increase the average cost of travel for individuals. Consider the following data on traveler costs per mode:

- Annual cost of owning and operating a car are typically between $8,000 and $12,000 per year[8]
- Annual costs of a transit pass are currently $960/year
- One-time costs for purchasing a bicycle range from $200-$500, depending on the bike
- Walking is free to the traveler

Note that an auto-centric solution forces these higher individual costs onto a greater portion of the traveling public, as the current auto mode share of 80% is maintained (instead of being reduced to 55% under the sustainable approach).

[8] Average of the costs of owning a vehicle from the CAA Driving Cost Calculator

Unsustainable

Transportation is the largest single source of greenhouse gas (GHG) emissions in Guelph, a condition that Guelph has committed to changing through a number of strategic planning documents (such as the Official Plan, Strategic Plan, Climate Emergency, Community Energy Efficiency).

The Guelph Community Energy Initiative's Business-as-Usual Report provided a snapshot of current and projected 2050 emissions (tonnes of CO2) from the transportation sector based on forecasted population and employment growth and assuming no additional policies, actions or strategies to address energy and emissions will be implemented between 2017-2050, other than those planned or currently underway.

Table 4: Community emissions tabulated results, 2016 & 2050 Business-as-Usual (BAU)

Emissions by sector (tCO2e)	2016	Share 2016	2050 (BAU)	Share 2050	% +/- (2016-2050)
Commercial	275,300	23.8%	256,800	23.2%	-6.7%
Fugitive	69,500	6.0%	63,200	5.7%	-9.1%
Industrial	148,900	12.9%	150,700	13.6%	1.2%
Residential	208,400	18.0%	205,300	18.6%	-1.5%
Transportation	374,200	32.4%	336,900	30.5%	-10.0%
Waste	80,400	7.0%	92,100	8.3%	14.6%
Total	**1,156,700**		**1,105,000**		**-4.5%**

Source: City of Guelph Energy and Greenhouse Gas Emissions, 2018

As Error! Reference source not found. presents, transportation remains the largest contributor to atmospheric impacts under a Business-as-Usual (BAU) approach.

The Energy and Emissions Report (2012) provided some direction to reducing climate impacts from transportation, notably committing to more sustainable transportation modes, such as cycling and public transit.

Environmental impacts do not stop at climate impacts. A traditional auto-centric transportation solution would require street widenings through mature neighbourhoods such as Old City west of Downtown or the Ward east of Downtown, and significant natural areas such as the Natural heritage areas, river crossings, and Arboretum lands.

Less Equitable

The current auto-centred approach to transportation service prioritizes auto mobility, which puts those who cannot or do not wish to drive at a disadvantage. For instance, someone who owns a car can make a cross-town trip in 10 minutes, but this trip could take up to an hour on transit with current service

levels. Not only does this make transit inconvenient, but it makes key services, employment, and parts of the city or transportation system (such as frequent transit, safe cycling routes or continuous sidewalks) less accessible. This disproportionately affects communities of traditionally marginalized people and vulnerable residents who are more likely to depend on transit and other forms of mobility for their daily travel needs, and is a major barrier to self-efficiency.

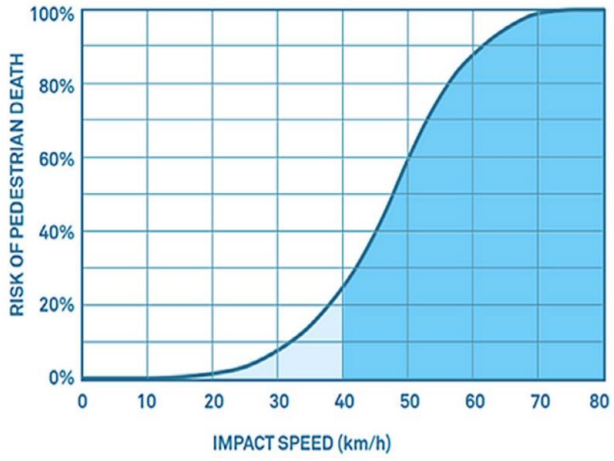
A traditional auto-centric transportation solution would only put these communities at more of a disadvantage, while undermining the goals of the City and other investments directed at transit. A sustainable approach prioritizes investments that help improve access to and increase the efficiency of sustainable travel options, like transit, which will help make these modes more attractive and convenient, and meet the transportation needs of more residents.

Less Safe

In most cities in Canada, active transportation road users (pedestrians, cyclists, etc.) are disproportionately injured or killed in road incidents. Although some improvements for vulnerable users have been made in Guelph, these have not always been significant or suitable for all users. For instance, paved shoulders or painted bike lanes are only comfortable for a small fraction of cyclists. The current auto-centred approach does not prioritize a significant amount of investments into making streets safe for all modes and users of all ages and abilities. This has a societal cost of about $100 million annually in expenses related to collision-related injuries.

In Guelph:

- 1 person is injured in a collision every 9 hours
- 6 collisions occur every day
- 2 collisions with pedestrians or cyclists occur every 10 days
- 1 road fatality occurs every 4 months



Source: Safe Streets Save Lives Global Designing Cities Initiative

Figure 1: Relationship between impact speed and risk of pedestrian death

Traditionally, road safety was the responsibility of the driver to prevent collisions and focus was on what causes the collisions instead of how to prevent them and proactively take actions to increase safety for all road users.

An auto-centric approach may not consider facilities that make other modes of transport safer, like intersection crossings, sidewalks, and bike lanes, forcing these users onto the road. Depending on the operating speeds on the road, the severity of injuries and risk of death for pedestrians and cyclists increases drastically. **Figure 1** illustrates this relationship.

Moving on from traditional transportation approaches to a sustainable approach will enable the City to achieve their TMP and strategic goals of City's goals of shifting mode share, improving road safety, reducing Guelph's carbon footprint, and designing an increasingly sustainable city as Guelph grows.

4.0 Potential Development Charges Recovery (Watson)

As per the request of the City, we have examined each of the capital projects identified within the Transportation Master Plan (TMP) and evaluated their potential Development Charges (DC) allocations. To assess the potential DC eligible component of the capital projects, we have utilized the assumptions from the 2018 Development Charges Background Study as a basis for the analysis undertaken herein. As noted above, there are different types of projects included within the listing which may require the attributions to be further refined as part of the City's next formal DC study process.

Through the 2018 DC study process, Watson worked with City staff to develop growth percentage allocations for transportation-related projects based on the scope of the capital works. For example, road projects that were expansionary and provided additional lanes were deemed to be 70% growth-related, while projects with a focus on active transportation additions were considered 50% growth-related. **Figure 2** provides the growth percentage criteria on which all of the TMP projects were evaluated.

Criteria	Growth %
Downtown Projects	25%
Upgrade Existing Rural to Urban	50%
Active Transportation - Biking	50%
Expand Road with Additional Lanes	70%
Basic Urban Road to Enhanced Arterial*	70%
Intersection Improvement - New Signalization	90%
New Road	100%
Road Upgrade resulting from direct adjacent development	100%
Additional Lanes Only (No reconstruction)	100%

*New Category in the T.M.P.

Figure 2: Criteria for Growth Percentages

In addition to the 2018 DC growth percentages, we have added a new category for urban roads being upgraded to enhanced arterial roads. These types of projects have been assumed to be 70% growth-related as they provide an expansionary aspect to the existing road and adds boulevards/bus pads throughout the road segments.

Using this framework, we have applied the appropriate criteria noted in Figure 2 to the TMP capital projects. Through City staff's review of the proposed projects, a list was provided to identify 54 projects that could occur by 2031. Of these projects, 37 are already in the 2031 capital budget forecast. The other 17 are considered as potential projects that could be recommended to advance if the pace of implementing the TMP needs to be increased. As it is unknown at this time if all the projects from the additional 17 projects would need to be considered within the 2021 to 2031 timeframe, a sensitivity

analysis has been undertaken to assess the potential DCs from projects of capital budget-only, and capital budget-plus projects.

Figures 3 and 4 summarize the total costs and potential DC recovery for 2021 to 2031 forecast period for capital budget-only projects and "capital budget-plus" projects, respectively.

Project Criteria	2021-2031	
	Gross Project Costs	Potential D.C. Recovery
Downtown Projects	$ 15,133,277	$ 3,783,319
Upgrade Existing Rural to Urban	$ 28,693,797	$ 14,346,899
Active Transportation - Biking	$ 77,915,070	$ 38,957,535
Expand Road with Additional Lanes	$ 41,966,101	$ 29,376,270
Basic Urban Road to Enhanced Arterial*	$ 12,957,842	$ 9,070,489
Intersection Improvement - New Signalization	$ -	$ -
New Road	$ 9,319,049	$ 9,319,049
Road Upgrade resulting from direct adjacent development	$ -	$ -
Additional Lanes Only (No reconstruction)	$ -	$ -
Total	**$ 185,985,136**	**$ 104,853,562**

Figure 3: Summary of Potential DC Recovery (2031 capital budget only)

Project Criteria	2021-2031	
	Gross Project Costs	Potential D.C. Recovery
Downtown Projects	$ 15,133,277	$ 3,783,319
Upgrade Existing Rural to Urban	$ 66,909,573	$ 33,454,787
Active Transportation - Biking	$ 136,271,580	$ 68,135,790
Expand Road with Additional Lanes	$ 41,966,101	$ 29,376,270
Basic Urban Road to Enhanced Arterial*	$ 29,265,573	$ 20,485,901
Intersection Improvement - New Signalization	$ -	$ -
New Road	$ 9,319,049	$ 9,319,049
Road Upgrade resulting from direct adjacent development	$ -	$ -
Additional Lanes Only (No reconstruction)	$ -	$ -
Total	**$ 298,865,154**	**$ 164,555,117**

Figure 4: Summary of Potential DC Recovery (2031 capital budget plus 17 additional projects)

5.0 Funding Sources

This memo identifies existing funding options and possible non-property tax revenue tools, which may be used to inform a future evaluation of revenue tools the City of Guelph may use to generate the funding for the infrastructure projects recommended as part of the Transportation Master Plan.

Potential sources of new transportation funding options that could be considered to support the TMP capital plan include:

- New Mobility Charge (particularly on ridesharing)
- Sponsorship of the Built Environment
- Tax-Increment Financing
- Curbside User Fees

There are also several more conventional sources that should be considered as future possibilities. These are all used in other jurisdictions in Canada and the United States but require provincial approval in Ontario:

- Municipal Sales Tax
- Municipal Excise Taxes (particularly on fuel)
- Employer Payroll Tax

The full version of this memo with supporting documentation and evaluation will be provided to the City in future.

Moving Guelph Forward: 2022 Transportation Master Plan

Transportation Master Plan

Guelph. Future Ready.

Our Strategic Plan
2019 to 2023

Strategic priorities and directions:

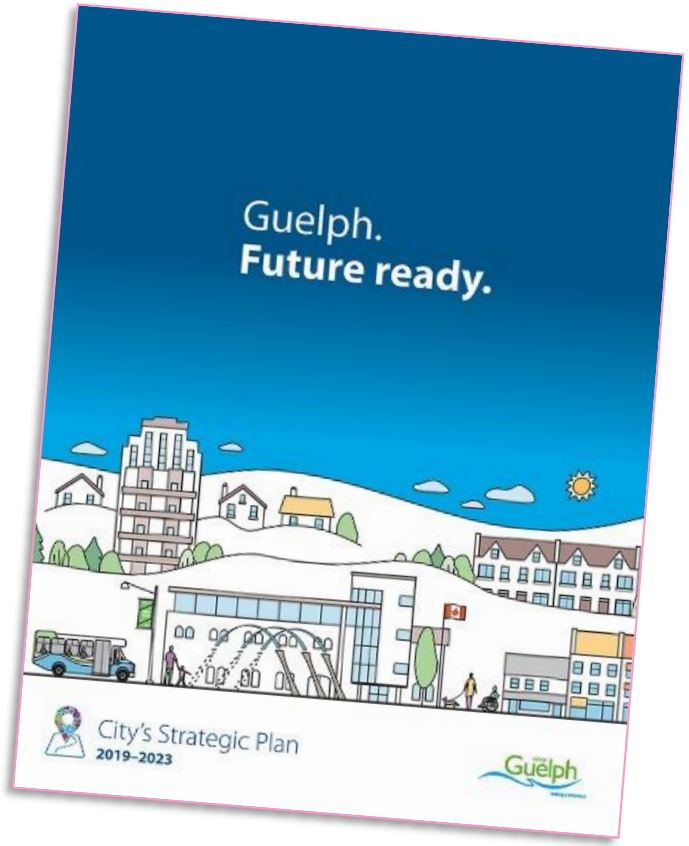
Powering our future

Sustaining our future

Navigating our future

Working together for our future

Building our future



What is a TMP?

The Transportation Master Plan is a **long term strategy** that guides our decisions around transportation planning for the next 30 years.

