2051 Transportation Master Plan

Update to ATS Committee (Meeting #2)

September 4th, 2025

Project Overview & Purpose

What is a Transportation Master Plan (TMP)?

A TMP is a comprehensive, long-term strategic plan that outlines the vision, goals, and policies for developing and managing a municipality's transportation system, covering all modes of transportation including roads, trails, transit, cycling, and walking.

What is the purpose of a TMP?

The purpose of a TMP is to enhance transportation efficiency, safety, and sustainability, support economic development, improve accessibility, reduce environmental impacts, and align transportation investments with community goals and priorities.

Is this a new plan?

The City updates its TMP to align with any changes in the City's vision, and Provincial growth forecasts, about every 5 years. This TMP will plan to 2051.

Focus Areas

- This TMP will update the policies, decision-making approaches, and implementation plan to **reflect a changing policy landscape**, including the strategic directions of the City's new Official Plan, current Council Priorities, industry trends, and best practices in transportation planning.

- The TMP will focus on developing a **comprehensive long-term plan** that aims to enhance mobility choice, improve road safety, support a vibrant downtown and local economy, and provide access to community amenities. The TMP will be **flexible and pace growth**.

- A core component of the TMP update is understanding the people of Barrie, and how the TMP can support a **gradual but meaningful shift to sustainable transportation modes**.

Transportation Challenges

Population Growth

Planning a functioning transportation network for a population doubling in size by 2051. Not everyone will want to (or be able to) own a car in 2051; a multi-modal network that supports all road users is critical.

Mode Shifts

Limited opportunities for road widenings coupled with policy objectives and fiscal constraints require a shift away from single passenger auto trips, especially during peak periods.

Land Use & Employment

Lack of central business district(s) or concentrated employment areas coupled with dispersed residential areas can make trips by transit or active transportation challenging.

Financial Impacts

Construction cost increases have negatively impacted the affordability of transportation improvements. The cost of owning a vehicle has increased significantly and will likely continue to do so.

Project Accomplishments

Best Practices and Jurisdictional Scan

The project team have completed best practice reviews in the following fields: network planning, emerging trends and technology, parking, goods movement, land use integration, road safety, financing.

Public Engagement

We've held multiple pop-up events, our first open house in November, and multiple online engagement periods. We've engaged with **over 1,000 people** so far.

Development of a built-for-purpose Transportation Model

The project team has developed an Activity Based Model (ABM) to meet the specific needs of the City and will be an instrumental tool in the decision-making process in this project and in the future.

Vision Statement, Goals, Objectives

We've revised the vision statement based on public feedback, and built out a series of guiding principles, goals, and objectives to support/implement that vision.

What We Heard

Phase 1

Last year, the project team attended a number of pop-up events and held our first PIC. We also had an interactive map on the project webpage and multiple surveys. Overall, we have **engaged with over 850 people**.

Key highlights from the engagement are summarized below.

Continued investment in bike paths, pedestrian walkways, and multi-use trails that connect key areas of the city. Residents see this as essential for making cycling and walking safe and convenient.

Convenience, travel time, and reliability were the top three factors when choosing a mode of transportation.

Barrie residents primarily rely on personal vehicles for daily travel, especially during the AM and PM peak periods.

More reliable, frequent, and accessible public transit to serve the growing population and reduce reliance on personal vehicles. This includes introducing express and direct routes, light rail or rapid bus lanes, and reducing transit costs.

What We Heard

Phase 2

In our second phase of the project, we've held two pop-up events this summer and engaged with almost **150 people**. Here's what we've heard so far:

When asked to prioritize evaluation criteria for future transportation scenarios, participants chose safety, integration, and healthy living most often.

Participants highlighted the need for more frequent, reliable, and better-connected transit service, including extended hours and affordable fares, particularly for youth, seniors, and low-income residents.

Participants emphasized the need for more protected bike lanes, safer pedestrian crossings, and better support for mobility devices to enable active travel for all ages and abilities.

Safety received the most support in early engagements, while later pop-ups showed strong interest in integrated planning and health-related benefits.

Updated Vision Statement

This transportation master plan **aims to make our community more connected, resilient, and vibrant** by prioritizing the day-to-day **needs and experiences of all users**, facilitates **diverse and sustainable mode choices**, empowers the **safe movement** of people and goods, and promotes **reliability**. The master plan will capture the regionally-significant role Barrie plays in providing essential services to the surrounding communities.

