
# Transportation Master Plan Update

Town of East Gwillimbury

Final Report

March 1, 2024

East Gwillimbury

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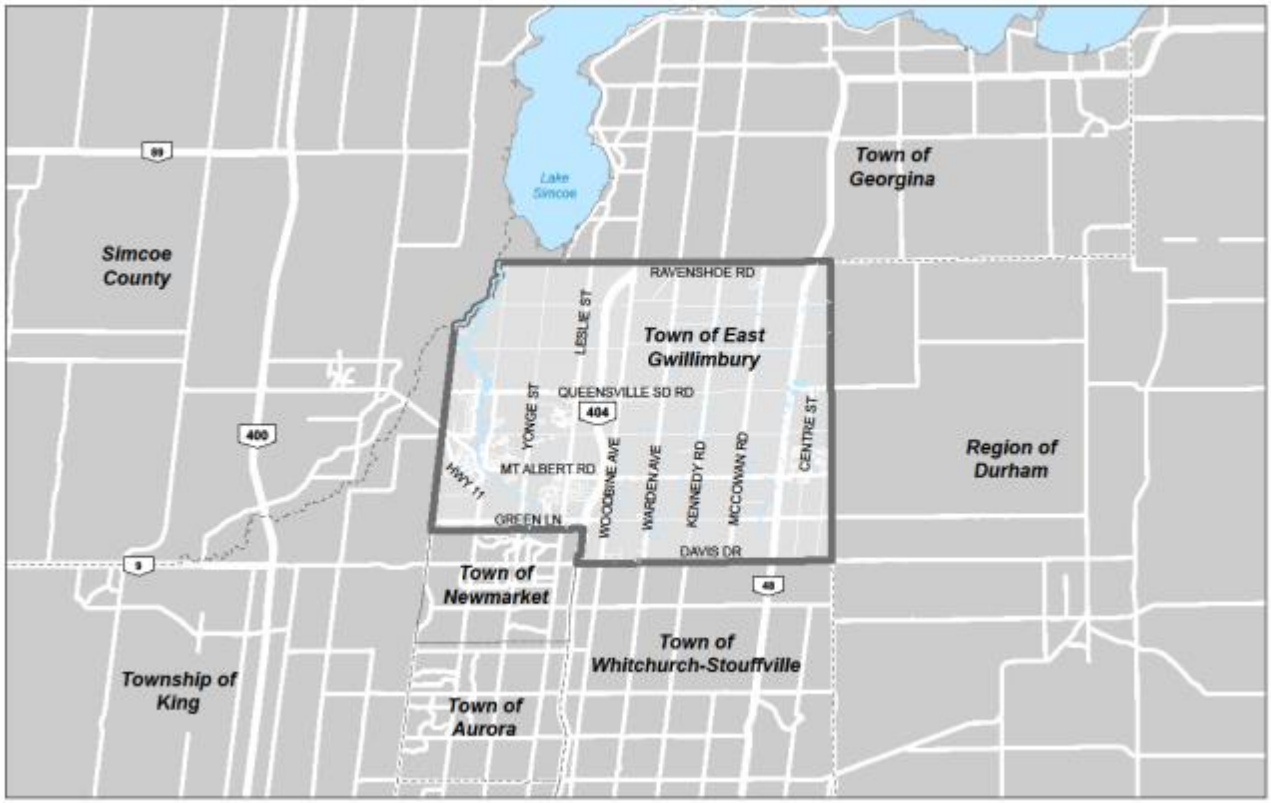
# Executive Summary

To address the long-term transportation needs of the growing community, the Town of East Gwillimbury initiated a Transportation Master Plan (TMP) in November 2016. The TMP was developed to address existing and future transportation needs of drivers, transit users, pedestrians, and cyclists, and will guide decisions on community transportation planning to the year 2051.

East Gwillimbury is situated within the Regional Municipality of York in the Greater Toronto Area (GTA). It is bordered by the Town of Georgina to the north, the Town of Uxbridge to the east, the Towns of Newmarket and Whitchurch-Stouffville to the south, and the Township of King and the Town of Bradford West Gwillimbury to the west. **Exhibit A** illustrates the regional context of East Gwillimbury.

### Exhibit A: Town of East Gwillimbury Regional Context




A number of provincial, regional, and local planning studies and policies provide the basis and guidance for the transportation vision for East Gwillimbury TMP. The development of the plan built upon the Town's previous 2010 TMP which recommended a sustainable transportation system

that balanced expanding the road network with providing more transit services and more cycling and pedestrian opportunities up to 2031. The TMP update extends the plan to the horizon year of 2051 and considers new guidelines set forth by the updated Provincial Growth Plan, GO/Metrolinx's Rail Expansion, York Region's 2022 TMP, and East Gwillimbury's 2022 Official Plan Review, Active Transportation and Trails Master Plan (ATTMP), and Green Lane Secondary Plan.

Specific goals and objectives of this Plan update include:

- Assess the current transportation network and identify gaps and opportunities for all travel modes, with consideration of provincial, regional, and adjacent municipal plans and emerging transportation trends.
- Identify policies that support the recommended multimodal network and manage travel demand in peak periods, including Travel Demand Management, transit-oriented development policies, traffic safety, and community oriented traffic control policies.
- Establish detailed action, implementation and monitoring plans for transportation network initiatives that are carried through to a "project ready" mode.
- Provide input to future Town's Official Plan and Development Charges Background Study.

## Study Process and Public Consultation

The TMP study was conducted following Phase 1 and Phase 2 of the five-phase Municipal Class Environmental Assessment process (MCEA, October 2000, as amended in 2007, 2011, 2015, and 2023). Phase 1 is to establish the transportation problem and opportunity and Phase 2 is to consider alternative transportation solutions to select a preferred solution. This TMP study followed Master Plan Approach #1, which conducts a broad level of assessment and requires subsequent detailed investigations at the project-specific level to fulfill the MCEA requirements for Schedule B and C projects recommended in the TMP.

Public consultation was conducted throughout the course of the study and included the following consultation activities:

- Notice of Study Commencement was first published in November 2016 to address land use projections to the 2041 horizon and again in November 2017 due to unforeseen delays that put the study on pause for approximately one year. An update to the Notice of Study Commencement

was published in January 2023 to accommodate new land use projections to the 2051 horizon from the Town's 2019 Official Plan Review.

- Public Information Centres (PICs) were held on March 22, 2018, April 10, 2019, and April 26, 2023.
- A presentation to Town Council was also held on October 8, 2019 to summarize the draft recommendations for the 2041 horizon. The public was able to attend and provide comments on the material presented.
- Technical Advisory Committee (TAC) meetings were held on March 28, 2017, June 5, 2018, and January 23, 2023.

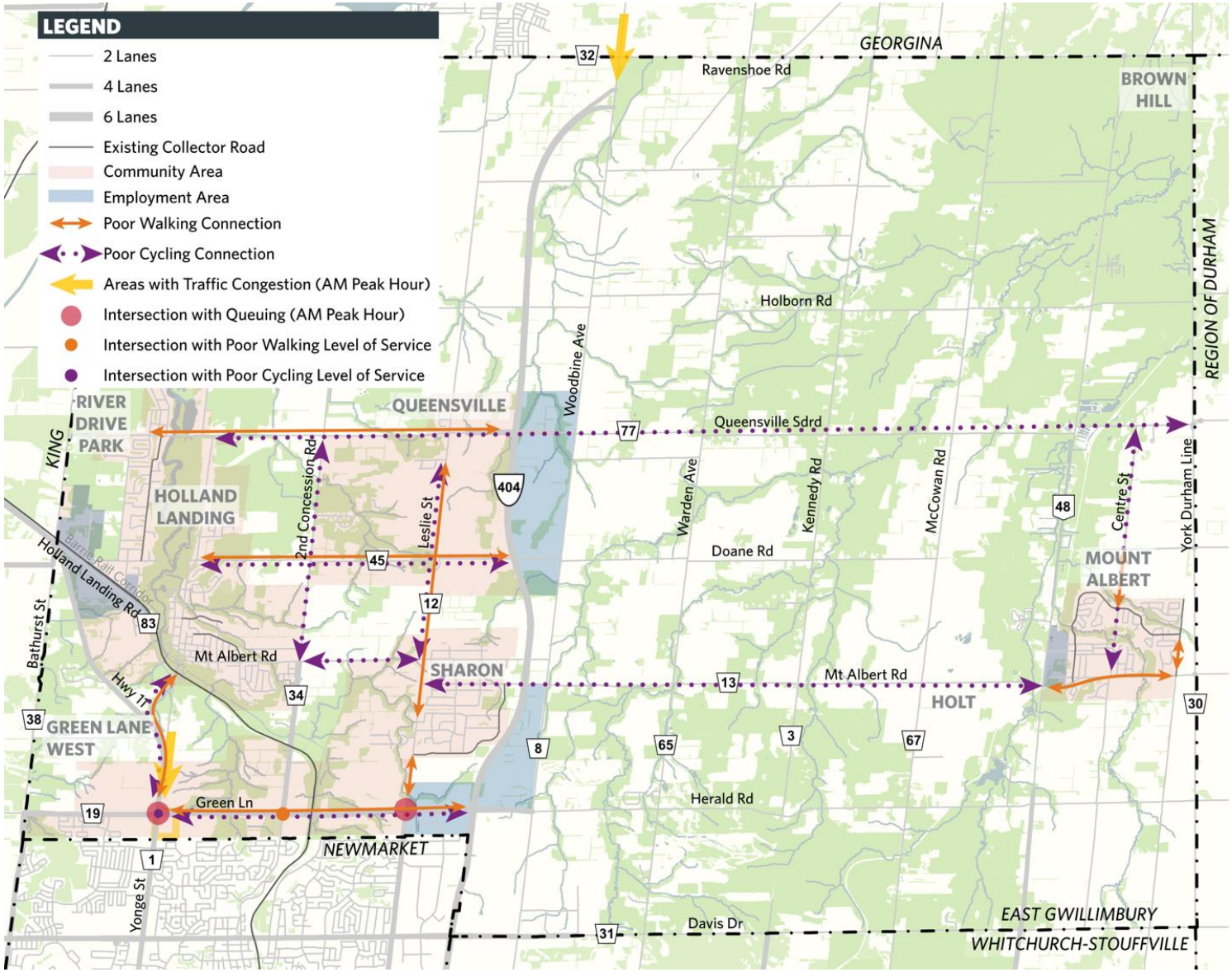
## Existing Transportation System

The existing transportation system in East Gwillimbury includes road, transit, pedestrian, and cycling networks:

- The road network is grid-based and comprised of provincial highways, regional roads, minor collector roads, rural roads, and local roads.
- Transit services are provided by York Region Transit, with GO Transit commuter rail and bus services focused around the East Gwillimbury GO Station.
- Sidewalks for pedestrians are generally provided on roads within the urban boundary, however there are several gaps in the network both within and between the Town's community areas.
- The existing cycling network is limited and mainly comprises of unsigned bike routes that share the roadway with motorized vehicles.

Through multi-modal level of service analysis and consultation with the public, a number of issues in the existing transportation network were identified as summarized in **Exhibit B**. This includes queuing issues at the intersections of Yonge Street at Green Lane and Leslie Street at Green Lane, poor walking and cycling connections between community areas, and poor scores for walking and cycling at specific intersections within the Town.

## Exhibit B: Summary of Existing Transportation Issues



## Future Growth

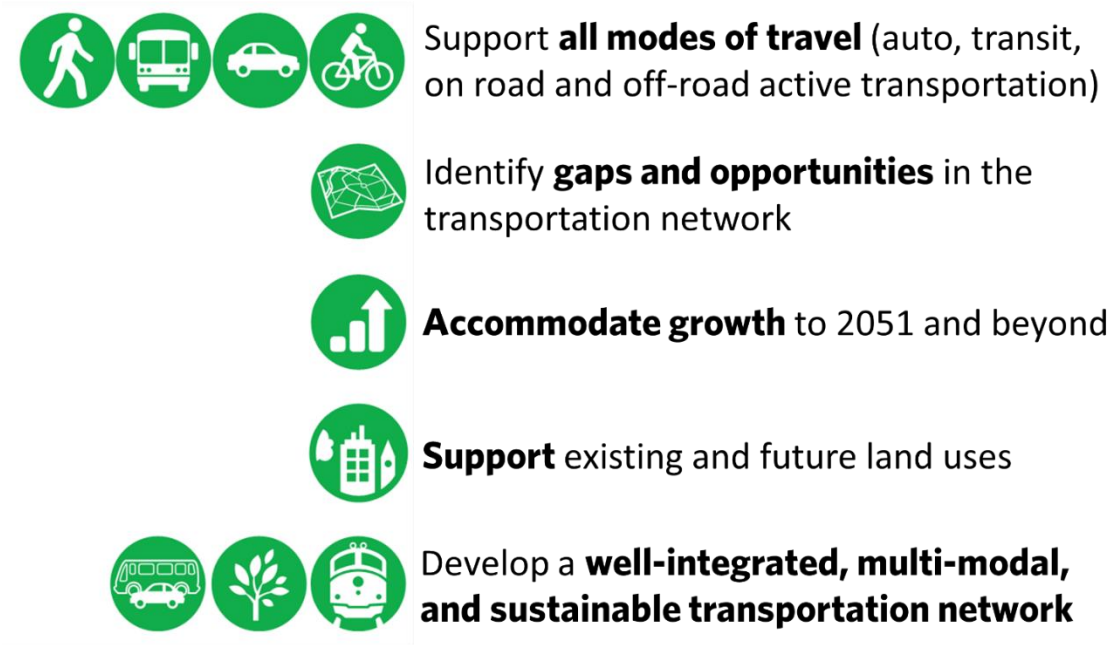
The Town of East Gwillimbury is projected to be one of the fastest growing municipalities in the Greater Golden Horseshoe (GGH) over the next 30 years. The Town's population will nearly quadruple from 36,500 persons in 2016 to 127,700 by 2051 based on the latest projections by York Region. Employment is expected to grow by more than six times, from 10,300 jobs in 2016 to 63,100 jobs by 2051.

Most growth will occur in undeveloped lands within East Gwillimbury designated as Whitebelt lands. The majority of the population growth will occur as a result of the proposed developments in Sharon, Queensville, and the Green Lane Secondary Plan area. A significant amount of employment growth will be concentrated north of Queensville Sideroad and in the Highway 404 Employment lands located east of Highway 404 between Queensville Sideroad and Green Lane East.

## Problem and Opportunity

The Town of East Gwillimbury is planned for significant growth by about four times its current population, over the next 30 years. This growth will result in more trips and shorter trips within the Town, adding strain on the Town's internal transportation network.

At the same time, growth represents opportunities to:




Ultimately, this multimodal vision for transportation will support a safe, accessible and livable community in the future.

## Planning Strategies

Four planning scenarios were initially identified to address the problems and opportunities for the 2041 horizon. These four scenarios subsequently informed the transportation network for the 2051 horizon based on land use changes from the Town's 2019 Official Plan Review. The four planning scenarios include the following:

Scenario 1: Base Case: include the committed road improvements identified by the Ministry of Transportation (MTO), York Region, and Town of East Gwillimbury.

Scenario 2: Currently Planned Town Network: further to Scenario 1, incorporate planned Town improvements from the 2010 TMP and the 2012 ATTMP.

Scenario 3: Revised Town Network: revise the currently planned Town improvements in Scenario 2 to respond to changes in the planning context and invest in new connections and road improvements.

Scenario 4: Enhanced Town Network: further to Scenario 3, implement cycling facilities on all existing and new roads and incorporate Travel Demand Management (TDM) policies and complete streets on existing Town roadways.

To determine the preferred scenario a detailed set of evaluation criteria and performance metrics were identified. Evaluation criteria included transportation services, social equity, policy environment, affordability, natural environment, and socio-economic environment.

**Scenario 4 Enhanced Town Network** was selected as the preferred 2041 planning scenario. The preferred 2041 scenario was then updated to address transportation needs to the 2051 horizon year for the newly identified Whitebelt lands.

The proposed 2051 planning strategy supports the development of the Whitebelt lands as well as the multimodal vision for East Gwillimbury and provides a safe, accessible, and connected road network for all users.

The 2051 strategy provides increased access and opportunities for walking and cycling, while encouraging the use of transit. By building a growth-supportive and multimodal network, the strategy aligns most closely with the policy environment and the objectives set out by this TMP.

## Recommended Planning Strategy

The multimodal transportation vision for the 2051 horizon includes a detailed strategy for all improvements. The key opportunities include:

- Constructing key road connections to connect the community areas within East Gwillimbury;
- Supporting the development of Whitebelt lands and increase the overall connectivity across the surrounding communities within East Gwillimbury;
- Maintaining consistency with the latest planning context;
- Providing opportunities to connect with future transportation links such as the Bradford Bypass;
- Connecting the gaps in the sidewalk network to promote walking as the first choice for short trips;
- Implementing cycling infrastructure throughout East Gwillimbury, building on the Town's ATTMP;
- Implementing an EcoMobility Hub pilot program as a way to encourage shared mobility and to facilitate first and last mile connections;
- Implementing a bike share pilot program to increase cycling mode share; and
- Continue to collaborate with York region Transit (YRT) on expansion of transit and Mobility On-Request services.

### Proposed Road Projects and Intersection Improvements

New road projects are required to support the significant growth that the Town will experience over the next 30 years. These projects will also help support the active transportation and transit opportunities by providing more direct connections between communities.

Intersection improvements will also be required to support the Town's growth. Single-lane roundabouts are recommended to be the first consideration for intersection control for all new intersections or intersection improvements on rural roads, minor collector roads and major collector roads in East Gwillimbury. Further, if a signal or stop-controlled intersection is proposed, it should be demonstrated to the Town's satisfaction why a single-lane roundabout is not preferred.

Circumstances where single-lane roundabouts may not provide the best solution include those with prohibitive costs, nearby traffic queuing impacts, proximity to vulnerable pedestrians, environmental impacts, and capacity

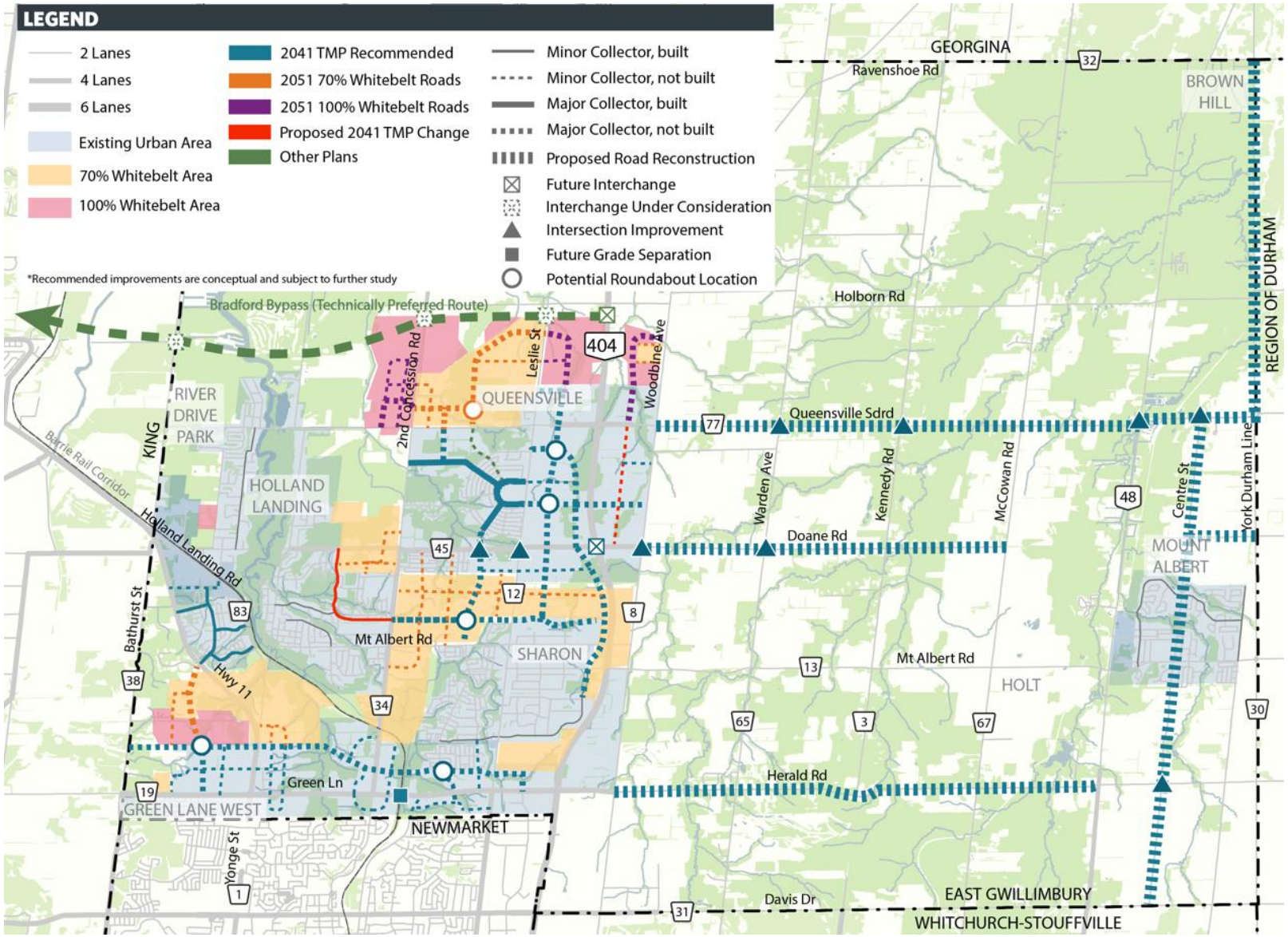
constraints. A preliminary review was conducted to determine where roundabouts should be considered as the intersection control as the new collector networks are built.

Other candidate locations for roundabouts, including on arterial roads, might be established based on the following criteria:

- The current traffic control type is signalized or two-way stop controlled;
- There is a history of injury, fatal, head-on, angle, or turning collisions;
- There is a transition point between high and low speed roads or a rural and urban area;
- A gateway feature is required as an entry to a community; and
- Traffic calming is required.

**Exhibit C** below illustrates the recommended road projects, which include each of the road projects identified in the Alternative Planning Scenarios. Projects in the Whitebelt lands have also been provided in 70% and 100% stages for phasing opportunities. Additional recommended intersection improvements (including potential roundabout opportunities) to support the recommended transportation network are presented in **Table A.**

## Exhibit C: Recommended Road Improvements



### Table A: Recommended Intersection Improvements

| ID | Intersection | Improvement Type |
|---|---|---|
| R-A45 | Queensville Sideroad / Centre Street | Intersection Improvement |
| R-A46 | Queensville Sideroad / Kennedy Road (Regional Int.) | Intersection Improvement |
| R-A47 | Queensville Sideroad / Warden Avenue (Regional Int.) | Intersection Improvement |
| R-A48 | Doane Road / Warden Avenue (Regional Int.) | Intersection Improvement |
| R-A49 | East-West Collector and Murrell Boulevard | Roundabout |
| R-A50 | Herald Road / Centre Street | Intersection Improvement |
| R-A51 | Queensville Sideroad / Highway 48 (Provincial Int.) | Intersection Improvement |
| R-A52 | Doane Road / Woodbine Avenue | Intersection Improvement |
| R-A53 | Doane Road / Leslie Street (Regional Int.) | Intersection Improvement |
| R-A54 | Doane Road / Murrell Boulevard (Regional Int.) | Intersection Improvement |
| R-A55 | North Queensville Ring Road / Street D (Regional Int.) | Roundabout |
| R-A56 | North Queensville Ring Road / Jim Mortson Drive Extension (Southern Extension 1) | Roundabout |
| R-A57 | East-West Collector north of Green Lane / N-S Collector 8 (Woodspring Avenue Extension) | Roundabout |
| R-A58 | Silk Twist Drive East / Murrell Boulevard Extension | Roundabout |
| R-B601 | E-W Collector 5 / Collector 3 | Roundabout |

### Road Jurisdiction Review

York Region has a Regional Road Assumption Policy that is used to determine whether a Town road should be uploaded to York Region's Regional Road network. Due to significant growth within the Town and an increase in internal travel, a review of Queensville Sideroad from Woodbine Avenue to York Durham Line was conducted.

Queensville Sideroad is currently an east-west rural arterial road. However, the role of this road will change as the Town grows and as internal travel demand increases. By 2041, Queensville Sideroad east of Woodbine Avenue will carry over 900 vehicles in the peak hour.

Based on the policy criteria set forth by York Region, it is recommended that Queensville Sideroad from Woodbine Avenue to York Durham Line be transferred to the Region's jurisdiction. Furthermore, the segments of Bathurst Street and 2nd Concession Road between Queensville Sideroad and the future Bradford Bypass should also be protected for road upgrades in preparation for transfer to the Region's jurisdiction past the 2051 horizon.

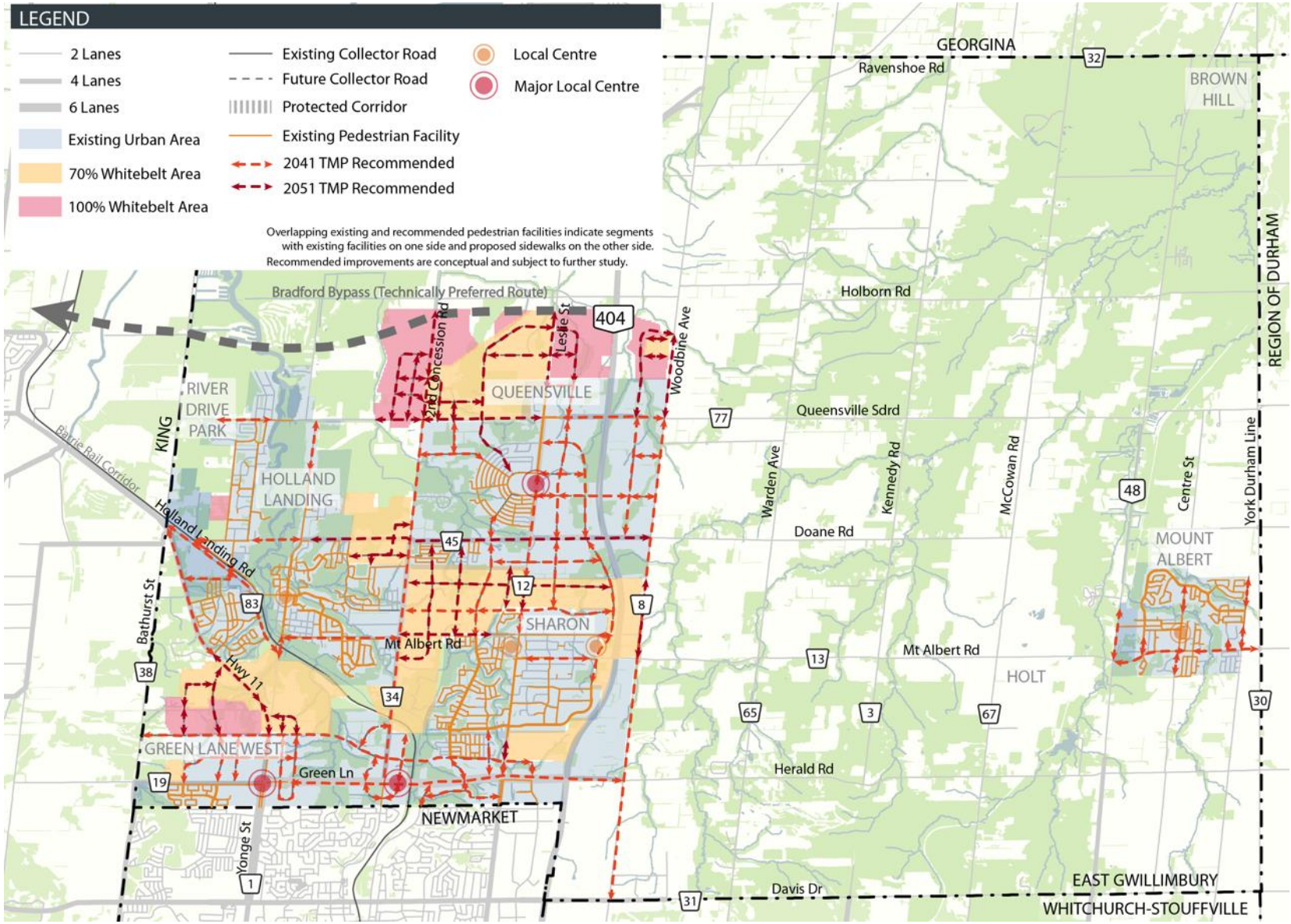
### Active Transportation

A review of existing pedestrian infrastructure in East Gwillimbury found that several corridors have missing sidewalks resulting in gaps in the sidewalk network. Two of the objectives of this TMP focus on walking, specifically:

- Improving the streets within the Town making them safe and accessible for all road users; and
- Promoting walking as the first choice for short trips.

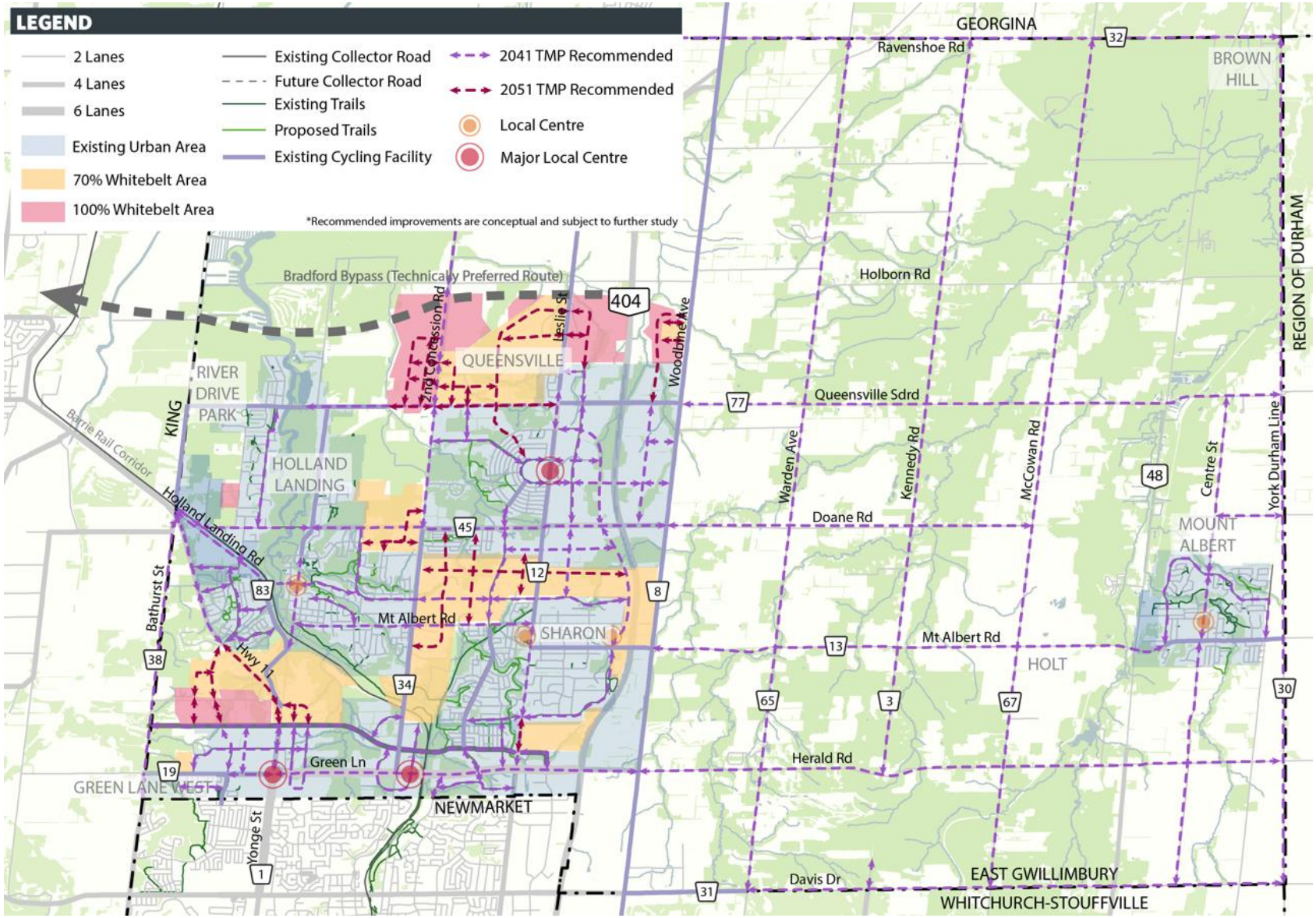
Sidewalks provide a safe and accessible environment for pedestrians. By filling in the "missing links" in the network, walking will be a more viable option to users. This will also include reviewing the existing sidewalk network to identify any sidewalks that are below standard. **Exhibit D** illustrates the future 2051 sidewalk network.

## Exhibit D: Proposed 2051 Sidewalk Network



As part of the preferred 2051 strategy, cycling infrastructure is recommended within the road right-of-way for new and existing collector and arterial roads. The selection and design of cycling infrastructure should follow the four types of facilities in Ontario Traffic Manual Book 18 Cycling Facilities: sharrows, paved shoulders, painted bike lanes, and multi-use paths (MUPs). The recommended 2051 cycling network includes improvements on Regional Roads, the existing collector network, and the future collector network. The cycling network projects are illustrated in **Exhibit E.**

## Exhibit E: Proposed 2051 Cycling Network



## Transit Recommendations

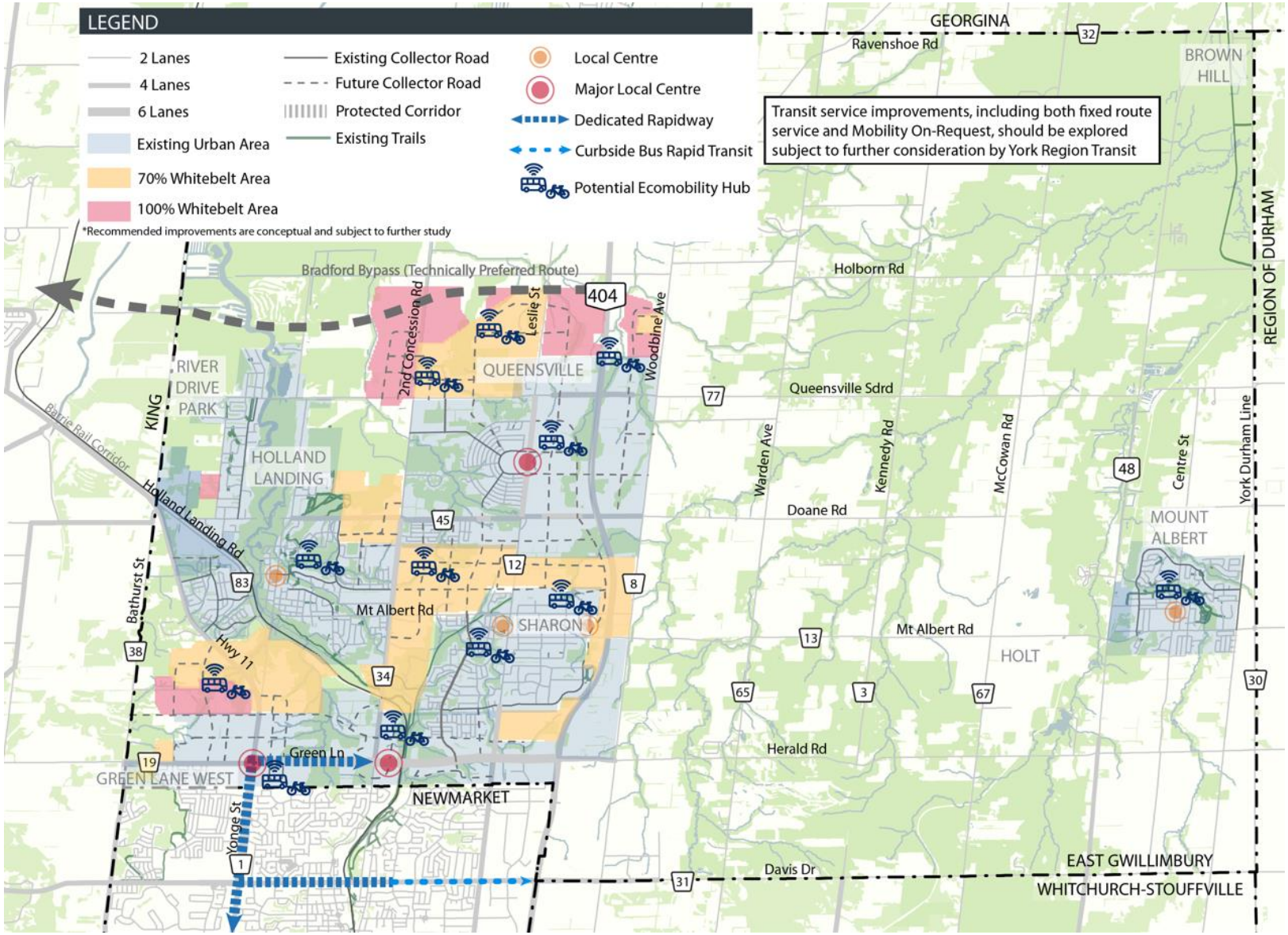
The future transit network includes improvements by York Region and Metrolinx. The 2022 York Region TMP identified Green Lane, west of the East Gwillimbury GO Station, as a Rapid Transit Corridor. The Metrolinx Regional Transportation Plan recommended two-way, all day and 15-minute service along the Barrie GO Line.

The Green Lane Rapid Transit Corridor will be supported by on-demand local transit services to provide local service within the service area to connect to the Rapid Transit Corridor. As part of the recommended solution, East Gwillimbury can further support York Region and YRT's vision through the EcoMobility Hub[1][2] concept.

EcoMobility Hubs are essentially one-stop service points for shared multimodal mobility systems including car sharing, ride sharing and bike sharing. These hubs may vary in scale from major transit station areas (i.e., East Gwillimbury GO Station) to smaller scale, community-based hubs. Depending on the scale, the hub may include bus stops, dedicated car share parking spaces with charging stations, parking lay-bys for ride sharing, bike share stations, comfortable and safe waiting areas with displays for real-time data for all travel modes, benches, open space, free Wi-Fi, wayfinding information, and retail support. The recommended 2051 transit network and potential central locations for EcoMobility Hubs are illustrated in **Exhibit F.**

[1] Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11~13, 2015.
[2] Karim D. M., Creating an Innovative Mobility Ecosystem for Urban Planning Areas, Disrupting Mobility - Impacts of Sharing Economy and Innovative Transportation on Cities, Springer Book, Lectures in Mobility, ISBN: 978-3-319-51601-1, pages 21-47, 2017.

## Exhibit F: 2051 Transit and EcoMobility Hub Network



### EcoMobility Hub / Bike Share Pilot Program

An EcoMobility Hub and Bike Share pilot program is recommended for the Town. Initially, the EcoMobility Hub can be trialed through a pilot program at key locations with enhancements to existing facilities (e.g., designated sheltered waiting areas, car-sharing spots and enhanced bike parking / shared bikes at town facilities near transit) that can facilitate key first/last mile connections.

### Improving Connectivity to East Gwillimbury GO

Currently, the predominant mode of access to this GO Station is by car, with 89% of trips accessing the station by driving. Only 1% of GO users accessed the station by local transit and no walking or cycling trips were recorded.

The station draws trips from across East Gwillimbury with the highest density of trip origins from the southern portion of Holland Landing (within 5 km of the station). The station also draws passengers from Mount Albert and rural areas in the eastern part of the town.

Working in partnership with Metrolinx and York Region, connectivity improvements should be considered. Improvements for further discussion include:

- Implement measures to improve the Pedestrian Level of Service of the Green Lane / 2nd Concession Road intersection.
- Implement planned cycling infrastructure along Green Lane in tandem with new development in the Green Lane Secondary Plan Area.
- Ensure proposed future development along the north and west side of Green Lane incorporates a permeable local road network connecting to the GO station.
- Consider the feasibility of a grade separated eastern connection for cyclists and pedestrians to the GO station.
- Ensure any future grade separation of the rail corridor at Green Lane incorporates facilities for active modes.
- Complete an east-west pedestrian and cycling connection from Main Street to the GO Station.
- Consider a micro-transit feasibility study / pilot project to improve access, reduce surface parking requirements as demand continues to grow, and to reduce single-occupant vehicle queues during peak times. The micro-transit service could be integrated with other shared mobility services, as per the EcoMobility hub concept, at the GO Station.

## Transportation Policies

A review of transportation policies was conducted to supplement the TMP. The following policies were reviewed:

- All-way stop control warrants;
- Crossing guard warrants;
- Pedestrian cross-overs;
- Radar message boards;
- Sidewalk installation;
- Speed limit reduction; and
- Roundabouts.

Modifications to the policies were recommended based on best practices to better manage the existing transportation system and to support the goal of reducing traffic speeds in quiet residential areas and enhancing pedestrian and cyclist comfort and safety on Town streets.