Here's what we've done in earlier stages of the project

- ✓ Launched the project with a panel discussion on the Future of Transportation in Guelph by leading transportation experts;
- ✓ Held city-wide engagement with 2 Virtual Open Houses and 5 online surveys; and
- ✓ Completed bus priority and bike lane demonstration projects and engaged with a number of key stakeholders in workshops!
- ✓ Developed the transportation vision, values, and goals;
- ✓ Examined the existing transportation system in Guelph;
- ✓ Identified the issues and opportunities for transportation improvements;

Here's what we've done in earlier stages of the project (continued)

- ✓ Set mode share targets to help determine the proportion of trips made by walking, cycling, transit, and cars into the future;
- ✓ Developed and evaluated four Alternative Solutions, which are the different options for the City's future transportation network; and
- ✓ Recommended a Preferred Solution, based on the results of the technical evaluation and community feedback, which was approved by Council on May 26.
- ✓ Developed the policies, programs and financial strategy to implement the preferred solution

Transportation Master Plan Engagement

https://youtu.be/uoBFQumSEC4

Transportation Master Plan Engagement (2)

Phase 2
Public Engagement Results

Transportation Master Plan
January 2020

How We Engaged: Techniques & Results

For this phase of community engagement, we used a variety of techniques to reach a diversity of Guelph stakeholders. Our objective was to work with the community to explore the specific challenges of the City's existing transportation system, and to identify opportunities that should be considered for Guelph's future.

Online engagement tools

NEARLY **3,000**

Submissions online at www.HaveYourSay.Guelph.ca

Including an **interactive map** to track issues and opportunities, which received over 1,000 comments

Demonstration Projects

Bus-only lane
1,400 online comments

Protected bike lane
309 online comments

Demonstration projects are a way to physically engage people in temporary concepts to test ideas and potential solutions.

Stakeholder meetings

with the **Downtown Advisory Committee**, **Guelph Chamber of Commerce** members, **Accessibility Advisory Committee**, **Linamar truck drivers**, **Transit Action Alliance of Guelph**, **Evergreen Seniors Centre** and with **Grade 5 students** during Local Government Week to gather feedback on **current issues and potential solutions.**

Phase 3
Public engagement results

Transportation Master Plan
March 2021

How we engaged: techniques and results

Online engagement hub
The central place to engage with the project online with
1153 visitors and
216 contributors

Project email
transportation@guelph.ca
for direct communication with residents

Notifications published in the Guelph Mercury Tribune

Social media used to spread awareness

#MovingGuelphForward
10 tweets generating
39 likes, **58** retweets and **165** clicks

2 Facebook posts generating
46 likes, **16** comments and **143** clicks

Two email newsletters
Sent to **2,000 recipients**

City staff workshop with nearly **40** participants

Phase 4
Public engagement results

Transportation Master Plan
November 2021

How we engaged: techniques and results

Online engagement hub
The central place to engage with the project online with
306 visitors &
79 contributors

Project email
transportation@guelph.ca
for direct communication with residents

Notifications published in the Guelph Mercury Tribune

Social media used to spread awareness

#MovingGuelphForward
6 tweets generating
27 likes, **42** retweets and **76** clicks

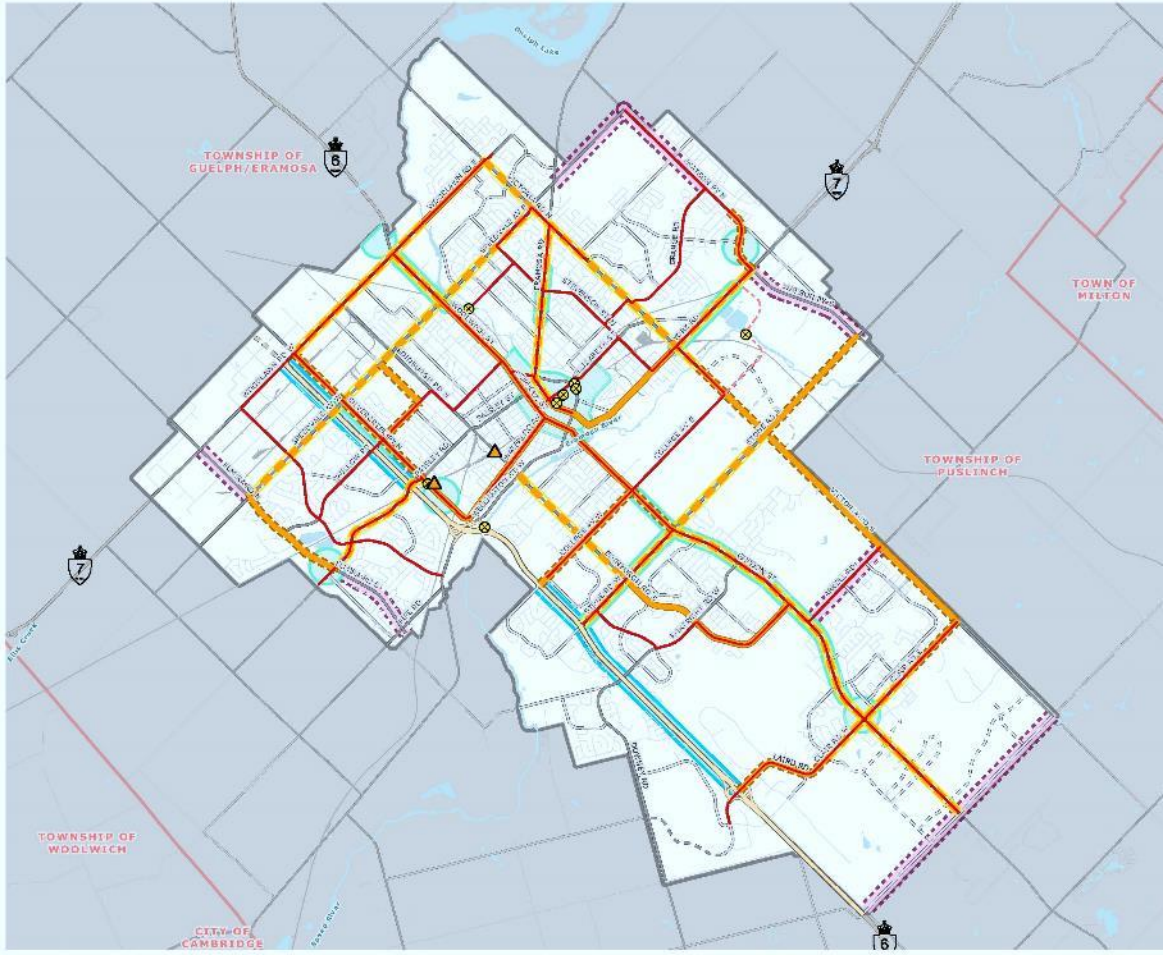
4 Facebook posts generating
14 likes, **5** comments and **48** clicks

Two email newsletters
Sent to **3,803 recipients**

1 online survey with **77** responses received in total online at **HaveYourSay.Guelph.ca** to gather feedback along side the Virtual Open Houses

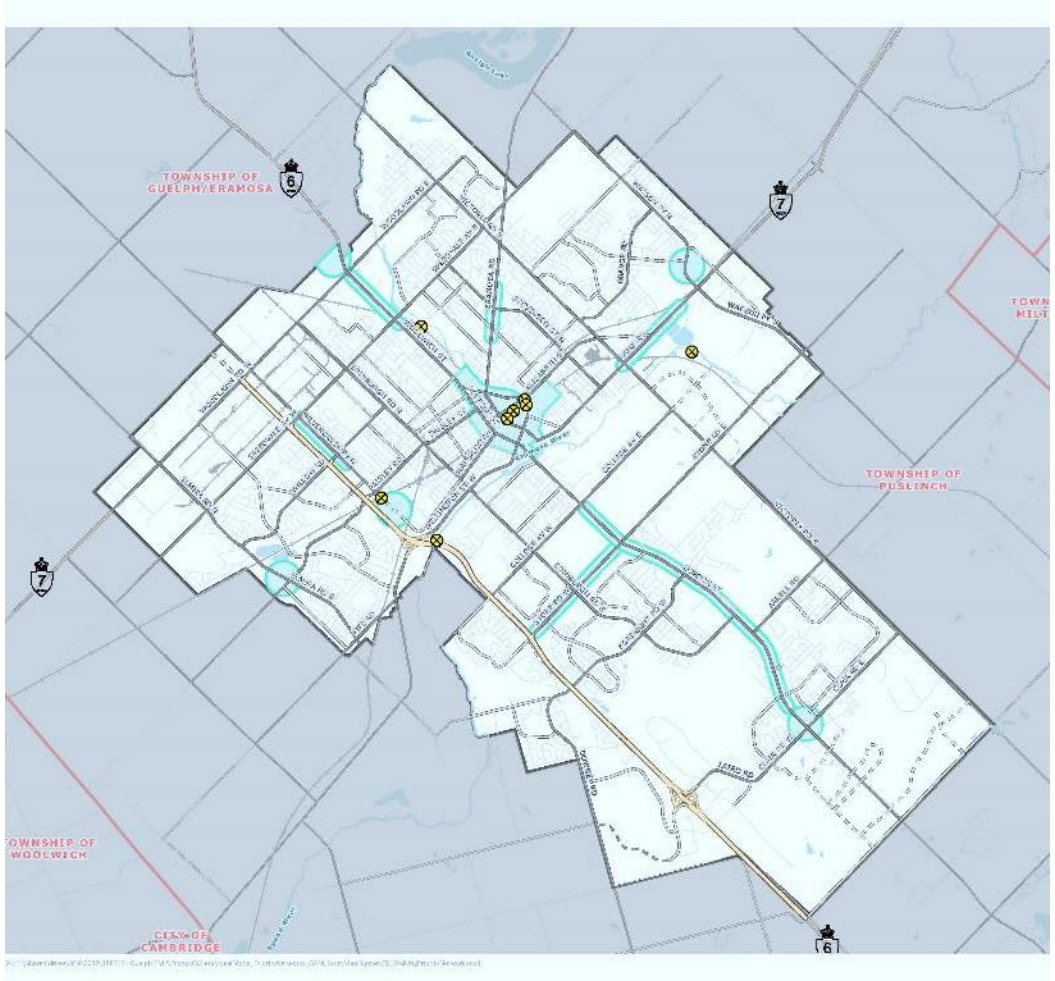
The Sustainability and Resiliency Option

The Sustainability and Resiliency Option is made up of the following priority networks



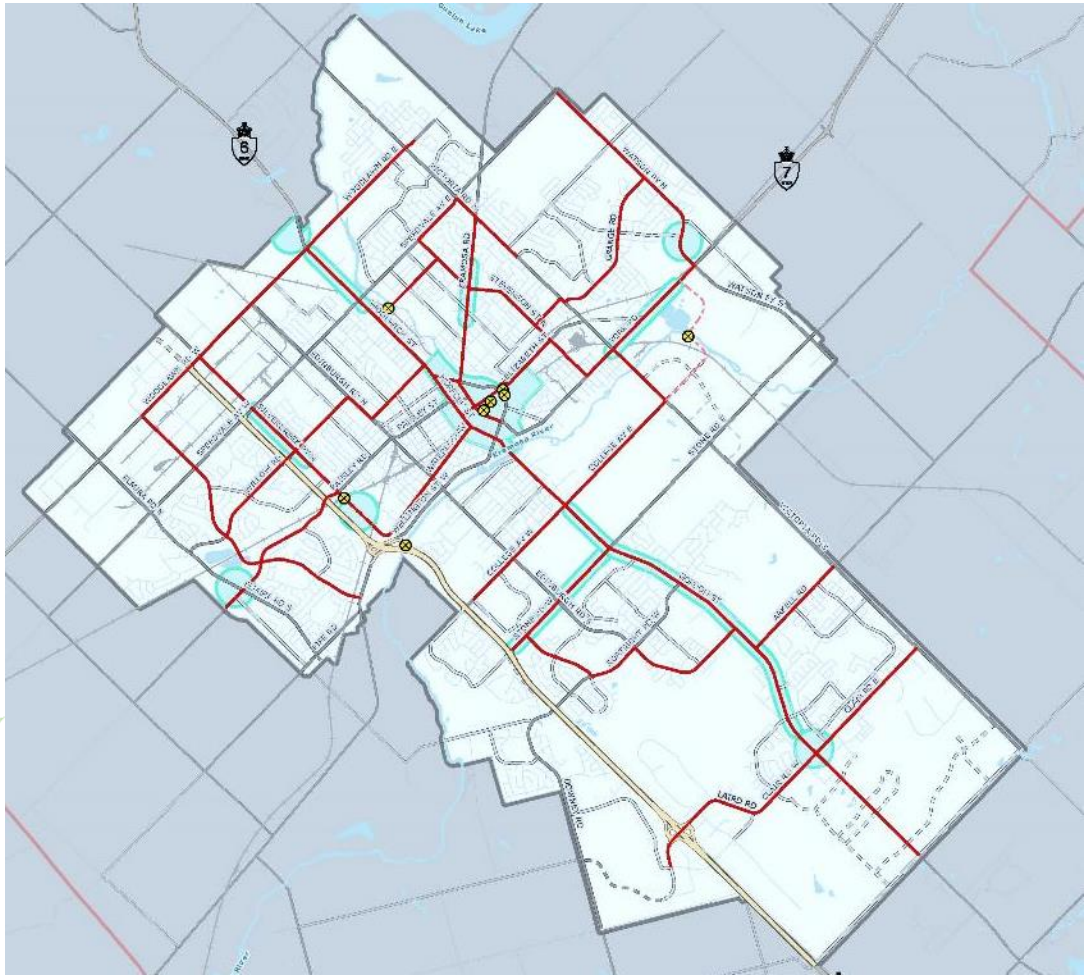
A Pedestrian Priority Network

A network of **wide, landscaped and well-lit sidewalks** in areas of highest pedestrian activity in the city