Infrastructure decisions will be based on a variety of factors, ensuring that the City is taking a holistic approach to accommodating growth, through integrated long-range multi-modal network planning that ultimately improves the quality of life for Barrie residents.

Guiding Principles

Supporting and Enabling Growth

Plans for Barrie's forecasted population and employment growth will need to be addressed by expanding or enhancing all forms of transportation infrastructure.

Future Ready & Adaptable

The City should leverage technology as both an enabler and driver of change. Infrastructure recommendations should be flexible to adapt to changing technologies.

Healthy Living

Promote sustainable transportation solutions, reducing greenhouse gas emissions, and supporting public health and personal safety by encouraging active transportation and improving public transit.

Integrated Planning

Ensure the integration of various transportation modes (e.g., walking, cycling, public transit, and personal vehicles) to create a cohesive and efficient network.

Economic Development

Support economic development by improving accessibility, reducing congestion to support freight, and enhancing connections between residential, commercial, and industrial areas.

How does Barrie compare with other municipalities?

Mode Split

Barrie residents typically drive a personal vehicle for the majority of their trips, or are a passenger in a personal vehicle.

Mode	Barrie	Guelph	St. Catharines	Hamilton	Kitchener	Waterloo	Ottawa
Driver	76%	68%	71%	62%	65%	64%	69%
Passenger	14%	16%	17%	16%	17%	16%	8%
Transit	1%	3%	3%	7%	4%	4%	11%
Walk	6%	9%	5%	11%	9%	11%	7%
Bike	1%	2%	1%	2%	2%	2%	2%
Other	2%	3%	3%	3%	3%	4%	3%

Auto Ownership

Very few households in Barrie are able to go “car-free”, as indicated by the mode split above. We do also see a greater number of “car-surplus households” in Barrie (more cars than people)

Auto Ownership (per household)	Barrie	Guelph	St. Catharines	Hamilton	Kitchener	Region of Waterloo
0	5%	8%	9%	16%	9%	14%
1	38%	44%	44%	48%	45%	45%
2	40%	36%	33%	28%	36%	33%
3	12%	8%	10%	6%	7%	6%
4 or more	5%	4%	4%	2%	4%	2%

How does Barrie compare with other municipalities?

Commute Duration & Daily Trips by Distance

These two tables indicate that there are a substantial number of trips that are completed in less than 15mins, and either less than 2km, or between 2km-5km. These trips are all excellent candidates to be moved to sustainable modes of travel (walking, cycling, transit)

Commute Duration	Barrie	Guelph	St. Catharines	Hamilton	Kitchener	Region of Waterloo	Ottawa
Less than 15 minutes	35%	41%	41%	25%	30%	37%	27%
15 to 29 minutes	27%	32%	37%	40%	45%	41%	42%
30 to 44 minutes	13%	14%	12%	18%	14%	13%	20%
45 to 59 minutes	10%	7%	4%	8%	5%	3%	6%
60 minutes and over	15%	7%	6%	9%	7%	6%	5%

Daily Trips by Distance	Barrie		Guelph		St. Catharines		Hamilton		Kitchener		Region of Waterloo	
	%Trips	% Auto	%Trips	% Auto	%Trips	% Auto	%Trips	% Auto	%Trips	% Auto	%Trips	% Auto
≤ 2 km	22.2%	59.0%	19.8%	39.5%	18.9%	51.2%	22.5%	34.5%	20.4%	37.6%	23.6%	37.7%
2 to 5 km	22.6%	75.0%	30.6%	67.2%	29.3%	70.4%	27.0%	61.4%	27.5%	62.5%	28.0%	63.7%
5 to 10 km	18.4%	80.4%	16.3%	73.6%	16.0%	73.2%	21.2%	69.7%	25.0%	72.2%	19.6%	71.8%
10 to 15 km	7.5%	80.2%	5.1%	80.2%	10.8%	81.0%	9.3%	75.7%	10.3%	77.3%	8.0%	77.5%
15 to 20 km	4.0%	83.6%	6.4%	82.3%	9.3%	82.6%	4.5%	81.7%	5.5%	82.3%	5.3%	81.4%
20 to 30 km	6.1%	88.8%	10.4%	85.5%	5.9%	83.8%	3.5%	80.6%	4.1%	87.0%	5.2%	86.4%
30 to 50 km	8.7%	88.3%	6.5%	85.8%	4.7%	80.3%	6.2%	81.2%	2.1%	87.8%	3.6%	84.0%
50 + km	10.4%	80.9%	4.8%	69.2%	5.1%	75.1%	6.0%	70.5%	5.0%	77.2%	6.8%	74.8%