## Implementation Plan

### Infrastructure Phasing and Requirements

Recommendations identified in the 2051 strategy for the TMP are given priority based upon need and potential ease of implementation. The majority of improvements identified in **Section 8** are dependent on specific developments and should be implemented in accordance with this plan by development as a condition of site plan approval. An estimate of the timing of each project is provided in **Appendix D**.

For projects not dependent on development, the Municipal Class EA requirements are identified and are based on the following relevant schedules:

- **Schedule A** projects are minor projects that have little to no environmental impacts and can include operational or maintenance activities. These projects are categorized as pre-approved. Examples include new cycling facilities or sidewalks within the existing right-of-way.
- **Schedule A+**, similar to Schedule A, are minor projects with minimal environmental impacts. They also are pre-approved but require public notice prior to project implementation. Examples include streetscaping, roadside park or picnic areas, and re-designation of existing paved uses (e.g., addition or removal of cycling lanes / facilities).

- **Schedule B** projects are improvements or minor expansions to existing infrastructure that have some potential unfavourable impacts to the environment and requires a screening process with those impacted and relevant review agencies. Examples include minor road improvements or expansion, and minor road intersection improvements.
- **Schedule C** projects have the potential for significant impacts to the environment and requires the full EA planning and documentation process specified in the Municipal Class EA document (Phases 1 to 4), and must include an Environmental Study Report. The EA documentation must be made available for review by the public and environmental agencies. An example of a Schedule C project is the construction of a new road (greater than 1 km in length).

A detailed listing of all infrastructure improvements and implementation requirements, such as through development or EA Schedule, are identified in **Section 9.1**.

### Transportation Demand Management (TDM)

Transportation Demand Management (TDM) provides a number of measures to influence when, where, why, and how people travel. The objective of implementing TDM measures is to shift the mode share by reducing the number of auto trips to avoid congestion. There are several TDM measures which can be implemented or promoted by the Town, including:

- **Smart Commute** program provides and promotes commuting solutions including carpooling, cycling, and transit use. The Town could form a formal connection with the Smart Commute Initiative to help connect local employers to facilitate alternative modes of travel;
- **Variable work schedule.** Town could implement initiatives which encourage employers to allow for flexible work schedules for employees, or a compressed work week, where employees can work longer hours over fewer days to reduce peak-hour commuting demands on the road network or transportation system. Variable work schedules can assist in spreading out commute trips over a longer period instead of concentrating all the trips within a single hour.
- **Parking management.** Strategies include under-supplying parking at major destinations, charging motorists for their parking space, as well as charging higher parking fees for long-term parkers or during rush hour, when traffic is most congested. Updates to zoning by-law can also be made for parking policies to reduce the minimum parking standards, as well as establishing EV and car-pool parking requirements. Such

strategies could discourage individuals from driving due to the inconvenience of parking, and instead consider alternative modes of transportation that may be more logistically or financially beneficial.

### Zoning By-law Update

The Town of East Gwillimbury completed an update to its Zoning By-law (ZBL) in May 2018. It is recommended that the Town implement a future amendment to the ZBL for minimum parking standards to include Electric Vehicle (EV) and carpool parking space requirements. These updates are integral to promoting more sustainable travel options.

### Recommended Transportation Program Cost Estimate

The gross capital costs for the recommended transportation strategy over the study horizon, inclusive of road widenings, new construction, reconstruction, active transportation facilities and structures is $730 million (2022$). Of the total, $519 million is needed for roadway works, $79 million for active transportation, $59 million for structures, $37 million for land acquisition, $28 million for Streetlighting, and $8 million for intersection improvements or roundabouts.

## Action Item Summary

Successful implementation of the Transportation Master Plan will require the Town of East Gwillimbury to undertake the following actions:

1. Advance the implementation and planning for road, sidewalk, and cycling network projects identified for the short term horizon (within 5 years) in **Appendix D**.
2. Coordinate with York Region to transfer jurisdiction of Queensville Sideroad from Woodbine Avenue to York Durham Line from the Town to York Region.
3. Collaborate with Metrolinx and Smart Commute Central York to implement an EcoMobility Hub and Bike Share Pilot Program in the new community area in Sharon or in Green Lane West to provide mobility options to connect to the East Gwillimbury GO Station.
4. Collaborate with Metrolinx and York Region to identify additional solutions to improve GO Station connectivity such as a micro-transit feasibility study / pilot project or implement a new bike facility along Green Lane to connect the new Sharon community from Murrell Boulevard to the GO Station.
5. Incorporate roundabouts in new subdivision planning in Green Lane West, Sharon and Queensville.
6. Implement Transportation Demand Management measures as a condition of site plan approval.
7. Consider a Zoning By-Law update to incorporate Electric Vehicle and carpool parking space requirements to promote more sustainable travel options.
8. Implement updated transportation policies to better manage the existing transportation system and to support the goal of reducing traffic speeds in quiet residential areas and enhancing pedestrian and cyclist comfort and safety on Town streets.
9. Continue to work in partnership with other levels of government, institutions, the private sector and the public to find funding solutions and infrastructure delivery methods that provide the most efficient and effective results. Funding sources to be explored further include:
    a. Infrastructure Canada Smart Cities Challenge;
    b. Federal / Provincial Gas Tax
    c. Federation of Canadian Municipalities Green Municipal Fund;

d. Federal / Provincial infrastructure stimulus funding;
e. Ontario Ministry of Tourism, Culture and Sport Cycling Tourism Development Fund;
f. Ontario Ministry of Health and Long Term Care grant programs;
g. Partnership funding with York Region for infrastructure and health promotion related initiatives; and
h. Ontario Trillium Foundation.

10. To ensure that the Master Plan recommendations are carried out, each recommendation should be tracked to document progress through the municipal monitoring system and through capital planning. Public input to Plan recommendations is also very valuable to ensure that residents' needs are being met. Town-wide or focus group surveys can be considered.
11. Undertake an update to this plan in 5 years to account for changes to planning context including the outcome of the ongoing York Regional Municipal Comprehensive Review and to account for advancements in new and emerging mobility technologies.

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## Appendices

Appendix A. Public Consultation Documentation

Appendix B: Planning Strategies

Appendix C: Detailing the Preferred Scenario

Appendix D. Project List and Cost

Appendix E. Transportation Policies

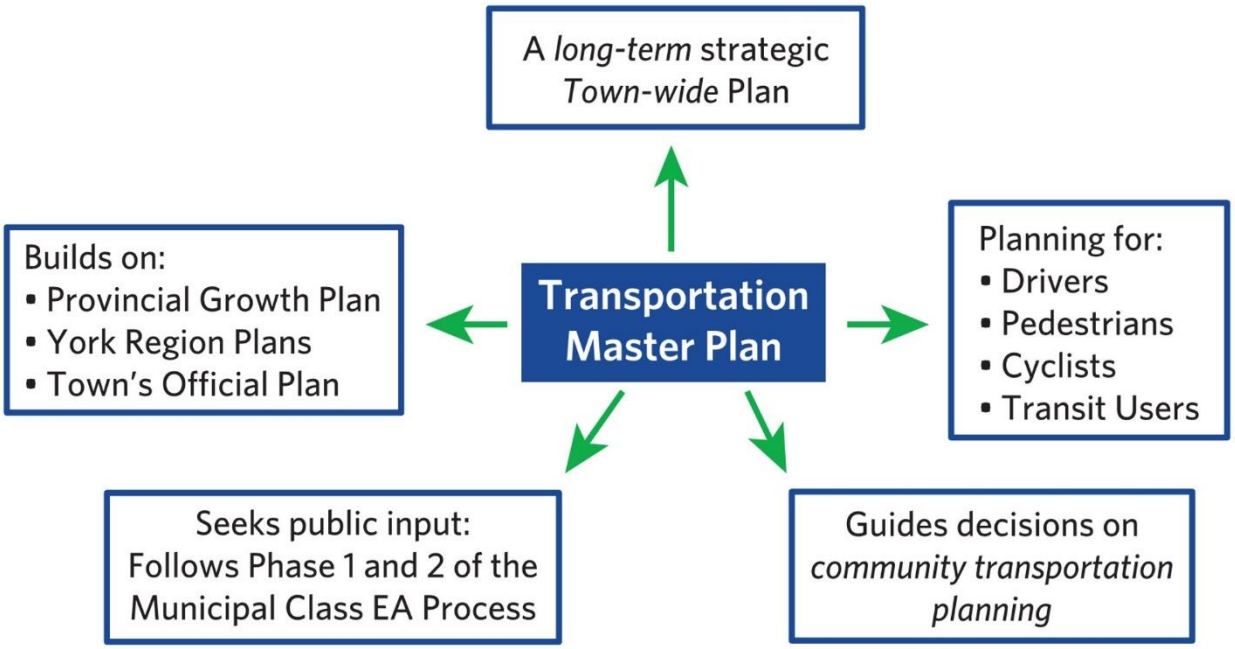
# 1 Introduction

The Town of East Gwillimbury is undertaking an update to the Town's ***2010 Transportation Master Plan*** (TMP). This report reviews and updates the planning context influencing the Town, establishes the baseline transportation conditions today and in the future to 2051, identifies a problem and opportunity statement to guide the development of the TMP update, presents planning strategies to address the problem and opportunity statement, and recommends a preferred strategy and an implementation plan to this strategy.

## 1.1 What is a Transportation Master Plan (TMP)?

A Transportation Master Plan (TMP) identifies the long-term transportation objectives of a defined area and specific solutions requiring further study. Transportation is an essential part of a community and is one of the primary factors driving the Town's environmental, economic, and social sustainability. A transportation system can influence the travel choices that people make and these choices will have a significant effect on the sustainability of the area and its growth. The elements of a TMP are illustrated in **Figure 1-1**.

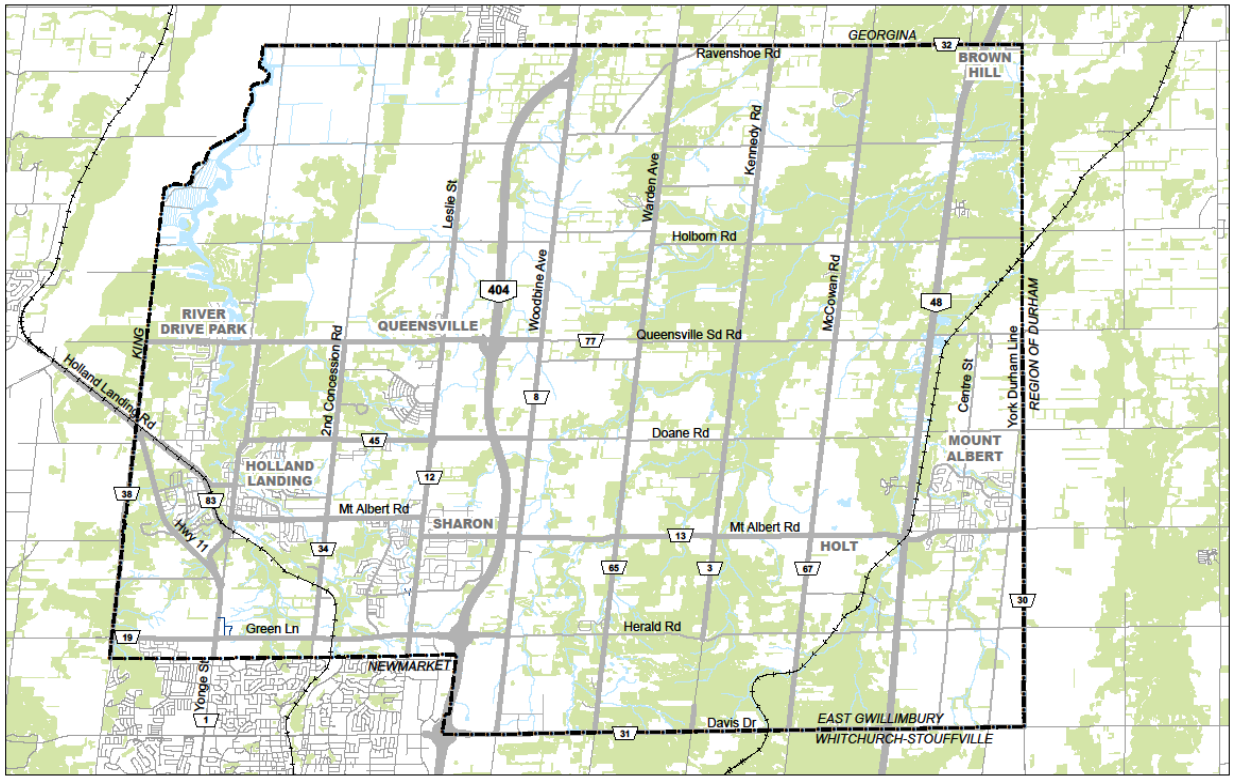
**Figure 1-1: Elements of a Transportation Master Plan**



## 1.2 Study Area

The Study Area for the Transportation Master Plan encompasses the Town of East Gwillimbury, bounded by Ravenshoe Road to the north, York-Durham Line to the east, Davis Drive (east of Highway 404) and 400 metres south of Green Lane(west of Highway 404) to the south, and Bathurst Street to the west. The Study Area is illustrated in **Figure 1-2**.

**Figure 1-2: Study Area**




## 1.3 Goals and Objectives of the Study

This Plan will provide a blueprint for the Town to strategically advance the development of its long-term transportation network in support of its vision for a safe, accessible and livable community.

Specific goals and objectives of this Plan update include:

- Reviewing the short-term action items identified in the Town's 2010 TMP and 2012 ATTMP and providing an update on the status;
- Reviewing the 2022 York Region TMP and documenting its impacts on the Town;
- Assessing the current transportation network and identifying gaps and opportunities for all travel modes, including the consideration of provincial,

regional, and adjacent municipal plans and emerging transportation trends;

- Accommodate the planned Whitebelt lands for 2051 horizon
- Meeting the requirements of Phases 1 and 2 of the Municipal Class Environmental Assessment process by:
    - Assessing current travel conditions, the impacts of growth, and defining these issues in a problem and opportunity statement;
    - Identifying and evaluating alternative solutions to address the problem and opportunity statement;
    - Selecting a preferred alternative for a sustainable, multimodal transportation network that decreases auto dependency and is truly accessible to all;
    - Reaching out to the general public and stakeholders through public engagement process;
- Identifying policies that support the recommended multimodal network and manage travel demand in peak periods, including Travel Demand Management, transit-oriented development policies, traffic safety, and community oriented traffic control policies;
- Establishing detailed action, implementation and monitoring plans for transportation network initiatives that are carried through to a “project ready” mode; and
- Provide input to the Town’s Official Plan and Development Charges Background Study.

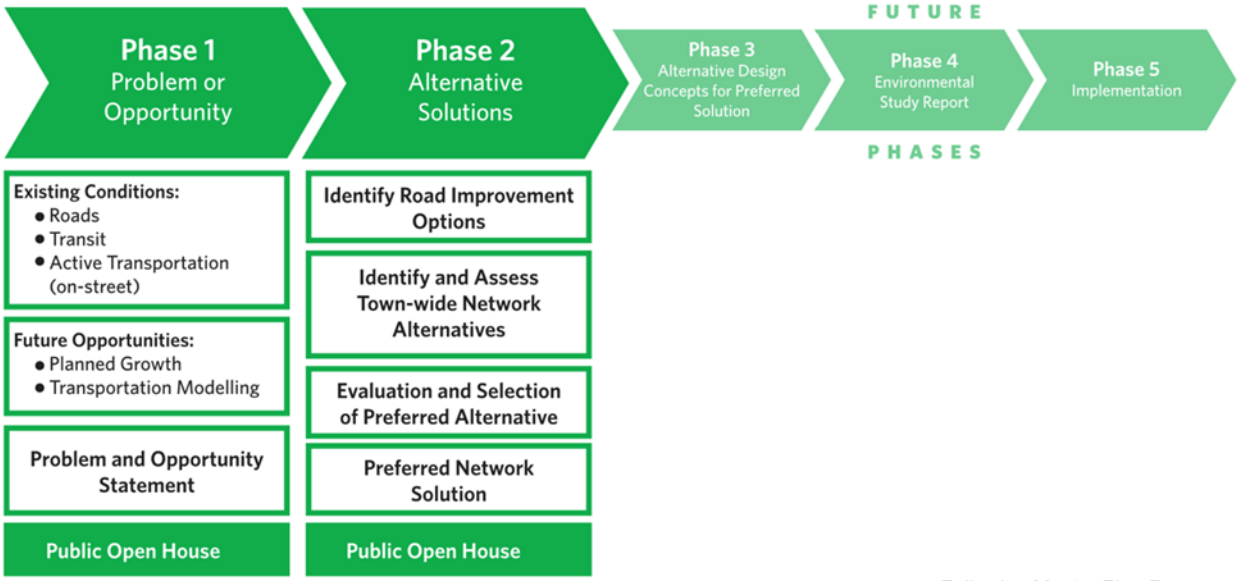
The TMP builds on the approaches and ideas conveyed in the ***Sustainable Planning Guidelines*** report (developed by Transport Canada and the Transportation Association of Canada). Furthermore, it is supported by the Province of Ontario’s ***Places to Grow Act***, and adheres to the ***Municipal Class Environmental Assessment*** process.

## 1.4 Study Process and Public Consultation

As mentioned above, the TMP follows Municipal Class Environmental Assessment Guidelines (October 2000, as amended in 2007, 2011, 2015, and 2023) which identifies the long-term transportation objectives of a defined area and specific solutions requiring further study. TMPs build on the policies of the Official Plan and are developed through a consultation process involving the public, technical agencies, First Nations and Aboriginal Peoples, and other stakeholders including affected property owners.

The TMP process follows Master Plan Approach #1 and Phase 1 and Phase 2 of the five-phase EA process by first defining a problem and/or opportunity statement followed by identifying and evaluating a range of alternative solutions to select one or more preferred solutions. Upon completion of the TMP, the preferred solutions for Schedule B and C projects can be studied further to meet the requirements of Phases 3, 4, and 5 as required. The TMP process is illustrated in **Figure 1-3**.

### Figure 1-3: Study Process




Following Master Plan Process
(Municipal Class Environmental Assessment, 2007, 2011, 2015, and 2023)

# 2 Planning Framework

This section provides context for the study in relation to planning guidance and policies at the provincial, regional, and municipal level.

## 2.1 Provincial Planning Context

A number of provincial policy documents provide the basis and guidance for the transportation vision for this TMP study. Provincial plans are identified and summarized in **Table 2-1**.

**Table 2-1: Provincial Planning Policies**

| Document/Study | Direction |
|---|---|
| Provincial Policy Statement 2020 | Provides direction on land use planning and development, including:<br>• Provide appropriate development while protecting resources, public health and safety, and the natural and built environments;<br>• Build strong, healthy communities by supporting density and land uses which support active transportation, are transit-supportive, are freight-supportive;<br>• Safe, energy efficient, transportation systems that move people and goods;<br>• Improve connectivity as part of a multimodal transportation system including connections across jurisdictional boundaries;<br>• Use of TDM strategies to maximize efficiency; and<br>• Land use pattern, density, and mix of uses to minimize length and number of vehicle trips, support current and future use of transit and active transportation. |
| A Place to Grow: Growth plan for the Greater Golden, Office Consolidation 2020 | The Growth Plan for the GGH is a long term plan that sets forth a vision for 2051 to establish a land use planning framework for the GGH. The Growth Plan envisions an integrated transportation network that provides easy travel within and between urban centres where transit and active transportation are practical elements of the transportation system. |
| Transit-Supportive Guidelines | Identifies best practices in Ontario, North America and abroad for transit-friendly land-use planning, urban design, and operations. |
| #CycleON: Ontario's Cycling Strategy | Ontario's strategy to encourage cycling in the province. Provides a route map to support and encourage growth in cycling in Ontario over the next 20 years. |

| Document/Study | Direction |
|---|---|
| 2041 Regional Transportation Plan | Published by Metrolink, acts as a region-wide plan to integrate multi-modal regional transportation systems throughout the Greater Toronto and Hamilton Area (GTHA). Projects envisioned for 2041 to better serve the Town include Barrie 15-min GO Service Extension between Aurora GO and East Gwillimbury GO and Green Lane Priority Bus between Davis Dr. and East Gwillimbury GO. |
| GO Regional Express Rail, 2016 | Metrolinx has identified a 10-year program for the Regional Express Rail which aims to provide improved service by running trains more frequently, providing all-day service, and faster electric trains. At the East Gwillimbury GO Station, RER would provide new 30 minute service during weekday peak periods in the peak direction and 60 minute service in both directions during midday, evenings, and weekends, better serving the Town. |
| GO Station Access Plans 2023 | Metrolinx has developed draft GO Station Access Plans identifying future boardings and alightings. They have also drafted a plan to accommodate all travel modes at each GO Station including East Gwillimbury GO. This TMP will review the multimodal access plan identified and identify actions which support improved access to the GO Station. |
| Highway 404 Class EA & Preliminary Design Study | Identifies a 26km section of Highway 404 from Green Lane in the Town of East Gwillimbury to Highway 407. This section has been identified for rehabilitation and safety and operational improvements based on Ontario's Southern Highways Program (2014-2018). |
| Highway 400 – Highway 404 Extension Link (Bradford Bypass) | Brought forward by the Ontario Government, a 16.3km bypass was proposed between Highway 400 and Highway 404, known as the Bradford Bypass. The Preliminary Design and Class Environmental Assessment (EA) Study is currently undertaken. The ongoing preliminary design is expected to be completed in 2023 and the Draft Environmental Impact Assessment Report has been available for review. As a result, the Bypass is considered as a base case scenario in this TMP for the 2051 horizon. |

## 2.2 Regional Planning Context

Regional planning documents also serve as key guidelines for transportation planning in the Town and also the East Gwillimbury TMP. **Table 2-2** provides a summary of these documents.

**Table 2-2: Regional Planning Policies and Guidelines**

| Document/Study | Direction |
|---|---|
| York Region Official Plan 2022 | The 2022 Regional Official Plan guides the Region's long-term population and employment growth and development to the year 2051. It concentrates on sustainability, protection of the natural environment, economic growth, and success. The plan encourages an enhanced mobility systems using a "people and transit first approach" and multimodal transportation including transit and active transportation.<br><br>It is noted that in 2015, York Region undertook a Municipal Comprehensive Review (MCR) to update its 2010 Official Plan growth forecasts to the 2041 horizon year. The Review recommended that the Region move forward with a 45% intensification Scenario. As a result, this TMP refers to the 2010 Regional Official Plan and recommended rate to assess the land use scenarios for the 2041 using 40% regional intensification rate and 45% regional intensification rate. |
| York Region Transportation Master Plan 2022 | The 2022 Regional TMP establishes York Region's vision for transportation services, assesses existing transportation system performance, forecasts future travel demand and defines actions and policies to address road, transit and active transportation needs to 2051. From the TMP, six main objectives were developed to achieve their goal and include:<br>• Making the best use of infrastructure and services;<br>• Enhancing partnerships;<br>• Encouraging all types of travel;<br>• Actively engaging and sharing information;<br>• Providing a resilient and adaptable transportation network; and<br>• Aligning project costs.<br><br>Findings of the York Region TMP that will impact East Gwillimbury by 2051 include:<br>• Green Lane, west of the East Gwillimbury GO Station has been identified as a Rapid Transit Corridor;<br>• Regional Express Rail for the Barrie GO Train Line will provide two-way, all day and 15 minute service; |

| Document/Study | Direction |
|---|---|
| | • Road widenings of Queensville Sideroad, Doane Road, Leslie Street, and Yonge Street; and<br>• An extensive cycling network with dedicated and separated facilities.<br><br>More detailed findings of the 2022 York Region TMP are provided in **Section 4.5.1**. |
| New Communities Guidelines 2013 | As the fundamental building blocks for a sustainable Region, complete communities are places where people interact, learn, work, shop, play, and call home at every stage of life. They offer a variety of housing types, employment, and mobility options – with emphasis on community health, walkability and transit integration. These guidelines provide direction to the local municipalities to develop secondary plans and infrastructure that supports the building of complete communities. |
| Transportation Mobility Plan Guidelines for Development Applications 2016 | Replaces the previous York Region Transportation Impact Study Guidelines (2007) to include more emphasis on alternative modes of transportation rather than the traditional automobile-focused traffic capacity analysis. The Transportation Mobility Plan is a comprehensive study required to support all development applications having potential impacts on Regional and local transportation systems. |
| Access Guidelines for Regional Roads 2020 | Identifies minimum requirements for vehicular access points to Regional Roads which vary depending on rural or urban cross-section and by Regional Road classification. |

## 2.3 Local Municipal Planning Context

Key planning and transportation infrastructure work completed in the Town that will inform the TMP update are summarized in **Table 2-3**. A scan of local municipal plans was completed – no significant plans identified by any of the Town of Whitchurch-Stouffville, Town of Newmarket, King Township, Town of Bradford West Gwillimbury, Town of Georgina, or Town of Uxbridge are anticipated to impact the Town of East Gwillimbury beyond the latest Regional plans.

**Table 2-3: Municipal Planning Policies and Guidelines**

| Document/Study | Direction |
|---|---|
| East Gwillimbury Official Plan 2031 (2018 Consolidation) | The Official Plan establishes a general framework for the future planning of the municipality and provides the overall vision, principles and objectives to guide decision making by the Town. The Plan also incorporates detailed policies for each community within the Town, the Oak Ridges Moraine Natural Heritage system and the Greenbelt Plan Area. Of specific relevance to the TMP:<br>• Function and general design requirements for different road classifications (**Table 4-1**); and<br>• Significant natural heritage and environmental areas, representing constraints to developing the transportation system.<br>A Official Plan review for 2051 horizon was endorsed at the Town's council meeting on June 21, 2022 and will be sent to the Region of York for approval. |
| Strategic Plan 2023 - 2035 (2023 draft) | Identifies a core purpose, a community vision, and strategic values for the Town. Four strategic priorities were identified:<br>• Enhanced Transportation and Mobility;<br>• Community Vitality and Livability;<br>• Environmental Leadership; and<br>• Service Excellence and Accountability. |
| East Gwillimbury Transportation Master Plan 2010 | Identified a sustainable transportation system that balanced the expansion of new roads with more transit services, cycling and pedestrian opportunities. This TMP update will provide a comprehensive review and update to the previous TMP. |
| East Gwillimbury 2012 Active Transportation and Trails Master Plan (ATTMP) | Identifies a recommended future network of on-road and off-road trails and active transportation corridors designed to connect East Gwillimbury's urban and rural communities and promote increased active transportation throughout the community over the next 25 years. This TMP update |

| Document/Study | Direction |
|---|---|
| | will review and update the recommendations, policies and findings. |
| Green Lane Secondary Plan 2018 | This document aims to implement the policies of the Official Plan by establishing detailed land use designations, phasing and development policies to guide the future development of the Green Lane Secondary Plan Area. It provides a concept plan and urban design guidelines for the Green Lane Corridor, which is intended to grow as a complete and compact community, focused on a series of higher density centres connected by vibrant streets and public transit. |
| Holland Landing Secondary Plan 2022 | This document aims to implement the policies of the Official Plan by establishing detailed land use designations, phasing and development policies to guide the future development of the Holland Landing Secondary Plan Area. It provides an updated collector network around Holland Landing community. |
| Highway 404 Employment Corridor Secondary Plan 2020 | This plan contains detailed policies to guide employment growth along Hwy 404 north of Green Lane, identified as the Highway 404 Employment Corridor in Town's Official Plan. It ensures appropriate lands are available for employment development to accommodate the future growth pattern. |

# 3 Public Consultation

As part of the Municipal Class Environmental Assessment Process (**Section 1.4**), public engagement is a requirement so that results from this study can be used as input into subsequent environmental assessments.

The TMP was initiated on November 23, 2016 for the 2041 study horizon through a Notice of Study Commencement. However, due to unforeseen delays which put the study on pause for approximately a year, the notice was reissued on November 9, 2017. An updated Notice of Study Commencement was issued in January 2023 to accommodate new land use projections to the 2051 horizon as a result of the Town's 2022 Official Plan Review.

## 3.1 Public Information Centres

To engage the public, the study team hosted three (3) Public Information Centres (PIC) throughout the course of the project. To maximize attendance at both PICs and to mitigate consultation fatigue from the public, a joint transportation and water and wastewater PIC was held for each session. The second PIC also coincided with the Town's open house – an annual event held by the Town to welcome new residents and inform them of all the services provided by the Town.

### 3.1.1 Purpose of PICs

The first PIC was held in the evening on March 22, 2018 at the East Gwillimbury Sports Complex in Sharon. The purpose of the first PIC was to:

- Introduce the TMP and provide information regarding the planned growth and the planning context;
- Illustrate the existing conditions of the Town, including travel patterns, mode share, transit demand, and active transportation level of service;
- Obtain feedback on the draft vision statement and inquire with residents on traffic congestion and where they see gaps or opportunities in the active transportation network;

The second PIC was held in the evening on April 10, 2019 at the East Gwillimbury Civic Centre in Sharon. The intent of the second PIC was to:

- Exhibit the TMP planning strategies which address the problems and opportunities and to obtain feedback on these scenarios;
- Present the recommended road, pedestrian, cycling, and transit networks;
- Present the evaluation of the scenarios; and

- Obtain feedback on how to prioritize sidewalk and what residents think of roundabouts.

A presentation to Town Council was also held on October 8, 2019 to summarize the draft recommendations for the 2041 horizon. The public was able to attend and provide comments on the material presented.

The third PIC was held in the evening on April 26, 2023 at the East Gwillimbury Civic Centre in Sharon. The intent of the third PIC was to:

- Provide an update status of the work being undertaken since the study commenced in 2017 to accommodate land use growth projects to the 2051 horizon year;
- Present the updated road, pedestrian, cycling, and transit network which includes expansion into the Whitebelt lands; and
- Obtain feedback on the revised transportation networks.

### 3.1.2 Findings

A total of 23 people signed into PIC 1, 24 people signed into PIC 2, and 33 people signed into PIC 3. Several attendees at all PICs did not sign in, however they did review the material and chat with the study team.

Attendees at these events were encouraged to provide feedback through a public comment sheet, or could e-mail / call the study team at their convenience. General feedback from the forms is summarized as follows.

- **Better access to transit**: attendees noted that they are in favour of more transit routes throughout the neighbourhoods. Through a comment form, it was noted that a resident would like to see a pilot project in conjunction with York Region Transit (YRT) to implement micro transit within the Town. The resident cited a desire for easier travel and shorter travel times.
- **More active transportation infrastructure**: attendees spoke about the need for comprehensive bike and walking trails in the community areas to increase mobility and to access services, including the community centre, commercial stores, and the post office.
- **Construction of the Highway 400-404 Link**: many attendees spoke about congestion on the road network, including traffic access Highway 404 from Highway 400 in the morning, which is known to cause congestion on Highway 11, Yonge Street, and Green Lane Road. Residents inquired about the status of the Highway 400-404 Link and are eager for progress on the project.

All comment sheets from PICs are provided in **Appendix A.**

# 4 Transportation System Context

This chapter documents the regional context, land use and demographics, existing transportation infrastructure, current levels of travel demand, its characteristics and influencing factors, and travel conditions observed on the existing transportation network in the Town.

## 4.1 Regional Context and Connectivity

The Town of East Gwillimbury is situated within the Regional Municipality of York in the Greater Toronto Area (GTA). It is bordered by the Town of Georgina to the north, the Town of Uxbridge to the east, the Towns of Newmarket and Whitchurch-Stouffville to the south, and the Township of King and the Town of Bradford West Gwillimbury to the west.

The Town is connected to the rest of the GTA and Simcoe County via the provincial highway and regional road network. Commuter rail and bus service connects the Town via transit to the City of Toronto to the south and the City of Barrie to the North. **Figure 4-1** illustrates the Regional context for the Town.

The Town of East Gwillimbury is further connected to its neighbours via the Regional Road network and local YRT transit service supplementing the provincial networks (**Figure 4-2**).

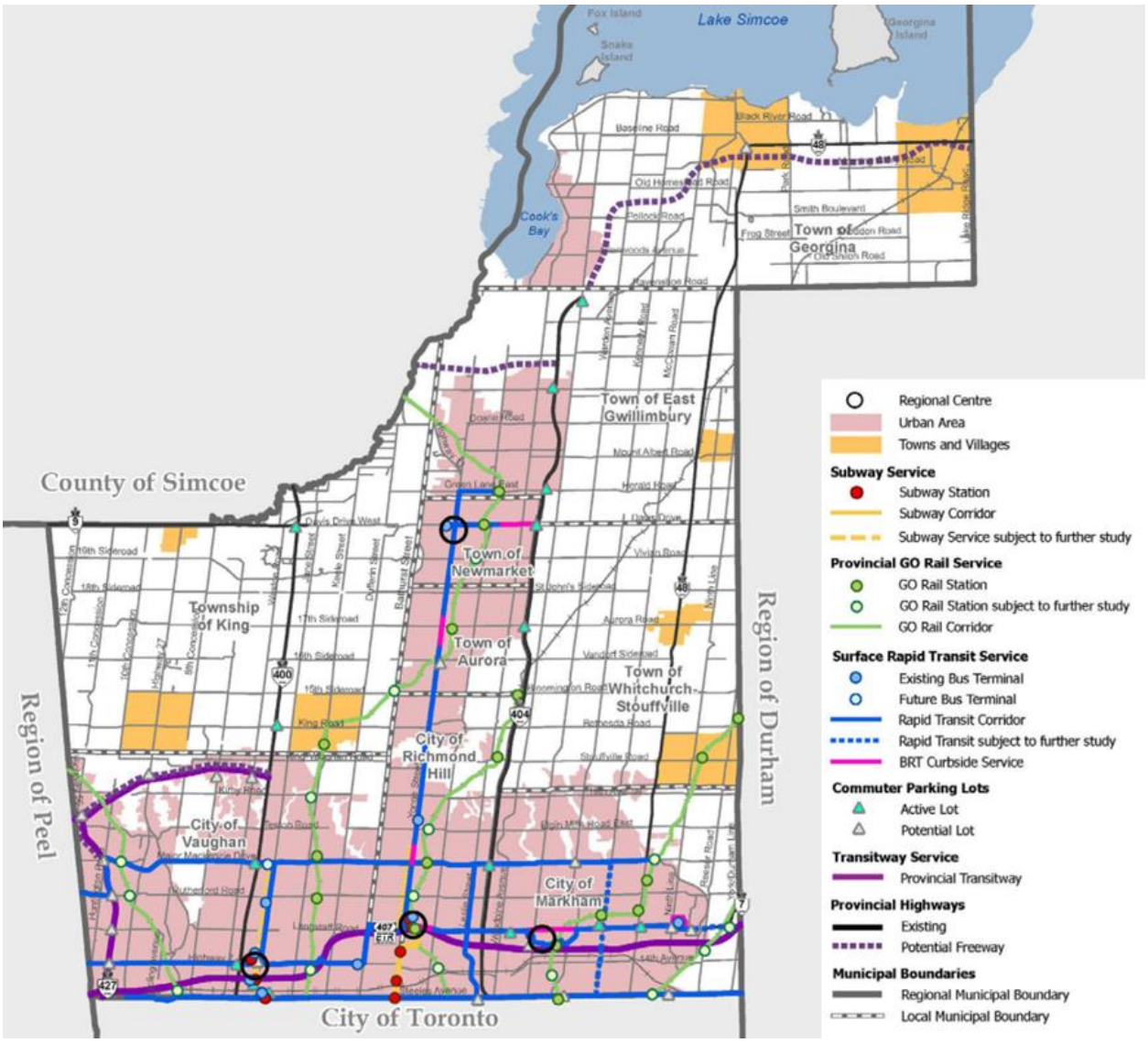
Provincial highways serving the Town of East Gwillimbury include Highway 404 and Highway 48, the former of which currently terminates within the Town's boundaries. However, the potential Highway 404 extension project is expected to connect the Town to further north.

In addition to the highway network, the Town is well connected to the north and south via the Regional Road network. There are numerous north-south arterial and collector roads that connect York Region as a whole. This includes Yonge Street, Leslie Street, Woodbine Avenue, Warden Avenue, McCowan Road, and York Durham Line. There are also several east-west arterial and collector roads that connect the Town of East Gwillimbury to Durham Region and the rest of York Region, including Mount Albert Road, Green Lane / Herald Road / Sandford Road, and Davis Drive. These routes act as a grid network and provide network redundancy.

The current main connection to the west is through Highway 11 which connects the Town to the urban area of Bradford West-Gwillimbury. However, as mentioned previously, the Bradford Bypass is a potential east-west connection that would improve connectivity to the west.

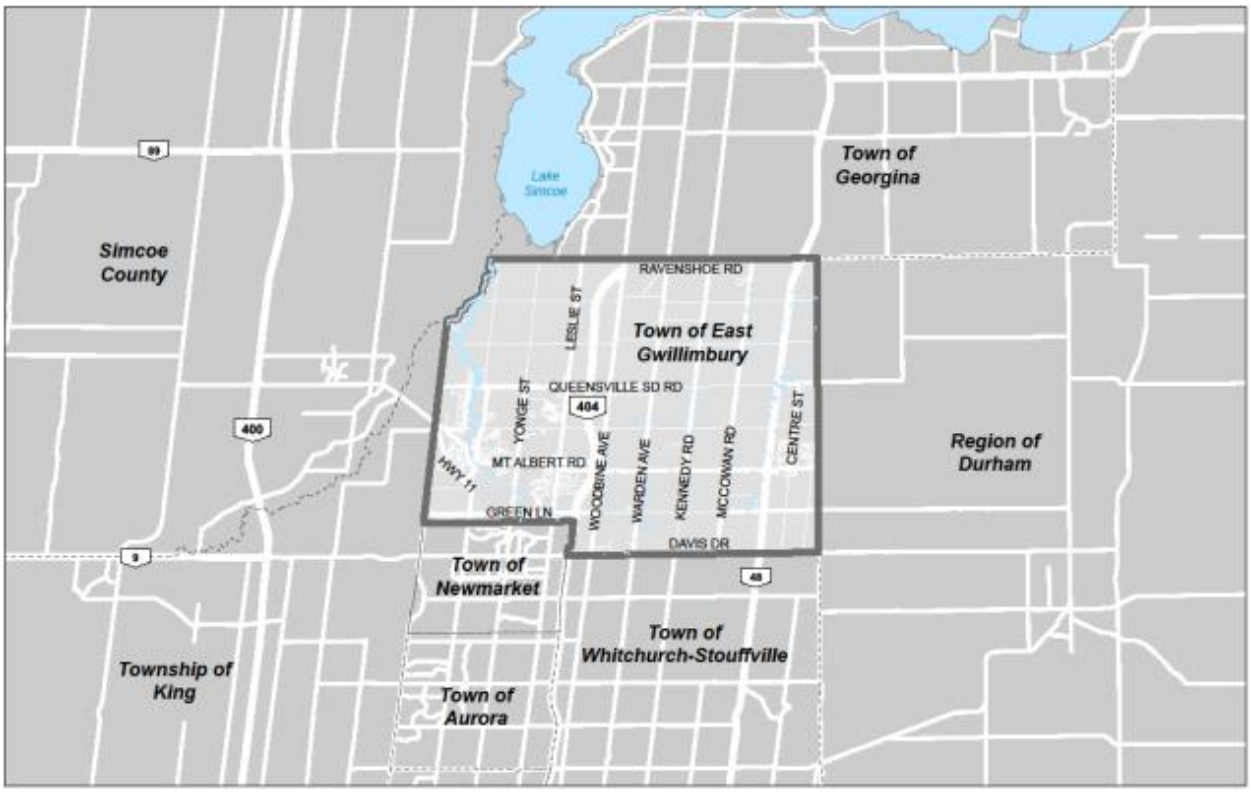
The current transportation system is discussed further in **Section 1.1.**

## Figure 4-1: Regional Context




Source: York Region Official Plan (2022)

**Figure 4-2: Connectivity with Surrounding Municipalities**




# 4.2 Land Use and Demographics

## 4.2.1 Existing Land Use

The Town of East Gwillimbury is a mix of urban and rural area that is primarily composed of agricultural land from the protected countryside of the Ontario Greenbelt and the Oak Ridges Moraine. There are eight communities with the Town: River Drive Park, Holland Landing, Queensville, Sharon, Green Lane West, Mount Albert, Brown Hill, and Holt. The communities of Holland Landing, Queensville, Sharon, Green Lane West, and Mount Albert have a Secondary Plan Area with specific designations and land uses.