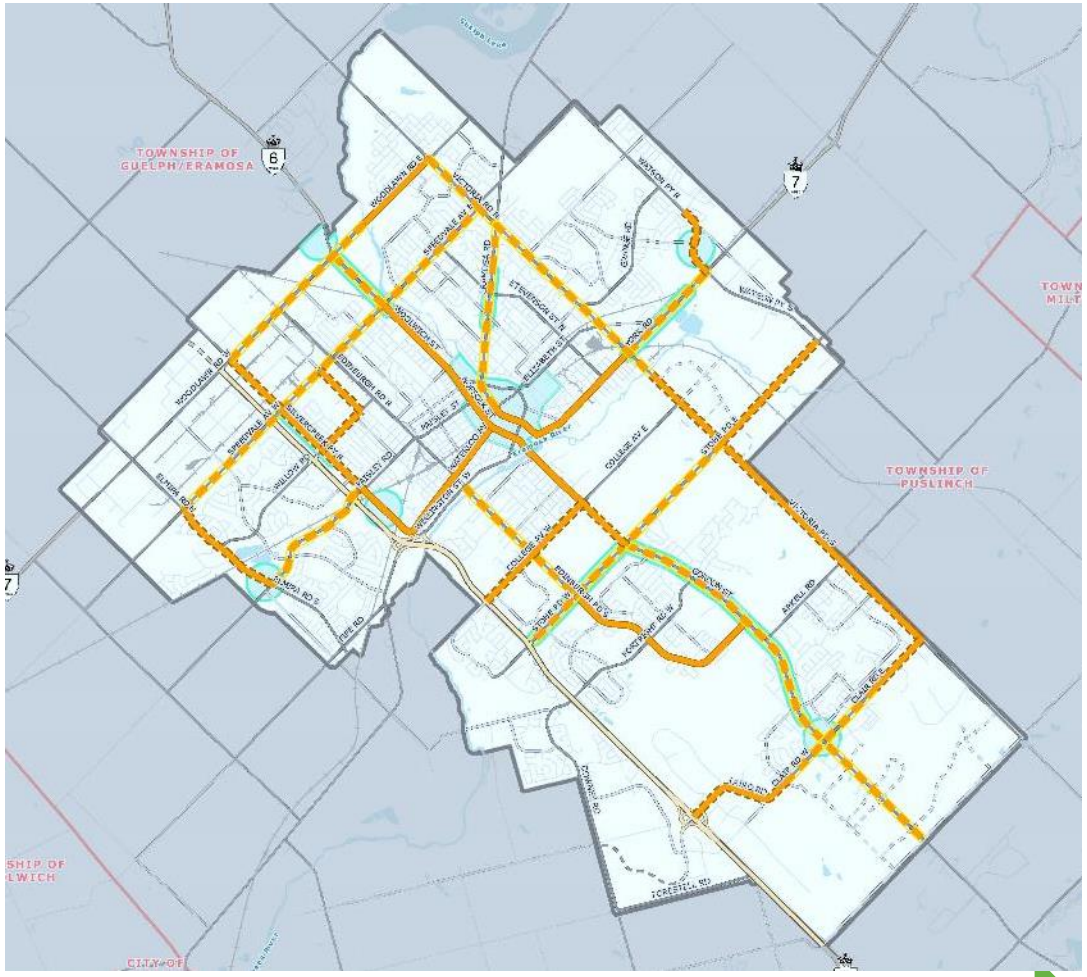
A Cycling Spine Network

A network of core cycling routes with **separated or protected cycling lanes** that are designed to support and encourage cycling by people of all ages and abilities



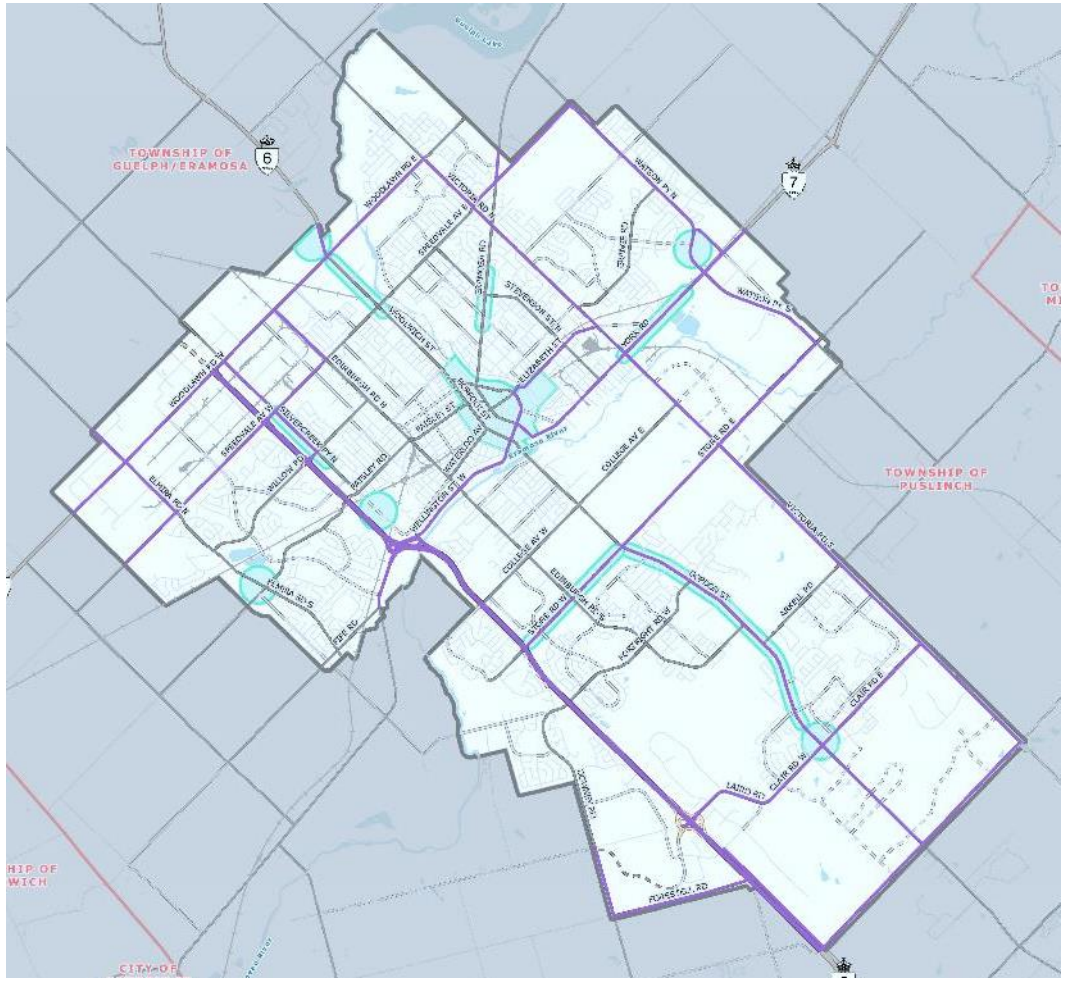
A Quality Transit Network

A network of streets with **frequent transit service** where service or infrastructure improvements have been made to reduce travel delay for buses. This could include dedicated bus-only lanes in some places or at certain times of day.



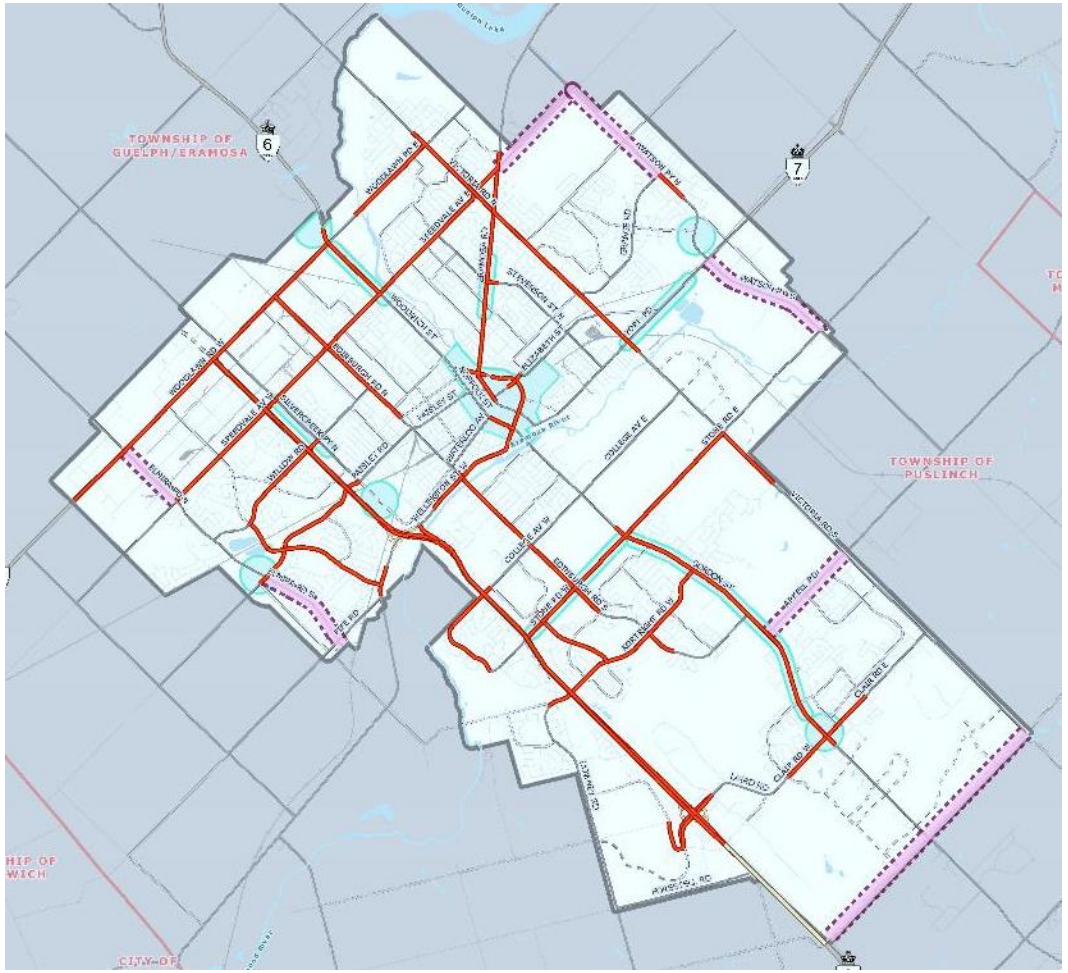
Parts of a Goods Movement Priority Network

A network of arterial roads that **permit truck traffic** for more than just local service and which allow large vehicles to travel through the city efficiently without negatively impacting the safety of other road users like people walking or biking; and



A Resilience Network

A network of arterial roads that are designed for **flexible uses** such as patio extensions, dedicated lanes for different mobility purposes, curbside extensions, by-pass lanes, and more!