Discussion

Development of Alternative Scenarios

Alternative Scenarios

In accordance with the MCEA process, the study will test alternative scenarios and develop justification for recommendations for the 2051 horizon to support planned population and employment growth.

Scenario 1: Do Nothing	Scenario 2: Business as Usual (BAU) (incl. 2019 TMP and other planned improvements)	Scenario 3: Alternate Multi-Modal Transportation Network
• This assumes that current and planned municipal and provincial improvements continue as planned to 2031 (no further works beyond 2031). • This scenario provides a baseline and shows the impacts of key provincial and regional investments.	• This builds upon the Scenario 1, plus remaining planned improvements identified in the 2019 TMP, and reflects the latest Transit Network Plans. • This scenario shows the impacts of additional City infrastructure/programs when compared with the Do Nothing Scenario.	• This scenario will offer an alternative set of solutions compared to the BAU scenario and will focus on increased investment in Transit and Active Transportation projects. • This will provide an alternative to the “traditional” planning approach used in the 2019 TMP.

Additional Scenario

A fourth scenario may be developed based off scenario outputs and public feedback.

Discussion

Evaluation Criteria

The project team will complete a preliminary evaluation of the three alternative scenarios against the example criteria outlined below. These criteria help the project team assess how different transportation alternative scenarios meet the TMP vision and guiding principles. This evaluation (combined with feedback received) will be used to develop a fourth scenario.

Supporting and Enabling Growth

- Maintain (or limit negative changes) current car level of service (LOS) and travel times as Barrie grows.
- Improve Multi-Modal LOS (MMLOS).
- Increase the non-car mode split.

Economic Development

- Maintain current freight travel times
- Maintain current levels of time lost in congestion.
- Supporting local businesses through mixed use development to encourage high foot traffic

Healthy Living

- Increase Barrie residents' daily minutes of physical activity (walking, cycling).
- Reduce air pollution, particularly in equity-deserving areas.

Integrated Planning

- Improve multi-modal access to daily needs (e.g., number of grocery stores that can be reached in 15 minutes by a non-car mode).
- Plan the transportation system through a Complete Networks approach.
- Foster a more diverse land use mix in key locations throughout the City
- Focus transportation investments along high density corridors.