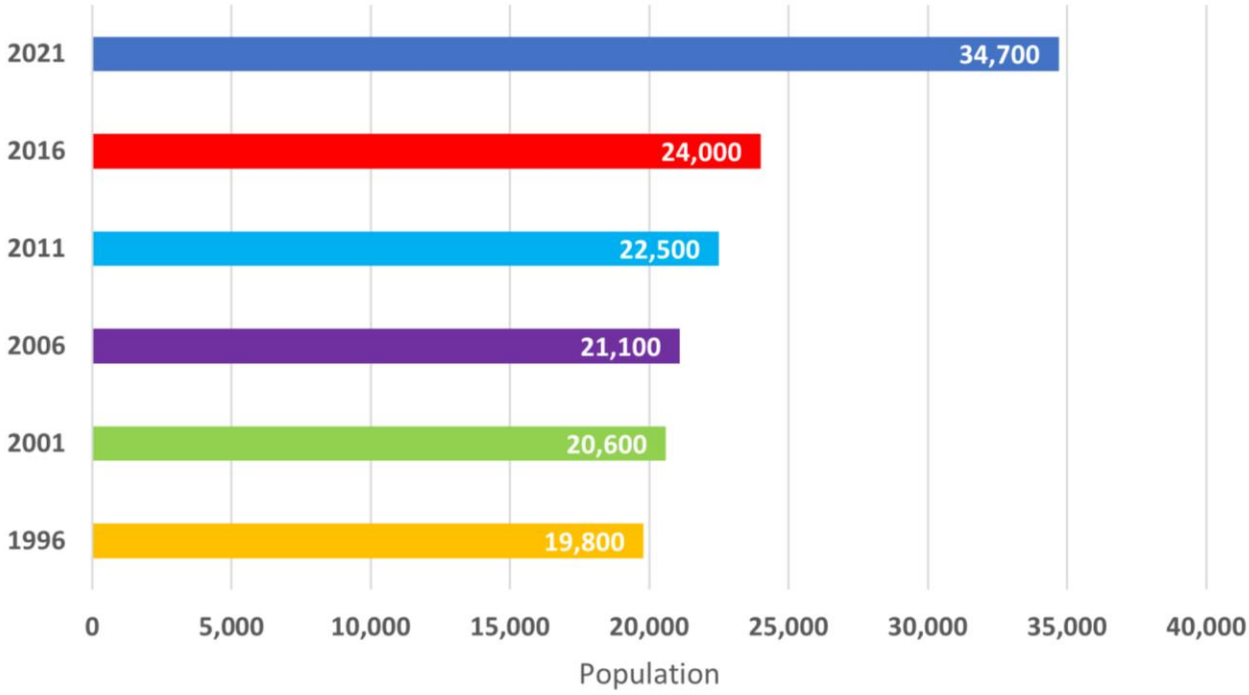
These communities are mainly composed of residential neighbourhoods but there are also several employment areas located within the Town in the communities of Holland Landing, Sharon, Queensville, and Mount Albert.

## 4.2.2 Population Trends

Travel behaviour and needs are influenced by historic trends in population and employment, as well as land use growth. Census information from Statistics Canada, including the most recent 2021 Census, was extracted to

identify population trends. **Figure 4-3** shows the historic population for the Town.

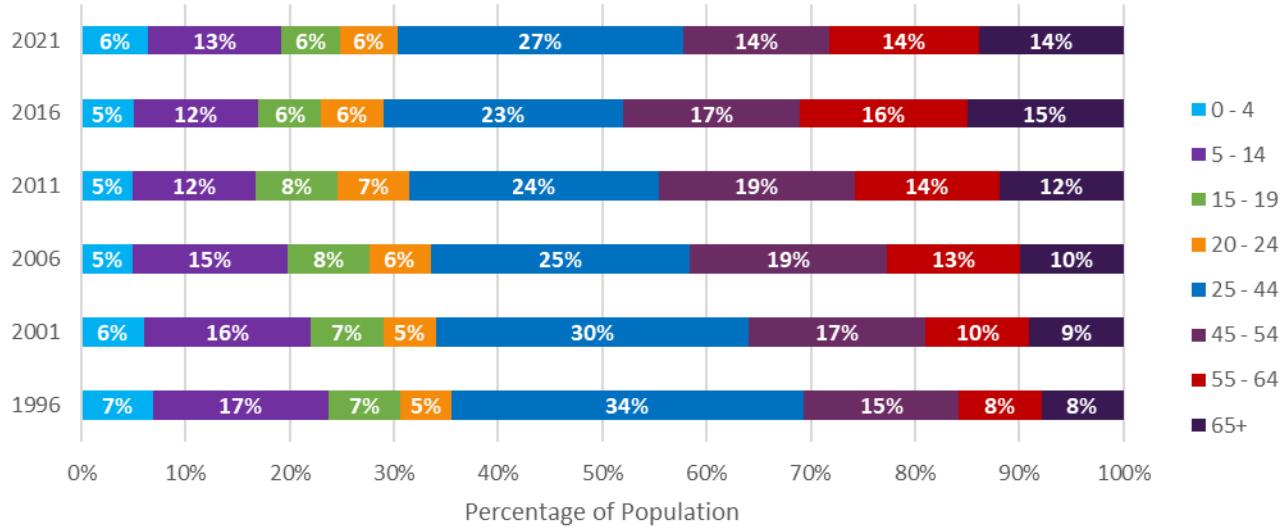
### Figure 4-3: Population Growth (1996-2021)




The population of East Gwillimbury has grown from 19,800 in 1996 by 75% to 34,700 in 2021. The population of East Gwillimbury increased by around 7% per annum from 1996 to 2016 and has significantly grown by around 45% since 2016 to 2021. While historic growth in the Town has been limited, the extension of Highway 404 and other infrastructure improvements have spurred significant levels of development, with ongoing home construction primarily in Holland Landing, Sharon, Queensville, and Green Lane West.

**Figure 4-4** shows the demographic shift (population by age) over the past 25 years. While population by age has remained fairly stable especially between 1996 and 2016, there is evidence of an aging community. The 45+ age range grew by 11% as many baby boomers started to reach their 50s while the 25 – 44 age range shrank from 34% to 27%. However, it is noted that in 2021, for the first time, the population in 0 – 4 and 25 – 44 age ranges increases and the 45+ age range decreases compared to the past five years.

## Figure 4-4: Population by Age (1996-2021)




Source: Census Canada, 1996-2021

Population density has also steadily increased from 2001 to 2016 and significantly increased over the past five years from 97.9 persons per square kilometer in 2016 to 141.4 persons per square kilometer in 2021. Proportional to the population growth, the bulk of the growth occurred between 2016 and 2021 where density experienced a nearly 45% increase.


Source: Census Canada, 2001-2021

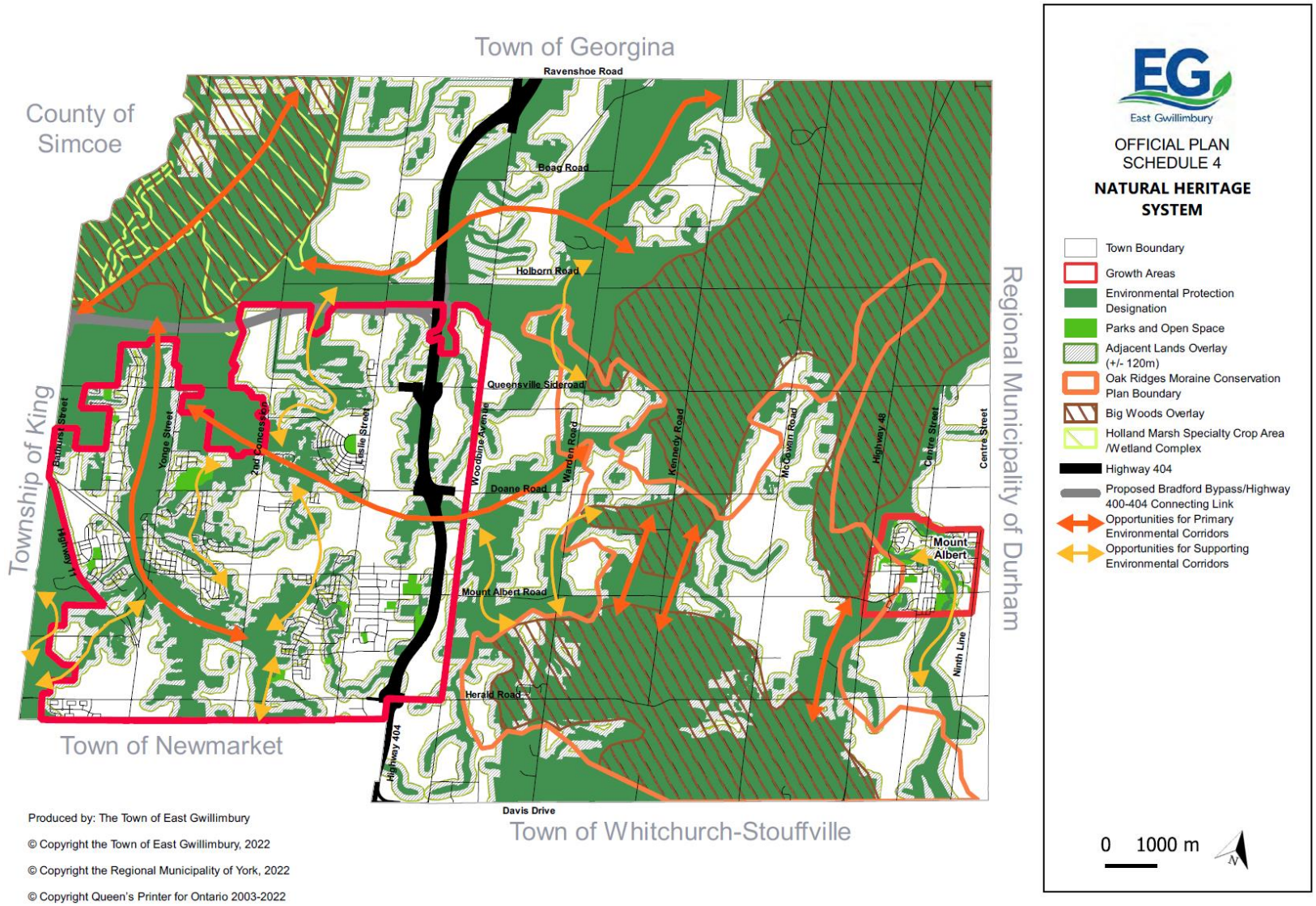
Both the aging population and the increased density within the Town are indicators of the need to ensure that the communities within the Town are accessible, safe, and walkable, in keeping with the Town's Community Vision.

## 4.3 Environmental Context and Constraints

The Town of East Gwillimbury is rich with natural environmental features and is part of the Greenbelt Natural Heritage System and the Oak Ridges Moraine (ORM). The Oak Ridges Moraine (ORM) and Greenbelt Plan areas are home to key hydrologic and natural heritage features. **Figure 4-5** illustrates the environment features of the Town, specifically the Town's Natural Heritage System. The green illustrates the Core Areas of the Heritage System as the most significant natural heritage features. Outside of the existing Secondary Plan Areas, which encompass Holland Landing, Queensville, Sharon, and Mount Albert, new developments requires special permits as the area is marked as Protected Country of the Greenbelt and is home to the Oak Ridges Moraine. **Figure 4-6** illustrates the ORM Conservation Plan Area, a protected area that has significant valley lands, woodlands, and wildlife habitat It is home to the habitats of threatened, endangered, and rare species.

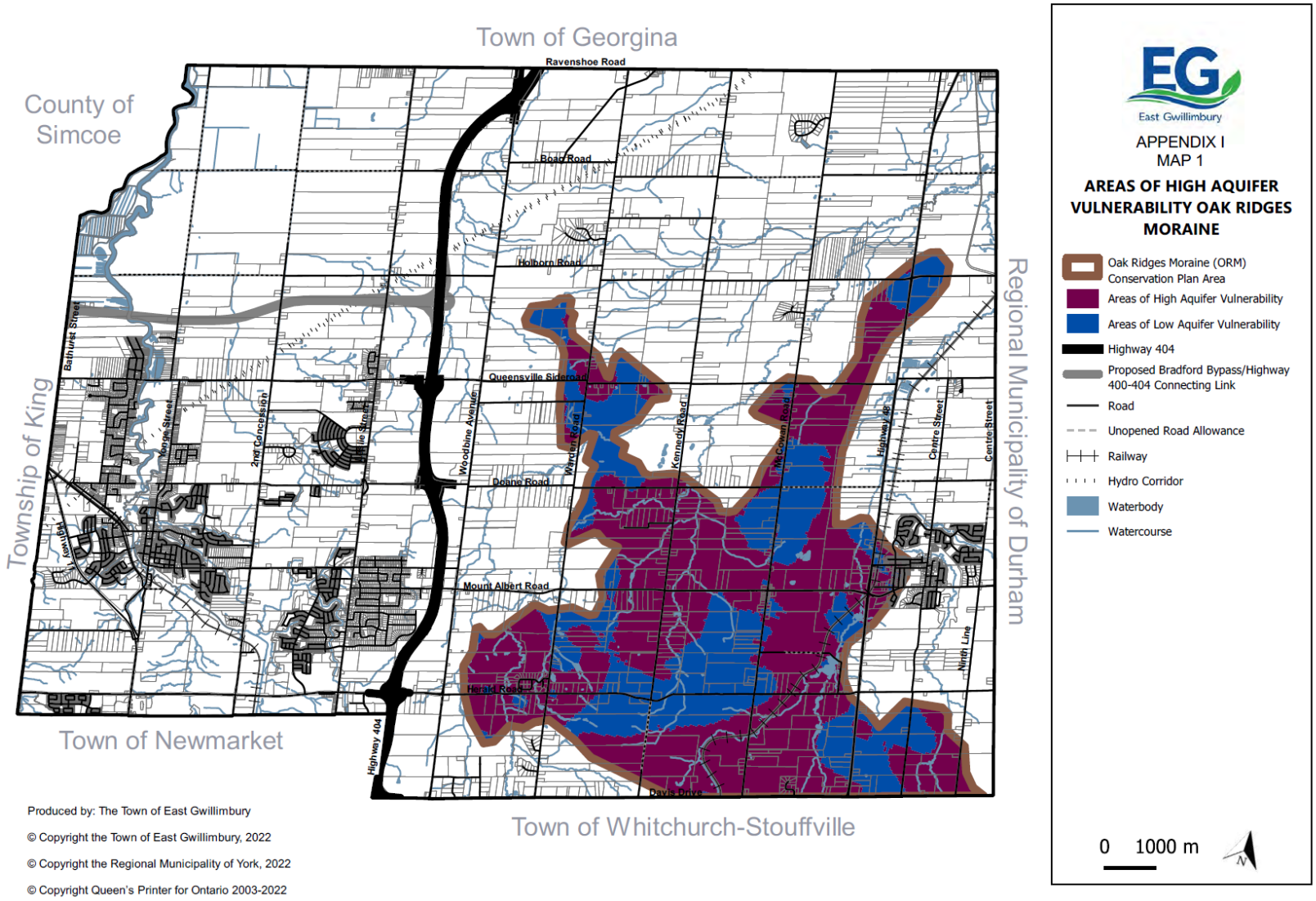
Mitigating impacts to environmental features will be a key consideration for expanding the network to accommodate growth in East Gwillimbury.

## Figure 4-5: 2022 Official Plan Review Schedule 4 – Natural Heritage System




Source: Town of East Gwillimbury 2022 Official Plan Review – Schedule 4

## Figure 4-6: Official Plan Schedule D-2 – Oak Ridges Moraine




Source: Town of East Gwillimbury 2022 Official Plan Review – Map 1

## 4.4 Existing Transportation Network

The Town of East Gwillimbury's transportation network in the context of the surrounding areas was discussed previously in **Section 4.1**. The following sections provide additional detail on the network within the Town.

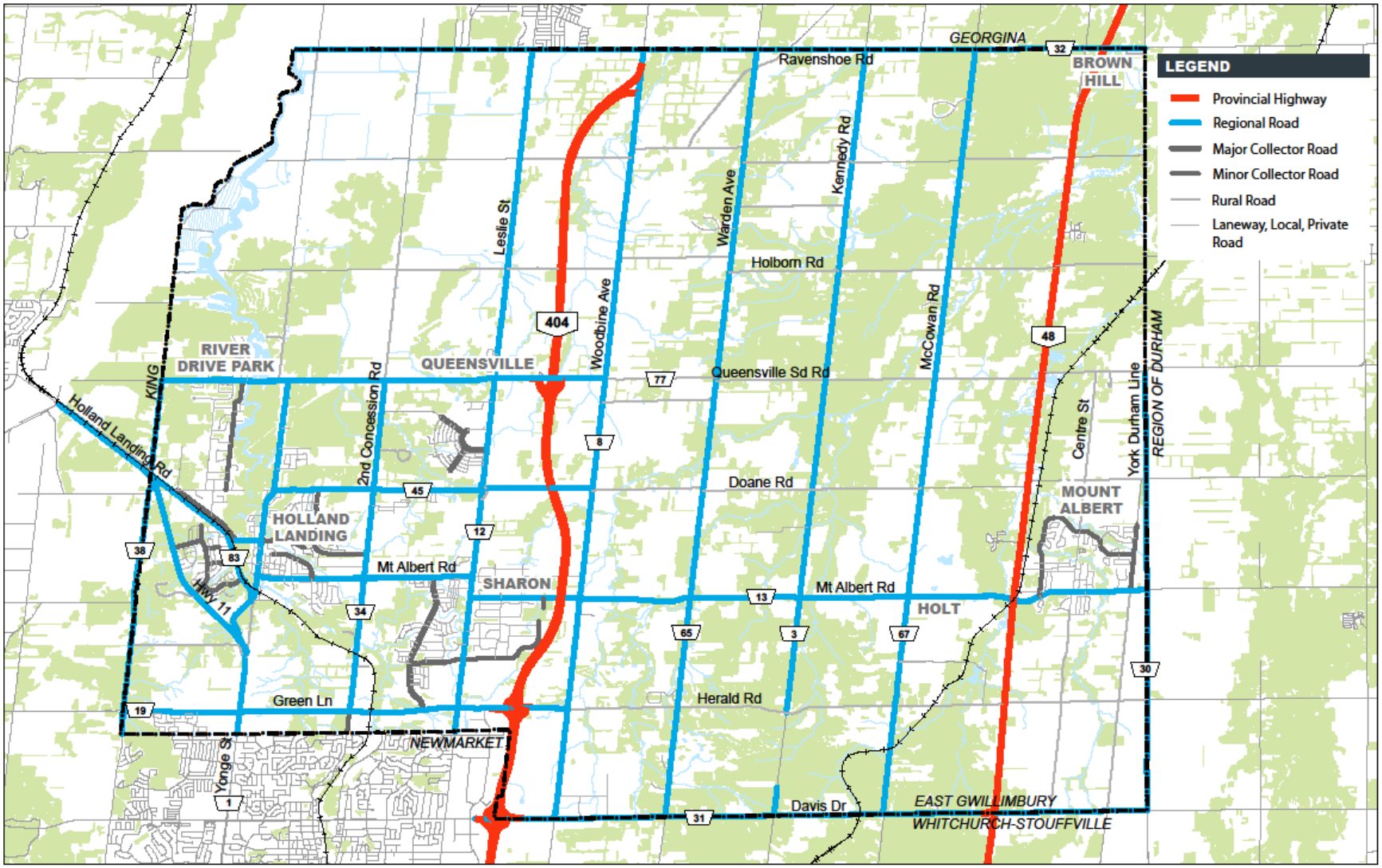
### 4.4.1 Road Network

The Town of East Gwillimbury is served by a grid-based road network comprised of provincial highways, Regional Roads, minor collector, rural, and local roads. **Figure 4-7** illustrates the current road network and road designations.

Highway 404 and Highway 48 are the two provincial roadways within the Town and provide high speed and capacity travel to, from and through the Town. Highway 404 is a north-south 400-series Highway that connects the Town of East Gwillimbury to southern York Region and the City of Toronto. In the Town, the Highway spans four lanes and has four interchanges, including the northern terminus of the Highway at Woodbine Avenue near Ravenshoe Road. The other interchanges are located at Queensville Sideroad, Green Lane East and Davis Drive. MTO Carpool lots are located next to each of the interchanges. Highway 48 is a rural north-south provincial Highway and has a span ranging from two to three lanes throughout the Town. It runs north to Lake Simcoe and connects to Highway 12. To the south, it passes through the Town of Whitchurch-Stouffville and the City of Markham ultimately providing another connection to the City of Toronto.

A new interchange at Doane Road and Highway 404 was partially constructed, but construction is currently on hold. This new interchange is included as a 2032-2041 project in the Region's 2051 Development Charges (DC) Background Study (May 2022) but was not included in the Region's 2023 10-Year Roads and Transit Capital Construction Program (February 2023). It is assumed the interchange will be included as part of the road network by 2051.

## Figure 4-7: Existing Road Network



York Region maintains several Regional Roads in the Town. These include the north-south arterials of York Durham Line, McCowan Road, Kennedy Road, Warden Avenue, Woodbine Avenue, Leslie Street, 2nd Concession Road (southern border to Queensville Sideroad), Yonge Street (excluding Old Yonge Street and north of Queensville Sideroad), Holland Landing Road, Highway 11, and Bathurst Street (southern border to Queensville Sideroad). The east-west Regional Roads include Davis Drive, Green Lane, Mount Albert Road, Doane Road (western border to Woodbine Avenue), Queensville Sideroad (western border to Woodbine Avenue), Bradford Street, and Ravenshoe Road.

The role and function of each of the roadways is defined within the Town's Official Plan. Road classifications are summarized in **Table 4-1**.

### Table 4-1: Function of Road Facilities

| Road Classification | Function | Design Requirements |
|---|---|---|
| Provincial Freeways and Controlled Access Highways (400 series highways) | • Serve inter-regional travel demands including goods movement and heavy transport | • To the satisfaction of the Ministry of Transportation or any other authority having jurisdiction<br>• Shall accommodate Community Trail Linkages<br>• Carpool lots and commuter facilities to be provided at interchanges |
| Provincial Highway 48 and Regional Arterial Roads | • Serve inter-regional and regional travel demands, including movement of heavy trucks<br>• Carry large volumes of traffic<br>• Connect Collector and other Arterial roads<br>• Accommodate higher order transit | • Provincial highways to the satisfaction of the Ministry of Transportation or any other authority having jurisdiction<br>The following pertain to Arterial Roads:<br>• High degree of access control, especially in rural areas, with direct access from abutting properties discouraged;<br>• Maximum 6 travel lanes;<br>• Right-of-way width up to 45 metres, in accordance with Regional standards;<br>• Where transit is proposed, right-of-way width may be in excess of 36 metres;<br>• Pavement width 11 to 22 metres excluding turning lane requirements;<br>• Where transit is proposed, pavements widths may be in excess of 22 metres; |

| Road Classification | Function | Design Requirements |
|---|---|---|
| | | • Sight triangles 30 metres x 30 metres at intersections with highways and other arterials and 15 metres x 15 metres at all other roads<br>• Bicycle lanes provided in accordance with YR's Pedestrian and Cycling Master Plan<br>• Sidewalks on both sides of the road in urban areas |
| Major Collector Roads | • Serve local travel demands between Secondary Plan Areas<br>• Carry medium volumes of traffic<br>• Provide connection between Arterial Roads<br>• Accommodate transit | • Access restricted with direct access from abutting properties discouraged<br>• Maximum 4 travel lanes<br>• Right-of- way width 23 to 26 metres<br>• Pavement width maximum 10-15 metres<br>• Sight triangles 30 metres x 30 metres at intersections with highways; 15 metres x 15 metres at intersections with arterials and collectors; and 5 metres x 5 metres at intersections with local roads<br>• Bicycle lanes provided<br>• Sidewalks on both sides of the road |
| Minor Collector Roads | • Serve local travel demands within Secondary Plan Areas<br>• Carry medium volumes of traffic<br>• Provide connections between Major Collector and Local Roads<br>• Accommodate local transit | • Direct access from abutting properties permitted<br>• Right-of- way width 20 to 23 metres<br>• Pavement width maximum 10-15 metres<br>• Sight triangles 30 metres x 30 metres at intersections with highways; 15 metres x 15 metres at intersections with arterials and collectors; and 5 metres x 5 metres at intersections with local roads<br>• Sidewalks on both sides of the road<br>• Bicycle lanes provided where appropriate |
| Local Roads | • Intended for local traffic only<br>• Serves residential neighbourhood and employment area travel demands; | • No access control with the exception of safety related restrictions<br>• Direct connection with Arterial Roads shall be discouraged<br>• Maximum 2 travel lanes<br>• Right-of-way width 20 metres, however, reduced standards may be |

| Road Classification | Function | Design Requirements |
|---|---|---|
| | • Connect to Collectors and Arterials | established for residential areas or increased in employment areas<br>• Pavement width max. 8.6 metres (in residential areas) to 12 metres (in employment areas)<br>• Sight triangles at intersections with collectors and other local streets:<br>• 5 metres x 5 metres in residential areas<br>• 10 metres x 10 metres in employment areas<br>• Sidewalks on at least one side of the road. In certain circumstances, sidewalks may be required on both sides of the road (i.e. near schools, parks, along transit routes) |
| Rural Roads | • Serves rural areas<br>• Connect to Collectors and Arterials | • No access control with the exception of safety related restrictions<br>• Generally, maximum 2 travel lanes<br>• Right-of-way width 20 metres<br>• Pavement width max. 8.6 metres (in residential areas) to 12 metres (in employment areas)<br>• Sight triangles at intersections with collectors and other local streets:<br>• 5 metres x 5 metres in residential areas<br>• 10 metres x 10 metres in employment areas |

Source: Town of East Gwillimbury Official Plan (2018 Consolidation)

Refinements to these definitions should be considered through the development of this TMP to encourage and promote the Town's vision for livable, safe, and accessible communities.

### 4.4.2 Active Transportation

The Town of East Gwillimbury's active transportation network focuses on non-motorized travel and includes infrastructure for pedestrians and cyclists, including walkways, trails, multi-use trails, bicycle paths, and on-road signed bicycle routes.

#### Pedestrian Infrastructure

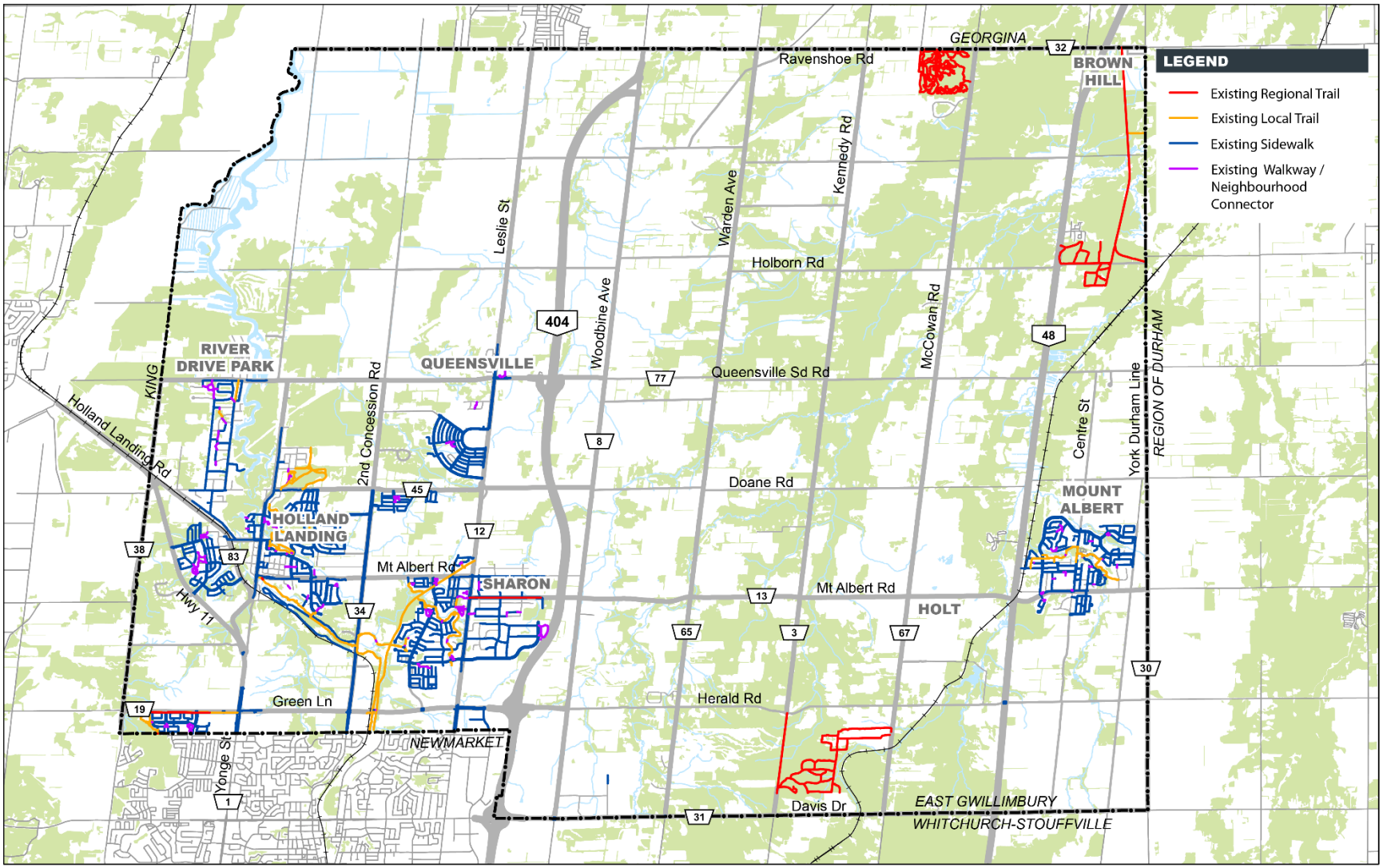
**Figure 4-8** illustrates the locations of pedestrian facilities throughout East Gwillimbury. Generally sidewalks are found in the communities of Holland Landing, Queensville, Green Lane West and Sharon in the west end and Mount Albert in the east end. The existing pedestrian infrastructure has several gaps and does not connect the communities of the Town.

#### Cycling Infrastructure

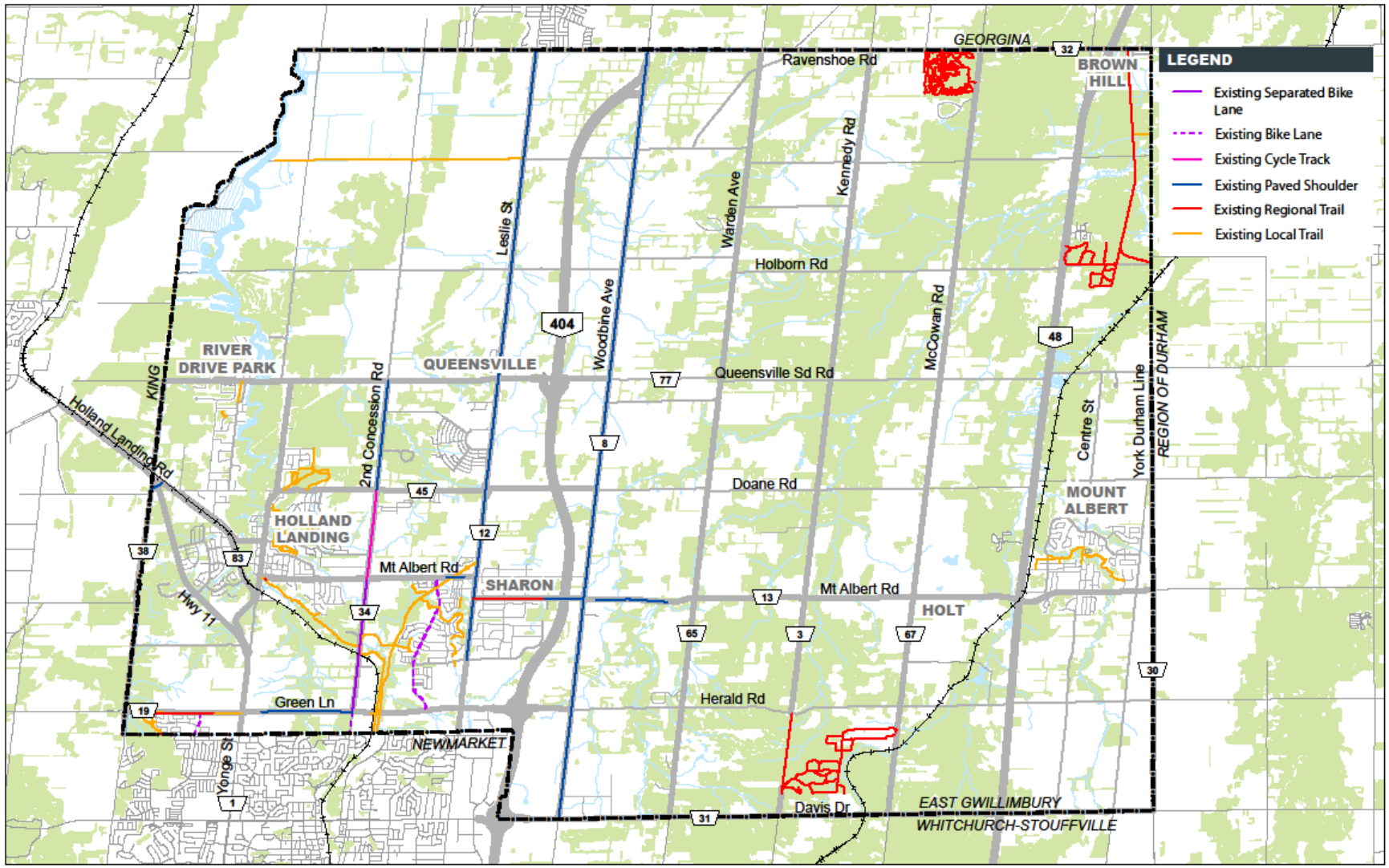
**Figure 4-9** illustrates the cycling network in East Gwillimbury. The majority of the network comprises of unsigned bike routes that are designated as shared roadways. There are also several recreational trails that explore the natural areas of Holland Landing Conservation Area, the Ravenshoe Forest (Brown Hill Tract), the Zephyr Tract, and the Bendor and Graves Tract. These areas are owned and maintained by York Region.

There are several bike lanes located throughout the Town. A raised separated bike lane is located along 2nd Concession Road between Doane Road and Green Lane and has connections to the Nokiidaa Trail. A separated cycling facility exists on Green Lane between Peggy's Wood Stormwater Pond to the Costco entrance. Sharrows exist on Ninth Line north of Mount Albert Road. Lastly, there are also bike lanes on Murrell Boulevard in Sharon, and Woodspring Avenue and Main Street North from Green Lane south into Newmarket.

## Figure 4-8: Existing Sidewalks and Trails (2021)



## Figure 4-9: Existing Cycling Network (2021)



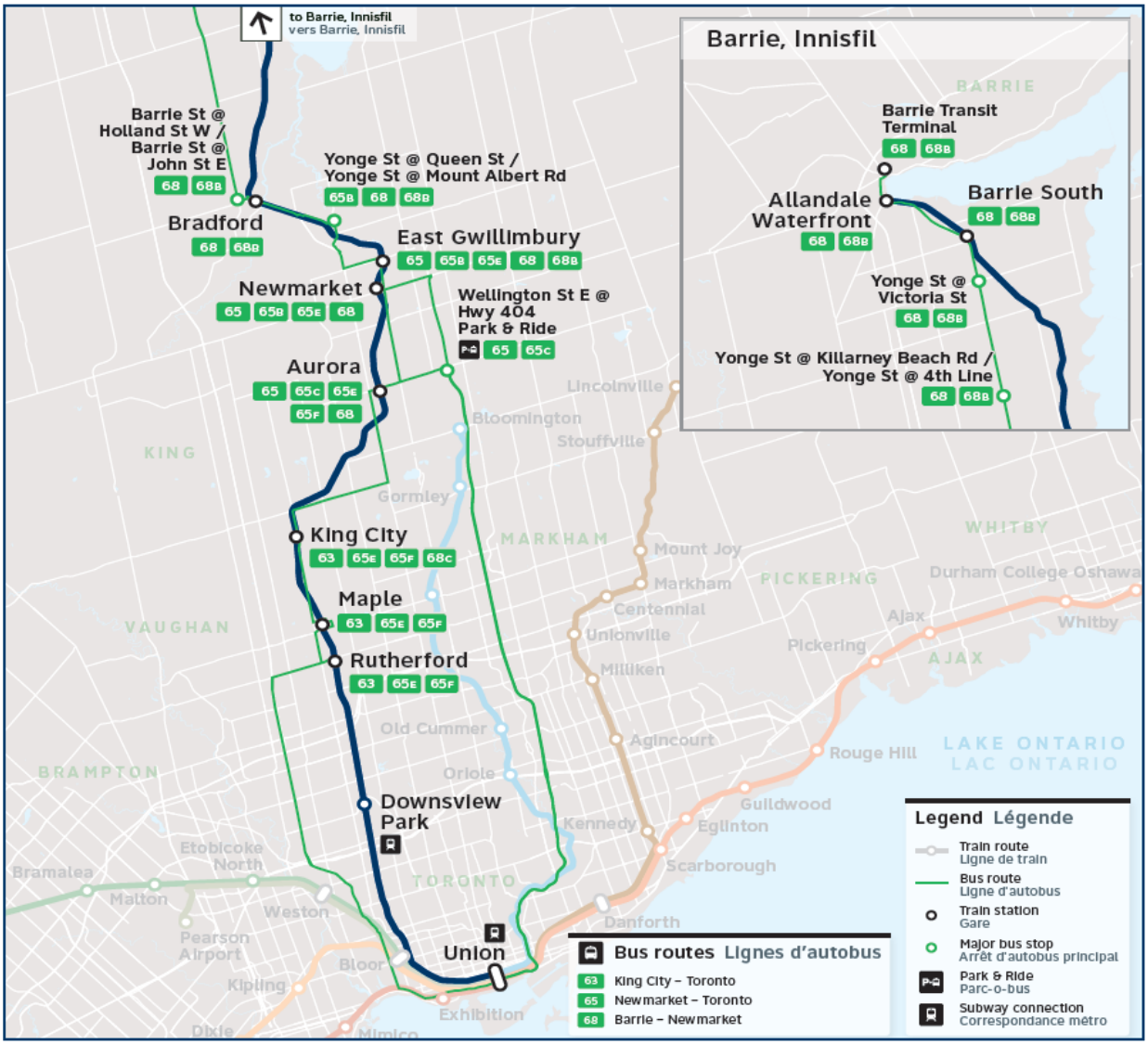
As seen above, the majority of active transportation facilities in the Town serve the communities. However, there is a significant amount of natural environmental areas, open space, and parkland within the Town of East Gwillimbury that lack active transportation connections. In addition, there is little connectivity between the communities and within the smaller communities. The lack of connectivity of sidewalks and bike lanes makes it difficult for pedestrians and cyclists to travel throughout the Town, making Town facilities and services inaccessible by these modes. There are opportunities to provide active transportation connections through the Town of East Gwillimbury.

### 4.4.3 Inter-Regional Transit Services

GO Transit offers inter-regional transit for the Town of East Gwillimbury through a rail line and bus route. These routes provide connections to the City of Toronto, Simcoe County, and other municipalities within York Region.

The East Gwillimbury GO Station is located at the southeast corner of 2nd Concession Road / Main Street North and Green Lane East, at 845 Green Lane East. The Station has bicycle racks, designated carpool parking, “Kiss & Ride” passenger drop off, reserved parking, and a total of 642 parking spaces. The Station also provides wheelchair accessible bus and train service. The GO Station is served by the Barrie GO rail line which connects Union Station in Toronto to Allandale Waterfront in Simcoe County. Trains run during the peak period and only in the peak direction, with 7 trains in the morning from 5:18 to 9:03 and 7 trains in the evening from 13:53 to 18:53. In the off peak hours, there is a bus route operating between East Gwillimbury GO to the Union Station Bus Terminal. Route 65 runs on approximate 30 minute headways and operates between 4:20 and midnight. Weekend service was introduced in December 2016 with Route 65 operating throughout the day in both directions. Train service is available on weekends, with three trains heading towards Union in the morning and three trains heading towards East Gwillimbury at night. **Figure 4-10** illustrates the GO Transit connections to the East Gwillimbury GO Station.

## Figure 4-10: Barrie GO Rail Service and GO Bus Route 65




Source: GO Transit Route Maps, Barrie Line (2023)

In addition to the GO Station, there is a secondary GO bus line that operates within the Town of East Gwillimbury. The Keswick - North York Bus Route 67 is a north-south route that travels on Highway 404 from the TTC Finch Subway Station Bus Terminal to the Woodbine Avenue and Highway 404 Park and Ride Lot (**Figure 4-11**). There are two MTO Carpool Lots within the Town that are also used as bus stops for the route: Queensville Sideroad at Highway 404 and Woodbine Avenue at Highway 404. In addition, there is also a Davis Drive at Highway 404 GO bus stop at the park and ride lot there. The Queensville carpool lot has a capacity of 221 parking spaces and the Woodbine carpool lot has a capacity of 73 spaces. Similar to the Barrie GO Line, the Keswick / North York bus route operates in the peak direction during

the peak period. As of September 2022, in the AM peak period, four buses head southbound with headways ranging from 50 to 60 minutes (5:40 – 8:20). There are five buses heading north at approximately 60-minute headways (15:10 – 19:10).