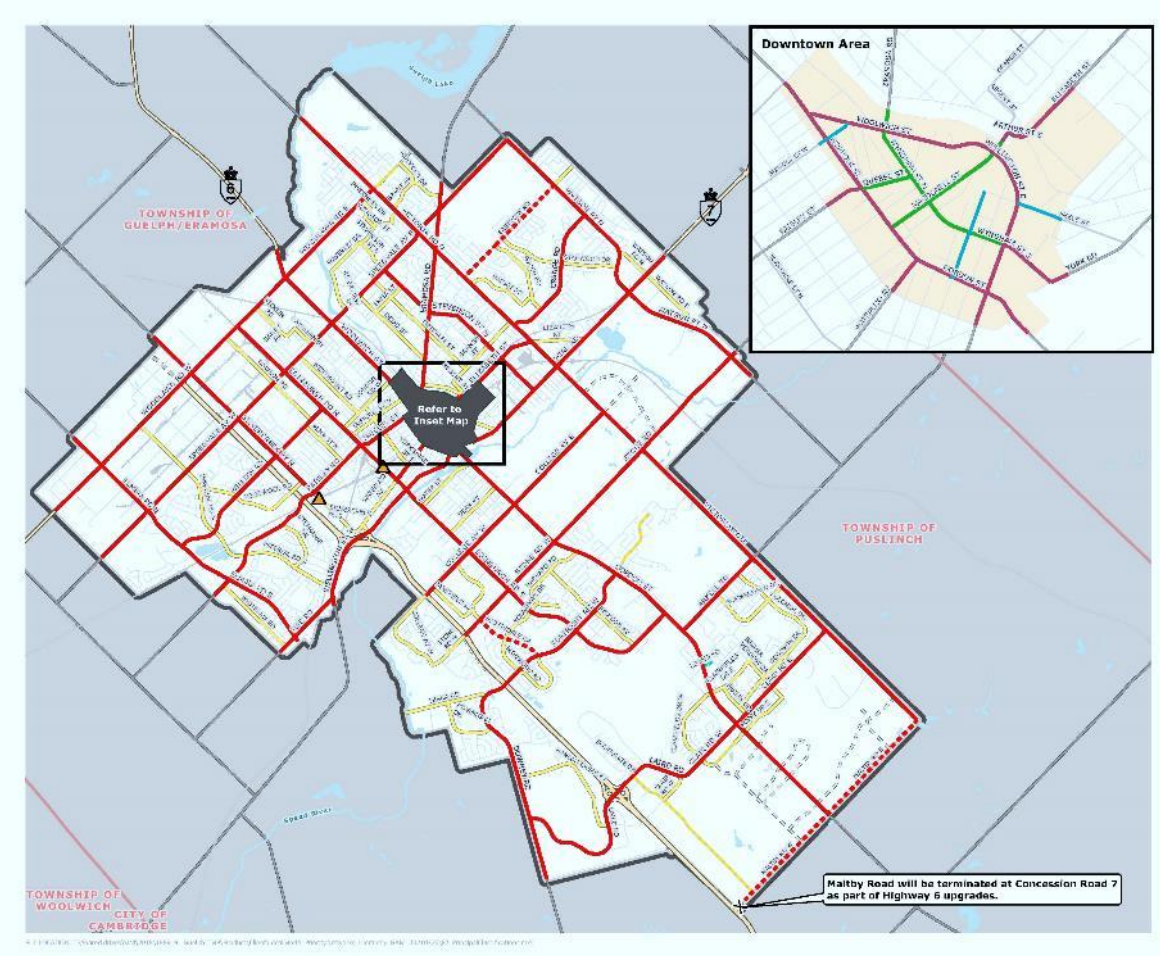
Transportation Master Plan – Policies

Safe	Equitable	Sustainable	Tied to land use	Affordable
• Vision Zero • Complete Streets • Road safety program	• Complete Streets design guidelines • Sidewalks on both sides of new streets • Transportation Advisory Committee	• Cycling spine network • Transportation Demand Management • Winter maintenance • Support zero-emission vehicles • Low-impact road designs	• Official Plan updates to strengthen link between development and transportation services • Goods movement network • Roundabout strategy	• Financing tied to capital budget process • Enhanced transit services

Transportation Master Plan – New Programs

Introducing an **Emerging Transportation Technology Office** and enhancing or strengthening existing **strategic planning, road safety, sustainable transportation** and **transportation systems management** programs

Updates for the Official Plan



- Updates to Schedule 5 – Road and rail networks
- Updates to Tables 5.1 – Ultimate Right of Way, and 5.2 – Intersection improvements
- Updated mode share targets
- New definitions including micro-mobility
- Adding schedules to reflect some of the priority networks of the TMP preferred solution
- Strengthening policies related to Chapters 3 and 5

Innovative by design

- Integrated multi-modal transportation plan
- Works back from set mode share targets
- Excellence in creative and meaningful engagement tactics
- Focused on climate and resiliency

Transportation Master Plan – Affordable

- Implementing the priority networks of the TMP represents a 0-7% increase in cost compared to current road reconstruction practices, or adding approximately $26 Million to the current 10 year capital budget for roads and right of way.
- Comparatively, not implementing the TMP would require additional road widening to accommodate growth in trips by car, at an additional cost of $65-100 million

Transportation Master Plan – Affordable (2)

- Development charges can cover 25-100% of project costs, depending on the context, or approximately $105 million by 2031.
- Annual operating costs by 2031 would increase by approximately $376,200
- The TMP recommends exploring alternative revenue sources in future to help keep projects affordable

Transportation Master Plan – next steps

- After council's approval of the TMP:
- Documentation for the Municipal Class EA will be available for public review period and filed with the Ministry of Environment, Conservation and Parks
- Regular updates to the TMP at 5-year intervals
- OP update as part of a future amendment
- Track mode share trends to ensure pace of implementation is meeting our goals
- Capital and Operating budget to support pace of implementation

Transportation Master Plan

December 6, 2021

Terry Gayman P.Eng.
General Manager/ City Engineer Engineering and Transportation Services
City of Guelph
1 Carden Street
Guelph, Ontario N1H 3A1

terry.gayman@guelph.ca

Delivered via email

RE: CHANGES NEEDED IN CITY POLICIES REGARDING THE TRAFFIC FUNCTION OF COLLECTOR ROADS

Greetings Terry:

In this letter I set out changes in various City of Guelph policy documents that are needed to bring City policies into compliance with the Canadian Guide to Traffic Calming.

TOPIC ONE: COMPLIANCE WITH THE CANADIAN GUIDE TO TRAFFIC CALMING

As a preface to a presentation of the changes that are needed, I present a summary of the contradictions that have existed and still exist within policy documents as regards the appropriate traffic function to be assigned to collector roads in residential areas.

The Southview (District 8) Secondary Plan was added to the City of Guelph Official Plan in 1975. The roadway system contained in the Southview Secondary Plan made a distinction between the functions of arterial roads and highways as one grouping and local and collector roads as a second grouping. The function of arterial roads and highways was to "facilitate the movement of through traffic while minimizing the environmental impact on residential neighbourhoods". The function of local and collector roads was to provide convenient access to property to and from the arterial/highway network while "preventing through traffic in the neighbourhoods".

The intention in the District 8 Plan to exclude through traffic from collector roads was contradicted by the Transportation Section of the Official Plan. The Transportation Sections of Guelph's Official Plan in 1975, and continuing until at least 1994, explicitly assigned through traffic functions to collector roads as part of an arterial-collector grid system to assist in the dispersion of through traffic.

While the mention of a combined "arterial-collector road grid" has been removed in more recent Official Plans the definition of the function of collector roads retains the allowance for through-traffic function for collector roads.

1994 Official Plan

> Collector roads are intended to move low to moderate volumes of traffic within specific areas of the City and collect local traffic for distribution to the arterial or Provincial Highway system.

2021 Official Plan

5.7.3.1 Collector Roads are intended to move low to moderate volumes of traffic within specific areas of the City and collect local traffic for distribution to the arterial or Provincial Highway system.

The Official Plan definition of the traffic function of collector roads has been interpreted by staff as providing a justification for through traffic being permitted and/or encouraged on residential collector roads. For example,

in the Staff Report on the Niska Road Improvements (Dec 3 2015) it is noted that "with respect to the function of Niska Road as a two-lane collector road:

- Current and future expected traffic volumes on Niska Road are well within the range for a two-lane collector road;
- Origen destination survey indicates that Niska Road is important to the city and area as it is to local residents;
- Most trips are for work from an external destination to locations in the City outside of the immediate neighbourhood."

This interpretation of the function of a collector road in a residential area, based on the definition of collector-road function in the Official Plan, is directly opposite to the 1975 commitment of the City to protect residents from the detrimental effects of cut-through traffic using residential collector roads.

Moreover the 1975 City of Guelph decision to recategorize collector roads as being, together with local roads, for locally-generated traffic only was confirmed as best practice by the Canadian Guide to Neighbourhood Traffic Calming issued by the Transportation Association of Canada in 1998. This Guide, reissued in 2018 as the Canadian Guide to Traffic Calming has the following definition of the traffic function of local and collector roads in residential areas:

"A primary function of local streets is to provide access to adjacent properties. These streets are not intended for use as through routes or as corridors to move traffic within the overall road network. For collector streets, access to adjacent property is balanced by a need to collect and distribute traffic travelling into and out of an area or neighbourhood. As with local streets, collector streets are generally not intended to be through routes or to move significant amounts of traffic from one part of the road network to another.

The contrast between the City's operational interpretation of collector road function and the CGTC is obvious. The City's interpretation is the collector roads can and should move significant volumes of through traffic, the CGTC states collector roads should not move significant amounts of through traffic.

RECOMMENDATION 1: REVISE THE DEFINITION OF COLLECTOR ROAD FUNCTION IN THE TRANSPORTATION MASTER PLAN AND THE OFFICIAL PLAN TO CORRESPOND WITH THE CGTG

The TAC has two publications that discuss traffic functions of streets – the Geometric Design Guide for Canadian Roads and the Canadian Guide to Traffic Calming. Both publications agree that the two fundamental aspects of the traffic function of a street are (1) traffic service function and (2) land service//access.

I recommend the following definitions as an example of providing clear guidance on both traffic service and land service:

Suggested Definitions for Classification of Streets

Arterial Road A road primarily for movement of through traffic; access to property of lesser importance.

Collector Road A road for movement of local traffic and for access to property; movement of local traffic and access to property have equal importance; through traffic discouraged.

Expressway A divided arterial roadway for through traffic with full or partial control of access and with some interchanges.

Freeway A road limited to through traffic with access only through interchanges.

Local Road A road providing access to property for local traffic; through traffic discouraged.

TOPIC TWO: REVISE THE TRAFFIC CALMING POLICY TO RESTORE COMPLIANCE WITH THE CGTC

The Canadian Guide to Traffic Calming provides guidance on the two traffic safety concerns which give rise to the need for traffic calming. One is speeding, the other is high volumes associated with traffic short-cutting through residential neighbourhoods. The City of Guelph's Neighbourhood Traffic Management Policy as revised in 2006 took careful account of the CGTC and the NTMP established criteria for thresholds on both speeding and short-cutting traffic volumes which, if surpassed, triggered a Traffic Review. The criterion for short-cutting traffic on collector roads was >600 short-cutting vehicles per day on streets with >2000 vehicles/d traffic.

In July 2020 City Council replaced the NTMP with Traffic Calming Policy – Policy 016. The replacement policy TCP is not compliant with the CGTC because the TCP deals with only half of the traffic calming concerns – speeding – and does not contain a single mention of short-cutting traffic volumes, much less establish a criterion for triggering a Traffic Review based on excessive short-cutting traffic volumes. The TCP does reaffirm that the traffic function assigned to collector roads is to circulate local traffic.

RECOMMENDATION 2: RESTORE SHORT-CUTTING TRAFFIC VOLUMES AS A CONCERN WITHIN THE TCP; RE-ESTABLISH A CRITERION FOR TRIGGERING A TRAFFIC REVIEW TO DEAL WITH EXCESSIVE SHORT-CUTTING VOLUMES; RE-ESTABLISH A PROCEDURE FOR DETERMINING ACCEPTABLE VOLUMES OF SHORT-CUTTING TRAFFIC VOLUMES ON A SITE-SPECIFIC BASIS AS IN THE NTMP.

TOPIC THREE: DETERMINE ACCEPTABLE TRAFFIC VOLUMES ON SCIENCE-BASED SITE-SPECIFIC CRITERIA

The NTMP (2006) specified that if a traffic-volume problem from short-cutting traffic was identified it was the responsibility of City staff to determine from site-specific characteristics of the problem street what volume of traffic was acceptable and then to determine what methods of traffic calming were needed to reduce cut-through traffic volume to acceptable levels and thus return the problem street to its intended function.

However, when required to establish the acceptable volume of cut-through traffic for Niska Road and Whitelaw Road, both of which are two-lane residential collector roads with excessive cut-through traffic problems City staff did not establish the acceptable volume of cut-through traffic from an examination of the site-specific properties of the problem road such as pavement width, extent of sidewalks, sight-line distances and presence of steep slopes.

Instead of site-specific determination of the volume capacity Niska Road and Whitelaw Road City staff chose, in both cases, a volume of 8000 vehicles/d as the acceptable traffic volume, taking this value from the listing of typical observed maximum traffic volumes for all types of collector roads (i.e., both two lane and four lane roads) shown in Table 2.6.5 of the Geometric Design Guide.

As explained by Geoff Nixon P. Eng. Director of Technical programs of the Transportation Association of Canada this use of the observed maximum traffic listed in Table 2.6.5 is contrary to the intended use of Table 2.6.5. This Table, and the entire GDG, is intended only for the geometric design of roads and should not be used for traffic operations. The maximum traffic volumes in Table 2.6.5 may well include volumes which are unacceptably high. There is "no implied "acceptability" of the typical volumes shown, and these values do not represent the capacity either physical of desirable of any specific road. Determination of acceptable volumes should be determined by the engineering judgement of practitioners based on site-specific properties.

Further confirmation of the need to determine acceptable volumes on a site-specific basis is shown in the City of Toronto Traffic Calming Policy. In this policy collector road acceptable volumes are listed as being in the range of 2500 to 8000 depending on road characteristics.