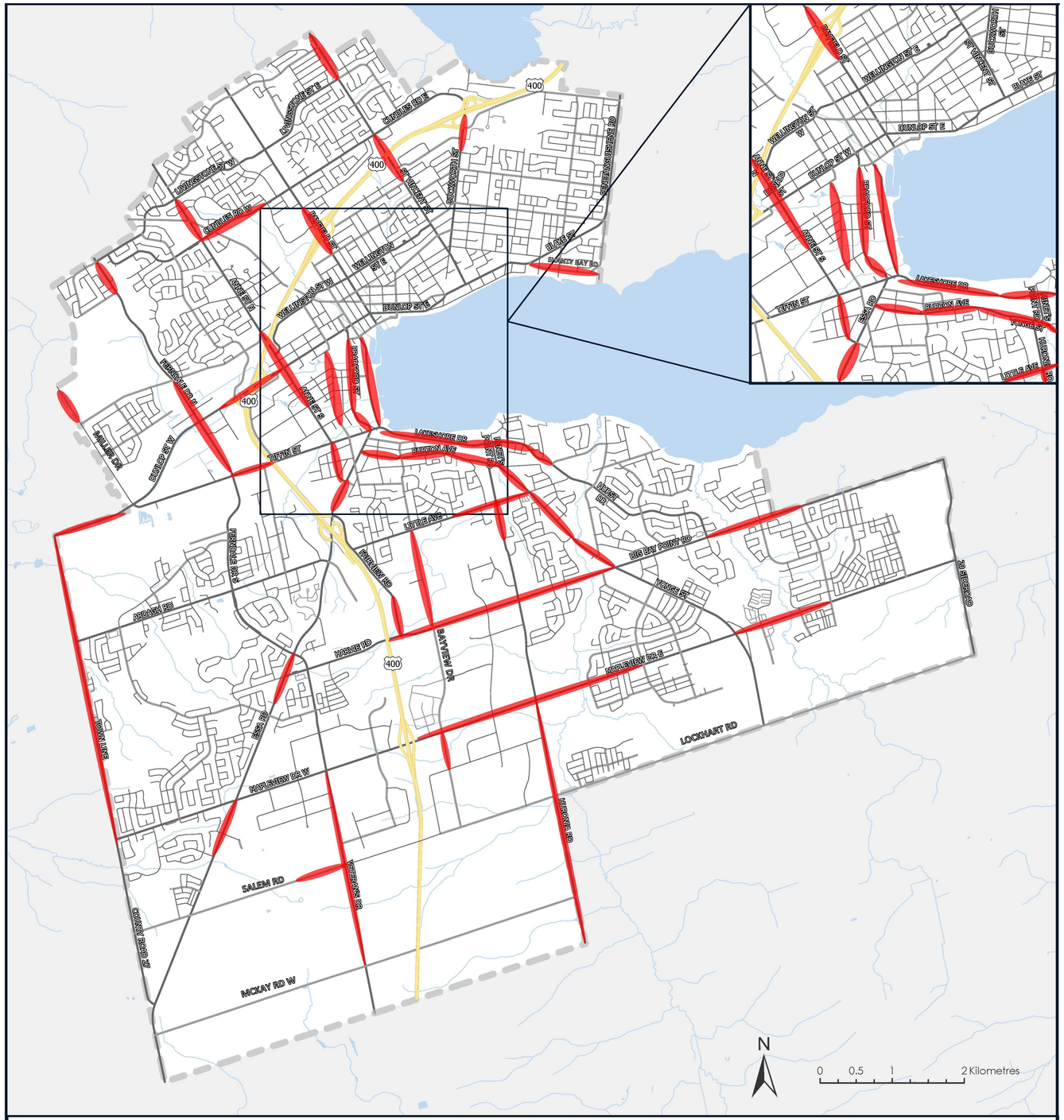
Future Ready and Adaptable

- Ensure infrastructure is designed a way that accommodates a variety of new and existing transportation modes.
- Leverage existing and emerging technologies to collect data, support operations goals and enable data driven decisions.

Future Peak Hour Transportation Challenges

The map on the right shows the expected areas of congestion in 2051 if there are no further improvements to the existing transportation network (Scenario 1: Do-Nothing).

Our other scenarios will include additional improvements that should reduce the congestion. This could be achieved through traditional road improvements, or improvements to the active transportation and transit networks.



Roads

- Provincial Highway
- Arterial
- Collector
- Local
- Private Road
- Areas of Congestion (excl. Highway 400)

This map depicts preliminary findings that will continue to be refined over the course of the study.
Areas of congestion are defined as roads with a volume-to-capacity ratio greater than 1.10.

The figure represents a generalization of areas with congestion for discussion purposes, it does not illustrate all areas with congestion and is not intended to be interpreted or used as a technical document generated by the transportation master plan

Data retrieved from the Municipality of Barrie and Ontario GeoHub.

PRELIMINARY DRAFT

Next Steps

Engagement

The second Public Information Centre (PIC) is planned for **September 18th at the General John Hayter Southshore Community Centre from 5:00 p.m. to 7:30 p.m.** This PIC will present scenario alternatives including accompanying infrastructure recommendations.

Project Website

The best way to stay connected is to sign up to the registration list through our project website. You'll be notified of any upcoming events or feedback opportunities. Visit www.buildingbarrie.ca/transportationmasterplan to sign up.

Current Transportation Master Plan

What does a final Transportation Master Plan look like?

Check out the City's current TMP completed in 2019 (https://www.barrie.ca/government-news/adopted-strategies-plans/transportation-master-plan).

Stay connected through our project webpage

Or connect with the project team

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Open Discussion

Topics:

- Vision Statement & Guiding Principles
- Scenarios 1-3
- Evaluation Criteria
- PIC Material
- Next Steps