### Figure 4-11: Keswick / North York GO Bus Route

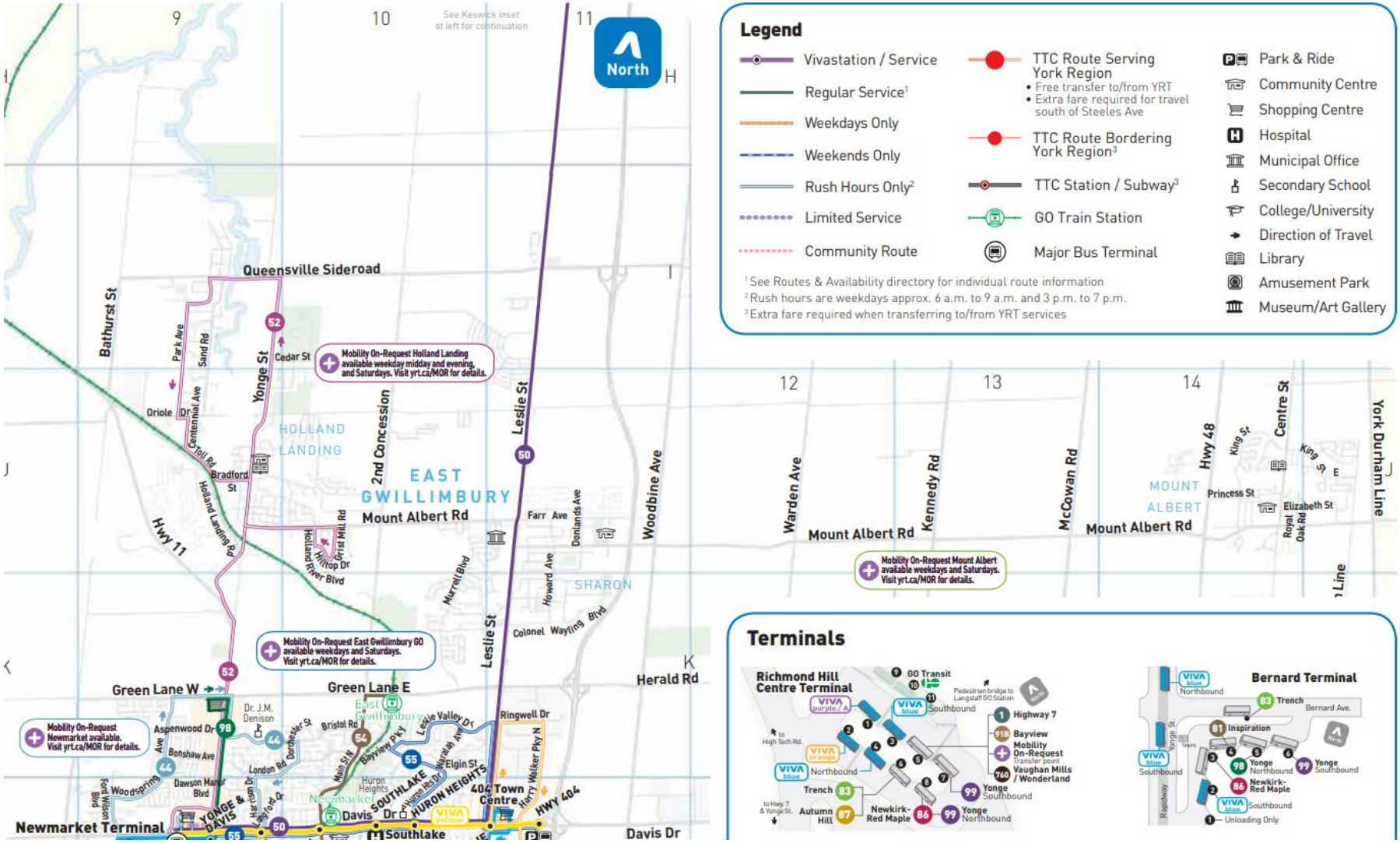

Source: GO Transit Route Maps, Keswick / North York Bus Route (2022)

### 4.4.4 Regional Transit Services

The Town of East Gwillimbury is serviced by York Region Transit (YRT). **Figure 4-12** illustrates the bus services operating within the Town and the routes connecting the Town to neighbouring municipalities.

There are two local routes that serve the communities of Holland Landing and Mount Albert, Route 52 and 58, respectively. Route 58 is currently suspended and replaced by Mobility On-Request service. The local Routes 52 and 58 connect to the Town of Newmarket at the GO Station and 404 Town Centre, respectively, where there are several connections to other routes including the Viva Blue Rapid Transit Corridor. These connections offer services to southern York Region. YRT services also connect the Town to rest of York Region via several major north-south routes. Route 50 connects Newmarket GO Station to Simcoe County and runs along Leslie Street, passing through the communities of Sharon and Queensville. In addition, Route 44 serves the community of Green Lane West and connects to the Newmarket GO Bus Terminal.

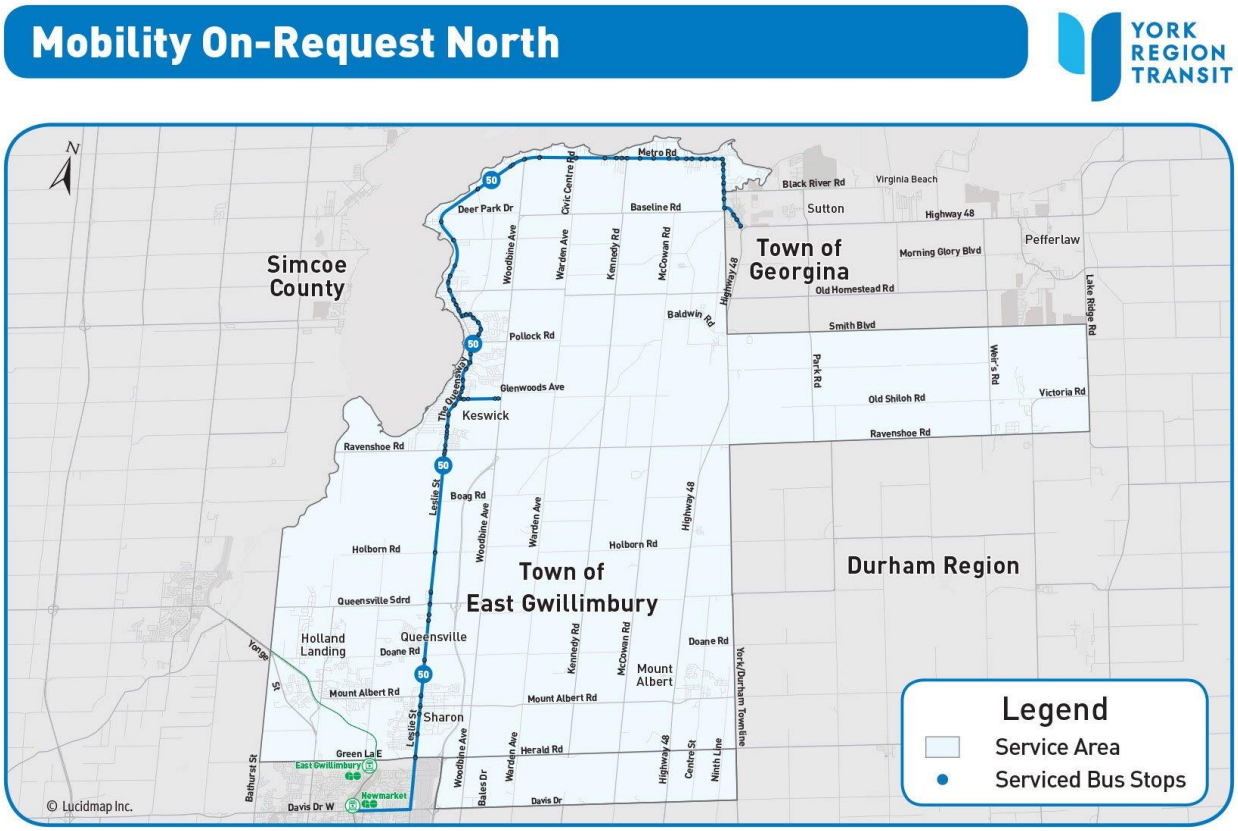
## Figure 4-12: YRT Services within the Town of East Gwillimbury




Source: YRT East Gwillimbury Route Map, April 2023

YRT also provides Mobility On-Request (MOR) services to the northern part of York Region, including the Town of East Gwillimbury. The objective of the service is to connect residents to the closest bus stop for Route 50 - Queensway. The on-request service operates on a first-come, first-served basis with rides being booked in advanced. Marked vehicles pick up passengers within the boundary and drop them off to the closest bus stop. The service operates on weekdays from 7 am to 10:45 pm. **Figure 4-13** illustrates the MOR north service boundary. Besides the MOR North, YRT also offers other Mobility On-Request services in East Gwillimbury including 65+ Service, East Gwillimbury GO, Holland Landing, and Mount Albert.

**Figure 4-13: Mobility On-Request North Service Boundary**




Source: YRT, Dial-a-Ride North (2016)

## 4.4.5 Taxi Service

Taxi service in the Town is limited. The services appear to be mostly limited to bookings only (including limousine bookings). As such, taxi service appears to be reserved primarily for special purposes and events and is not likely to be a viable option for most residents to use on a daily basis. This is seen in **Section 5.2.4**, where there is no mode share for taxi services.

With the increasing popularity of ride-sharing, Uber is a technology-based taxi service that operates in the Town of East Gwillimbury. Users can download the app to their smartphones and see whether there are any cars operating in the Town before requesting a ride. Users can also use Uber to request a ride to the Town. The fare is estimated based on current traffic conditions and user demand.

### 4.4.6 MTO Carpool Parking Lots

The Ministry of Transportation provides free carpool parking lots adjacent to highway interchange ramps throughout Ontario. The Town of East Gwillimbury is served by 3 carpool parking lots, located at the off-ramps of Highway 404 at Woodbine Avenue, Queensville Sideroad, and Green Lane East. These lots do not require permits or registrations, are unsupervised, and allow overnight parking. As mentioned previously, the Woodbine Avenue and Queensville Sideroad lots are also used by the Keswick / North York GO Bus Route 67.

The Woodbine Avenue lot has 73 parking spaces, 5 of which are barrier-free. It is also connected to local transit services via the YRT Bus Route 51 Keswick Local (currently suspended and replaced by MOR) as well as a GO bus route. The Queensville Sideroad carpool lot has 213 spaces and 8 accessible spaces. While it does not have connections to local transit services, it is served by a GO bus route as identified previously. The Green Lane East carpool lot has 142 spaces and 6 barrier-free spaces but does not have connections to local or regional transit services.

### 4.4.7 Goods Movement

The goods movement network in the Town consists of Regional Roads, 400-series highways, and provincial highways. This includes Highway 404, Highway 48, and all Regional Roads unless indicated otherwise.

York Region has year round and seasonal commercial vehicles weight restrictions for specific Regional Roads. The year round restrictions require an Excess Load Permit for commercial vehicles carrying loads heavier than five tonnes per axle. In the Town of East Gwillimbury, Kennedy Road between Mount Albert and Boag Road has a year round commercial vehicle weight restriction.

Several Town Roads have truck restrictions and are marked by a sign. **Figure 4-14** illustrates the truck restriction on Herald Road, east of Woodbine Avenue.

**Figure 4-14: Truck Restriction on Herald Road, east of Woodbine Avenue**


Source: Google Maps

## 4.5 Planned Transportation Network

The 2022 York Region Transportation Master Plan (TMP) was reviewed to determine the future conditions of the transportation network of the Town. The road and transit improvements are proposed to address the Region's growth to 2051 and beyond. An important aspect of the TMP and AT&T Master Plan Updates is to consider the impact of the Regional TMP on the Town and its current plans.

### 4.5.1 York Region Transportation Master Plan

The York Region TMP provides up-to-date information on planned transportation improvements to the Provincial Highway and transit network and Regional Roads, transit, and cycling infrastructure through and surrounding the Town.

#### Road Network

Provincial improvements identified in the York Region TMP include the Highway 404 extension and the Bradford Bypass. The Highway 404 extension to Highways 48 and 12 is part of the York Region Official Plan, but is not included in the Provincial Growth Plan. The Bradford Bypass is a new link between Highway 400 and Highway 404. The ongoing preliminary design

is expected to be completed in 2023 and the Draft Environmental Impact Assessment Report is available for review.

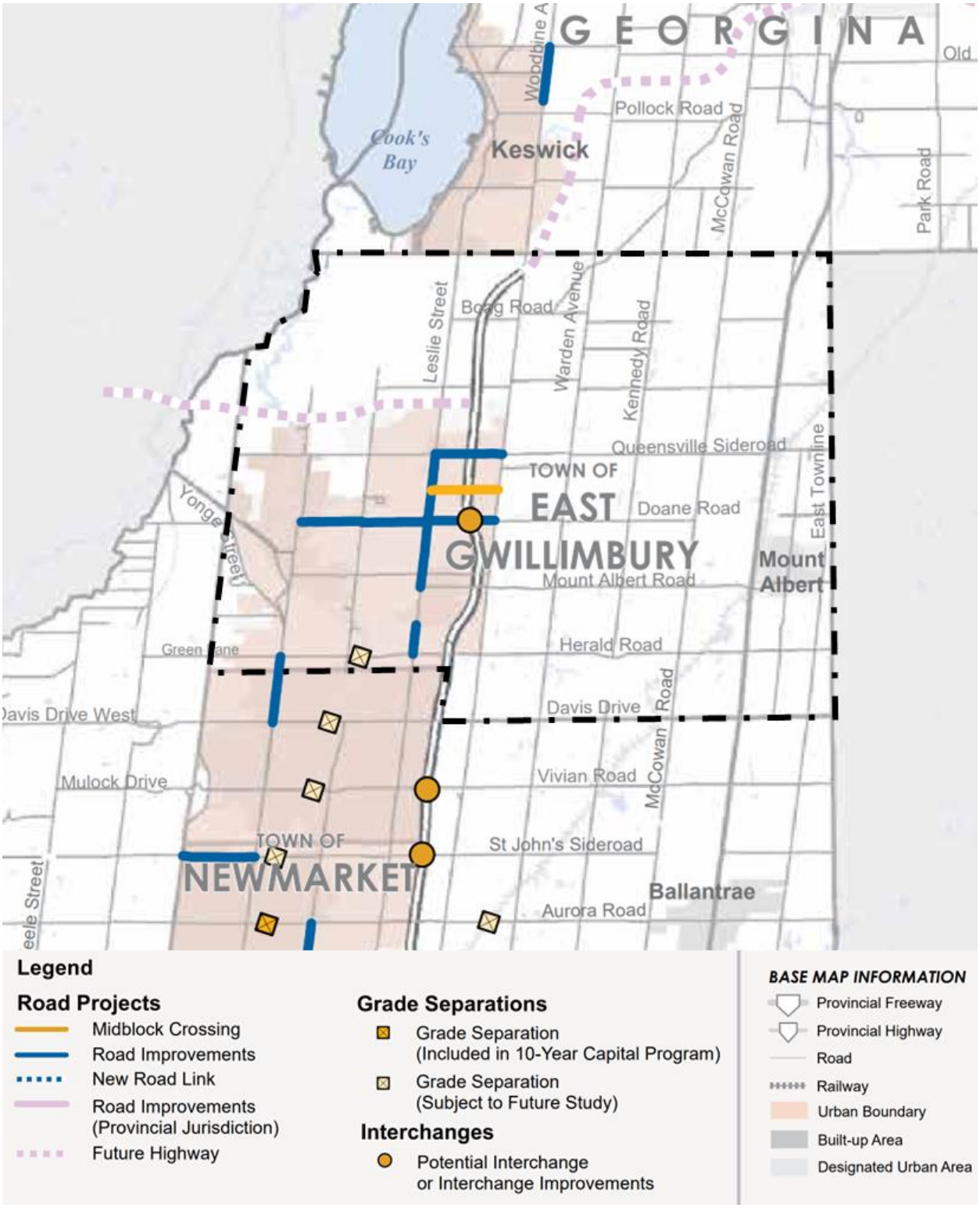
The York Region TMP also identifies several road improvements and future links in the Town of East Gwillimbury:

- Widening up to 4 lanes at Doane Road from Woodbine Avenue to Yonge Street;
- Widening up to 4 lanes at Leslie Street from Mount Albert Road to Queensville Sideroad; •
- Widening up to 4 lanes at Leslie Street from Green Lane to Colonel Wayling Boulevard; •
- Widening up to 6 lanes at Yonge Street from Davis Drive to Green Lane; Bradford Bypass connecting Highway 400 to Highway 404; and •
- Highway 404 North extension, from Woodbine Avenue to Glenwoods Avenue

**Figure 4-15** illustrates the proposed future road network for the horizon year of 2051. These improvements are meant to alleviate congestion, provide improved connectivity, and network redundancy for the Town during its growth, including:

- Midblock Crossing at Highway 404 north of Doane Road;
- Highway 404 Interchange at Doane Road;
- Grade separation of the Barrie GO Rail Line at Green Lane;
- Widening up to 4 lanes at Queensville Sideroad from Leslie Street to Woodbine Avenue;
- Widening up to 4 lanes at Doane Road from Woodbine Avenue to Yonge Street;
- Widening up to 4 lanes at Leslie Street from Mount Albert Road to Queensville Sideroad;
- Widening up to 4 lanes at Leslie Street from Green Lane to Colonel Wayling Boulevard;
- Widening up to 6 lanes at Yonge Street from Davis Drive to Green Lane;
- Bradford Bypass connecting Highway 400 to Highway 404; and
- Highway 404 North extension, from Woodbine Avenue to Glenwoods Avenue.

## Figure 4-15: Proposed 2051 Regional Road Network




Source: York Region Transportation Master Plan (2022)

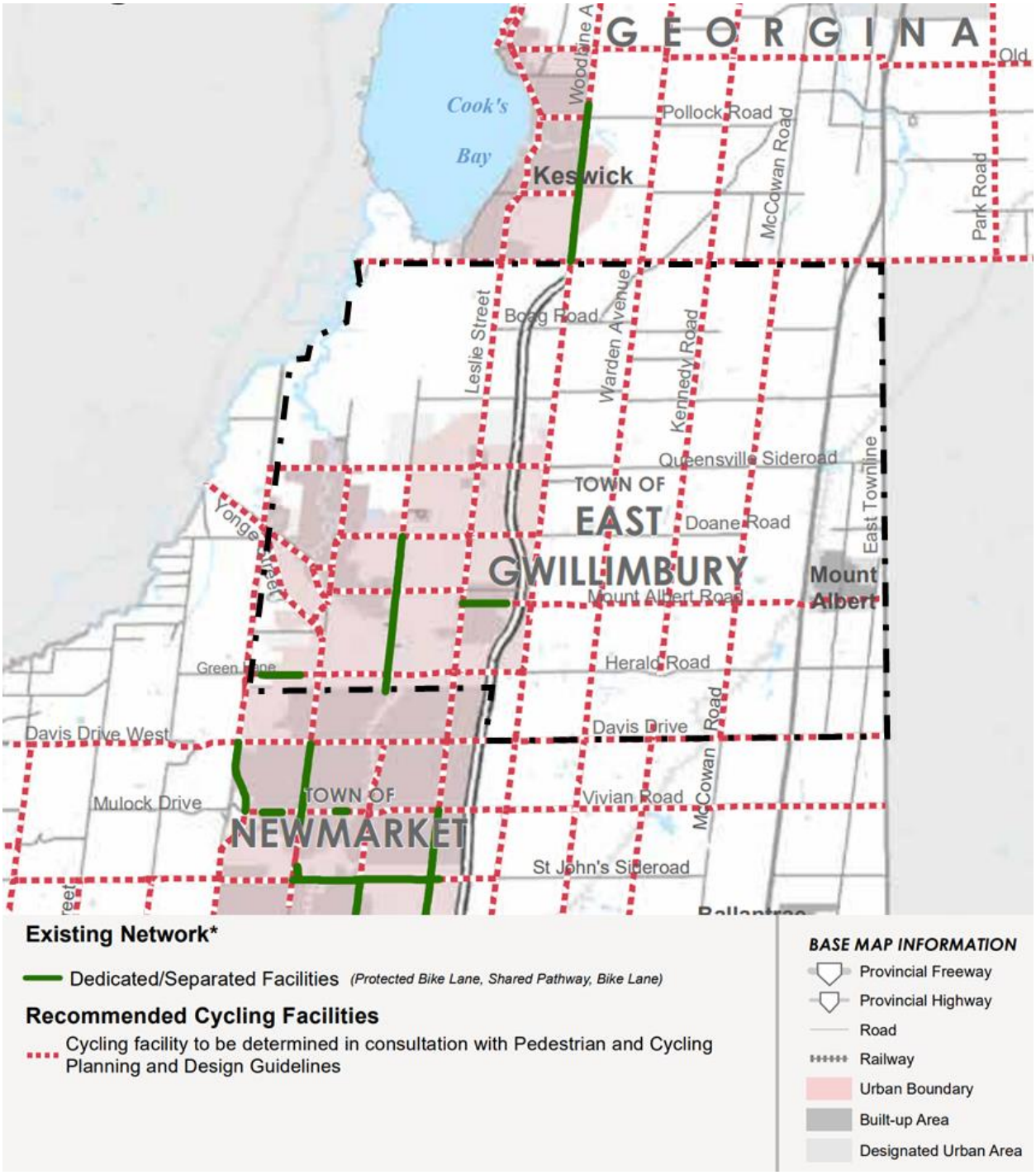
## Active Transportation

As seen in **Section 0**, there are several gaps in the active transportation network. Specifically, there are no pedestrian facilities on the Regional Roads which connect the Town's communities. In addition, there are very few dedicated cycling facilities along Regional Roadways, requiring cyclists to share travel lanes with vehicles.

**Figure 4-16** shows the proposed cycling network for the horizon year of 2051. The objective of this network is to provide safer cycling facilities in the Town though the addition of dedicated or separated cycling facilities.

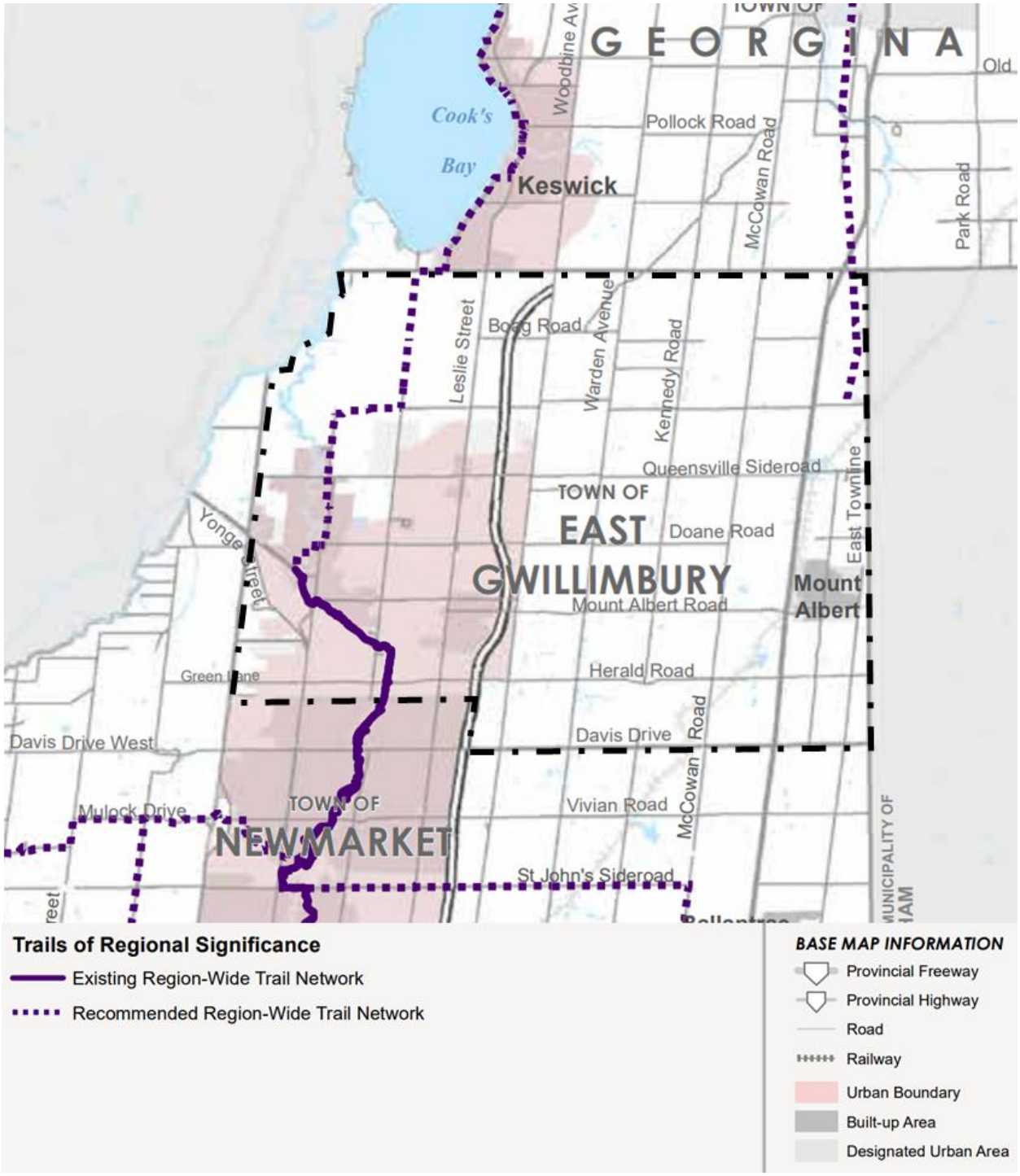
A conceptual Region-wide cycling trail has also been identified and would run through the Town parallel to 2nd Concession Road in northern East Gwillimbury and Yonge Street in the southern East Gwillimbury, as shown in **Figure 4-17**.

## Figure 4-16: Proposed 2051 Regional Active Transportation Network




Source: York Region Transportation Master Plan (2022)

## Figure 4-17: Proposed 2051 Regional Trail Network

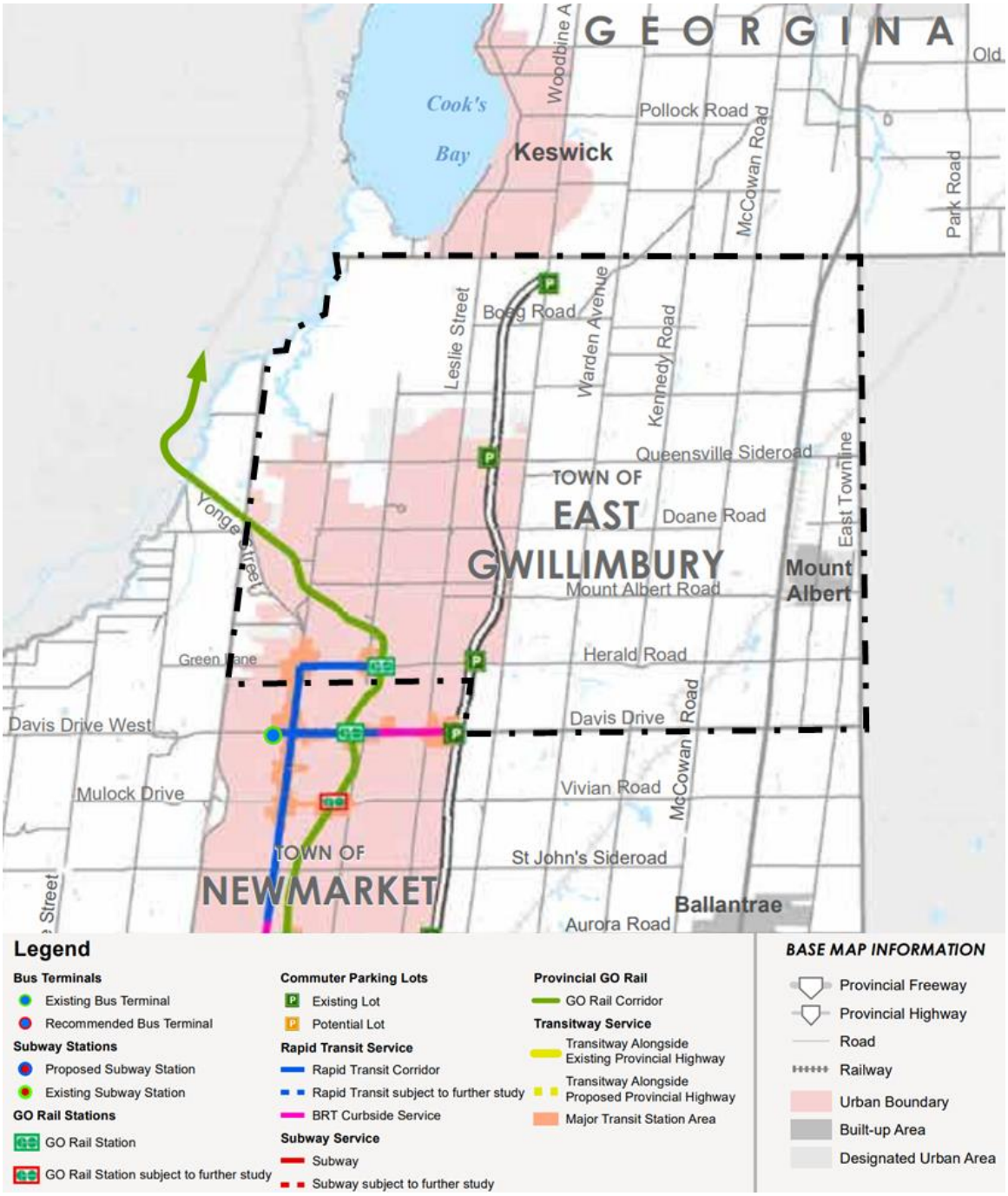



Source: York Region Transportation Master Plan (2022)

### Inter-Regional and Regional Transit Service

There are several planned inter-regional and regional transit improvements to the Town of East Gwillimbury as noted in **Figure 4-18**. A notable improvement is a proposed Rapid Transit Corridor on Green Lane between Yonge Street and the East Gwillimbury GO Station.

**Figure 4-18: Proposed 2051 Regional Transit Network**



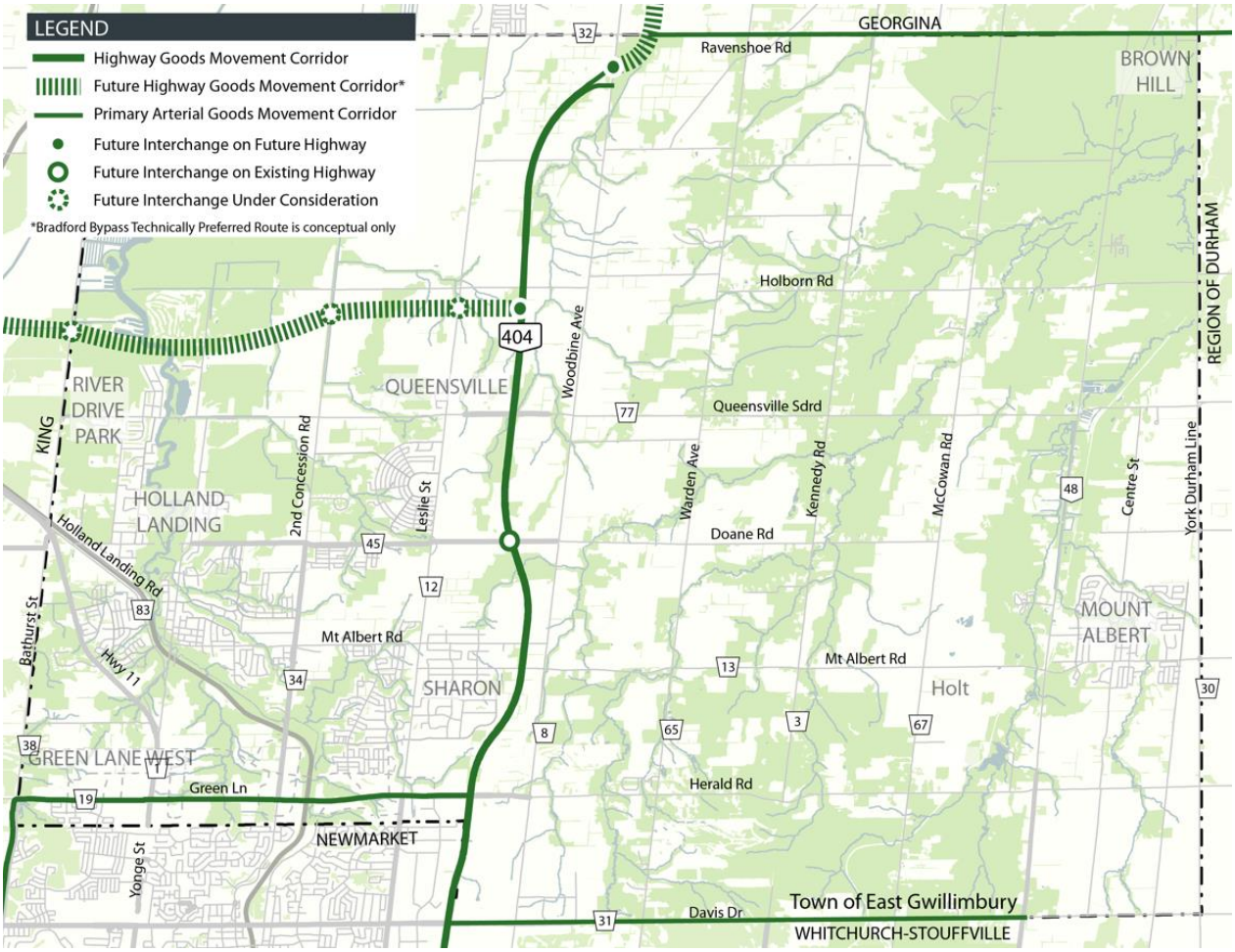

Source: York Region Transportation Master Plan (2022)

### Strategic Goods Movement

Regional roads are designed to accommodate all types of traffic including all truck sizes for goods movement. It is noted the 2022 Regional TMP does not include an updated goods movement map; discussion on goods movement network is based on the 2016 Regional TMP.

The strategic goods movement network in the Town focuses on the Highway and Regional Road network, directing commercial vehicle traffic away from local roads. **Figure 4-19** illustrates the strategic goods movement network. The network focuses on Highway 404, Highway 48, Green Lane, Davis Drive, and Ravenshoe Road as the primary goods movement corridors. It also includes the future Bradford Bypass and Highway 404 North Extension, which are proposed to be constructed between 2027 and 2031.

**Figure 4-19: Proposed 2041 Regional Goods Movement Network**

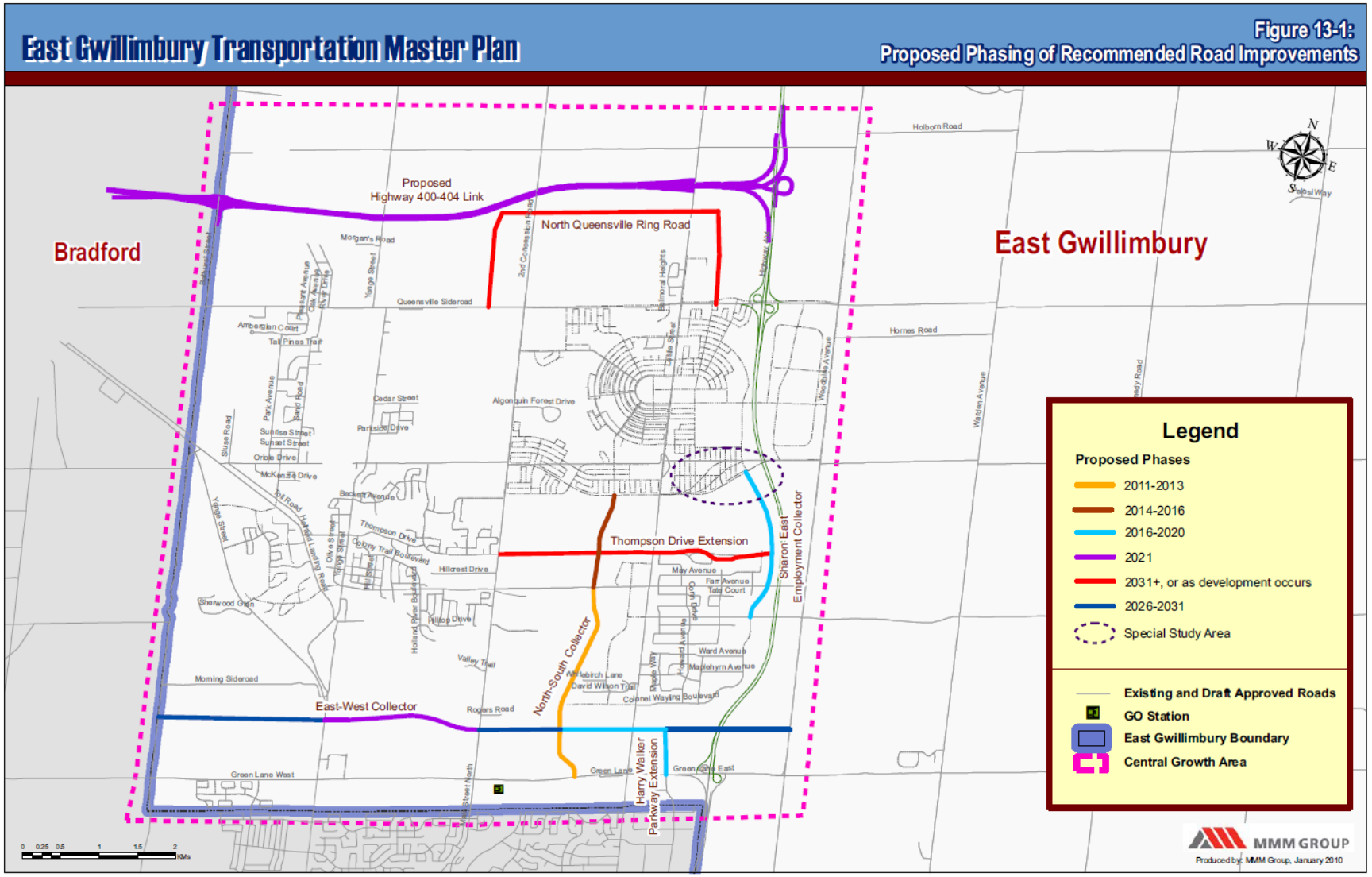



Source: York Region Transportation Master Plan (2016)

### 4.5.2 Town of East Gwillimbury

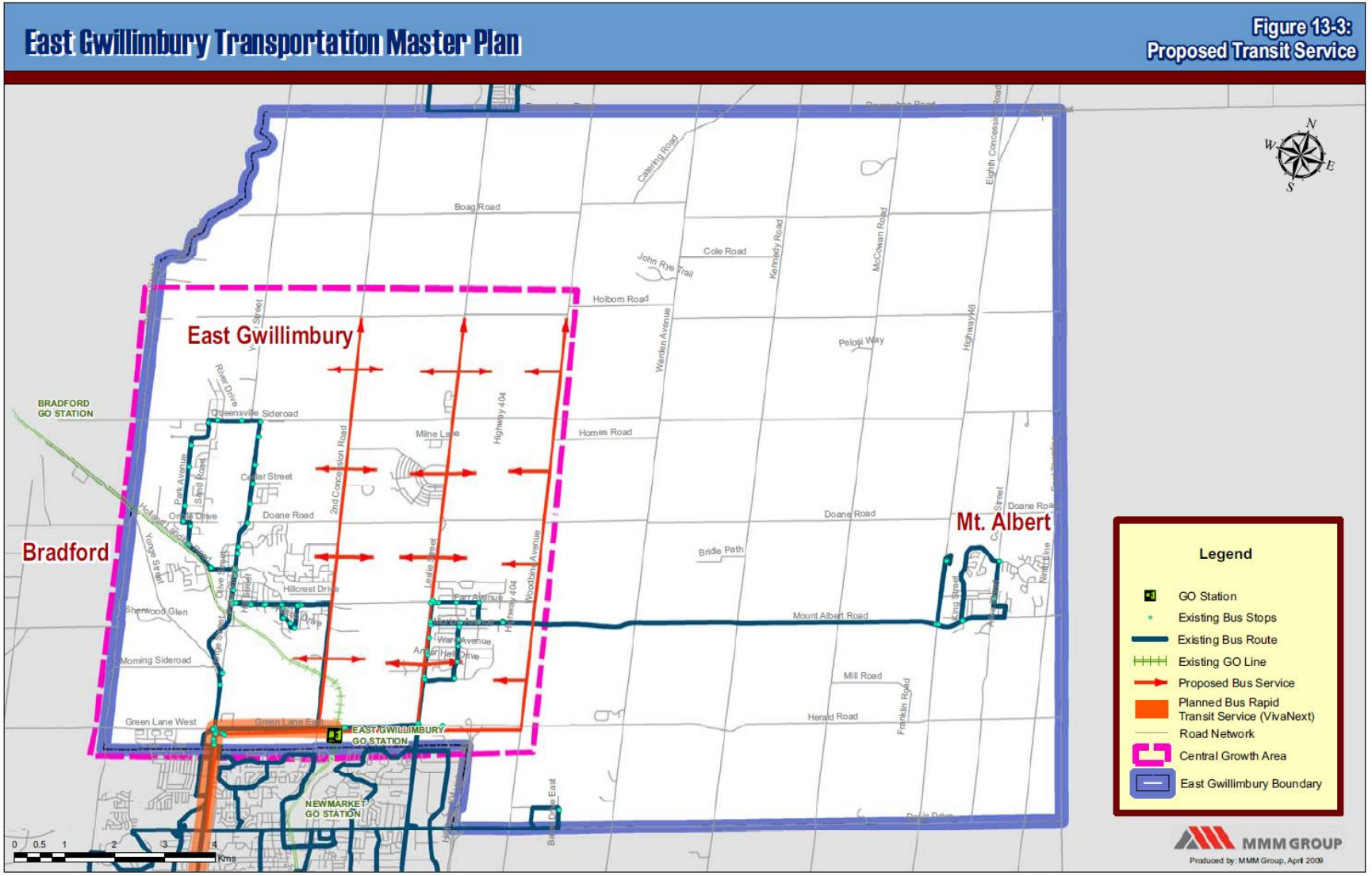
The recommended road and transit networks from the 2010 East Gwillimbury TMP are provided in **Figure 4-20** and **Figure 4-21**. The recommended cycling network for the Town, as identified in Schedule 7 from the Town's 2022 Official Plan Review is shown in **Figure 4-22**. Recommendations for the 2051 horizon will build from previous proposed networks.