RECOMMENDATION 3: THE TRAFFIC CALMNG POLICY SHOULD BE AMENDED TO EXPLICITLY STATE THAT ACCEPTABLE TRAFFIC VOLUMES MUST BE ESTABLISHED BY THE ENGINEERING JUDGEMENT OF QUALIFIED PRACTITIONERS USING THE SITE-SPECIFIC CHARACTERISTICS OF THE PROBLEM STREET.

I thank you for your attention to these recommendations and look forward to what I hope will be a favourable response to this letter.

I request that this letter be considered as a submission to both the Official Plan Update now underway and to the Transportation Master Plan Update now underway.

Best Regards

H.R. Whiteley P. Eng.

THE CITY OF
Guelph

OFFICIAL PLAN

ADOPTED BY CITY COUNCIL
NOVEMBER 1, 1994

PROVINCIAL APPROVAL
PENDING

1994

2. **Arterials:**

(a) Arterials are intended to move moderate volumes of traffic over moderate distances within the City and to collect traffic and feed it to the expressway and Provincial highway system.

(b) Arterials are medium speed design, having capacity for 2-6 lanes, usually undivided, with access restricted wherever possible to at-grade intersections with other arterial and collector roads.

(c) Direct access from local roads and individual properties shall be limited, where possible, to avoid interference with the primary function of moving through traffic.

(d) Parking shall be discouraged except in the main shopping streets of downtown.

(e) The desirable *right-of-way* width shall range from 26 metres to 36 metres.

(f) It is recognized that arterial roads of less than 26 metres presently exist and widenings to achieve the desirable minimum may not be practical.

3. **Collectors:**

(a) Collector roads are intended to move low to moderate volumes of traffic within specific areas of the City and collect local traffic for distribution to the arterial or Provincial highway system.

(b) Collectors are moderate speed design, having capacity for 2-4 lanes, usually undivided.

(c) Direct access to private property may be permitted, but controlled to avoid traffic hazards.

(d) Parking may be permitted.

(e) The desirable *right-of-way* width shall range from 23 metres to 26 metres.

(f) It is recognized that collector roads of less than 23 metres exist and widenings to achieve the desirable minimum may not be practical.

4. **Local Roads:**

   (a) All other roads, not designated on Schedule "7B", shall be considered a local road whose function is to provide for low volumes of traffic and access to abutting private property.

   (b) Local roads are low speed design, having capacity for two lanes of traffic, usually undivided, with through traffic discouraged.

   (c) Parking may be permitted.

   (d) The preferred *right-of-way* width for new local roads shall be 20 metres.

5.2.15 The City's functional hierarchy of roads is a component of and ties into the Provincial Highway grid. The Provincial Highway grid through Guelph is illustrated on the Existing Road Network, Schedule "7B".

1. All development/redevelopment proposals adjacent to the Hanlon Expressway are subject to the requirements and permits of the Ministry of Transportation.

Road Design

5.2.16 The functional road hierarchy, as outlined in Policy 5.2.14 and Schedule "7B" of this Plan, will serve as the basis for the planning of the City's roads system.

5.2.17 The City shall have regard for and, when necessary, will require measures to mitigate any negative impacts on Natural Heritage Features or Cultural Heritage Resources.

5.2.18 The City will promote the creation of an arterial ring-road system to take inter-urban traffic around the City. This ring-road system will consist of an inter-connected Elmira Road, Woodlawn Road, Watson Road and Stone Road.

5.2.19 The City will promote the creation of an arterial-collector grid system in the new growth areas of the Municipality to assist in the dispersion of traffic and to provide a reasonable walking distance to transit services on the main roads.

5.2.20 It is the policy of the City to maintain and protect the traffic capacity of collector and arterial roads.

1. A variety of design mechanisms and operational techniques will be used by the City to promote the efficient utilization of the City's road grid system; for example, requirement for shared driveways in commercial strips and synchronized traffic signals.

1.4.1 – LOCAL AND COLLECTOR STREETS

A primary function of local streets is to provide access to adjacent properties. These streets are not intended for use as through routes or as corridors to move traffic within the overall road network. For collector streets, access to adjacent properties is balanced by a need to collect and distribute traffic travelling into and out of an area or neighbourhood. As with local streets, collector streets are generally not intended to be through routes or to move significant amounts of traffic from one part of the road network to another.

On local and collector streets, traffic calming is intended to achieve one or more of the following objectives:

- **Reduce vehicular speeds.** Traffic calming measures are implemented to increase motorists' awareness of the street's function and thereby reduce vehicular speeds. Some features make it physically uncomfortable or difficult to travel along a street without reducing speed. Excessive speeds increase risk and create a safety concern, as motorists are less able to stop safely if confronted with situations, such as a child running into the street, a vehicle backing out of a driveway, or a cyclist swerving around an obstacle. Excessive vehicle speeds also increase the severity of a collision should one occur. Overall, speeding vehicles can detract from the livability of a neighbourhood.
- Discourage shortcutting. Traffic calming measures can be used to discourage non-local traffic from travelling through a neighbourhood, thereby reducing traffic volumes. "Traffic shortcutting occurs when drivers deviate from arterial roads and use local or collector streets as alternate routes to move between destinations. The driver has no origin or destination within a neighbourhood, but uses the route through the neighbourhood to get to his or her destination. Traffic shortcutting itself is not illegal, but some of the associated behaviors often accompanying traffic shortcutting are illegal. Drivers' primary intention in shortcutting is to save time. As such, speeding is not uncommon by drivers who shortcut through neighbourhoods. Additionally, drivers may fail to properly yield or stop at intersections in a further attempt to save time. As traffic shortcutting routes become known to drivers, the traffic volume along these routes can increase significantly."6 High traffic volumes increase the potential for conflicts within a neighbourhood. They can also cause delays for pedestrians and cyclists, and reduce the attractiveness of local and collector streets for walking and cycling. High traffic volumes also increase noise and vehicle emissions, which can detract from the livability of a neighbourhood. On collector streets, high traffic volumes can increase congestion and delays within a neighbourhood, such as when queues form at Stop signs, or motorists are unable to turn onto a street or out of their driveway because there are no gaps in traffic. Increased traffic volumes are often perceived by residents to travel at higher speeds on neighbourhood streets.
- Minimize conflicts between street users. Traffic calming measures are used to reduce conflicts between various street users, including motorists, cyclists, pedestrians and others. It is important to note that the separation of street users (such as the physical separation of cyclists from motorists) is not necessary to minimize conflicts. Reducing vehicle speeds and volumes, correcting geometric deficiencies and improving sight lines can all help to reduce conflicts without the need to separate street users.

[6] City of Edmonton, Office of the City Auditor. "Traffic Shortcutting Audit, June 11, 2015", p. 1

RE: Possible need for clarification of function of collector roads in TAC Guides

Geoff Noxon <gnoxon@tac-atc.ca>

Fri 2/7/2020 6:31 PM

To: Hugh R Whiteley <hwhitele@uoguelph.ca>

Good afternoon, and thanks for your enquiry.

First, TAC is a non-regulatory and non-profit organization. Our publications (including those that you cite in your message) represent the outcome of collaborative processes involving TAC member organizations across Canada. Their suggestions and recommendations are considered to represent good practice. They may inform policy but are not meant to set policy, and are never intended to supersede local laws, design requirements, or the engineering judgement of practitioners.

The traffic volumes cited in Table 2.6.5 of the GDG are typical maximum volumes for each type of road. They do not represent the capacity (either physical or desirable) of those roads, and there is no implied “acceptability” of the typical volumes (either pro or con); they are observed conditions, not prescriptions.

For this reason, the GDG and CGTC are not contradictory on this matter. The GDG is a guide for the geometric design of roads, not for traffic operations; for this reason the issue of local vs. through traffic is irrelevant to Table 2.6.5. (I would note, however, that GDG Figure 2.6.1 does acknowledge the reality that most collector roads carry some proportion of through traffic, even if the very definition of “through traffic” may depend on one’s frame of reference.)

Regards,

Geoff Noxon, M.Sc., P.Eng.
Director, Technical Programs
TRANSPORTATION ASSOCIATION OF CANADA (TAC)
401-1111 Prince of Wales Dr, Ottawa, ON K2C 3T2
gnoxon@tac-atc.ca 613-736-1350 x228

From: Hugh R Whiteley [mailto:hwhitele@uoguelph.ca]
Sent: February 6, 2020 5:38 PM
To: Geoff Noxon <gnoxon@tac-atc.ca>
Subject: Possible need for clariication of function of collector roads in TAC Guides

Greetings:

I attach a letter outlining a problem I have encountered in reconciling the Canadian Guide for Traffic Calming and the Geometric Design Guide for Canadian Roads.

I look forward to any clarification you can provide.

Hugh Whiteley P.Eng.

bicycle lanes, sidewalk on the north side, traffic calming and an on street parking area west of Pioneer Drive on the north side of Niska Road;
- Replace the existing Bailey bridge with a new two-lane Pony Truss bridge;
- Reconstruct the intersection of Downey Road and Niska Road as a fully signalized intersection;
- Implement traffic calming measures on Niska Road from Downey Road to the west city limit.

The design concepts for the preferred solutions were presented to the public at a Public Information Centre (PIC) at the Kortright Presbyterian Church on September 10, 2015.

Phase 4: Environmental Study Report (ESR)

A draft Environmental Study Report has been prepared by the project team based on the preferred solutions and design concepts. It includes a description of impacts, mitigation measures and monitoring plans that are recommended. Mitigation plans will be addressed in detail during the detailed design phase of the project. Construction activities will occur within existing road right-of-way and specified working easements. The Grand River Conservation Authority (GRCA), River Systems Advisory Committee (RSAC), Heritage Guelph Committee (HGC), Guelph Transit all impacted Utility companies and all requires City of Guelph Departments will be fully consulted during the detail design process. Regulated lands, associated with the Speed River and its floodplain, are present in the vicinity of the Niska Road Bridge. As such, GRCA approval will be required prior to any bridge works. Construction Plans will include (but are not limited to) the following:

- Erosion and Sediment Control Plan;
- Emergency Response and Communications Plan;
- Tree Protection and Management Plan;
- Stormwater Management Plan;
- Traffic Management Plan;
- Guelph Transit Alternate Route Plan;
- City of Guelph Fire & Emergency Service Plan.

The Executive Summary for the ESR is provided in Attachment 3.

Evaluation Criteria

As noted in previous sections of this report, a number of key factors and criteria were considered throughout the EA study in determining the preliminary preferred design alternatives and finally the preferred alternatives. Attachment 7 provides a detailed evaluation matrix for the alternative solutions using key criteria. In addition, the following sections summarize some, but not all, of these factors.

Transportation Planning

Niska Road is a two-lane collector road as designated in the City's Official Plan. The road classification has been confirmed in the Transportation Master Plan (2005) and subsequent transportation modelling work to support the Development Charges Background Studies (2009, 2014) and Ministry of Transportation Environmental Assessment for the Hanlon Expressway (2008). Based on the Niska Road EA study

findings, the following are facts with respect to the function of Niska Road as a two-lane collector road:

- Current and future expected traffic volumes on Niska Road are well within the range for a two-lane collector road;
- Origin destination survey indicates that Niska Road is important to the City and area as it is to local residents;
- Most trips are for work from an external destination to locations in the City outside of the immediate neighbourhood.

Niska Road and bridge are part of a stable road system servicing existing neighbourhoods with established travel patterns. The proposed replacement of the Niska Road bridge has been planned for a number of years and has been included in City budget forecast since 2004. The City is not encouraging any use of the road beyond that which is intended.

As the City grows, increases in traffic throughout the City can be expected over time. The traffic volume increase for Niska Road and bridge is similar to the expected traffic volume growth on the City's transportation network and is consistent with the City's Transportation Master Plan.

Modeling of expected increases in traffic volumes demonstrates that a two-lane collector road will continue to safely meet traffic needs. The purpose of a collector road is to move low to moderate volumes of traffic within specific areas of the city, and collect local traffic for distribution to the arterial or Provincial highway system.

Currently, the total average weekday volume on Niska Road is 4,652 vehicles per day with 2,405 vehicles per day eastbound and 2,247 vehicles per day westbound. Traffic modeling predicts that peak two-way traffic volumes will increase from approximately the current 510 vehicle per hour to 730 vehicles per hour in 2031.

Consequently, the transportation modelling work for this study has confirmed that that there is no need to widen Niska Road beyond the current two-lane collector road as the capacity analysis for the road took into account future development and growth in the City including possible development in the Niska Road area. Since there is no need to widen the existing two-lane collector road, there is also no need to widen the bridge beyond the two lanes required to connect the existing two-lane City collector road and the existing two-lane Township road on either side of the existing one-lane bridge.

A number of related transportation planning concerns or issues have also arisen during the EA study including discussion of previous road projects in the area. It is noted that the need to replace the Niska Road bridge was planned before the completion of the Ministry of Transportation Environmental Assessment (MTO EA) for the Hanlon Expressway and before the removal of the Stone Road extension and College Avenue extension from the City's Official Plan. Additional detail related to these two transportation projects is provided in Attachment 6.

Due to comments and inquiries from the CWG and local residents, staff undertook additional transportation modelling scenarios in drafting this report to provide Council with the following background information:

Traffic impacts if the Stone Road extension was implemented indicated the following:

- Decreases in traffic on Niska Road ranging from 10% to 30% for peak hour traffic based on current and future traffic volumes for a scenario with a two-lane Niska Road and bridge;
- Minimal changes in peak hour traffic volume at various locations (Downey, County Road 124, Hanlon Kortright) for a scenario with no Niska Road bridge.

Traffic impacts if Niska Road bridge was closed to vehicular traffic indicated the following:

- Minimal increases and decreases in traffic volume on Niska Road ranging from 0% to 10% changes in peak hour traffic volume at various locations (Downey, County Road 124, Hanlon Kortright);
- Increased travel time and inconvenience for community residents currently using Niska Road bridge;
- Increased congestion at signalized intersections on Hanlon Expressway can be anticipated until the highway is upgraded as recommended in MTO EA.

Structural assessment

The Ontario Structural Inspections Manual, Regulation 104/97 requires all municipal bridge structures to be inspected biannually. The most recent full bridge inspection report for the Niska Road Bridge was completed in 2013 and indicated the structure was in very poor condition. An interim structural inspection in 2015 led to emergency repairs in March and April of 2015. These repairs allowed for the continued short-term use of the bridge until the environmental assessment is completed and a permanent solution is put in place. The 2015 full bridge inspection report is currently underway and will be received by the City by the end of 2015.

The 2013 report completed for the bridge indicates that the majority of bridge elements have remaining service lives of one to five years. The most significant structural issue with the bridge is the span opening being shorter than the watercourse width and the resultant ongoing erosion and undermining of the retaining walls and abutments by the river.

It has been noted that replacement parts are available for the existing bridge and the City has in the past repaired the superstructure with structural components (transoms, sway bracing, bolts and wood decking) replaced in 2003. However, the major concern with the superstructure at this time is the ongoing corrosion and the need to replace the steel trusses and bearings. Replacement of these elements may require partial removal of the superstructure in order to access these elements. These ongoing repairs, replacement of elements and rehabilitation costs were factors in evaluating the alternatives for the bridge.

Key findings from structural inspections and reports include:

PRESENTATION TO GUELPH CITY COUNCIL JANUARY 24 2022

ENSURING CITY OF GUELPH TRAFFIC MANAGEMENT POLICIES ALIGN WITH THE CANADIAN GUIDE TO TRAFFIC CALMING RECOMMENDATIONS

SUMMARY OF RECOMMENDED ACTIONS

(1) **Direct staff to include a statement in both the Transportation Master Plan and the Official Plan that:**

The primary function of local and collector roads in residential areas is to provide access to adjacent properties and to collect and distribute local traffic moving into and out of an area or neighbourhood. Local and collector roads are not intended for use as through routes or as corridors to move traffic within the overall road network.

Canadian Guide to Traffic Calming page 5

(2) **Revise the definition of Collector roads in the Transportation Master Plan and in the Official Plan to correspond to the functions assigned to Collector Roads in the Canadian Guide to Traffic Calming.**

For example:

Suggested Definitions for Classification of Streets

Arterial Road **A road primarily for movement of through traffic; access to property of lesser importance and controlled.**

Collector Road **A road for movement of local traffic and for access to property; movement of local traffic and access to property have equal importance; through traffic discouraged.**

Expressway **A divided arterial roadway for through traffic with full or partial control of access and with some interchanges.**

Freeway **A road limited to through traffic with access only through interchanges.**

Local Road **A road providing access to property for local traffic; through traffic discouraged.**

(3) **Restore the regulation of volume of cut-through traffic on local and collector roads as being of equal importance to regulation of speed in the Traffic Calming Policy – Policy 016.**

Justification for these recommendations

There is currently no established policy in the City of Guelph as to what role is assigned to Collector Roads in residential areas. Uncertainty about the function of Collector Roads leads to possible damage to neighbourhoods and inefficient allocation of resources in roadway construction and operation.

There are two different functions assigned to the traffic functions assigned to roadways. One function is to provide vehicle access to individual properties. The other function is to convey traffic from one part of the municipality to another part.

It is well established in past Transportation Master Plans and in Official Plans that the primary function of streets classified as local roads is to provide access to property for locally-generated traffic. Through traffic on local roads is actively discouraged as such cut-through traffic damages the neighbourhood.

It is equally well established that the primary function of arterial roads is to convey through traffic safely and efficiently. Providing access to individual properties on arterial roads is actively controlled to minimize disruption to movement of through traffic.

In the post-world-war-two period of automobile-based urban expansion traffic management emphasized minimizing delays in traffic movement. In keeping with this emphasis on giving priority to movement of through traffic the 1965 Transportation Master Plan and the City of Guelph Official Plan grouped Collector Roads with Arterial Roads and assigned to this group a primary function of moving through traffic.

The definition of the function of Collector Roads in Guelph's Official Plan has remained unchanged from the 1960's and assigns a through-traffic function to Collector Roads. ***"Collector roads are intended to move low to moderate volumes of traffic within specified areas of the city".***

Beginning in the 1950's a growing body of studies by urban sociologists showed that excessive volumes of cut-through traffic using residential streets caused damage to the pattern of community living. Policies to discourage cut-through traffic were developed as part of Traffic Calming.

In 1973, in the secondary plan for the Kortright Hills neighbourhood, the City of Guelph established a new policy for Collector Roads within this subdivision. This new policy grouped Collector Roads with Local Roads, not with Arterial Roads. Under the new policy the function of Collector Roads was to convey local traffic to and from Arterial Roads and to prevent, by road design and enforcement, the use of Collector Roads by cut-through traffic.

By 1998 the Canadian Guide to Neighbourhood Traffic Calming had been developed by the Transportation Association of Canada. The CGNTC grouped Collector Roads with Local Roads and assigned to the group the role of providing access to property with through traffic use discouraged.

The City of Guelph, with the confirmation by the TAC that Collector Roads should be grouped with Local Roads and assigned a local-traffic-only function, broadened the application of the 1973 policy developed for Kortright Hills to apply to the whole city.

The Neighbourhood Traffic Management Policy adopted by City Council in 1998 and revised in 2006 had as its purpose the implementation of Traffic Calming measures prescribed by the Canadian Guide to Neighbourhood Traffic Calming. Guelph's NTMP carefully followed the CGNTC in defining two problem areas to be dealt with. One area was speeding and other unsafe driving behaviour. The second problem was excessive volume of cut through traffic on Local and Collector streets.

For the second problem area – volume of cut-through traffic - the NTMP set out criteria to define what constituted an excessive volume of cut-through traffic and assigned to staff the setting of an acceptably low volume for cut-through traffic dependent on the specific site conditions for a problem roadway and the task of finding control methods effective in reducing cut-through traffic volumes to the assigned upper limit.

The policy on cut-through traffic volumes set out in the 2006 revision of the NTMP remained in place until a further revised Traffic Calming Policy was adopted by City Council in July 2020. In the fourteen years the revised NTMP was in place I have found no evidence that the criteria in the NTMP for determining whether there was excessive cut-through traffic volume was ever applied to a problem roadway.

In the specific case of Niska Road there was a determination by the City that the criteria for excessive cut-through traffic was exceeded by a large amount. However, City staff applied the 1960's grouping of Collector Roads with Arterial Roads to Niska in place of the NTMP grouping with Local Roads and the result was a decision to increase the amount of cut-through traffic on Niska instead of applying the NTMP and controlling cut-through traffic volumes.

The Traffic Calming Policy adopted in 2020 rejects the recommendation of the Canadian Guide to Traffic Calming (revised in 2018) to give equal weight to speeding and cut-through traffic volumes. The TCP deals exclusively with speed and never mentions cut-through traffic as a hazard much less setting criteria for determining when cut-through traffic is a problem as was done very effectively in the 2006 revision of the NTMP.

There remains wide-spread agreement in Canada and internationally that cut-through traffic on residential streets is harmful to the healthy functioning of neighbourhoods and should be controlled. I strongly believe that Guelph should resume its leadership role in Traffic Calming and institute effective measures to curtail cut-through traffic on Local and Collector streets as is called for in the Canadian Guide to Traffic Calming.

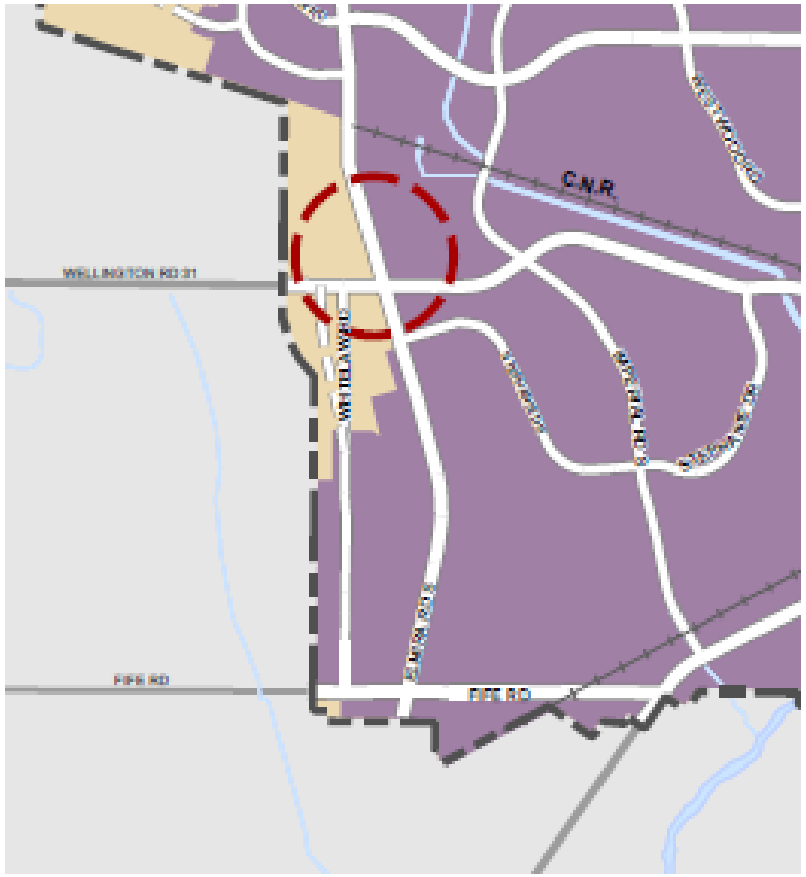
Presentation to City Council
on
361 Whitelaw Road Development Proposal

By

Hugh Whiteley

February 10 2020

LOCATION



FUTURE TRAFFIC ON WHITELAW
AN UNRESOLVED ISSUE

- City Policy is to direct traffic from high density residential development to arterial roads.
- Paisley and Elmira are the arterial roads adjacent to the development.
- All existing high density residential properties along Paisley are accessed from this arterial.

CLASSIFICATION OF WHITELAW ROAD IN THE NEIGHBOURHOOD TRAFFIC MANANAGEMENT POLICY

- The NTMP applies to ***"local and two-lane collector roadways only within in neighbourhoods of primarily residential land use."***
- **Whitelaw Road** is listed as one of the two-lane collectors covered by the policies of the NTMP.
- A purposes of the NTMP is to select traffic calming measures, when needed, to reduce the volume of through traffic using a roadway.

THE NEIGHBOURHOOD TRAFFIC MANAGEMENT POLICY FOLLOWS NATIONAL GUIDELINES

- The NTMP is guided by the Canadian Guide to Traffic Calming.
- The CGTC defines the function of collector roads as providing:

"access to adjacent properties…balanced by a need to distribute traffic travelling into or out of an area or neighbourhood . As with local streets, collector streets are generally not intended to be through routes or to move significant amounts of traffic from one part of the road network to another."

- Section 5.6.5 of the OP requires new roads to follow the NTMP.

CURRENT TRAFFIC PATTERNS ON WHITELAW

- A high volume of through traffic is using Whitelaw to access the Paisley/Imperial Commercial Node.
- Responding to concerns of local residents about through traffic on Whitelaw the City initiated a traffic review under the NTMP.
- The City has confirmed that the criterion set out in the NTMP for consideration of traffic volume controls on Whitelaw has been met (>30% through traffic with total traffic > 2000 vehicles/day).
- Only speed-control traffic calming measures have been considered in the study so far; no volume-control measures have been presented.

RESOLVING TRAFFIC PROBLEMS ON WHITELAW

- Whitelaw Road will be closed at Shoemaker Crescent to allow complete reconstruction of the roadway.
- To ensure that no construction traffic uses Whitelaw Road during the construction phase for 361 Whitelaw the closure of Whitelaw at Shoemaker Crescent should be maintained until construction of 361 Whitelaw is completed.
- During the multi year period of no through traffic on Whitelaw the reduction in traffic volume and speed should be monitored and the community canvased toward the end of the period to determine whether there is support for continued control over through traffic on Whitelaw either by permanently closure or designating the connection as one –way.