## Figure 4-20: Recommended Local Road Improvements



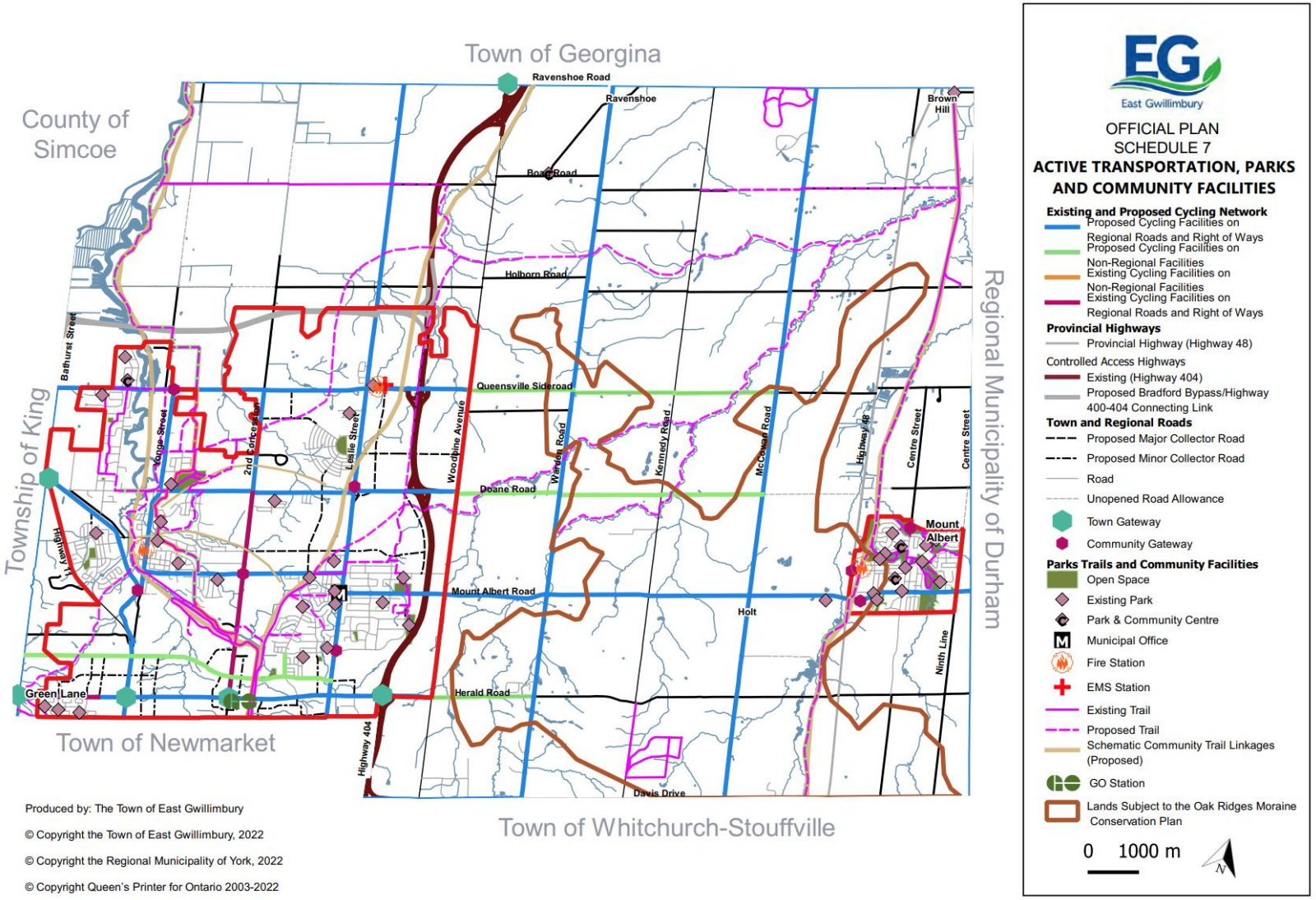

Source: Town of East Gwillimbury Transportation Master Plan (2010)

## Figure 4-21: Recommended Transit Improvements




Source: Town of East Gwillimbury Transportation Master Plan (2010)

## Figure 4-22: Recommended Cycling Improvements




Source: Town of East Gwillimbury 2022 Official Plan Review

# 5 Problem and Opportunity

This section provides an understanding of the existing conditions in the Town of East Gwillimbury as it relates to land use, travel demand, vehicular traffic, active transportation, and transit.

## 5.1 Land Use

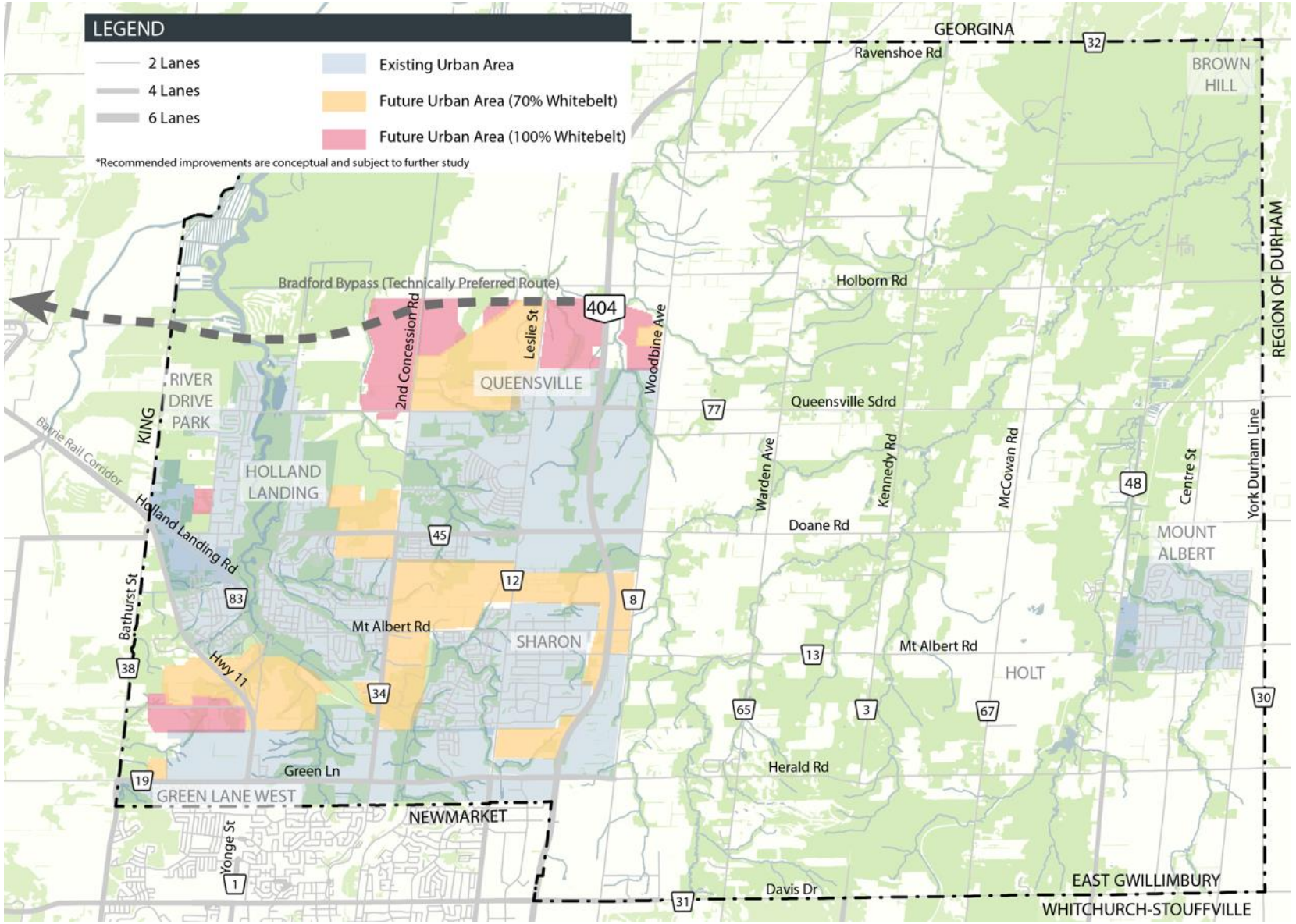
The Town of East Gwillimbury is projected to be one of the fastest growing municipalities in the Greater Golden Horseshoe (GGH) over the next 30 years. The Town's population will quadruple from 36,500 persons in 2016 to 141,000 by 2051, based on the latest projections by York Region. Similarly, employment is expected to grow by more than six times, from 10,300 jobs in 2016 to 63,100 jobs by 2051.

The Growth Plan, created from the realization that the GGH is one of the fastest growing regions in North America, aims to strengthen downtown areas as vibrant centres for communities, protect farmland and environmental areas through curbing urban sprawl, and promote sustainable transportation. Through intensification and through planning complete communities that consider all modes of transportation, the Town of East Gwillimbury can achieve the objectives of the Growth Plan.

### 5.1.1 Projected Population and Employment Growth

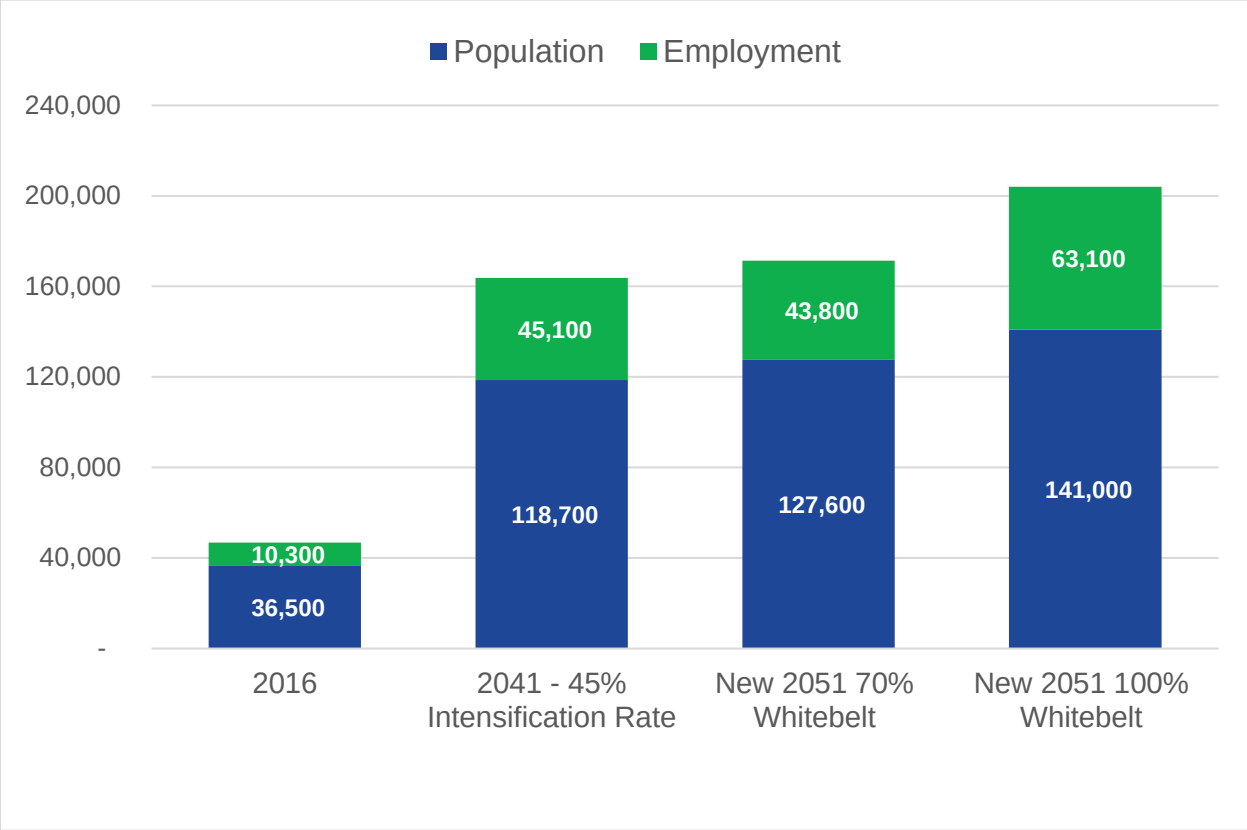
The expanded future urban area for 2051 is shown in **Figure 5-1**. Two development stages are anticipated – '70% Whitebelt development' and '100% Whitebelt development' – which can provide phasing opportunities to the 2051 horizon.

## Figure 5-1: Future Urban Area for 2051 Horizon



A comparison of 2016, 2041 and 2051 population and employment for East Gwillimbury is shown in **Figure 5-2**. It is noted that the 2041 land use forecasts refer to the 45% intensification rate recommended in York Region's MCR, as stated in **Section 2.2**. Population and employment are projected to increase by more than 250% and 500%, respectively, in the 100% Whitebelt land development scenario compared to the 2016 conditions.

**Figure 5-2: Population and Employment Forecast**



## 5.2 Travel Patterns

Travel demand, behaviour and mode share for the Town of East Gwillimbury are investigated in **Section 5.2.** The analysis is based on the Transportation Tomorrow Survey (TTS), a comprehensive travel survey conducted in the Greater Golden Horseshoe Area once every five years. Findings in this section reflect the latest year of TTS data (2016) currently available.

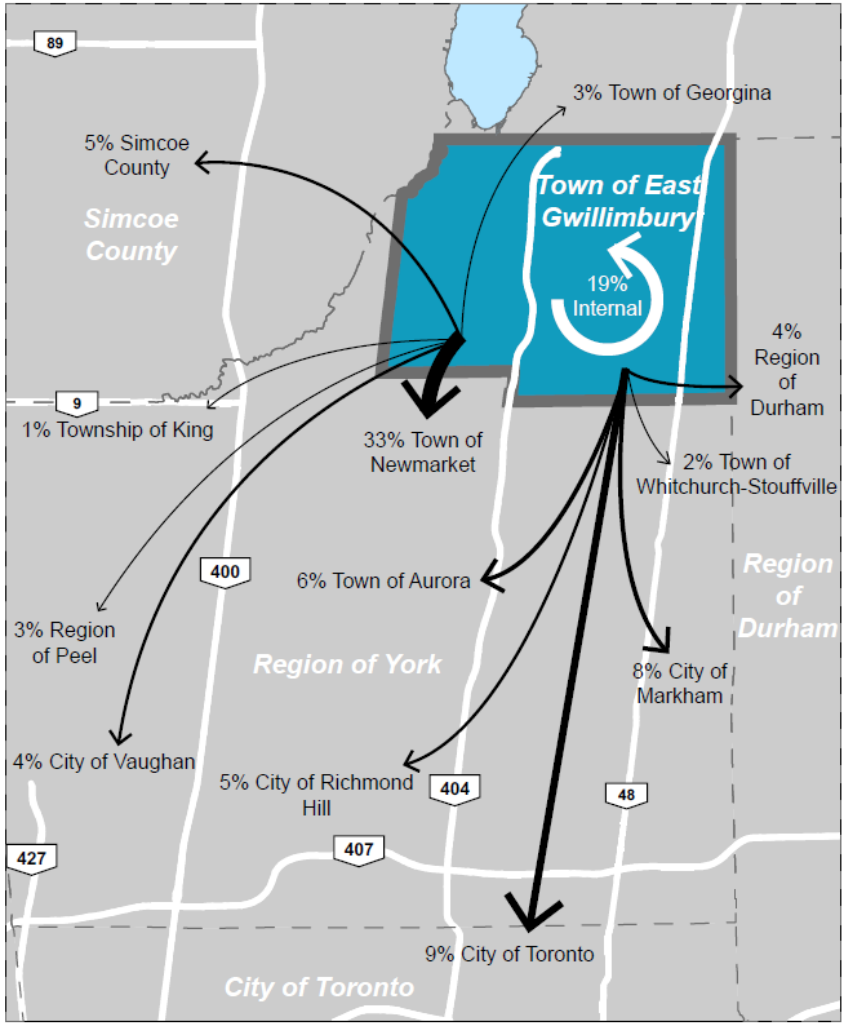
### 5.2.1 Travel Demand

The distribution of travel to, from, and within the Town is a key driver in identifying needs and opportunities for the transportation network. Based on 2016 Transportation Tomorrow Survey (2016 TTS) information, morning peak period (i.e. 6 – 9 AM) trip origins and destinations are summarized in **Figure 5-3** for trips that have a market share greater than 2%.

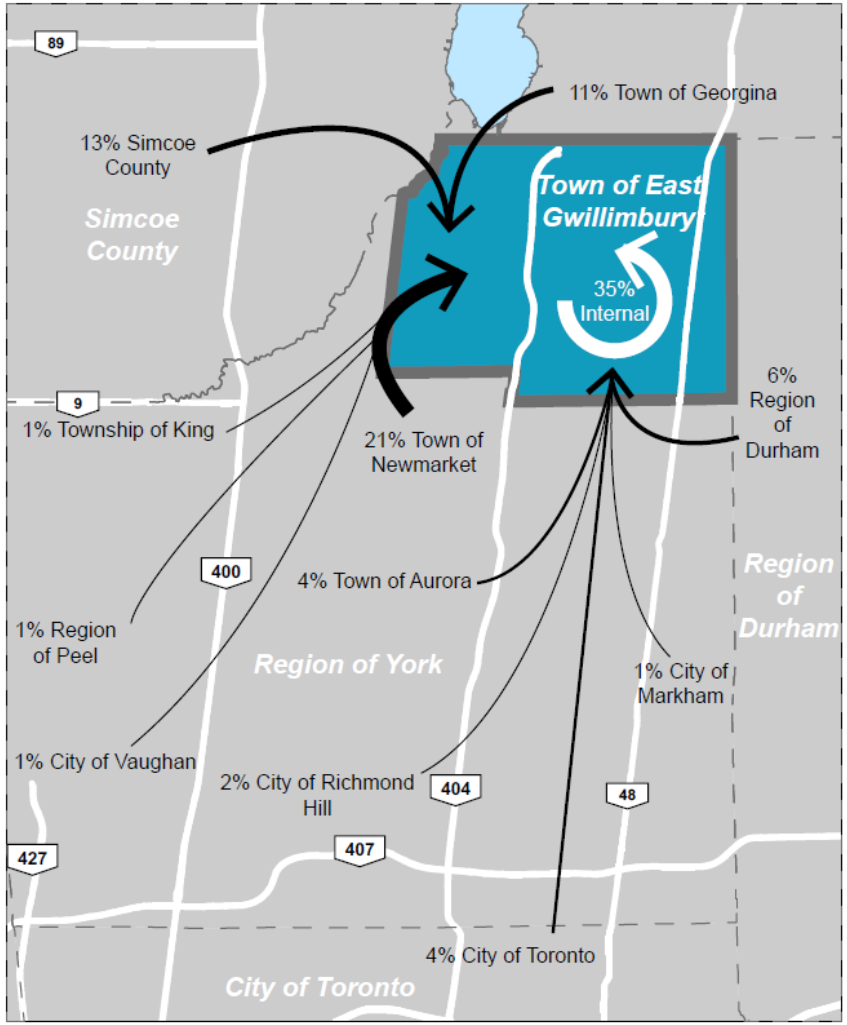
A total of 12,200 AM weekday peak period trips are made by Town residents in 2016. One fifth of AM trips stay within the Town while approximately 60% head elsewhere in York Region, 5% of trips head to Simcoe County, and only 4% of trips are destined to Durham Region. Lastly, 9% of trips are destined to the City of Toronto, for which GO Transit rail and bus services provide key connections that allows Town residents to enjoy “country close to the City”.

Significantly fewer (6,400) trips are destined to the Town in the AM weekday peak period. Approximately 35% of these trips are internal. A higher proportion of trip origins come from northern municipalities and Simcoe County, indicating that the Town does serve as an employment base for more rural communities.

## Figure 5-3: 2016 Regional Travel Distribution in the AM Peak Period




**AM Peak Trip Origins: 12,200**



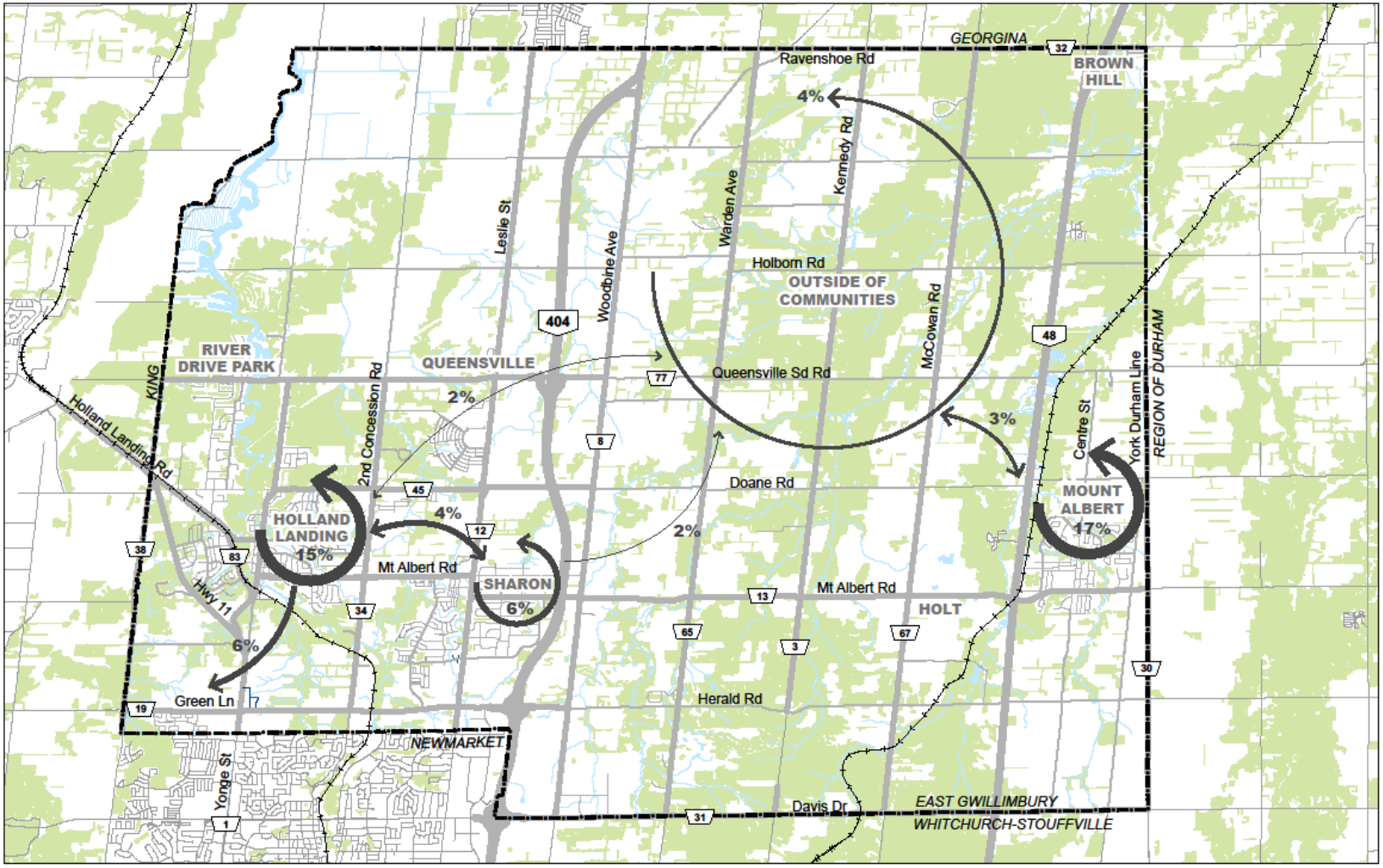

**AM Peak Trip Destinations: 6,400**

Source: 2016 TTS Data

### 5.2.2 Internal Travel Demand

The daily existing internal travel demand for trips in East Gwillimbury for trips with a travel share greater than 2% are illustrated in **Figure 5-4**. Approximately 10,150 daily trips are made within the Town by residents. The majority of internal trips are made within the community, as seen with Holland Landing and Mount Albert. Mount Albert is the focal point of travel with 17% of internal trips occurring within Holland Landing. Holland Landing is the second largest with 15% of internal trips occurring within the community. Green Lane West is a major destination for internal trips, with 6% of trips destined to the area. There are trips being made with the northern rural areas of the Town, however these trips only account for 4% of daily trips.

## Figure 5-4: Daily Existing Internal Travel Demand



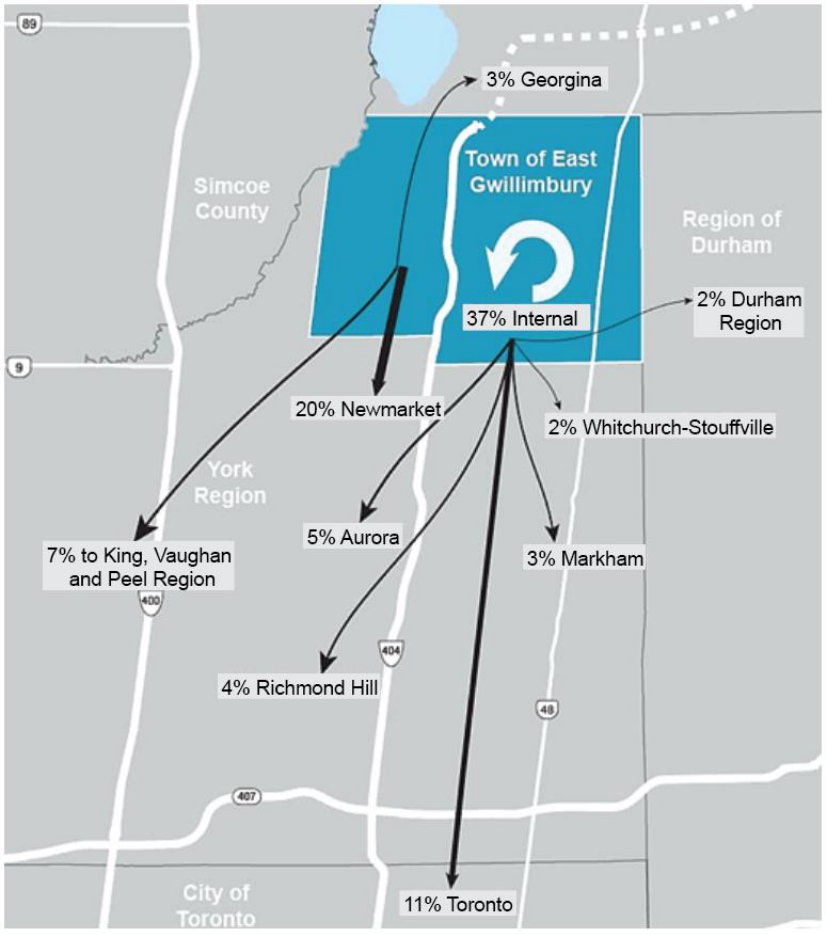

Source: 2016 TTS Data

### 5.2.3 Future Travel Patterns

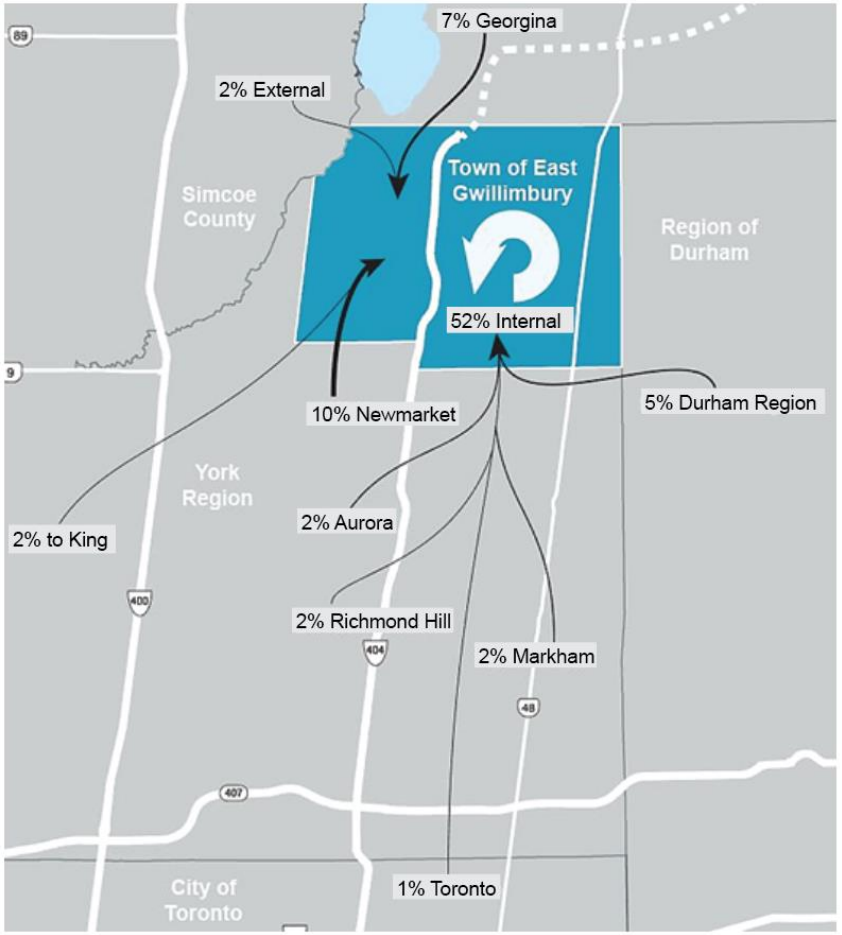
With the planned improvements from the York Region Transportation Master Plan (2022) and with the population and employment growth in the Town, travel patterns will change significantly in the future. The distribution of travel to and from the Town has shifted towards a greater focus on self-containment. When observing the AM peak period trip origins in **Figure 5-5**, internal trips have increased from 19% in 2016 to 37% in 2051. Internal trips destined to the Town are projected to increase from 35% in 2016 to 52% in 2051.

Trips origins and destinations in the AM peak hour have also increased due to the Town's significant growth between 2016 and 2051. The Town has quintuple in size in population and employment, a proportion that is also reflected in travel demand. This translates into significant growth in demand on the Town's internal road network for all travel modes.

## Figure 5-5: 2051 Regional Travel Distribution in the AM Peak Period




**AM Peak Trip Origins: 47,400**



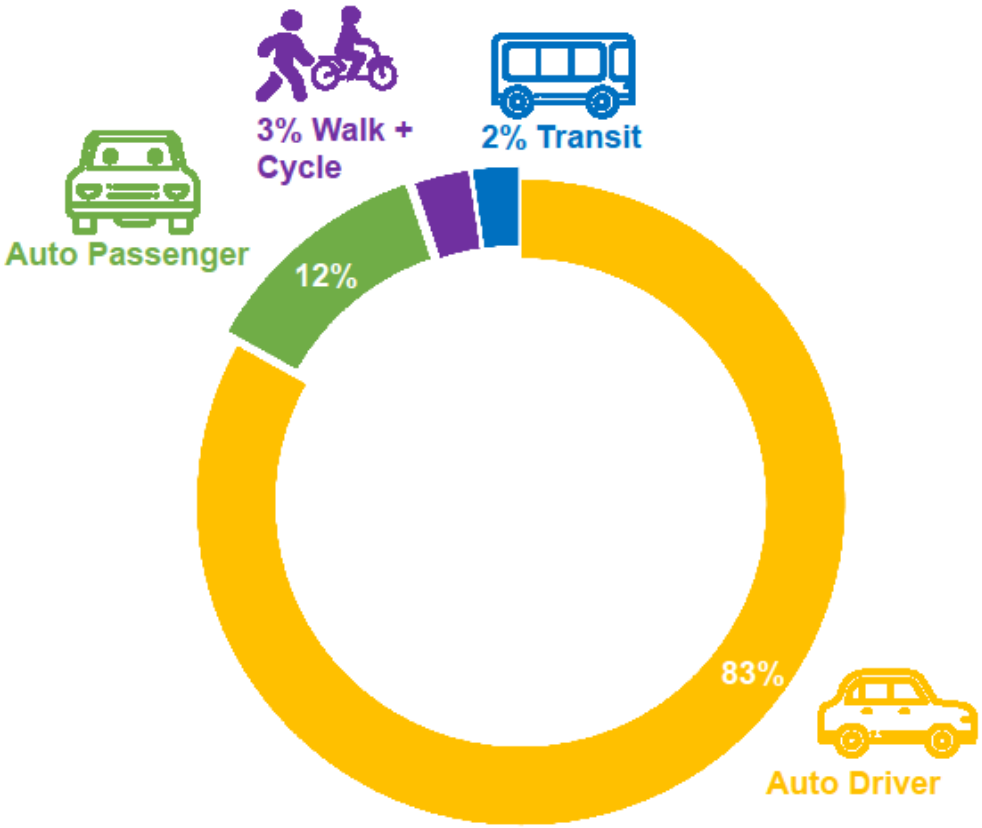

**AM Peak Trip Destinations: 33,200**

Source: York Region EMME Model

### 5.2.4 Mode Share

A total of approximately 10,500 trips are made during the AM peak period by residents in the Town of East Gwillimbury, according to the 2016 TTS data. Of the 10,500 trips, 95% were made by car (83% by auto driver and 12% by auto passenger), 2% by transit, and 3% by active modes such as walking or cycling, as illustrated in **Figure 5-6**. There is a high propensity to travel by car which is indicative of a primarily auto-oriented, low-density area in close proximity to a major freeway. Of the transit trips, the majority of these trips are made by GO Rail only (1%), while local trips and joint GO Rail and local transit were both less than 1%.

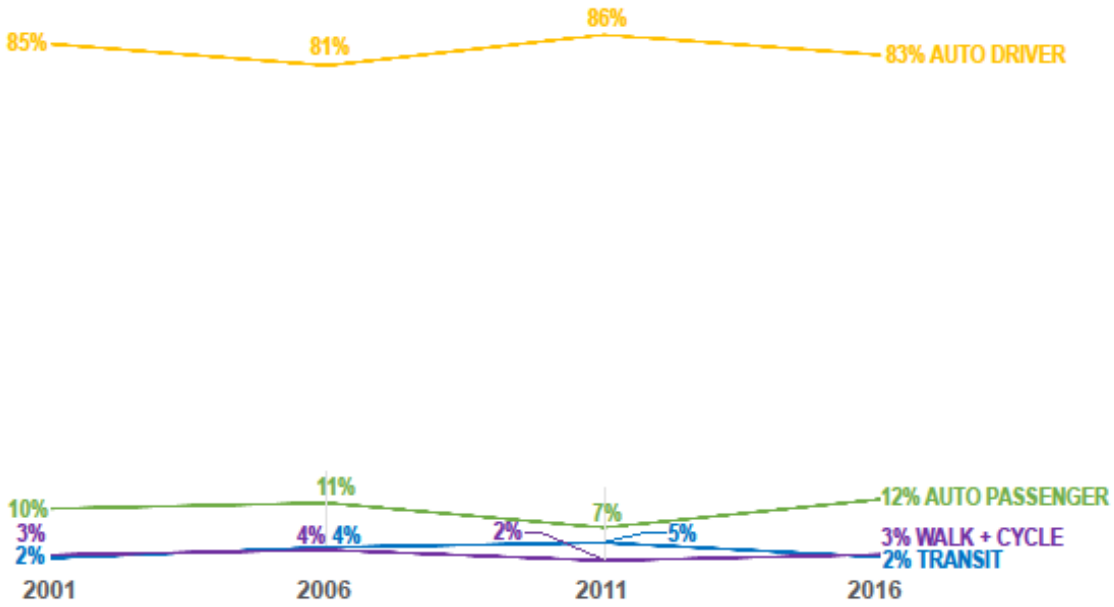
**Figure 5-6: Mode Share (AM Peak Period)**




Source: 2016 TTS Data

A review of historical data as shown in **Figure 5-7** revealed that auto dependence has been fluctuating around 85% within the Town of East Gwillimbury over a five year period as well as active transportation use around 3%. Transit use has improved with increased YRT services between 2001 and 2011 and has decreased heavily in 2016 to 2%. Overall, the number of trips has increased over the ten-year period has increased by 1%.

**Figure 5-7: Historic Mode Share (AM Peak Period)**




Source: 2001, 2006, 2011 and 2016 TTS Data

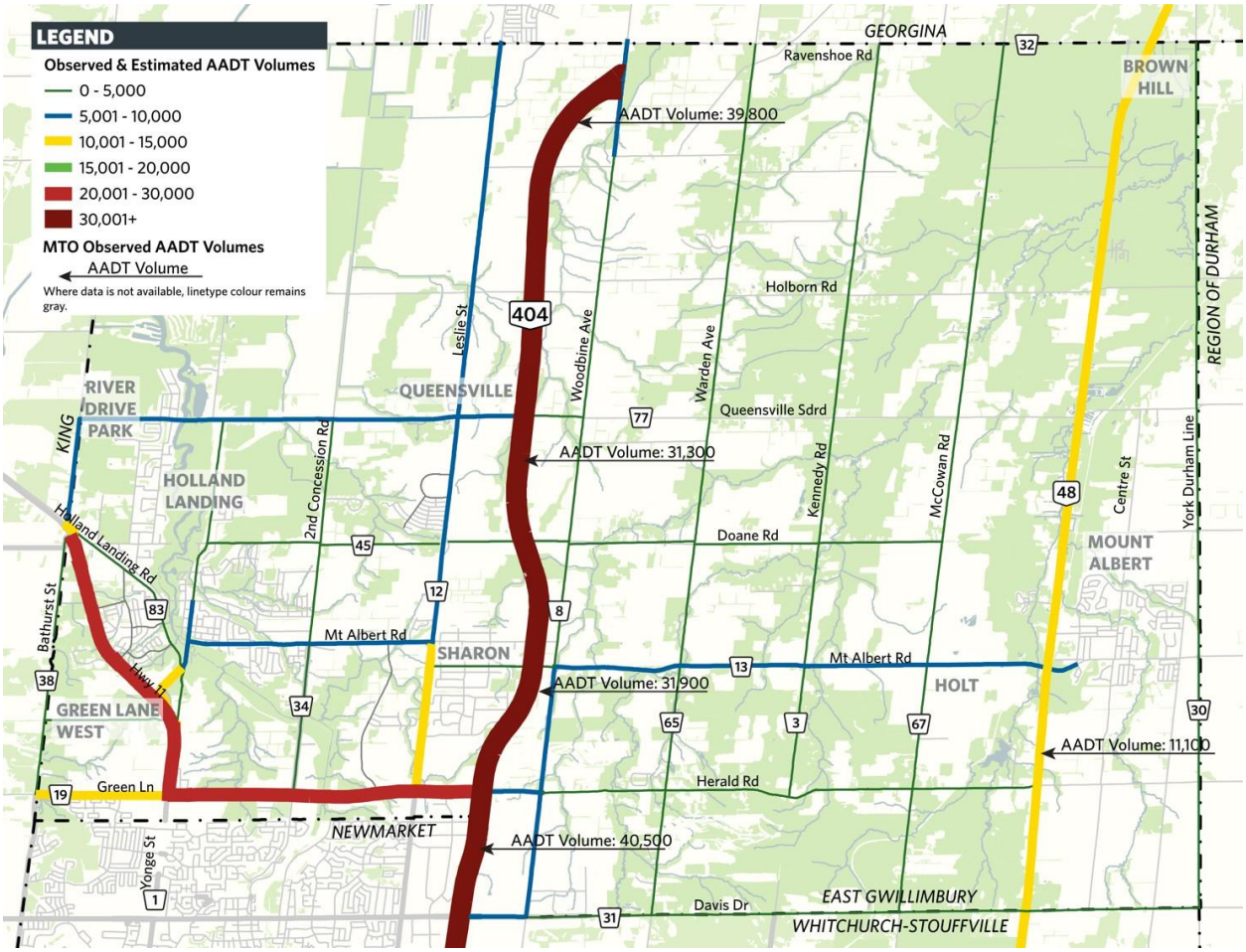
## 5.3 Vehicular Traffic Assessment

### 5.3.1 Existing Traffic Conditions

Historic daily traffic counts on sections of Town roads were provided by York Region. Average Annual Daily Traffic (AADT) volumes were provided by the Ministry of Transportation of Ontario for Highway 404 and Highway 48. Existing daily traffic volumes shown in **Figure 5-8** provide an indication of the roads that are primarily being utilized for commuting throughout the Town.