Recommended Actions by City Council

- Direct staff to consider an extended closure of Whitelaw at Shoemaker for the duration of the construction of 361 Whitelaw.
- Direct staff to consider the permanent closing of Whitelaw Road at the south end of the development as an option for traffic control.
- Direct staff to include consideration of a southerly extension of Elmira Road to connect with Whitelaw Road in Wellington County as part of the updating of the City of Guelph Transportation Master Plan.

POST SCRIPT – ELMIRA ROAD PLANS

- An extension of Elmira Road to connect with Whitelaw Road at Fife was first proposed in the 1965 Transportation Master Plan.
- The current (2005) Transportation Master Plan retains a proposed extension of Elmira Road.
- No development has occurred along a possible road alignment that could connect Elmira Road with Fife Road south of the rail line to Cambridge
- It would be prudent to protect this alignment from development until a decision is made on an Elmira Road extension.

Proposed Connection of Elmira Road with Whitelaw Road from 1965 City of Guelph Transportation Plan

CURRENT CONDITIONS

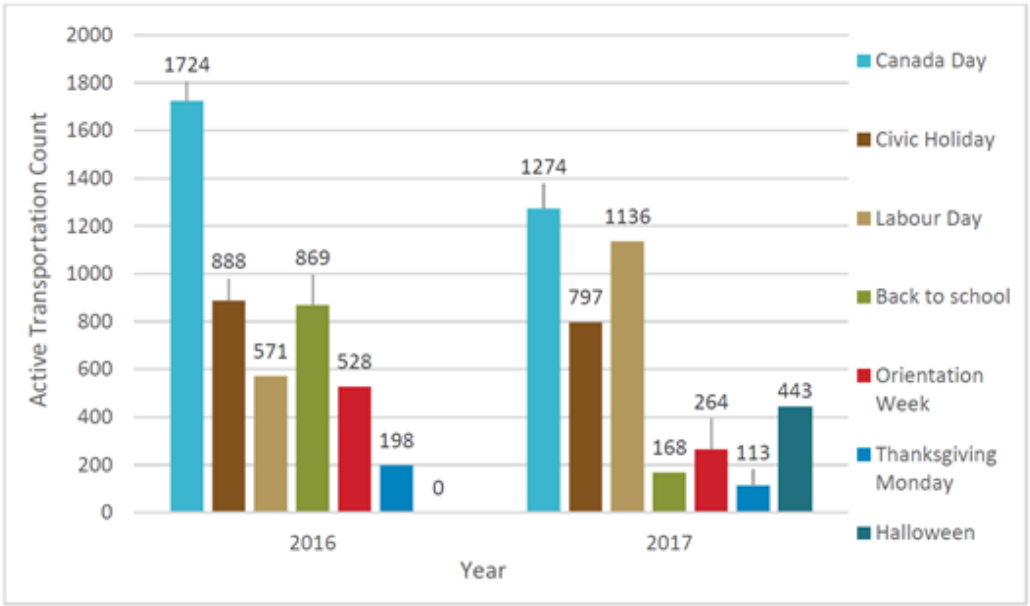
Hi.

This is my input on the transportation master plan for the upcoming discussion.

There is too much focus on bike lanes. Bike lanes are important, but the key parameter of carbon dioxide emission reduction is the actual goal. Sometimes bike lanes contribute to reductions, and sometimes they don't.

Gordon Street is a good example, from about Kortright to Clair. It is very apparent to me that a lot of stop and go traffic has been created by the lack of a turning lane (which was removed from the road plan in favor of bike lanes). You can choose to dismiss this out of hand, but I think anyone with a bit of knowledge of physics, with a few observations of traffic in the area in the area would agree with me. And regardless if you believe what I am claiming, it is apparent that we need to be evaluating our plan objectively by a cost/benefit analysis on carbon dioxide emissions. Calculate the amount of carbon dioxide reduced by the bike traffic which is done as an alternative to driving (you would need to survey for this since not all bike riders would take a vehicle if they didn't bike) versus the increased gas consumption resulting from increased traffic congestion and stop and go driving. The survey would need to be done objectively, with random sampling (unlike the selective sampling used in the City of Guelph 2016-2017 Active Transportation Data Collection Report, as below, where measurements were taken on what is obviously the busier active transportation days). Indeed, given the contents of that report, the responsibility for the cost/benefit analysis has to be taken out of the hands of the department that issued that report as they disclosed extreme bias in their views; and given to a more objective department.

Figure 22. Per-Day Average Active Transportation Counts by Holiday/Special Event and by Year



So I contend that for the last 21 years, the bike lanes on Gordon Street have caused substantially more emissions of carbon dioxide than would have occurred without it. I challenge you to refute that with objective data and analysis, not with out of hand generalizations and wishful thinking. Cost benefit

analysis; and project selection based on cost/benefit and carbon dioxide emission reduction calculations, needs to be the way going forward, not just for traffic, but for all projects.

Reduction of emissions of carbon dioxide is the most important thing on the planet, and we need to be objective and logical about it, and we need to make fact based decisions. We can't let the preconceived notion that the answer is more bike lanes, we can't use wishful thinking, we can't get blinded by our ideologies. We need to take the matter very seriously if the planet is to survive.

In addition, I have witnessed many accidents on Gordon Street, many attributable again to the lack of center turning lanes. My observation has been that as the traffic density increased, the number of accidents increased. My observation is that Gordon Street is completely under-designed for the traffic that it is required to carry, and has desperately needed a center turning lane for safety reasons since it was built in its current state. I received an off the cuff generalization the last brought that to the city's attention. We need an objective review of what really happened, and what could have been done to avoid it. There is a lot of science and knowledge on traffic flow. Surely there must be a model that would estimate what would have occurred with a center turning lane instead of bike lanes. Regardless of your opinion on my views on this, is the City of Guelph satisfied with the accident record on Gordon Street? If so, I will give up. If not, what do <u>you</u> believe could be done differently to prevent accidents?

I appreciate that Gordon Street is scheduled for an upgrade. My comments are mainly to prevent future "Gordon Streets", although I want the next design to be more responsible that the current one. We have had a negative impact from the bike lane preoccupation for the last 21 years, and that has caused a lot of damage. I don't know that we could ever create enough efficiency to make up for that horrible error, but we need to start somewhere. We need a different process and priority to avoid it happening elsewhere.

Finally, from my experience as a biker, the bike lane plan is not working. Many are too dangerous and inefficient. And you can see that people aren't using them, regardless of the results that the official measurements have defined. On many days, I see more bikes on the sidewalks than on the bike lanes. Milten, in a communication to me, stated "In regards to how we're doing on reaching our 2018 3% mode share target, we actually achieved this goal in 2016". Nobody that I have shared that claimed statistic agreed with it, and all ridiculed it as a fantasy. It could be that the "2018 3% mode share" target is so ridiculously defined that it doesn't mean anything like it sounds, but that is just another form of self-delusion. But we are that far away from objectivity and logic on the bike lane that those involved believe that ridiculous fact, which makes me very concerned that the City of Guelph will not help save the planet and will actually hasten it's demise.

So my overall comment to the Traffic Master Plan is to please use objective science based analysis of the plans to determine the optimum configuration for minimizing carbon dioxide emissions rather than relying on the indirect and sometimes counter productive measure of how many miles of bike lanes we have in the city. I also ask that you consider the consequences of the design on the safety of humans as a primary factor in selecting transportation design.

Please be objective, deal with the traffic inefficiency not just blindly focus on active transportation; and please take safety far more seriously.

Regards,
John Kibbee

Hi,

1. I have concerns regarding the ongoing traffic violations occurring on Niska road and the amount of time it has taken the city to deal with this issue effectively:

a) Speeding - commuter traffic using Niska as a short-cut from the Hanlon to Hwy 124
b) Volume of traffic using Niska (which is a narrow collector road not designed to move as much traffic) using it as a short-cut
c) Heavy transport trucks using Niska as a short-cut from the Hanlon to Hwy. 124

2. I am requesting members of Council confirm that this Updated Transportation Master Plan has strong provisions for effective actions to make Niska Road a priority to stop the volume of speeding vehicles and heavy transport trucks using Niska as a short-cut.

Thank you,

Sandy Nicholls
Guelph


3907


FGM
TRUCK LINE
STOP


NISKA RD
PTARMIGAN DR
STOP
ALL-WAY
FGM
TRUCK LINES
1-800-[illegible]-4346
53-30
FGM
TRUCK LINES
POOLS
Opening | Closing
519-212-9239


USDOT 1041258
ICC MC-436930-C
MOE 3155-5FLQQJ
Operated by:
Laidlaw Carriers Van GP Inc.
Woodstock, ON
This Driver is Using an
ELECTRONIC LOG
Clarke
Road Transport
3907


STOP
50
APR 1 to OCT 31


STOP
50
APR 1 to OCT 31

UNIVERSITY of GUELPH

OFFICE of THE VICE-PRESIDENT (EXTERNAL)

University of Guelph Submission
Re: City of Guelph Transportation Master Plan

Wednesday, January 19, 2022

Over the past year, the City of Guelph has engaged in critical discussions and consulted with community stakeholders to ensure the development of a strategic, thoughtful and well-informed Transportation Master Plan (Plan). Certainly, the University of Guelph has benefited from such engagement and remains supportive of the Plan's goals and objectives and understands their necessity. However, we must reiterate[1] our concern regarding Gordon St. More specifically, U of G continues to be concerned by the proposed widening – for any purpose – of the corridor between Stone Rd. and College Ave.

In a recent meeting with City staff about the Cycling Network Study, it was confirmed that this corridor will be part of the Pedestrian Priority Network in addition to the Cycling Spine Network and a Quality Transit Network. While we appreciate this addition, we remain concerned about campus safety and the ability to minimize campus disruption in the face of these seemingly competing priority networks.

While we understand that the Plan is a high-level policy lever intended to facilitate future planning, there is a lot of uncertainty and ambiguity about impacts to U of G's campus. Without an understanding of the project scope, its implications and how affiliated studies and consultations factor into the TMP, it has been difficult for the University to assess and meaningfully contribute to the Plan.

The safety of our campus community, as well as the integrity of our University research and operations, infrastructure and campus landscape are of utmost importance. Though we are appreciative of the opportunity to engage in the consultation process, the University must continue to oppose the recommendation to widen Gordon St. between Stone Rd. and College Ave., and thus the Plan in its current state.

As the Plan moves through various stages of approval and consultation, the University looks forward to working closely with the City to achieve a shared vision.

Sincerely,

Daniel Atlin
Vice-President (External)

CC: Mellissa McDonald, Director, Government Relations and Community Engagement

[1] See appendix A for U of G's Jan. 31, 2021 submission to Council

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UNIVERSITY of GUELPH

OFFICE of THE VICE-PRESIDENT (EXTERNAL)

University of Guelph Submission
Re: City of Guelph Transportation Master Plan

Tuesday, February 9, 2021

As a stakeholder in the Guelph community the University of Guelph appreciates the exhaustive community consultation undertaken by City of Guelph staff with respect to the Transportation Master Plan (Plan). Indeed, this Plan is critical to supporting the growth, safety, and sustainability of the City moving forward. Generally, U of G is supportive of the objectives of the Plan, however, we must share our significant concerns regarding the recommendation to include the Gordon St. corridor between Stone Road and College Avenue as a prospective road widening opportunity.

Throughout the consultation, the City has indicated that significant physical alteration (widening) of Gordon St. north of College Avenue is not possible. Without that possibility, it is unclear what the intended outcomes of undertaking the substantive and disruptive project of widening Gordon St. between Stone Road and College Avenue would be. To date, intended outcomes and research that demonstrate a significant positive impact on Gordon St. traffic flows have not been shared. In the absence of any major benefits or substantive strategy to eradicate the Gordon St. bottleneck completely, the University has serious concerns about the proposed widening of Gordon St through our pedestrian dense campus. Instead, we suggest further exploration of the less constrained Victoria and Edinburgh roads to facilitate a better, faster connection to central Guelph. While we understand that the Plan is a high-level policy lever intended to facilitate future planning, we urge the City to carefully explore these issues prior to further considerations for the property in question.

Beyond the analysis of the project, U of G has serious concerns about possible impacts on campus safety, our research enterprise, and prospective cultural heritage designation.

The potential safety risk to our campus community is of paramount concern. A central objective of the City's Plan is prioritizing the safety of travellers, including pedestrians, but road widening is known to negatively affect pedestrian safety. Our Guelph campus is home to more than 25,000 faculty, staff, and students and Gordon St. cuts directly through our campus and sees a high volume of pedestrian crossings. Potentially increasing traffic along Gordon St. – and consequently throughout campus – will undoubtedly threaten the safety of our campus community.

As a comprehensive and research-intensive institution, it is critical that the University voice our concern about the possible impact on our research enterprise. The University's research enterprise is scattered throughout campus, with many labs and facilities located near to the Gordon St. corridor. In some cases, things such as chemicals, lab equipment and other technology can be particularly sensitive to vibration – a significant by-product of high-volume, heavy vehicle traffic. As such, there could be significant detrimental effects to research conducted in neighboring facilities.