The highest north-south traffic volumes in the Town occur on Highway 404, Highway 48, and on Woodbine Avenue. Due to the high proportion of long distance commuter travel of trips travelling south to Markham, Richmond Hill, and Toronto (as seen in **Figure 5-3**), Green Lane experiences the highest volume of east-west traffic as it serves as the Town's primary Highway 404 interchange. With the proposed interchange at Doane Road, this pattern is expected to change as traffic will divert to these interchanges.

## Figure 5-8: AADT




### Screenline and Link Analysis

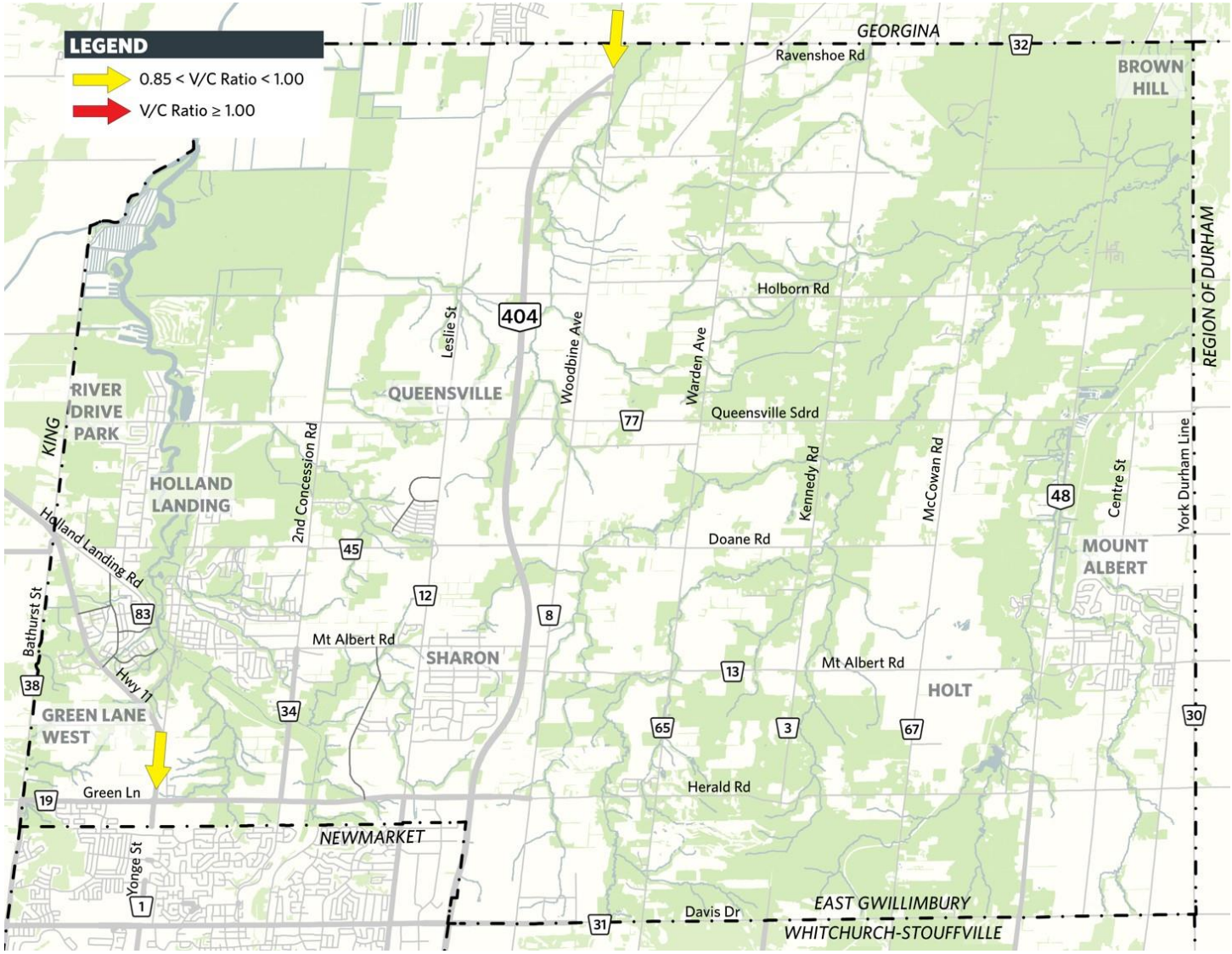
To assess the current level of traffic congestion on roadways throughout the Town of East Gwillimbury, a screenline volume to capacity analysis was conducted based on 2011 York Region Model which is the most recent model at the time of study initiation in 2016. The screenline analysis assesses the total amount of traffic crossing certain predefined points of the road network and compares the total traffic against roadway capacity, resulting in a volume to capacity (v/c) ratio. The purpose of this analysis is to determine if any network-wide deficiencies exist in a grid-based road system. In a grid-based road system, congestion on a specific road may not necessarily warrant road improvements when feasible alternative routes exist. However, when the total traffic crossing a screenline indicates capacity deficiencies, there is a clear need for improvements. Localized congestion issues still need to be considered where the road network is not able to accommodate traffic. A description of v/c ratios is provided in **Table 5-1**.

### Table 5-1: V/C Ratios and Operating Conditions

| V/C Ratio | Level of Service (LOS) | Operating Conditions |
|---|---|---|
| Less than 0.85 | LOS A - C | Free flow, very little to moderate delay. |
| Between 0.85 and 0.99 | LOS D - E | Approach or at capacity. Users experience delays and queuing. |
| Greater than 1.00 | LOS F | Over capacity with severe delays and queuing. |

**Figure 5-9** illustrates the v/c ratios for arterials over a v/c ratio of 0.85. Overall, existing traffic screenlines are under capacity. However localized capacity issues are experienced southbound on Yonge Street towards Green Lane and southbound on Woodbine Avenue towards Highway 404.

## Figure 5-9: Screenline Analysis (2011 York Region Model)



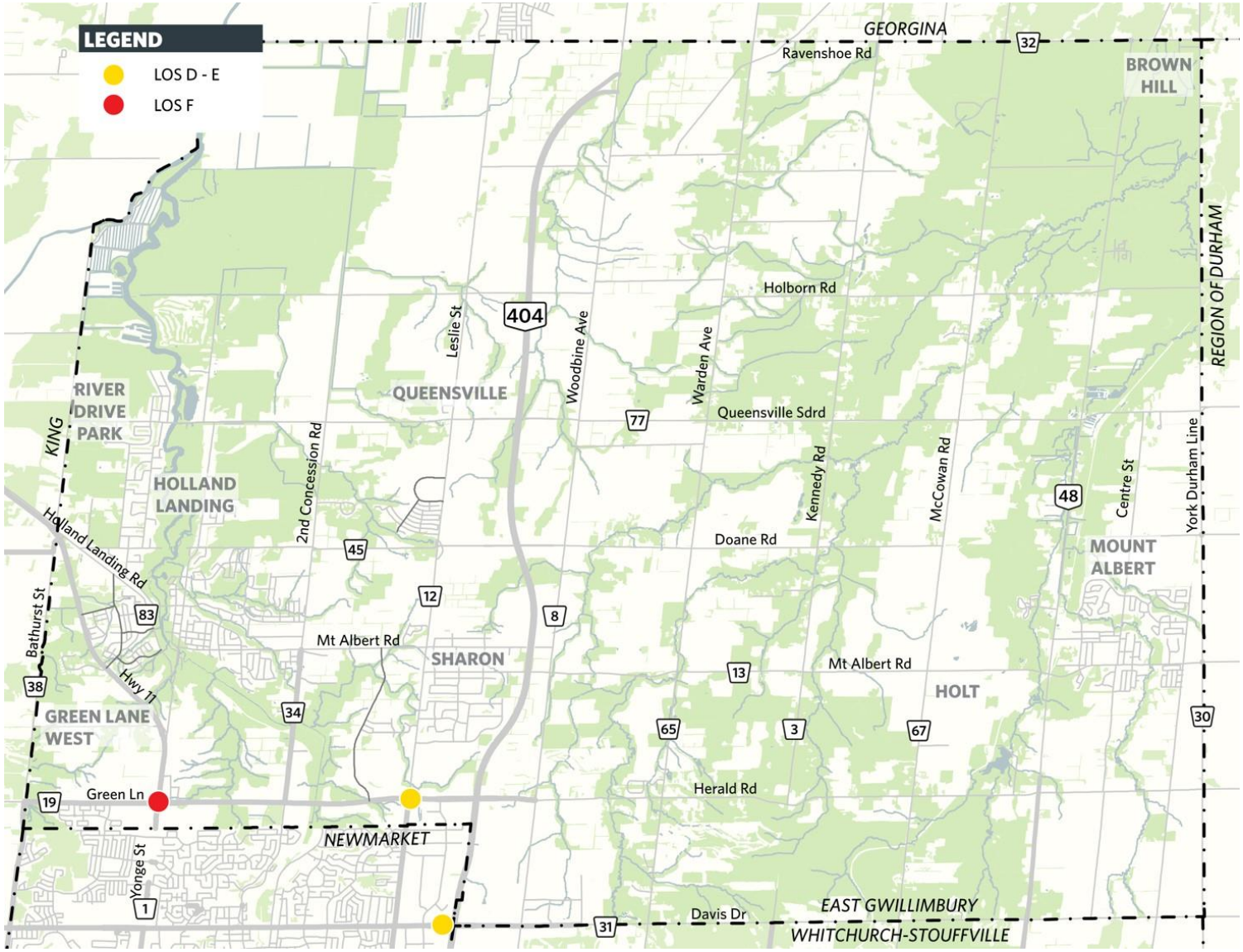

Note: 2011 York Region model was the most recent model available at the time of study initiation.

### Intersection Capacity

Intersection operational analysis was conducted for all major intersections within the Town based on Turning Movement Counts (TMC). The analysis looked at signalized and unsignalized intersections and assessed level of service, volume to capacity ratios (v/c), and other measures of effectiveness including travel lane and intersection delays. The selected intersections are fully or in-part under Town's jurisdiction and carry higher traffic volumes, have historically documented safety issues, or are expected to experience significant volumes in the future.

A total of 46 intersections were analyzed and the level of service for each intersection in the AM peak hour is illustrated in **Figure 5-10**. The majority of intersections operate well with little to no delay. However the intersections of Green Lane at Yonge Street and at Leslie Street experience delay due to high turning volumes onto Green Lane. As the Green Lane interchange with Highway 404 is the primary interchange in the Town, it is expected that intersections along Green Lane will experience delay and queuing as the major of long distance trips head southbound towards Markham, Richmond Hill, and Toronto.

## Figure 5-10: Existing Intersection Analysis (2016)



### Carpool Parking Demand

A utilization survey was conducted for the carpool lots along Highway 404 to determine if there are any capacity concerns. The survey was conducted on June 7, 2016. **Table 5-2** shows the daily utilization of each carpool lot. It is noted that the capacity shown in the table only reflects the conditions at the time of the survey. The carpool lots currently do not experience any capacity issues, with the maximum utilization occurring at the Woodbine Avenue carpool lot at 69% utilization.

**Table 5-2: Carpool Lot Utilization Survey**

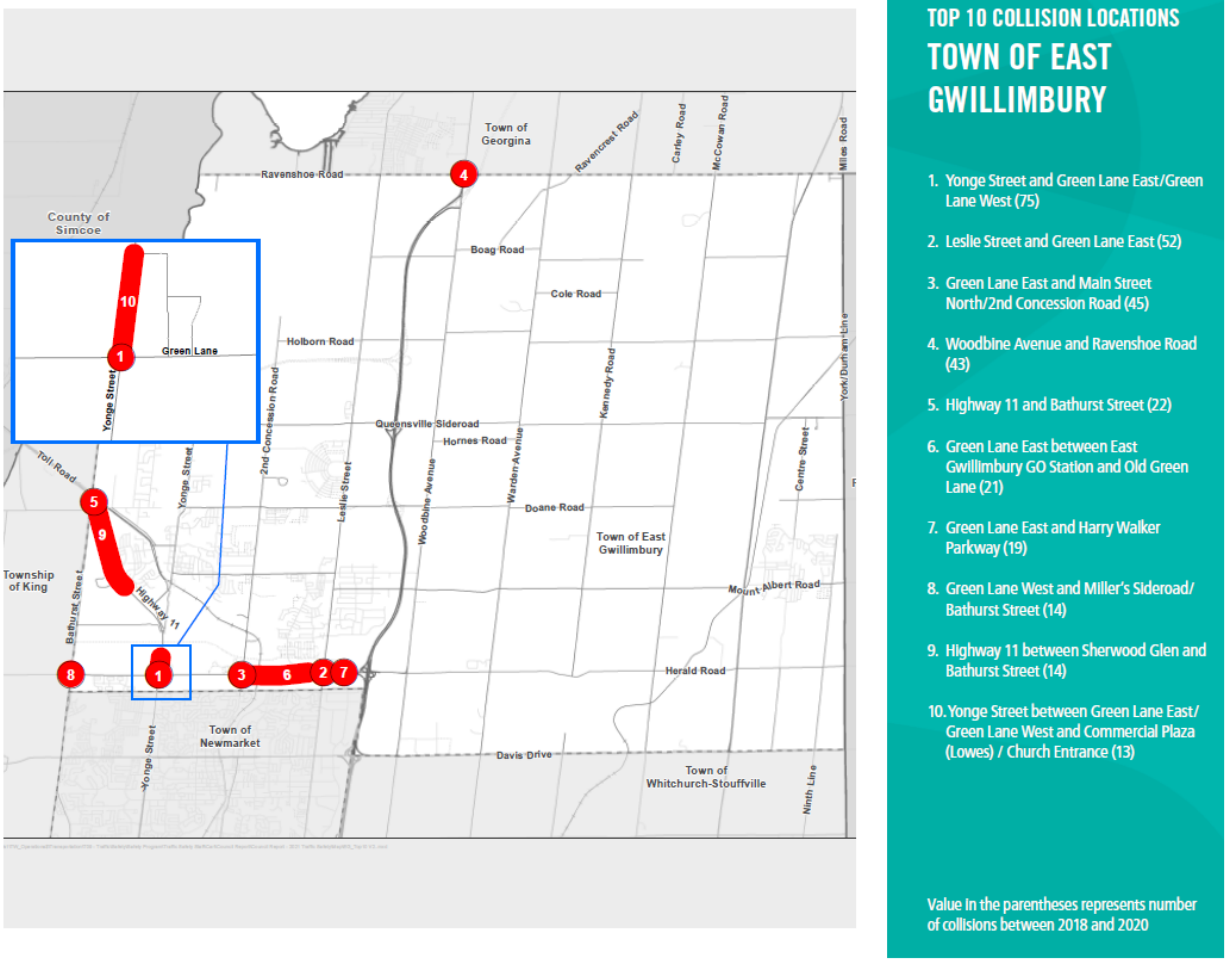
| Carpool Lot Location | Capacity | No. of Vehicles Parked | % Utilization |
|---|---|---|---|
| Woodbine Avenue | 67 | 46 | 69% |
| Queensville Sideroad | 213 | 35 | 16% |
| Green Lane | 156 | 64 | 41% |
| Davis Drive | 187 | 69 | 37% |

### Traffic Safety

York Region's 2021 Traveller Safety Report identified the top ten high collision locations in the Town of East Gwillimbury (**Figure 5-11**). Six of these locations are along Green Lane.

The Yonge Street and Green Lane East / West intersection was identified as the highest collision location in the Town and is the fourth highest in York Region with 75 collisions between 2018 and 2020.

## Figure 5-11: Top 10 High Collision Locations in the Town of East Gwillimbury



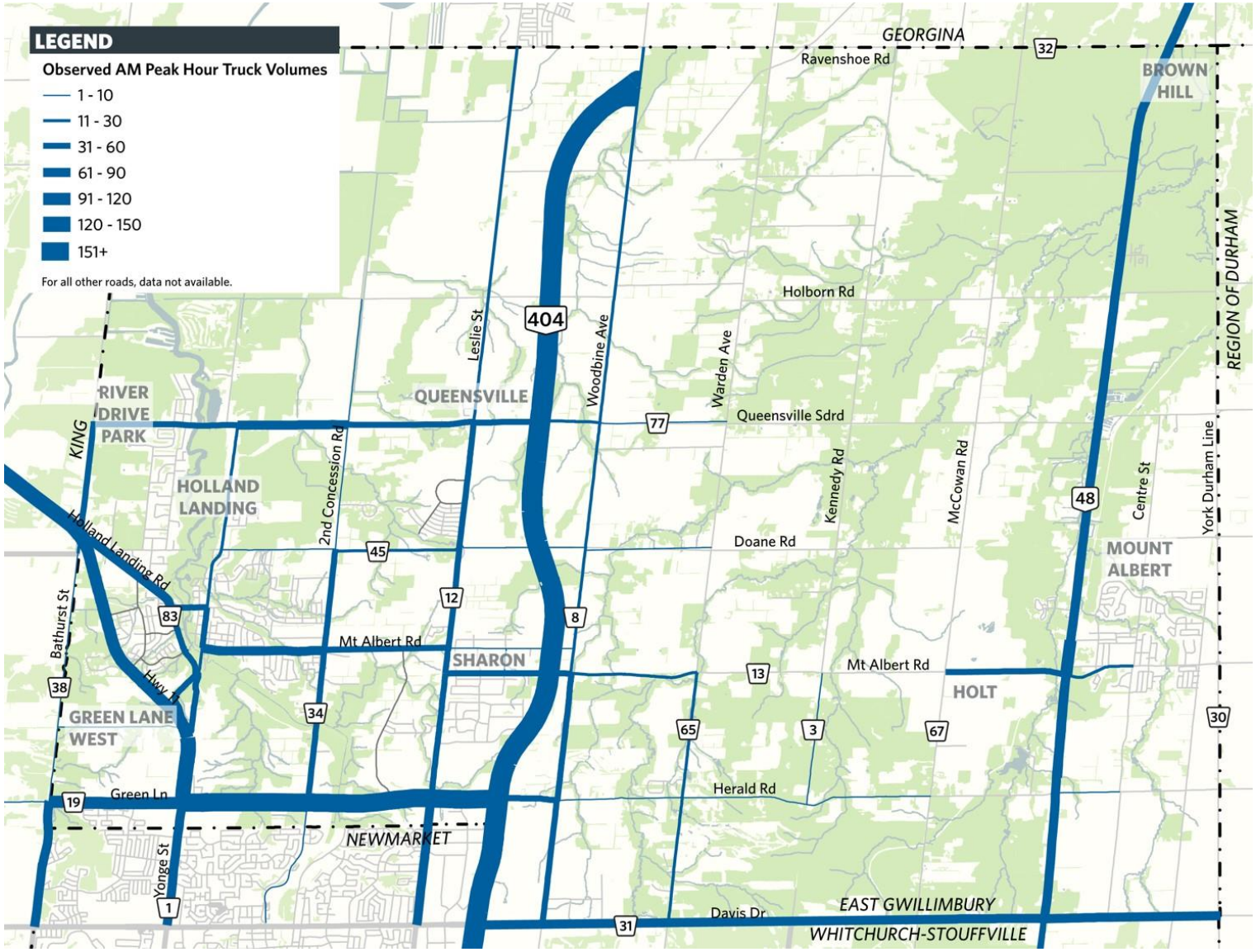

Source: York Region 2021 Traveller Safety Report

### Truck Traffic

Truck volumes in the Town were analyzed in the AM peak hour based on the AADT volume and the TMCs presented earlier in this section. The analysis looked at two-way truck volumes for corridors where data was collected, which are illustrated in **Figure 5-12**. Highway 11 and Green Lane experience the highest truck volumes, with heavy vehicle hourly volumes exceeding 100 The Green Lane and Highway 11 connection appears to be a significant truck route between Simcoe County and York Region.

In addition to Regional traffic, heavy vehicles in Town are generated by local businesses within the Town's communities and by construction due to development. There are also a number of other known major truck trip generators which include the employment areas in Holland Landing and Sharon, the Bales Drive area and a few businesses in the Mount Albert area.

## Figure 5-12: AM Peak Hour Truck Volumes



### 5.3.2 Future Traffic Conditions

Based on the growth identified in **Section 5.1**, future transportation conditions consider currently planned improvements in relation to forecasted population and employment growth are discussed in the following sections.

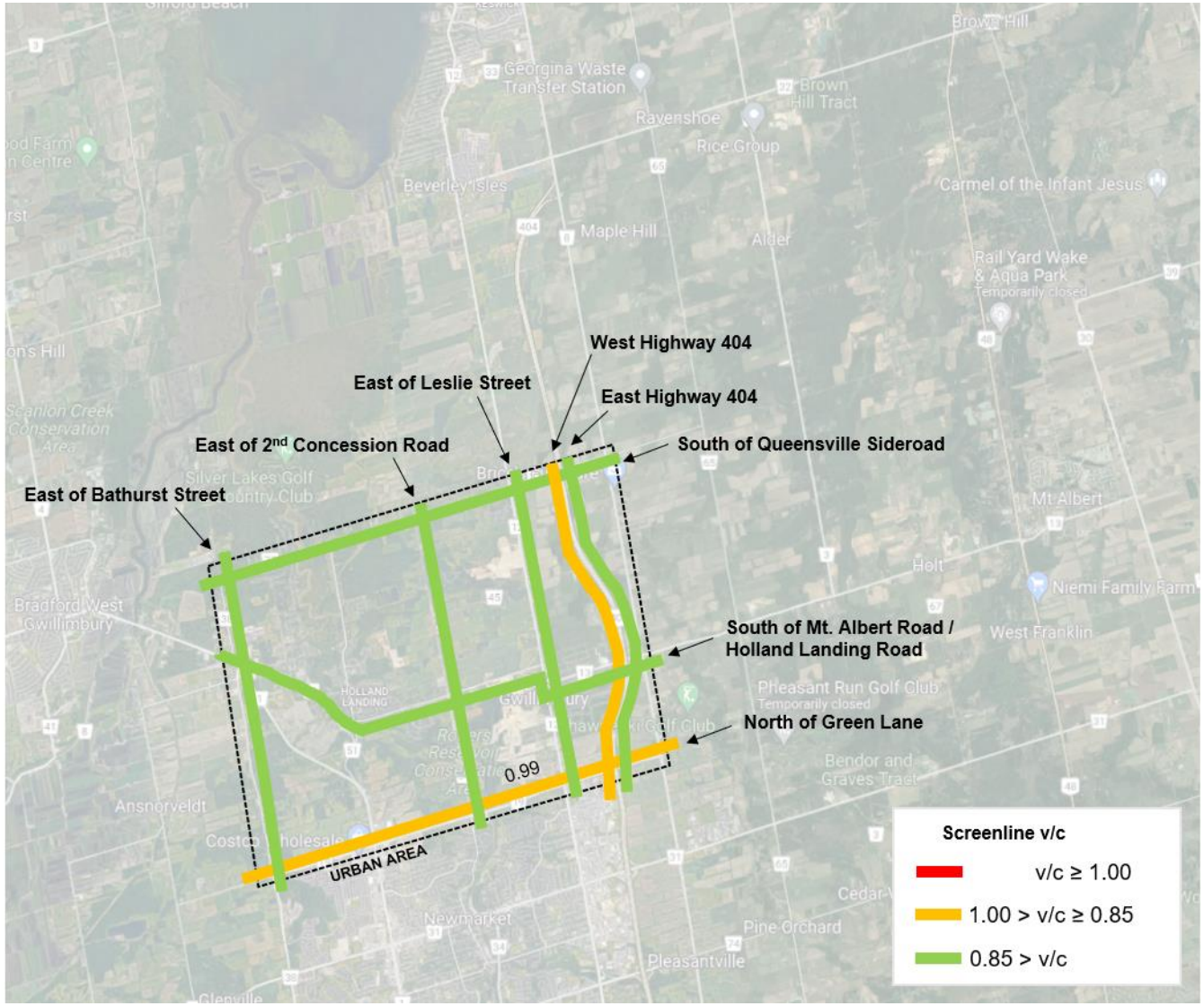
The York Region EMME model was used as a base to develop a 2051 travel demand model for East Gwillimbury. The model was modified to provide better representation of the socio-economic conditions and the road network within the Town. The model forecasts AM peak hour traffic and is meant to be used as a tool to guide decisions on the future needs of the Town. Key inputs to the model were discussed earlier in this chapter and include population and employment forecasts and transportation network assumptions.

Network results for the 2051 100% Whitebelt scenarios is shown in **Figure 5-13**, respectively. It is noted the screenlines shown do not include Highway 404. Some individual corridors (such as Arterial roads) appear to operate poorly; however, there is sufficient capacity with the supporting proposed collector network to accommodate demand across all screenlines. The most critical screenline approaching capacity is north of Green Lane / Herald Road at 0.99 under the 100% Whitebelt, followed by west of Highway 404. All other screenlines operate below capacity (<0.85).

## Figure 5-13: 2051 Screenline Analysis – 100% Whitebelt

2051 100% Whitebelt TMP Network

AM Peak Directions = EB / SB




Screenlines outside urban areas operate v/c < 0.85

Source: York Region EMME Model

## 5.4 Active Transportation Demand

Active transportation demand, mode share, and levels of service within the Town of East Gwillimbury are examined in this section. Similarly to **Section 5.2**, the analysis was based on the Transportation Tomorrow Survey (TTS), which is conducted in the Greater Golden Horseshoe Area once every five years. At the time of writing of this report, only 2016 TTS data was available. Therefore, the findings in this section reflect the year 2016.

### 5.4.1 Mode Share and Trip Length

There are approximately 45,400 daily trips made by residents of East Gwillimbury. Of these trips, 95% of all trips are made by car, which is consistent with the AM Peak Period. This high propensity to travel by car is due to the auto-oriented, low-density nature of the Town. It can also be attributed to rail service operating only four trains in the AM peak period, focusing on commuters. The active mode share of all day trips by residents is only 2% and includes walking and cycling.

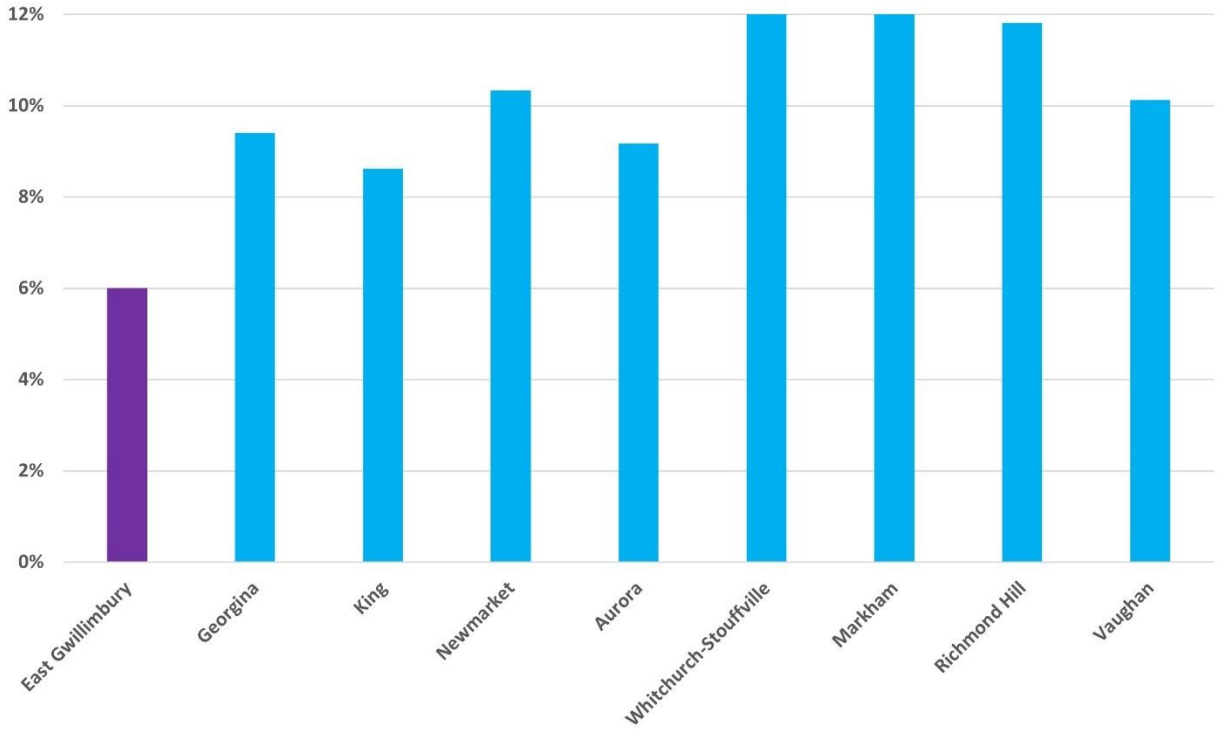
The active mode share is higher when considering all trips as active modes are only feasible for trips of a shorter length. Trips with a length less than or equal to 5 kilometers are considered within walking or cycling distance. For the Town of East Gwillimbury, 34% of all trips made by residents during the day are less than or equal to 5km. Of these trips, only 6% are made by walking or cycling while 81% are made by the private automobile[3]. There is a greater opportunity in the Town to shift trips to active modes than the rest of the GTA due to this higher percentage of short trips.


Source: 2016 TTS Data

[3] Trips taken from 2016 TTS data. As TTS does not account for trip chaining, some of these trips may just be a stop on the way to somewhere else.

**Figure 5-14** illustrates the active mode share for all trips less than or equal to 5 km in length in York Region. The Town of East Gwillimbury had the lowest active mode share in York Region with only 6% in 2016, per the TTS. It is also lower when compared to the similar municipality of the Township of King. When compared to the more mature municipalities such as Newmarket, the mode share suggests an opportunity for achieving greater active mode shares in the future.

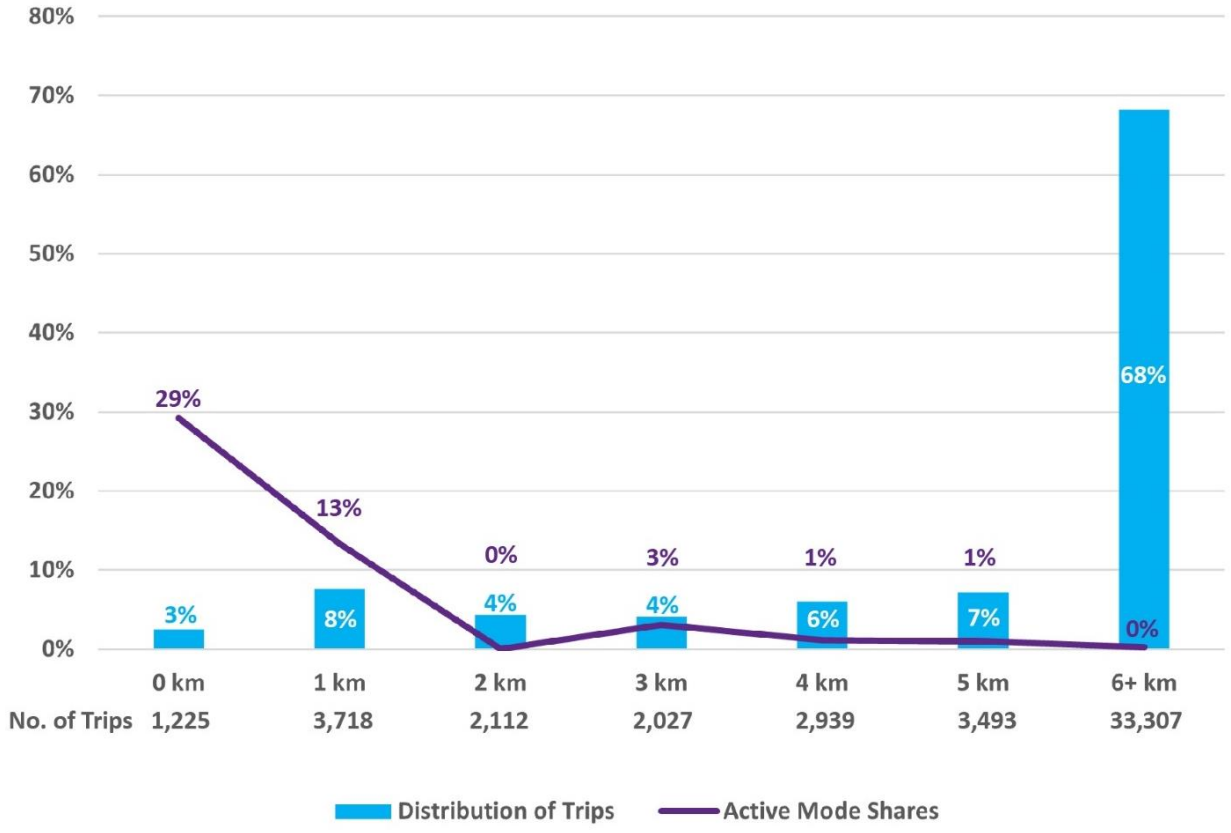
### Figure 5-14: Active Mode Share for Trips Less Than or Equal to 5km in Length




Source: 2016 TTS Data

**Figure 5-15** illustrates the trip length distribution and active mode share retrieved from the 2016 TTS. The active mode share is higher for trips of shorter length, as seen for trips less than or equal to 1km. Despite recognizing that not all trips less than 5km can realistically be expected to be active (i.e. age and ability limitations), even a modest shift in the modal share noted above can result in significant change.

**Figure 5-15: Trip Length Distribution**

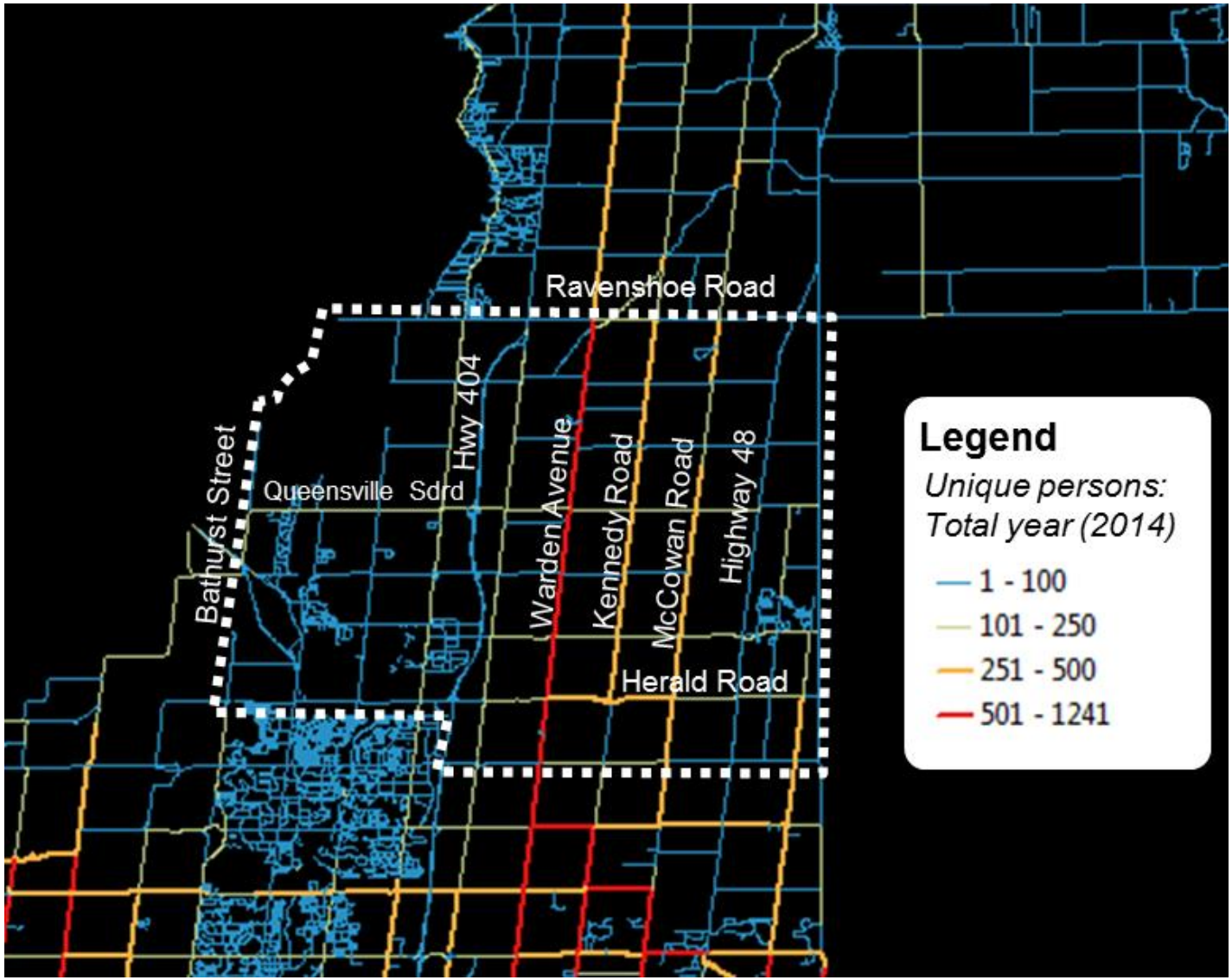



Source: 2016 TTS Data

## 5.4.2 Active Transportation Hotspots

Strava's global heat map provides an indication where people are currently cycling. Strava is a mobile application used predominantly by recreational cyclists which tracks their route, speed, and distance. The company makes aggregate data available as a heat map, indicating which streets are most often used for cycling. The colors in **Figure 5-16** indicate the level of cycling activity, with green being lower and red being higher. It should be noted that Strava data tends to represent a skewed user base (generally recreational cyclists who are predominantly male). As recreational cycling is likely to occur in off-peak periods when traffic volumes are low and as it occurs in low-density areas, it does not necessarily indicate opportunities for enhancing the active transportation mode share in peak hours.

## Figure 5-16: Strava Cycling Heat Map




Source: 2017 Strava Heat Map

The Strava data suggest several routes are currently being used by cyclists in the Town. From the heat map the following roads see the highest cycling activity with over 250 unique users in 2014:

- Warden Avenue through the Town
- Kennedy Road north of Herald Road
- McCowan Road through the Town

The following roads also see high cycling activity with 100-250 unique users:

- Queensville Sideroad through the Town
- Leslie Street through the Town
- Woodbine Avenue through the Town
- Mount Albert Road east of Woodbine Avenue

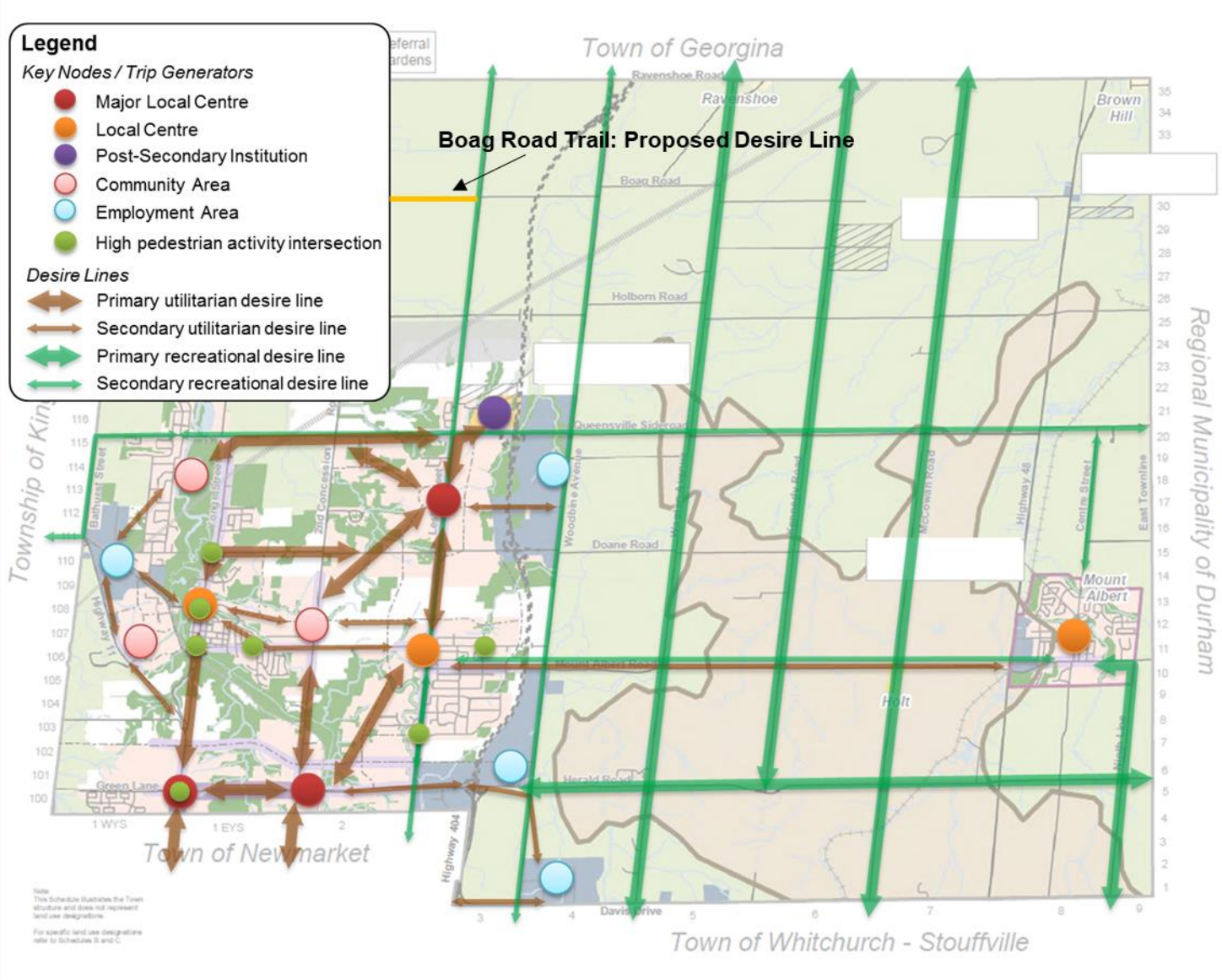
The importance of Warden Avenue as a cycling corridor not only within the Town but as a Regional corridor, extending north and south of the Town is recognized in this data as an opportunity to further encourage cycling travel for both recreational and commuter trips.

### 5.4.3 Active Transportation Desire Lines

Key origins and destinations are identified in order to gain an understanding of future desire lines, or where potential active transportation trips may wish to travel in the future. **Figure 5-17** illustrates key nodes or major trip generators as interpreted from the Town's Official Plan Schedule A, and the potential desire lines between those origin-destination (OD) pairs. Those desire lines between major land uses are identified as "utilitarian" while the Strava data is also overlaid within the exhibit to highlight "recreational" trips.

The desire line analysis illustrates where the Town should focus improvements to its active transportation system to better connect its local centres, communities, and employment areas.

## Figure 5-17: Future Active Transportation Desire Lines



### 5.4.4 Pedestrian Level of Service (PLOS)

The methodology employed for this study is based on the City of Ottawa Multi-Modal Level of Service (MMLOS) Guidelines. These guidelines were selected over other variations mainly for their intuitiveness, accommodation of contemporary facility designs, and explicit recognition that pedestrian LOS should be based on user comfort, safety, and convenience and are thus subjective in nature.

Pedestrian level of service (PLOS) is calculated at the intersection and mid-block in recognition that, unlike vehicular LOS, pedestrian's experience is determined by the conditions both between crossings and at the crossing itself.

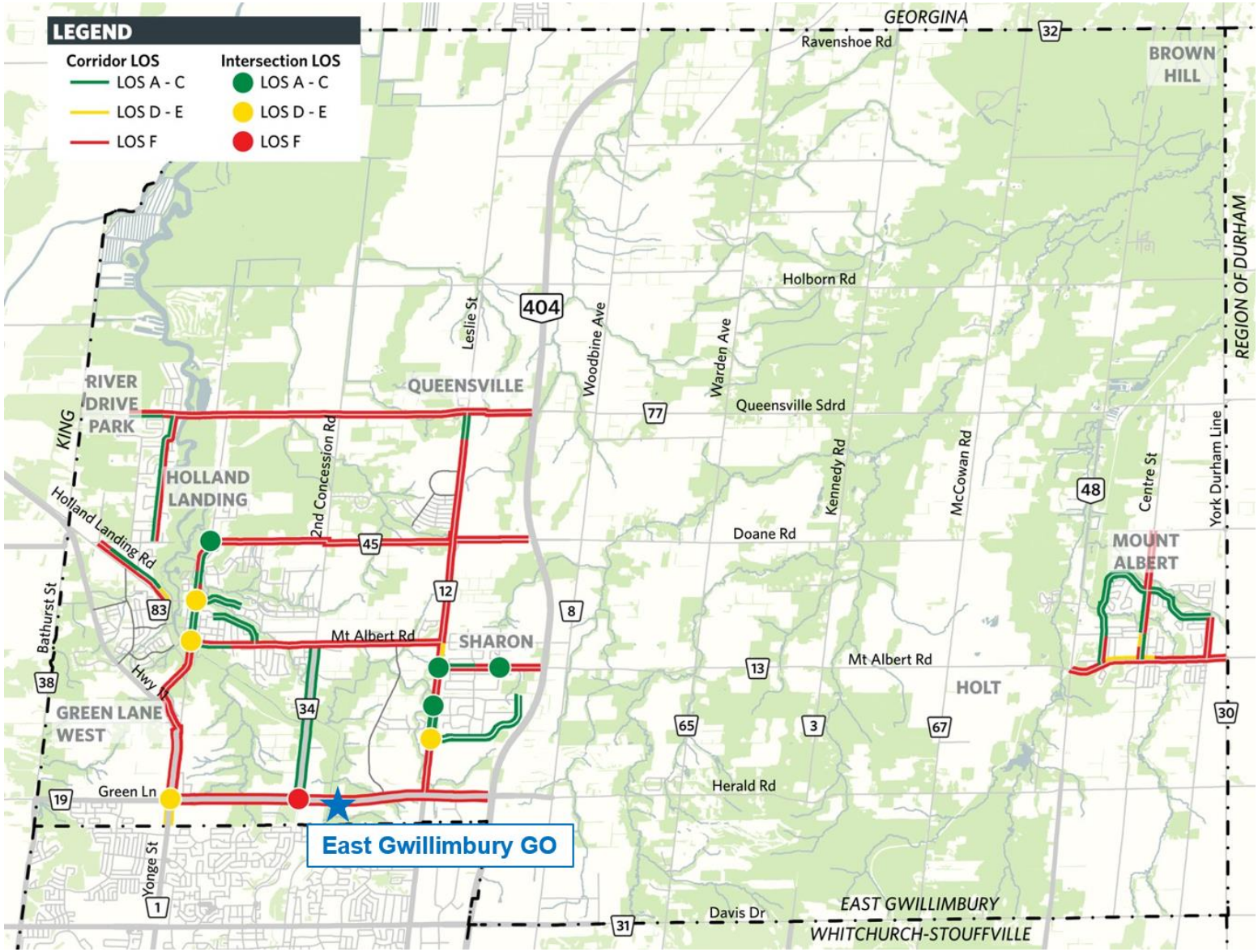
The average score of each intersection approach is averaged to determine the overall intersection PLOS. Scoring ranges as follows:

- PLOS 'A' to 'C' – Attractive to most pedestrians, including locations where lower speeds and volumes, wider sidewalks, and larger boulevards with ample separation from moving traffic are present. Crosswalks are provided on all four legs of the intersections and with shorter crossing distances at intersections.
- PLOS 'D' to 'E' – Elements may not appeal to pedestrians due to narrow sidewalks, lack of separation from traffic, longer crossing distances, etc.
- PLOS 'F' – Not adequate – locations without any facility or where no buffer is provided adjacent to high speed and high volume traffic. No crosswalks provided and long crossing distances at intersections.

Higher segment scores are characterized by locations where lower vehicle speeds and volumes, wider sidewalks, and larger boulevards with ample separation from moving traffic are present. Lower segment scores are observed in locations where high vehicle speeds, narrow sidewalks, and minimal separation from traffic are present.

**Figure 5-18** illustrates the existing pedestrian level of service in the Town, where applicable. The majority of intersections operate with a PLOS of D or E, while only two intersections operate at PLOS C or better. The segment analysis shows that the majority of arterials experience a PLOS F due to high vehicle operating speeds and narrow sidewalks. This includes along Green Lane, which provides key connections to East Gwillimbury GO and the Barrie Line.

## Figure 5-18: Existing Pedestrian Level of Service



### 5.4.5 Bicycling Level of Service (BLOS)

As noted in **Section 5.4.4**, the methodology employed for this study is based on the City of Ottawa Multi-Modal Level of Service (MMLOS) Guidelines.

Similar to PLOS, bicycling level of service (BLOS) is calculated at the intersection and mid-block in recognition that, unlike vehicular LOS, a cyclist's experience is determined by the conditions both between crossings and at the crossing itself.

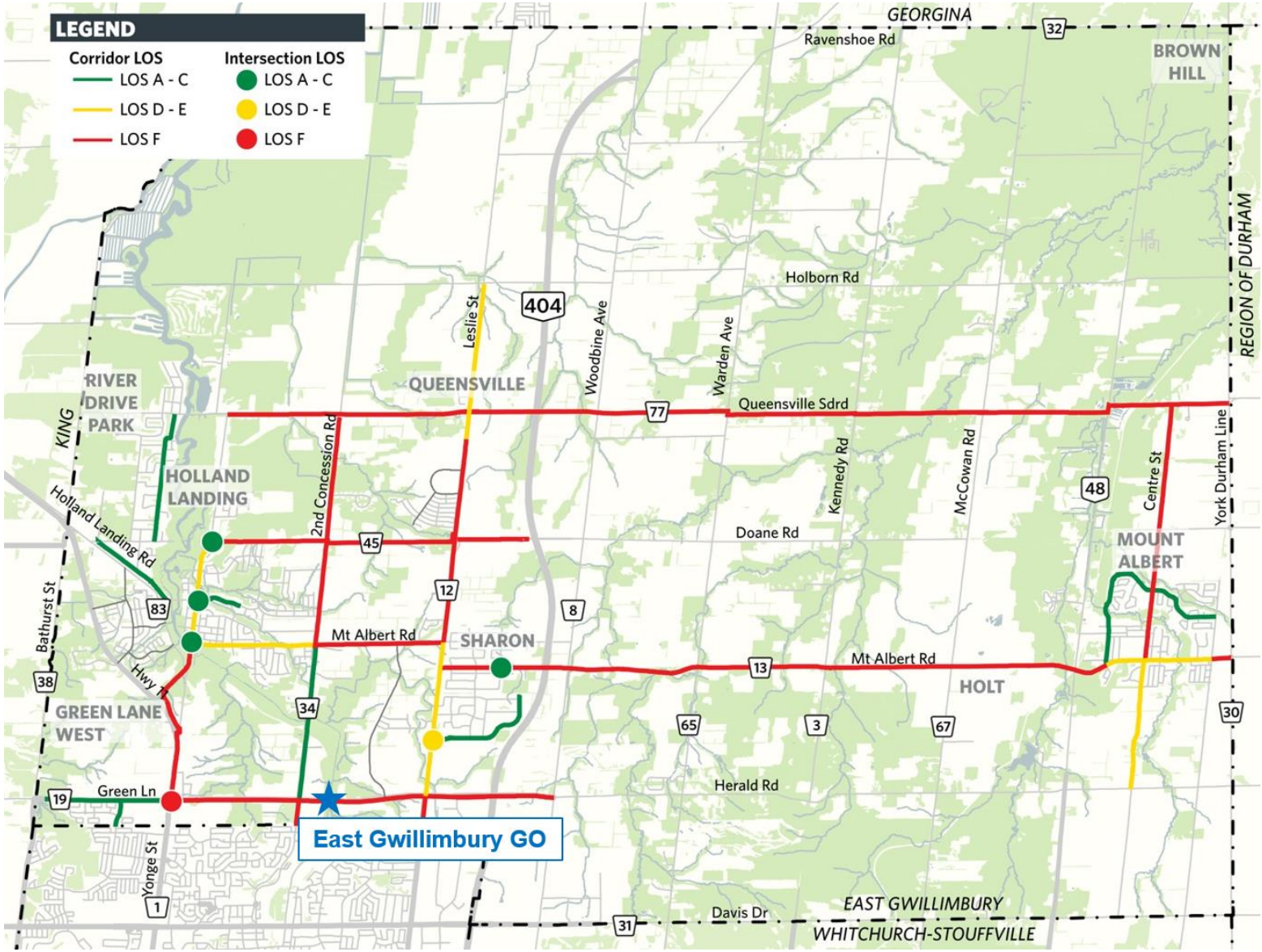
The BLOS methodology is similar to the PLOS method explained in **Section 5.4.4**, and is based on roadway characteristics and facility type and quality. The methodology measures each segment's and intersection's level of traffic stress (LTS) experienced by the cyclist.

Segment BLOS is most sensitive to facility type, with physically separated bikeways such as cycle tracks, protected bike lanes and multi-use paths receiving a score of 'A' while cycling in mixed traffic conditions with varying operating speeds and street widths generally scoring lower – 'D' to 'F'. The scoring ranges as follows:

- PLOS 'A' to 'C' – Physically separated facilities such as cycle tracks, protected bike lanes, and multi-use paths (MUP) are attractive to most cyclists. At intersections, continuous cycling facilities are provided and separated from vehicles and pedestrians.
- PLOS 'D' to 'E' – Designated bike lanes adjacent to high speed traffic lanes or shared facilities on low volume, low speed streets with wide curb lanes provide some comfort, but the majority of potential cyclists typically will not cycle. Greater conflicts at intersections with turning vehicles are experienced.
- PLOS 'F' – Non-separated, shared roadways with high traffic volumes and speeds, and no accommodations at intersections

**Figure 5-19** illustrates the level of service on the Regional Roads for cyclists. As the majority of cycling facilities within the Town are classified as "Shared Roadway", cyclists share the road with vehicles that are operating at high speeds. As such, these corridors experience a BLOS of F. Similar to PLOS, the BLOS along Green Lane near East Gwillimbury GO is poor.

## Figure 5-19: Existing Bicycle Level of Service



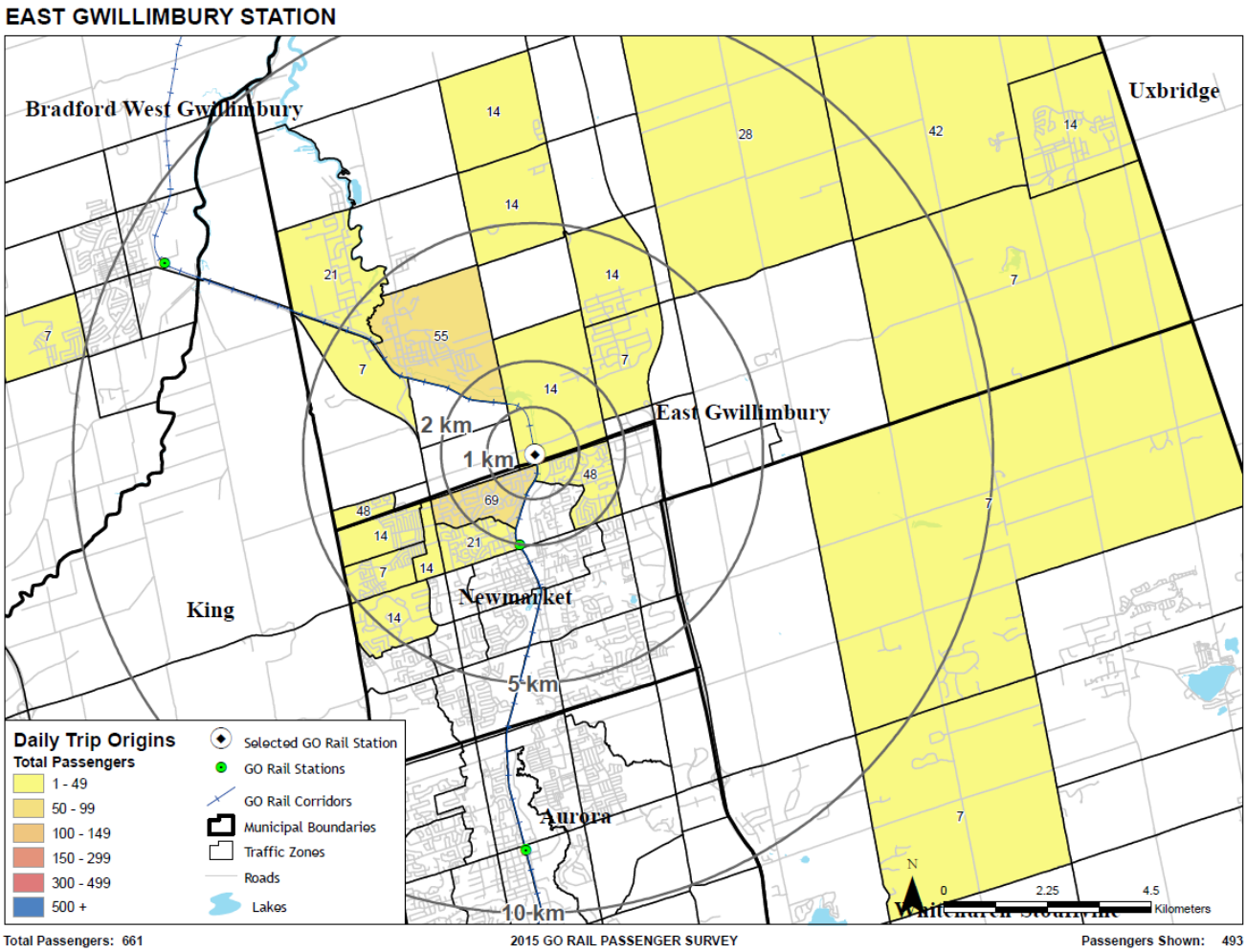
# 5.5 Transit Demand and Opportunities

## 5.5.1 Inter-Regional Transit Demand

According to the 2015 GO Rail OD Survey provided by MTO, there were 661 boardings at East Gwillimbury Station in the AM peak period for the GO Rail service, noting that there was only AM inbound (to Union Station) service on the Barrie GO Line.

The trip origin distribution is shown in **Figure 5-20** and the number of trips by access distance is shown in **Table 5-3**. Only 8% of trips were within 2 km of the station, and more than half of the trips (58%) originated more than 5 km away from the station. The number of trips by access mode is shown in **Table 5-4**. The majority of passengers (89%) drove to the station, followed by passenger drop-off at the station (6%).

**Figure 5-20: Daily GO Rail Trip Origins at East Gwillimbury Station**




Source: Metrolinx 2015 GO Rail OD Survey

### Table 5-3: Number of Trips by Access Distance (Manhattan Distance)

| Access Distance | Trips | Percentage |
|---|---|---|
| < 1 km | 14 | 2% |
| 1-1.99 km | 42 | 6% |
| 2-4.99 km | 222 | 34% |
| >= 5 km | 381 | 58% |
| Total | 661 | 100% |

Source: Metrolinx 2015 GO Rail OD Survey

### Table 5-4 GO Rail Trip Access Mode

| Access Mode | Trips | Percentage |
|---|---|---|
| Drove myself (parked at GO station) | 589 | 89% |
| Carpooled (as driver or passenger) | 7 | 1% |
| Passenger in a vehicle (parked at GO station) | 7 | 1% |
| Passenger in a vehicle (dropped off) | 42 | 6% |
| Local Transit | 7 | 1% |
| Motorcycle/Scooter | 7 | 1% |
| **Total** | **661** | **100%** |

Source: Metrolinx 2015 GO Rail OD Survey

As mentioned in **Section 4.4.3**, there is a GO Bus route parallel to the GO Rail service and provides additional service in off peak hours. **Table 5-5** shows the number of GO Bus boardings, with 42 boardings at the East Gwillimbury GO Station and 12 boardings at the Yonge Street and Mount Albert Road stop.

### Table 5-5: Daily Boarding at GO Bus Stations in East Gwillimbury

| GO Bus Stations | Trips |
|---|---|
| East Gwillimbury GO At Green Lane | 42 |
| Yonge St at Mount Albert Rd | 12 |
| **Total** | **54** |

Source: Metrolinx 2015 GO Rail OD Survey

### 5.5.2 Regional Transit Demand

YRT collected daily bus boardings and alighting counts for a typical weekday and weekend for all routes serving York Region. **Table 5-6** displays the ridership for the two YRT routes that provide local service for the Town of East Gwillimbury. As mentioned previously, Route 52 serves the community of Holland Landing and Route 58 serves the Mount Albert community.

Route 52 has over double the boardings during the weekday than on Saturday, however Saturday boardings are still high signaling that the route is not only used for commuting purposes. Over the past year, there has been a decline in ridership. This can be attributed to the construction on 2nd Concession Road between Green Lane and Mount Albert Road which cause a detour for the route.

Route 58 has significant weekday ridership compared to Saturday, indicating that this route is mainly used for commuting purposes. The average weekday boardings for the route have remained fairly consistent from 2014 to 2015, indicating stable ridership.

**Table 5-6: York Region Transit Ridership Statistics (2015 Fourth Quarter)**

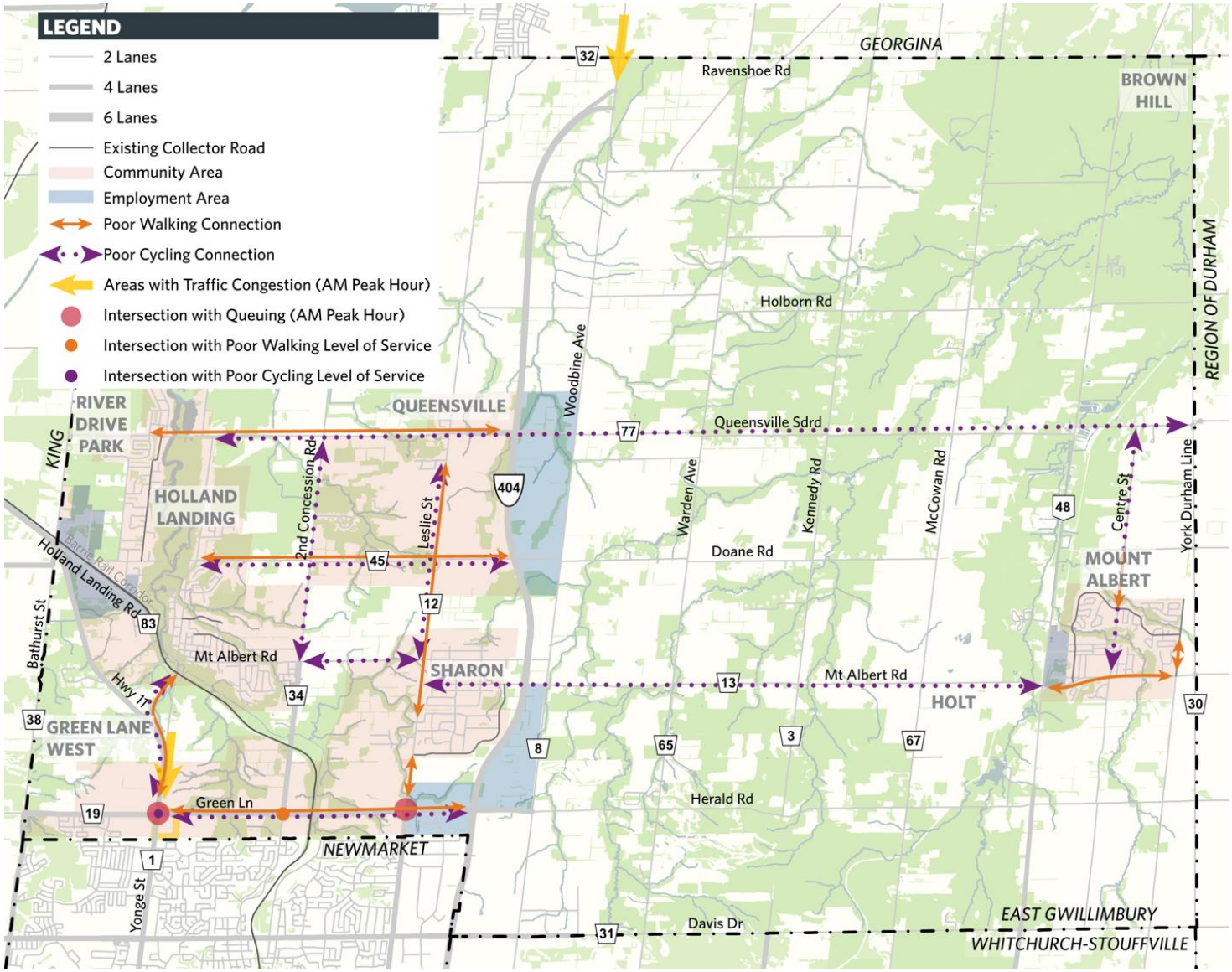
| YRT Route No. | Route Name | 2014 Boardings | | 2015 Boardings | | Total Boardings (Month) | | Total Boardings (Year to Date) | |
|---|---|---|---|---|---|---|---|---|---|
| | | Avg Weekday | Avg Sat. | Avg Weekday | Avg Sat. | 2014 | 2015 (% Diff) | 2014 | 2015 (% Diff) |
| 52 | Holland Landing | 262 | 108 | 196 | 99 | 6,230 | 4,662 (-25.2%) | 52,630 | 49,669 (-5.6%) |
| 58 | Mount Albert | 130 | 9 | 128 | 5 | 2,909 | 2,727 (-6.3%) | 26,731 | 2,6003 (-2.7%) |

Source: York Region Transit (YRT/Viva) Ridership Statistics – 2015 Fourth Quarter Memo, February 4, 2016

## 5.6 Existing Transportation Issues

Based on the existing conditions analysis presented in this Section, several transportation issues have been identified, as illustrated in **Figure** 5-21. The map highlights a wide range of regional, town, and local road issues gathered from the traffic analysis, discussions with the Town, TAC meetings, and from the public.

## Figure 5-21: Summary of Existing Transportation Issues

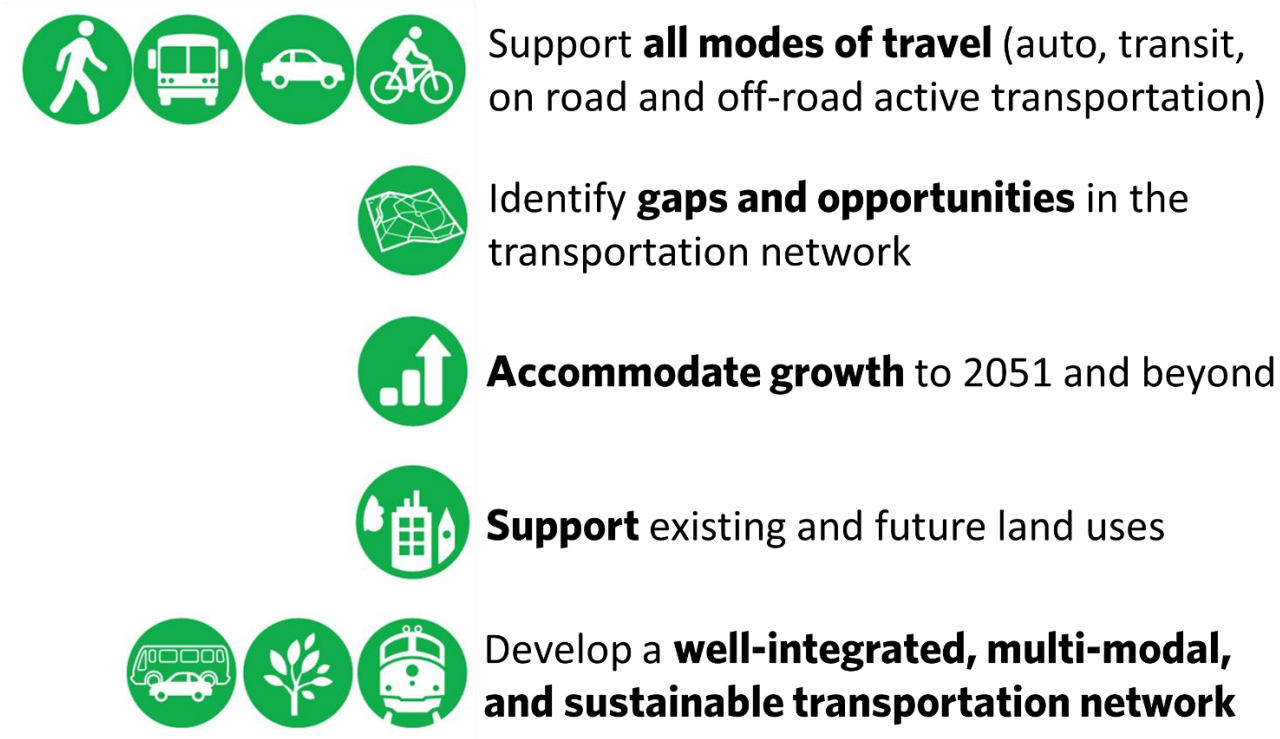


## 5.7 Problem and Opportunity Statement

Phase 1 of a TMP study concludes with a Problem and Opportunity Statement, which identifies the issues and opportunities that the study will address. A Problem and Opportunity Statement is identified to define the transportation issues facing the Town, and the opportunities it faces:

The Town of East Gwillimbury is planned for significant growth by about 4 times its current population, over the next 30 years. This growth will result in more and shorter trips within the Town, putting added strain on the Town's internal transportation network.

At the same time, the growth represents opportunities to:




Ultimately, this multimodal vision for transportation will support a safe, accessible and livable community in the future.

# 6 Planning Strategies

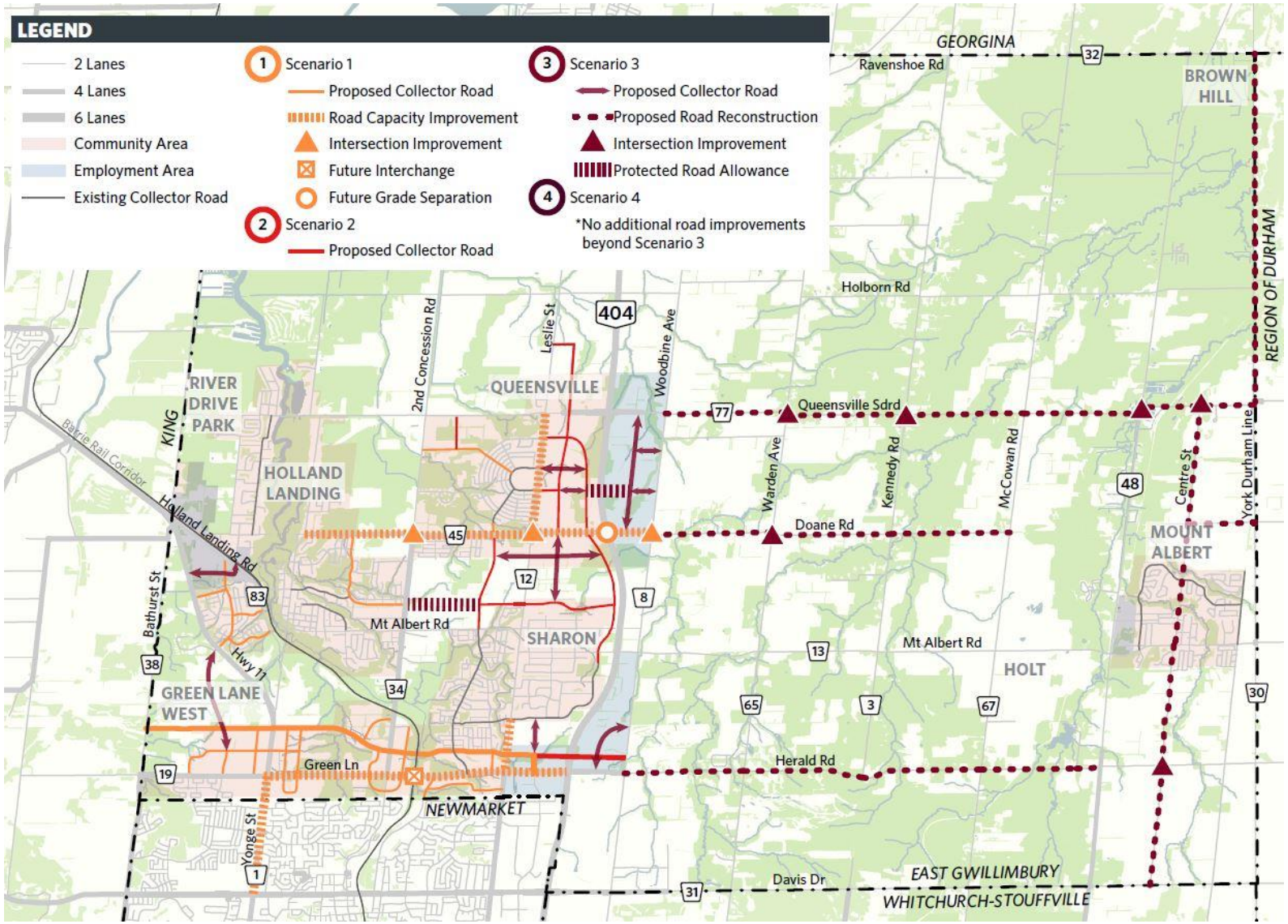
The following two sections (**Section 6 Planning Strategies** and **Section 7 Evaluation of the Planning Strategies**) were completed based on forecasts for the 2041 horizon. The preferred scenario selected in **Section 7** was then updated to address transportation needs and changes to the 2051 horizon as documented in **Section 8 Detailing of the Preferred Scenario** and following chapters.

Four planning scenarios for the 2041 horizon were identified to address the problems and opportunities presented in **Section 5.6**. The four planning scenarios are summarized in **Table 6-1**, with illustrations of the road, cycling, and transit improvements shown in **Figure 6-1, Figure 6-2**, and **Figure 6-3**, respectively. Additional details of each scenario are provided in **Appendix B**.

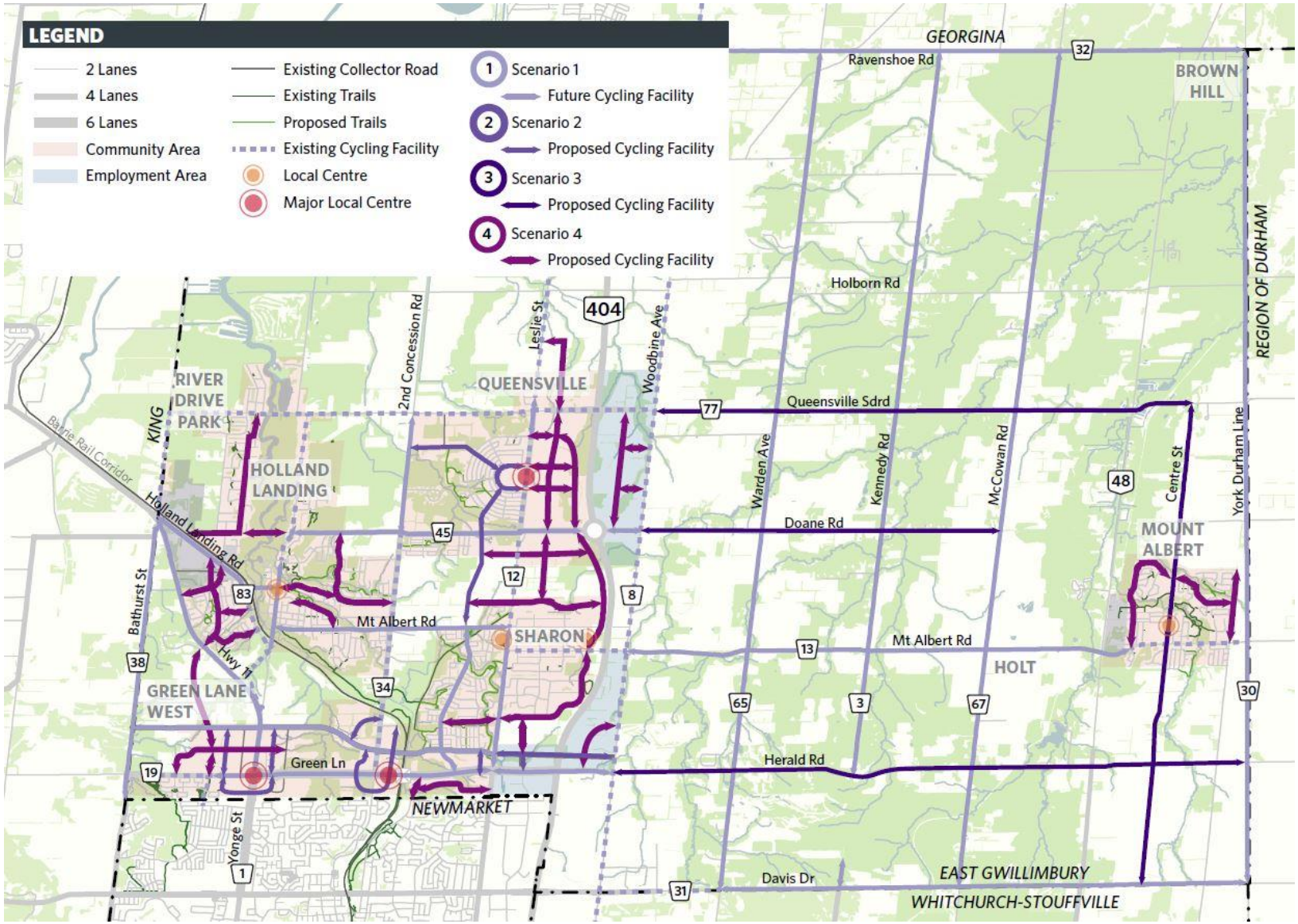
**Table 6-1: Planning Strategies**

| No. | Scenario | Description | Goal |
|---|---|---|---|
| 1 | Base Case | Committed road improvements by:<br>• Ministry of Transportation (MTO);<br>• York Region; and<br>• Town of East Gwillimbury. | Confirm the need for the Town to make its own investments in transportation. |
| 2 | Currently Planned Town Network | Further to Scenario 1, build planned Town improvements from the 2010 Transportation Master Plan (TMP) and 2012 Active Transportation and Trails Master Plan (ATTMP). | Confirm the Town's infrastructure needs from the 2010 TMP and 2012 ATTMP. |
| 3 | Revised Town Network | Revise the currently planned Town improvements to respond to changes in the planning context. Invest in:<br>New connections; and<br>Road improvements. | Confirm the desire to invest in new road infrastructure. |
| 4 | Enhanced Town Network | Further to Scenario 3,<br>Implement cycling facilities on all new road improvements;<br>Implement cycling facilities on existing roadways; and<br>Travel Demand Management (TDM) policies and Complete Streets on existing Town roadways. | Confirm the desire to investing in new road infrastructure with designated facilities for cyclists. |

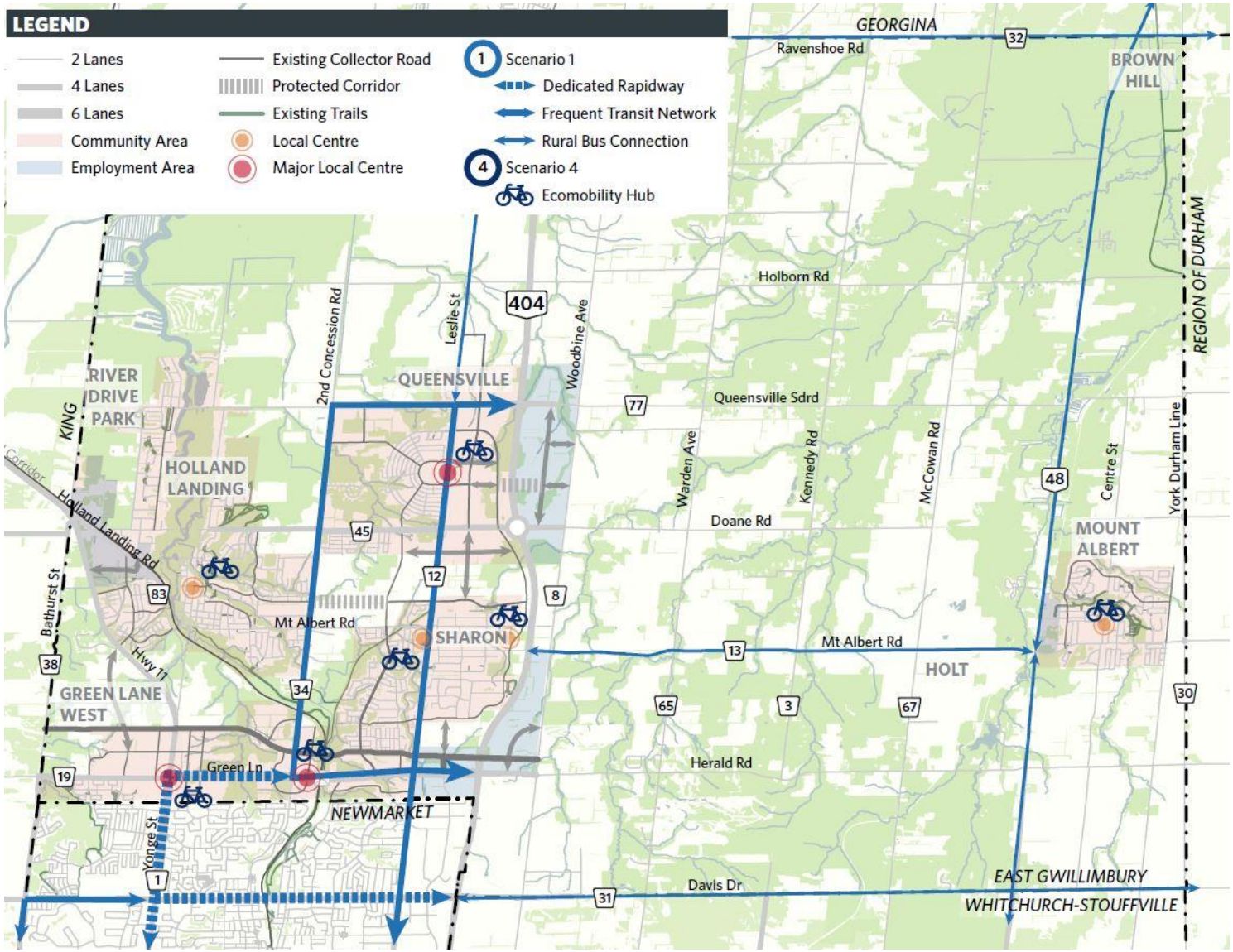
## Figure 6-1: 2041 Scenario Planning Strategies Road Network



## Figure 6-2: 2041 Scenario Planning Strategies Cycling Network



## Figure 6-3: 2041 Scenario Planning Strategies Transit Network, Planning Strategies, and Policy Development



# 7 Evaluation of the Planning Strategies

## 7.1 Evaluation Criteria

To identify the preferred scenario, a detailed set of evaluation criteria and measurement were used. This includes consideration for transportation services, social equity, policy environment, affordability, natural environment, and socio-economic environment (**Figure 7-1**).