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Further, U of G was identified as a possible cultural heritage landscape in the City's Cultural Heritage Action Plan (CHAP). It is important to better understand how altering the corridor that connects the Brooklyn and College Hill Heritage District will affect this potential designation.

While we appreciate road widening serves a purpose, it is equally important to consider the associated risks.

Once again, we are grateful to the City for the opportunity to engage with this project. We truly value this work and recognize the important role the Transportation Master Plan will have in shaping the future of the City of Guelph. As the Plan moves toward approval and preliminary stages of implementation, the University looks forward to working closely with the City to achieve our shared goals.

Sincerely,

Daniel Atlin
Vice President External
University of Guelph

Cc: Mellissa McDonald, Director, Government Relations and Community Engagement

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METROLINX

Clerk's Office
City of Guelph
1 Carden St, Guelph, ON
N1H 3A1
clerks@guelph.ca

January 21, 2022

Re: 2022 Transportation Master Plan: Guelph Moving Forward

Metrolinx is committed to work with the City of Guelph and municipalities across the Greater Golden Horseshoe to advance coordination, planning, and implementation of an integrated transit network that supports a high quality of life, a sustainable environment, and a strong, prosperous, and competitive economy. As part of the GO Expansion program, Metrolinx has been advancing works on the Kitchener corridor to increase service frequency, reliability, and customer convenience.

Metrolinx has reviewed the publicly available documentation on the 2022 Transportation Master Plan: Guelph Moving Forward. Overall, we support the City's plans to ensure that Guelph Central GO station is well connected via local transit, walking, and cycling. Enhancements to these sustainable connections will be essential to supporting ridership growth at Guelph Central GO as two-way all-day service is advanced and delivered on the Kitchener corridor.

Metrolinx's Station Access Plan Update, which is currently under the final stages of review, will identify customer access needs at GO stations across our existing and future network. At Guelph Central station, active transportation connections have been identified as a key priority given its downtown location and the significant projected increase in walking and cycling access to this station by 2041 (approximately a third of the access mode share). Metrolinx is planning for additional bicycle parking at the station to support this increase in mode share.

Metrolinx also recognizes that an essential part of encouraging active transportation access to the station is an increase in connectivity to the broader pedestrian and cycling network. To this end, Metrolinx supports the City of Guelph's Transportation Master Plan and Downtown Secondary Plan's mobility objectives that support easy access to the station for cyclists and pedestrians from all main directions. Metrolinx broadly encourages improvements to direct pedestrian paths to stations, including associated wayfinding, and new/and or improved cycling infrastructure adjacent stations. In the vicinity of Guelph Central Station, we would like to encourage the consideration of the specific station access improvements outlined in the attachment to this letter (**Appendix 1**).

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We look forward to continuing to engage and collaboratively work with the City of Guelph as the 2022 Transportation Master Plan is finalized and as our Station Access Plan Update advances towards completion. If you have any questions, please do not hesitate to contact me.

Sincerely,

Mathieu Goetzke
Vice President, Planning
Metrolinx

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METROLINX

Appendix 1 – Active Transportation Connections to Guelph Central GO (draft)

The following off-site improvements are expected to be identified as priorities through the Station Access Plan Update.

Walking	Encourage the City of Guelph to explore the development of a more direct pedestrian connection to the station platform from the intersection of Macdonell St. and Woolwich St.
	Encourage the City of Guelph to consider improvements to way-finding and signage along Macdonell St. to improve pedestrian and cycling connectivity across Speed River.
Cycling	Encourage the City of Guelph to enhance cycling infrastructure along Macdonell St. from the GO station to John Galt Park and the connection to the Royal Recreational Trail.
	Encourage the City of Guelph to prioritize implementation of planned cycling infrastructure along Paisley St. and Quebec St. from Silver Creek Parkway to the west to Wyndham St. to the east, and south along Wyndham St. to the station site.
	Encourage the City of Guelph to prioritize implementation of a planned cycling connection across Speed River to the north east of the GO station.
	Encourage the City of Guelph to prioritize implementation of planned cycling infrastructure along McDonnell St. from Wyndham St. to the west to Arthur St. to the east and north along Arthur St. and Delhi St. to Speedvale Ave. to the north.

97 Front Street West 416.874.5900
Toronto, ON M5J 1E6 metrolinx.com

January 20, 2022

SENT VIA EMAIL

City Clerk's Office
City of Guelph
1 Carden Street
Guelph, ON N1H 3A1
clerks@guelph.ca

To His Worship Cam Guthrie and the Members of Council,

RE: Moving Guelph Forward – 2022 Transportation Master Plan - 2022-02

Our built environment impacts our health by creating conditions that influence behaviour and the choices we make daily. The built environment includes not only the spaces where we live, work and play, but also the transportation networks that connect these places together. Planning and building communities that provide safe, convenient, and connected walking and cycling networks encourages physical activity and makes active transportation an easier choice. Moreover, communities designed to support active living could result in economic cost-savings including reductions in health care expenses related to physical activity.

In 2019, Wellington-Dufferin-Guelph Public Health (WDGPH) released a series of reports as part of the Healthy Community Design Baseline Project. The reports were the result of a collaboration between Public Health and local municipalities, including the City of Guelph, to collect and analyze spatial data to create ways to measure and assess the physical features of community design. One recommendation that emerged from the report was to promote planning and development that further enhances connectivity and encourages active transportation in the city.

It is encouraging that the Transportation Master Plan lays out network improvements and policies that aim to make walking and cycling safer and more convenient. The 2051 mode share targets of 10% cycling and 15% walking, if met, could have significant positive impacts on public health in the community. WDGPH encourages the City to revisit these targets often and strive towards aiming for more ambitious targets.

WDGPH also supports the recommendations in the Transportation Master Plan to become a Vision Zero community through policies that aim to enhance road safety for vulnerable road users

through road design as well as programming, including the continued implementation of the Community Road Safety Strategy.

WDGPH's Social Determinants of Health in the City of Guelph report indicated that access to affordable and reliable transportation was important to maintaining access to programs and services which has considerable impacts on other important determinants of health. The Transportation Master Plan's commitments to building and maintaining a quality transit network, including using an equity lens for regular transit reviews and strategies aimed at reducing transit travel times, contributes positively toward addressing this need.

It is with pleasure that I share WDGPH's support for this plan.

Sincerely,

Dr. Nicola Mercer, MD, MBA, MPH, FRCPC, C.Dir.
Medical Officer of Health and CEO
Wellington-Dufferin-Guelph Public Health

CC: George Bridge
Mayor, Town of Minto
georgeb@wellington.ca

Jayne Holmes
Deputy CAO, Infrastructure, Development and Enterprise Services, City of Guelph
jayne.holmes@guelph.ca

Jennifer Juste
Manager, Transportation Planning, City of Guelph
jennifer.juste@guelph.ca

Dear Mayor Guthrie and Members of Council:

The Guelph Coalition for Active Transportation (GCAT) is a non-profit organization whose mission is to increase the quality, quantity and safety of active transportation in the City of Guelph.

The Transportation Master Plan Update (TMPU) is of vital importance to our organization's ability to fulfill this mission. We are pleased to say that **GCAT is in support of City Staff's three recommendations, namely to approve the plan, to incorporate its costs in the City's budgeting process and to make appropriate changes to the Official Plan**.

GCAT envisions a future in which Guelph's citizens can choose to walk or bike around their city contributing positively to public health and happiness, clean air and a vibrant local economy. We envision a City-wide active transportation network that is acknowledged as essential transportation, attracting the same attention to policy, program and investment decisions as other transportation modes. The network we envision would support purposeful transportation, not just recreation, and would be inviting, enjoyable, equitable, inclusive, connected and safe for use year round by citizens of all ages and abilities.

Consequently, **GCAT is pleased to see the strong correspondence between its own vision and most aspects of the TMPU as it is presently proposed.** We wish to emphasize that the plan's provisions, if adopted by Council and fully implemented, would contribute very directly to GCAT's mission with respect to the quality and safety of active transportation in Guelph.

While we are in support of Staff's recommendations, **there are areas of the plan that we believe could be improved**:

- **GCAT agrees with Staff's strong arguments for making our transportation system less car-centric** (Report Attachment 6, Section 3.0). Council's May 2021 approval of the Sustainable and Resilient Option of the TMPU, and its endorsement of the motion to support the UN Cities Race to Net 0 campaign reflects its commitment to take climate action. Now it is important for Council to follow through by approving the TMPU.

  The TMPU specifies modal share shifts of walking, from 2016's 8% to 2051's 15%, and biking, from 2016's 3% to 2051's 10%. **GCAT believes that these targets ought to be made more ambitious and that increases be considered in the plan's first update.** We consider data from 2016, now six years old, to be obsolete and not recognizing modal shifts that have already taken place. Furthermore, we believe that land use planning alone that encourages the so-called "15 minute neighbourhood" could achieve most if not all of these modest targets.

  We notice that the plan's infrastructure, policy and program elements, having been developed from within an engineering paradigm, are focused very strongly on safety and, of course, GCAT is in full support of this aspect of the plan.

However **GCAT wonders if, in addition to what is already in the plan, a more humanistic approach would offer opportunities to make greater modal shifts to sustainable modes**. Ultimately, modal shifts can only be achieved by the decisions of individual citizens to change their transportation choices. GCAT believes that these personal choices are the result of the interplay of many psychological and other factors including attitudes, beliefs, intrinsic and extrinsic perceptions and misconceptions, knowledge and ignorance, and self-concept, for example.

GCAT acknowledges how difficult it is to change these elements in people's decision making, but we believe that significant efforts must be mounted to do so nonetheless. In particular, we believe that choosing active transportation represents a highly accessible way that ordinary citizens can take personal, local action on climate change and that this idea must be used to influence citizens' transportation mode choices. We believe there are important opportunities to change attitudes and behaviours of children, the beneficiaries of a 30-year plan, that are not fully expressed in the current plan.

While we acknowledge that the TMPU does indeed contain references to promotion and education, we note that, in comparison to the plan's very detailed definition of infrastructure improvements, promotion and educational issues have not been specified to the same degree. **GCAT recommends that the TMPU be amended to reflect a degree of attention to change management that is commensurate with its infrastructure planning.**

- GCAT believes that the ATN and recreational trails have vital roles to play in the overall transportation system. Importantly, **it is the connection between the two and the coordinated, year-round operation of both that must be present for the overall system to be successful.**

  While we are pleased to see multiple references to connections among the pedestrian, cycling and trails networks, it is somewhat of a concern that trails, viewed as transportation pathways, come under the administration of the City's Parks Department, while the TPMU initiative comes the Engineering and Transportation Services Department, each of them reporting to a different Deputy Chief Administrative Officer.

- GCAT acknowledges the many modifications and additions to the Official Plan that are being recommended in support of active transportation. In particular, GCAT notices the recommendation to include a definition of "essential active transportation infrastructure" in the Official Plan. At present the Official Plan *describes* active transportation as "a component of achieving the City's transportation, sustainability, community energy and healthy community objectives." On the other hand, the 2013 Cycling Master Plan states unequivocally that "Cycling is an essential transportation mode for Guelph." **GCAT recommends that the Cycling Master Plan's language be included in the Official Plan during its next revision**. We have submitted our recommended additions to the Official Plan to City Staff. Recognition of active transportation and its infrastructure as "essential" in the language and definitions of

the Official Plan also confirms the City's commitment to making our transportation system more equitable since not everyone wants or can afford a car.

In summary, **GCAT is very pleased with the TMPU's attention to the quantity, quality and safety of active transportation in Guelph and we urge Council to approve it.** Furthermore, recognizing Staff's recommendation to update the plan on a 5-year cycle, GCAT wishes to express its keen interest in continuing the positive, respectful and collaborative relationships we have with our City partners as the plan evolves.

Thank you for your service to the community.

Yours truly,

Mike Darmon,
President, Guelph Coalition for Active Transportation

The Corporation of the City of Guelph

By-law Number (2022) - 20669

A by-law to confirm the proceedings of a meeting of Guelph City Council held January 24, 2022.

The Council of the Corporation of the City of Guelph enacts as follows:

1. Subject to Section 3 of this by-law, every decision of Council taken at the meeting at which this by-law is passed, and every resolution passed at that meeting, shall have the same force and effect as if each and every one of them had been the subject matter of a separate by-law duly enacted.

2. The execution and delivery of all such documents as are required to give effect to the decisions taken at the meeting at which this by-law is passed and the resolutions passed at this meeting, are hereby authorized.

3. Nothing in this by-law has the effect of giving to any decision or resolution the status of a by-law where any legal prerequisite to the enactment of a specific by-law has not been satisfied.

4. Any member of Council who disclosed a pecuniary interest at the meeting at which this by-law is passed, shall be deemed to have disclosed that interest in this confirmatory by-law as it relates to the item in which the pecuniary interest was disclosed.

Passed this twenty fourth day of January, 2022.

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Cam Guthrie, Mayor

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Dylan McMahon, Deputy City Clerk