**Figure 7-1: Evaluation Criteria**

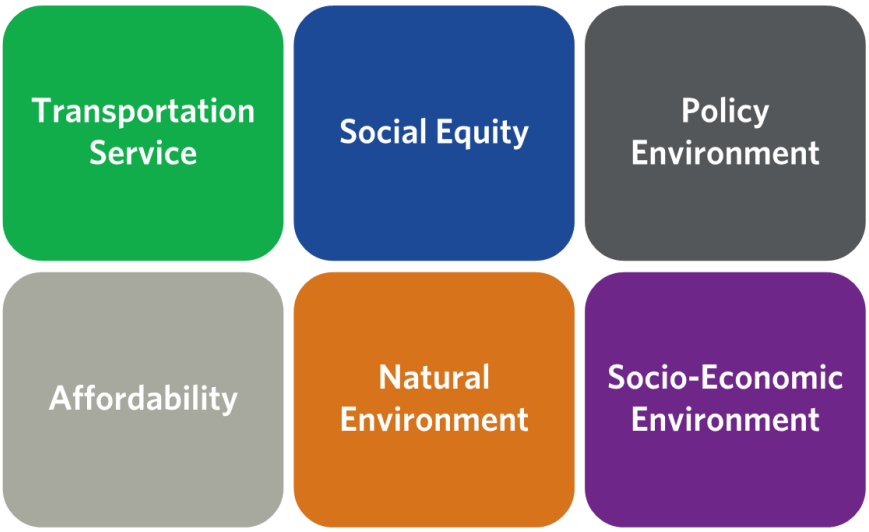



**Table 7-1** summarizes the evaluation measures of each criterion that was used to assess each planning scenario.

### Table 7-1: Evaluation Criteria and Measures

| Evaluation Criteria | Measures |
|---|---|
| Transportation Service | Efficiently move people and goods |
| | Provides safe access |
| | Provides efficient connections within the Town |
| | Improves connections to/from surrounding municipalities |
| | Provides opportunities to walk and cycle throughout the Town |
| | Provides a diversity of travel choices, including walking, cycling, and transit |
| Social Equity | Accommodates mobility for all ages and users |
| | Optimizes the health and safety of all ages and users |
| Policy Environment | Supports Provincial policies |
| | Supports York Region policies |
| | Supports Town's Official Plan |
| | Supports existing and future population areas |
| Affordability | Minimizes capital costs |
| | Minimizes maintenance and operation costs |
| Natural Environment | Minimizes impacts to the natural environment |
| | Network encourages active transportation |
| Socio-Economic Environment | Minimizes impacts to property |
| | Supports existing and future employment areas |
| | Provides opportunities for planned growth |

## 7.2 Evaluation of the Scenarios

The four planning scenarios were evaluated based on the criteria and measures outlined in the above section. **Table 7-2** summarizes the evaluation of the scenarios.

**Table 7-2: Summary Evaluation of Scenarios**

| Evaluation Criteria | Scenario 1 | Scenario 2 | Scenario 3 | Scenario 4 |
|---|---|---|---|---|
| Transportation Service | ○ | ◑ | ◕ | ● |
| Social Equity | ○ | ◑ | ◕ | ● |
| Policy Environment | ○ | ◑ | ◕ | ● |
| Affordability | ◕ | ◕ | ◑ | ◔ |
| Natural Environment | ● | ◕ | ◑ | ◑ |
| Socio-Economic Environment | ◔ | ◑ | ◑ | ◕ |
| **Recommendation** | **Screen Out** | **Screen Out** | **Carry Forward** | **Carry Forward** |
| **Legend** | ○ | | ● | |
| | **Least Preferred** | | **Most Preferred** | |

**Scenario 4 – Enhanced Town Network is the preferred planning scenario**. The identified benefits also further apply to the 2051 scenario to support the growth in East Gwillimbury, especially within the Whitebelt areas. The preferred scenario supports the multimodal vision for the Town and provides a safe, accessible, and connected transportation network for all users.

# 8 Detailing of the Preferred Scenario

The multimodal transportation vision for the 2051 horizon includes a detailed strategy for all improvements. The key opportunities include :

- Constructing key road connections to connect the community areas within East Gwillimbury;
- Supporting the development of Whitebelt lands and increase the overall connectivity across the surrounding communities within East Gwillimbury;
- Maintaining consistency with the latest planning context;
- Providing opportunities to connect with future transportation links such as the Bradford Bypass;
- Connecting the gaps in the sidewalk network to promote walking as the first choice for short trips;
- Implementing cycling infrastructure throughout East Gwillimbury, building on the Town's ATTMP
- Implementing an EcoMobility Hub pilot program as a way to encourage shared mobility and to facilitate first and last mile connections;
- Implementing a bike share pilot program to increase cycling mode share; and
- Continue to collaborate with York Region Transit (YRT) on expansion of transit and Mobility On-Request services.

Additional network considerations for the 2051 horizon include the following:

- New urban areas (70% and 100% Whitebelt lands) as shown in **Figure 5-1**;
- New regional and inter-regional projects identified in the 2022 York Region TMP (such as the Bradford Bypass); and
- Connections with identified collector roads from completed studies (such as the Holland Landings Secondary Plan).

Full details for developing the preferred transportation network are provided in **Appendix C**.

## 8.1 Road Projects and Intersection Improvements

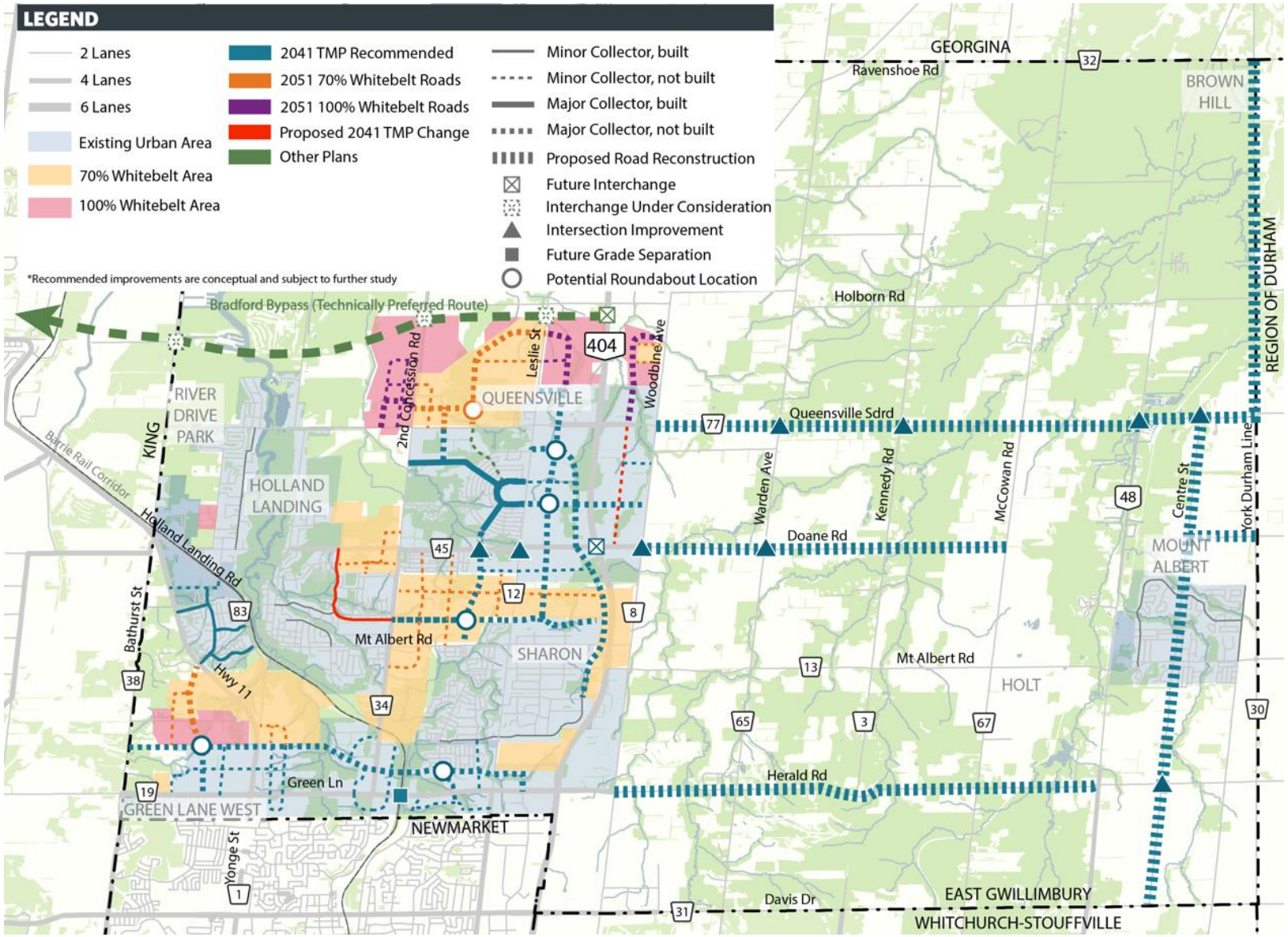
New road projects are required to support the significant growth that the Town will experience over the next 30 years. These projects will also help support the proposed active transportation and transit opportunities for the Town by providing more direct connections between communities.

Reconstruction of rural roads within the Town were also explored. While these roads do not experience capacity issues, several roads carry significant volumes and feature constraints that present safety issues. Issues include steep hills, narrow areas with deep ditches, and winding areas.

Intersection improvements will also be required to support the Town's growth. Single land roundabouts are recommended as an intersection control along collector roads within the Town and should be considered over traffic signals wherever traffic signals are warranted on Town roads. Benefits of roundabouts include reduction of severe collisions and potentially delays; however, there may be road geometry and property restrictions.

The 2051 road network including new roads, road reconstructions and potential roundabouts are shown in **Figure 8-1**. Details are provided in **Appendix C**.

## Figure 8-1: Proposed 2051 Road Network



## 8.2 Road Jurisdiction Review

York Region has a Regional Road Assumption Policy which can be used to determine if a Town road should be uploaded to York Region's Regional Road network. Due to significant growth within the Town and an increase in internal travel, it is recommended that Queensville Sideroad from Woodbine Avenue to York Durham Line be transferred to the Region's jurisdiction. Additional details are provided in **Appendix C**.

2nd Concession Road and Bathurst Street may also require potential 2 to 4 lane widening and road class update due to the addition of Bradford Bypass. Protection for potential interchange and road improvements between Queensville Sideroad and Holborn Road on 2nd Concession Road and Bathurst Street is expected for the 2051 horizon.

## 8.3 Active Transportation

### 8.3.1 Pedestrian Infrastructure

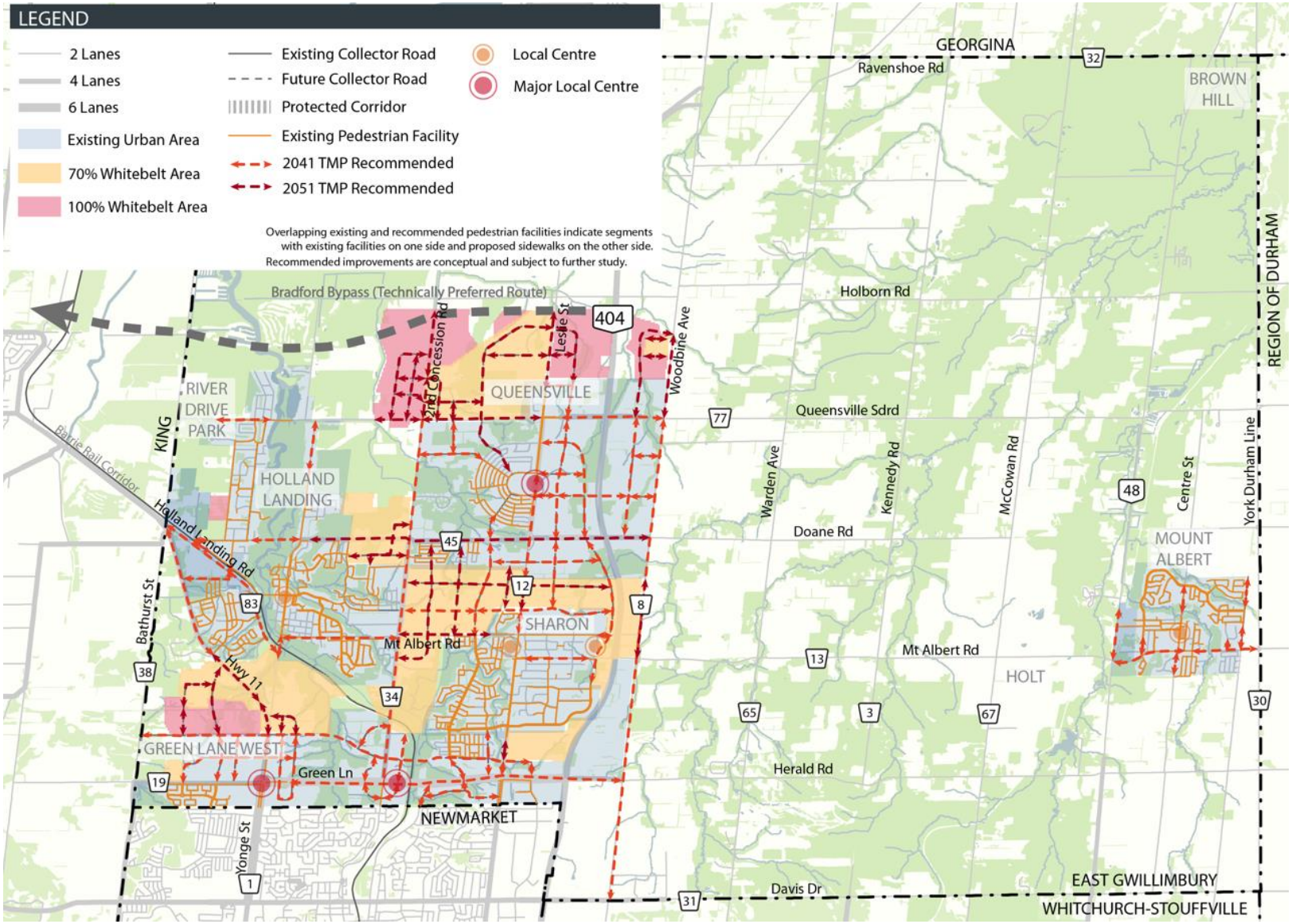
A review of the existing pedestrian infrastructure in the Town of East Gwillimbury found that several corridors have missing sidewalks, creating gaps in the sidewalk network. Two objectives of this TMP focus on walking and includes:

- Improving the streets within the Town making them safe and accessible for all road users; and
- Promoting walking as the first choice for short trips.

Sidewalks provide a safe and accessible environment for pedestrians. By filling in the "missing gaps" in the network, walking will be a more viable option to users. This will also include reviewing the existing sidewalk network to determine if there are any sidewalks that are below standard.

**Appendix C** lists the proposed sidewalk improvements and **Figure 8-2** illustrates the future sidewalk network. It is noted that the proposed walking projects originally recommended for the 2041 horizon are under Category A, while the proposed walking projects added for 2051 development are under Category B.

## Figure 8-2: Proposed 2051 Sidewalk Network



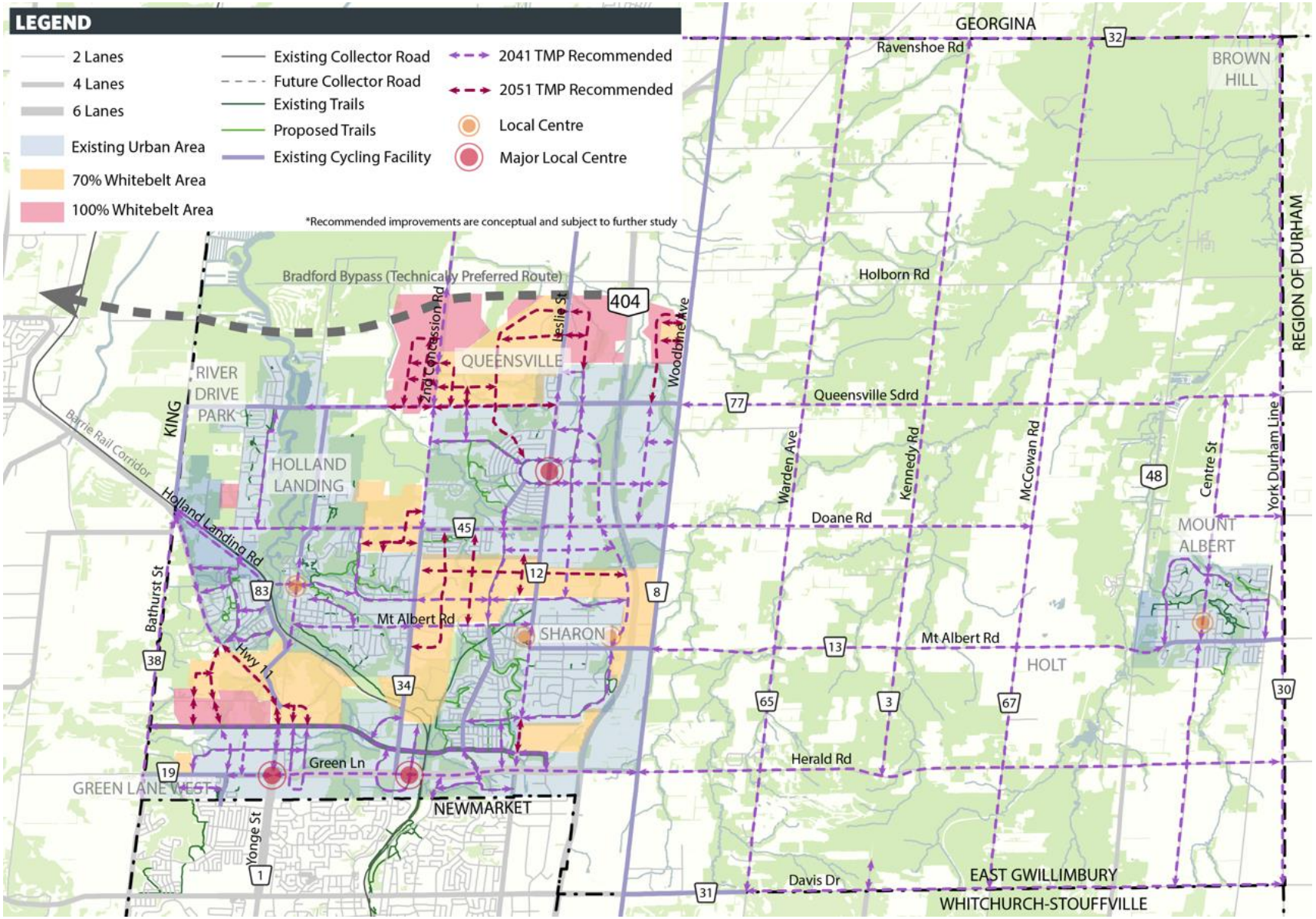
### 8.3.2 Cycling Infrastructure

As part of the preferred scenario, cycling infrastructure is recommended within the road ROW for new and existing collector and arterial roads. Cycling infrastructure cross sections are recommended based on the Ontario Traffic Manual (OTM) Book 18 and are based on four types of facilities: sharrows, paved shoulders, painted bike lanes, and multi-use paths (MUPs). **Table 8-1** summarizes the cycling facilities. **Figure 8-3** illustrates the proposed future cycling network.

### Table 8-1: Types of Cycling Facilities

| Cycling Facility | Description | Example |
|---|---|---|
| Sharrows | • Not necessarily a facility, but are directional signs painted on the road<br>• Lane is shared with vehicles and cyclists<br>• Requires no additional street space or narrowing of travel lanes<br>• Provides a wayfinding element along bike routes<br>• No separation from traffic |  |
| Paved Shoulders | • Can be shared with pedestrians and cyclists<br>• Generally recommended for rural areas<br>• Requires road signs and pavement markings to ensure visibility of the facility<br>• Minimum width of 2.0m to be considered as an active transportation facility |  |
| Painted Bike Lane | • Dedicated on-road cycling facility<br>• Some separation from traffic<br>• Can accommodate cyclists on both sides of streets<br>• May require narrowing of travel lanes to accommodate<br>• Minimum width of 1.5m, but recommended to be 1.8m |  |
| Multi-Use Path | • Off-road facility<br>• Shared facility between pedestrians and cyclists<br>• Accommodates cyclists on one side of the street only<br>• Offers routes with minimal vehicular conflict<br>• Road right of way requirements are larger than other facilities |  |

## Figure 8-3: Proposed 2051 Cycling Network



## 8.4 Transit

The 2022 York Region TMP identifies Green Lane, west of the East Gwillimbury GO Station as a Rapid Transit Corridor. The Metrolinx Regional Transportation Plan recommends two-way, all day and 15-minute service along the Barrie GO Transit. Although the Frequent Transit Network (FTN) presented in the 2016 Regional TMP is no longer included in the 2051 Proposed Transit Map of the 2022 Regional TMP as shown in **Figure 4-18**, the 2022 Regional TMP mentions that the potential for FTN development and increased local bus services and Mobility On-Request in response to shorter-term demand is not precluded.

The Mobility On-Request service is accessible to users of all abilities and ages and is proposed to improve service efficiency, promote public transit, increase ridership, and connect customers to transit corridors. Users can access the program using a mobile platform to call for transit service and will be dropped off at bus routes on main transit corridors.

To facilitate the success of the on-demand transit strategy, the service is ideally integrated with the EcoMobility Hub and the bike share pilot programs. The on-demand service could drop off users at EcoMobility Hubs or in the bike share service area to facilitate the first/last mile.

## 8.5 EcoMobility Hubs

As part of the preferred scenario, an EcoMobility Hub pilot program is recommended for the Town. An EcoMobility hub is a multi-modal one-stop point intended to facilitate smart and easy access to mobility services[4][5]. The concept of EcoMobility hubs was identified in the City of Toronto's ConsumersNext Transportation Master Plan which recommended that the City form a strategic partnership with Smart Commute North Toronto Vaughan and the Toronto Parking Authority to develop a pilot program. EcoMobility hubs are popping up around the world including in several cities in Germany, and are essentially one-stop service points for shared multimodal systems including car sharing, ride sharing and bike sharing.

These hubs may vary in scale from major transit station areas (i.e. East Gwillimbury GO Station) to smaller scale, community based hubs. Depending

[4] Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11~13, 2015.
[5] Karim D. M., Creating an Innovative Mobility Ecosystem for Urban Planning Areas, Disrupting Mobility - Impacts of Sharing Economy and Innovative Transportation on Cities, Springer Book, Lectures in Mobility, ISBN: 978-3-319-51601-1, pages 21-47, 2017.

on the scale, the hub may include bus stops, dedicated car-share parking spaces with charging stations, parking lay-bys for ride sharing, bike share stations, comfortable and safe waiting areas with displays for real-time data for all modes, benches, open space, free Wi-Fi, wayfinding information, and retail support. A large scale EcoMobility Hub concept is illustrated in **Figure 8-4**.

### Figure 8-4: Large Scale EcoMobility Hub


Source: Multi Mobility, Sophia von Berg, 2014

EcoMobility hubs can:

- Provide increased transportation choices for residents and visitors;
- Decrease dependence on the private automobile; and
- Reduce congestion.

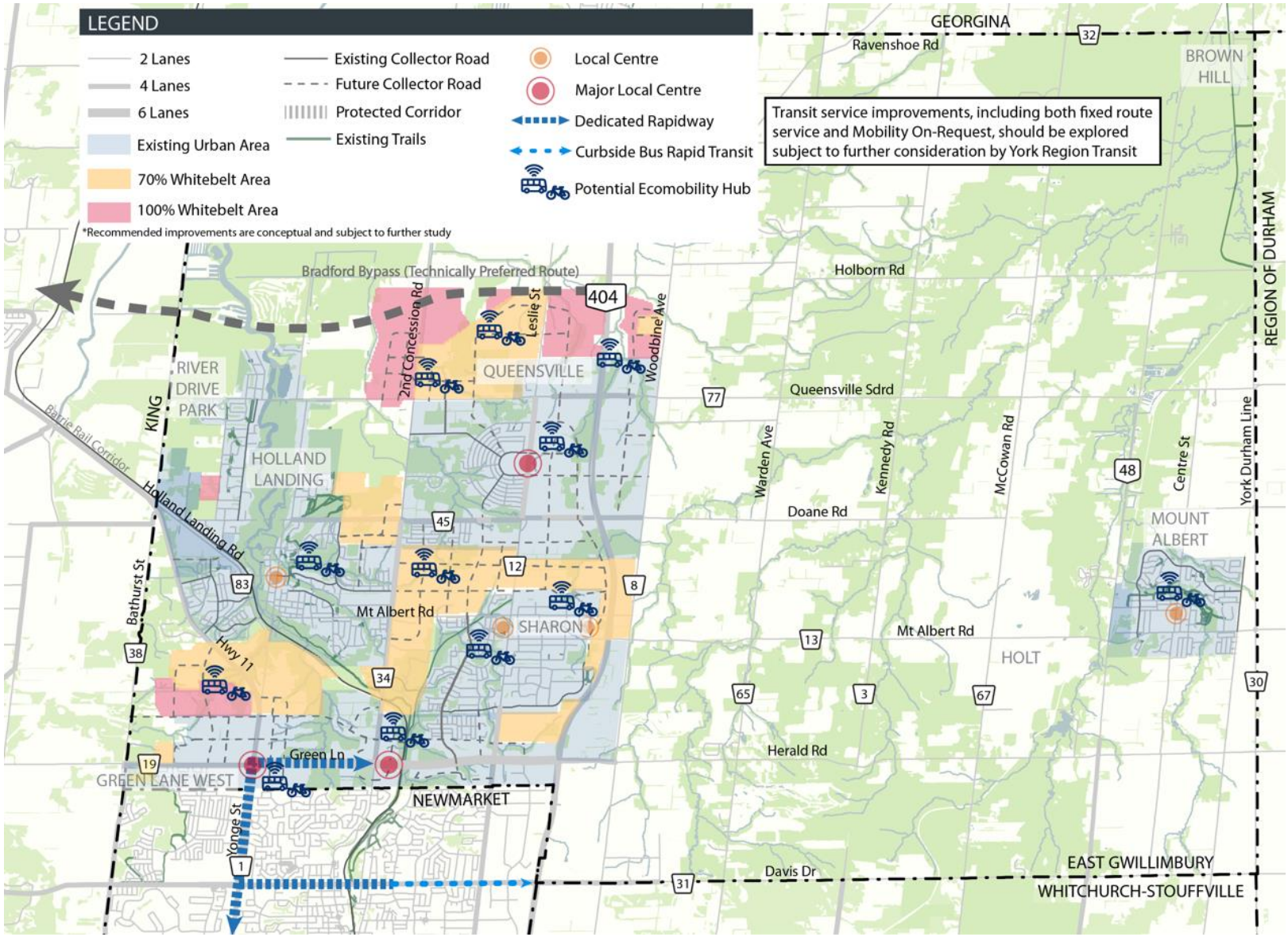
Consideration may be warranted, in the immediate future, for providing small scale EcoMobility hubs in popular areas such as The Civic Centre, East Gwillimbury GO, and other major local centres.

Initially, the EcoMobility Hub can be trialed through a pilot program at key locations with enhancements to existing facilities (e.g. designated indoor waiting areas, car-sharing spots and enhance bike parking at town facilities near transit) and can facilitate key first/last mile connections. The proposed

2051 transit strategy map with potential locations of EcoMobility Hub indicated is shown in **Figure 8-5.**

The potential cost of an Eco-mobility hub would vary depending on the availability of existing infrastructure (e.g. shelters, parking lots, etc.), the variety of service provided, and whether or not the hub would be staffed. Costs sharing agreements should be considered or discussed with partner agencies such as York Region / York Region Transit or Metrolinx / Smart Commute.

## Figure 8-5: Proposed 2051 Transit Strategy



### 8.5.1 Bike Share

In parallel to the EcoMobility Hub pilot program, it is recommended that the Town should implement a bike share pilot program. Bike sharing services allow users to rent bicycles within a designated service area. The program allows users who do not have access to a bicycle to make cycling trips at an affordable cost. There are two types of bike share services: fixed station and “dockless”. The former is currently used by Bike Share Toronto and allows users to pick up and drop off bicycles at one of 680 fixed stations located around the City. The “dockless” system is more common in Europe and Asia and allows users to find and check out bicycles using an app and leaving locked to fixed objects anywhere within the designated service area. There are many noted challenges with successful “dockless” systems however, including the need to provide enough incentives to ensure that users leave the bikes in appropriate locations for example.

A bike share pilot program could increase the accessibility of cycling to Town residents, and make cycling a more attractive option for commuter and other utilitarian trips.

## 8.6 Improving Connectivity to the GO Station

The East Gwillimbury GO Station is located at the southeast corner of 2nd Concession Road / Main Street North and Green Lane East, near the Town’s boundary with Newmarket. The Station has bicycle racks, designated carpool parking, “Kiss & Ride” passenger drop off, reserved parking, and a total of 642 parking spaces. The GO Station is served by the Barrie GO Line which provides weekday AM peak service south to Union Station in Toronto and PM peak service north to Allandale Waterfront in Simcoe County. Some two-way service is currently provided on weekends.

Metrolinx’s 2023 GO Rail Station Access Plan identifies access to the East Gwillimbury GO Station should facilitate increased ridership, enhance users’ experience and safety, and reduce dependency on single-occupancy vehicles. Improvements to station accessibility at East Gwillimbury GO will help promote alternative mode choices to further support ongoing efforts to achieve two-way all-day 15-minute service along the Barrie Line. This includes prioritizing active modes for short trips and non single-occupancy modes for longer trips.

Potential improvements should be considered, working in partnership with Metrolinx and York Region. Considerations for further discussion include:

- Implementing measures to improve the Pedestrian Level of Service of the Green Lane / 2nd Concession Road Intersection;
- Implement planned cycling infrastructure along Green Lane in tandem with new development in the Green Lane Secondary Plan Area;
- Ensure proposed future development along the north and west side of Green Lane incorporates a permeable local road network connecting into the GO station;
- Consider the feasibility of a grade separated eastern connection for cyclists and pedestrians to the GO station; and
- Ensure any future grade separation of the rail corridor at Green Lane incorporates facilities for active modes.
- Complete an east-west pedestrian and cycling connection from Main Street to the GO Station, south of Green Lane.
- Consider a micro-transit feasibility study / pilot project to improve access to the GO Station, reduce surface parking requirements as the Town continues to grow, and to reduce single occupant vehicle queues during peak times. The micro-transit service could be integrated with other shared mobility services as per the EcoMobility hub concept, at the GO Station.

# 9 Implementation Plan

The implementation of the Transportation Master Plan update includes phasing recommendations for all infrastructure improvements, policy implementation recommendations, future considerations, partnerships and funding sources, and plan monitoring.

## 9.1 Infrastructure Phasing

Recommendations resulting from the Preferred Alternative for the Transportation Master Plan are given priority based upon need (such as developer interest) and potential ease of implementation. Generally, the majority of improvements identified in **Section 8** are tied to specific developments and should be implemented in accordance with this plan by development as a condition of site plan approval. It is noted that similar to **Section 8,** the proposed infrastructure projects originally recommended for 2041 are under Category A, while the proposed infrastructure projects added for 2051 development are under Category B. An estimate of potential timing of each project is provided in the project cost table in **Appendix D**.

## 9.2 Infrastructure Planning Requirements

Major infrastructure requirements to satisfy potential Municipal Class EA requirements are identified and are based on the following schedules:

- **Schedule A** projects are minor projects that have little to no environmental impacts and can include operational or maintenance activities. These projects are categorized as pre-approved. Examples include new cycling facilities or sidewalks within the existing right-of-way.
- **Schedule A+**, similarly to Schedule A, are minor projects with minimal environmental impacts. They also are pre-approved, but require public notice prior to project implementation. Examples include streetscaping, roadside park or picnic areas, and re-designation of existing paved uses (e.g. addition or removal of cycling lanes / facilities).
- **Schedule B** projects are improvements or minor expansions to existing infrastructure that have some potential unfavourable impacts to the environment and requires a screening process with those impacted and relevant review agencies. Examples include minor road improvements or expansion, and minor road intersection improvements.

- **Schedule C** projects have the potential for significant impacts to the environmental and requires the full planning and documentation process specified in the Class EA document (Phases 1 to 4), and must include an Environmental Study Report. These documents must be made available for review by the public and environmental agencies. The construction of a new road (greater than 1 kilometer in length) is an example of a Schedule C project.

Full details of infrastructure planning requirements for projects are noted in **Appendix D**.

## 9.3 Transportation Demand Management (TDM)

Transportation Demand Management (TDM) provides a number of measures to influence when, where, why, and how people travel. The objective of implementing TDM measures is to shift the mode share by reducing the number of auto trips to avoid congestion. There are several TDM measures which can be implemented or promoted by the Town, including:

- **Smart Commute** program provides and promotes commuting solutions including carpooling, cycling, and transit use. The Town could form a formal connection with the Smart Commute Initiative to help connect local employers to facilitate alternative modes of travel;
- **Variable work schedule.** Town could implement initiatives which encourage employers to allow for flexible work schedules for employees, or a compressed work week, where employees can work longer hours over fewer days to reduce peak-hour commuting demands on the road network or transportation system. Variable work schedules can assist in spreading out commute trips over a longer period instead of concentrating all the trips within a single hour.
- **Parking management.** Strategies include under-supplying parking at major destinations, charging motorists for their parking space, as well as charging higher parking fees for long-term parkers or during rush hour, when traffic is most congested. Updates to zoning by-law can also be made for parking policies to reduce the minimum parking standards, as well as establishing EV and car-pool parking requirements. Such strategies could discourage individuals from driving due to the inconvenience of parking, and instead consider alternative modes of transportation that may be more logistically or financially beneficial.

The following section details several TDM measures to be considered for implementation by the Town.

### 9.3.1 TDM Checklist

In 2016, York Region released a report titled ***Transportation Mobility Plan Guidelines for Development Applications*** which provides a checklist in order to encourage the implementation of TDM measures as a condition of site plan approval (**Figure 9-1**). This checklist is required to be completed by all proposed development applications which will generate more than 100 person trips. This checklist is essential to all Town proposed development applications as it will help reduce the number of auto trips.

The checklist covers a variety of TDM measures include end of trip facilities (e.g. bicycle storage and showers), employer-sponsored transit incentives, and includes the previously identified measures of a variable work schedule and parking management.

## Figure 9-1: TDM Checklist

| TDM Measures | For Residential Developments | | For Non-Residential Developments | |
|---|---|---|---|---|
| | Requirement | Responsibility | Requirement | Responsibility |
| Transit incentives (i.e. PRESTO cards) | Yes | York Region to consider | Yes | Applicant |
| Information packages (YRT/Viva maps, GO schedules, cycling maps) | Yes | York Region to consider and could be distributed at the sales office | Yes | Applicant |
| Communication strategy and physical location to deliver PRESTO cards and information packages | Yes | Applicant | Yes | Applicant |
| Outreach programs | Yes | York Region to consider | Yes | Applicant |
| Pedestrian connections | Yes | Applicant | Yes | Applicant |
| Cycling connections | Yes | Applicant | Yes | Applicant |
| Ped/cycling connections to transit facilities | Yes | Applicant | Yes | Applicant |
| Internal ped/cycling circulation | Yes | Applicant | Yes | Applicant |
| Active transportation network/fine-grid | Yes | Applicant | Yes | Applicant |
| Bicycle parking/shelter | Only applies to condos | Applicant | Yes | Applicant |
| Bicycle repair station | As per local bylaw | Applicant | As per local bylaw | Applicant |
| Bicycle parking | As per local bylaw | Applicant | As per local bylaw | Applicant |
| Benches/receptacles | Case by case | Applicant/ Municipality | Case by case | Applicant |
| Illumination of ped/cycling connections | Case by case | Applicant/ Municipality | Case by case | Applicant |
| Carpool parking | No | - | Yes | Applicant |
| Car share | Only applies to condos | Applicant | Case by case | Applicant |
| Shared-parking between land uses | Case by case | Applicant | Yes | Applicant |
| Parking reduction | Where appropriate | Applicant/ Municipality | Where appropriate | Applicant |
| Real time TV screen | Only applies to condos | Applicant | Where appropriate | Applicant |
| Trip end facilities (i.e. showers) | No | - | Where appropriate | Applicant |
| Membership with Smart Commute | Where appropriate | Applicant | Yes | Applicant |
| School travel planning | Where appropriate | Applicant/School Board/ Municipality | No | - |
| Telecommute | No | - | Where appropriate | Applicant |
| Monitoring program/report | Yes | York Region to consider | Yes | Applicant |

Source: York Region Transportation Mobility Plan Guidelines

## 9.4 Zoning By-law Update

The Town of East Gwillimbury has completed an update to their Zoning By-law (ZBL) in May 2018. It is recommended that the Town implement a future amendment to their ZBL for minimum parking standards to include Electric Vehicle (EV) and carpool parking space requirements. These updates are integral to promoting more sustainable travel options.

## 9.5 Program Cost Estimates

The financial impact of the recommended plan is estimated to provide input to the Town's Development Charges update.

The gross capital costs for the recommended transportation strategy over the study horizon, inclusive of road widenings, new construction, reconstruction, active transportation facilities and structures is $730 million (2022$). Of the total, $519 million is needed for roadway works, $79 million for active transportation, $59 million for structures, $37 million for land acquisition, $28 million for Streetlighting, and $8 million for intersection improvements or roundabouts. The cost distribution is displayed in **Figure 9-2**. It is noted land acquisition costs reflect projects in the Whitebelt lands only. Only two road projects in the non Whitebelt lands required land acquisition and costs were instead included in the total project cost. Full cost details are provided in **Appendix D**.

**Figure 9-2: East Gwillimbury TMP Capital Cost Distribution**

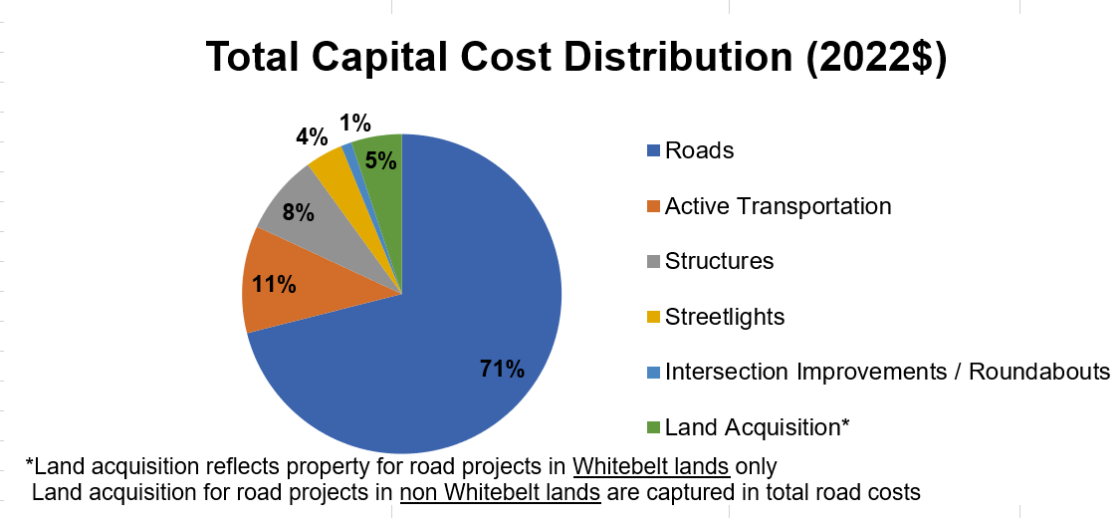


**Table 9-1** breaks down the capital costs by project type. The expansion of the road network through new construction is responsible for more than half of the total program costs (56%), followed by reconstruction (15%). Other than standalone structure projects (as is the case with the Barrie GO grade separation and Highway 404 / Doane Road interchange), structure costs are included within their associated road improvements such as reconstruction, widening and new construction. Costs for interchanges along the Bradford Bypass technically preferred route are not included in the cost estimates.

It is noted that other improvements such as bike share or EcoMobility hubs are not costed. Further study is required to determine the nature and scope of these services.

### Table 9-1: Capital Costs by Project Type

| Summary by Treatment | Total ($2022) | Distribution |
|---|---|---|
| Reconstruction | $107,500,000 | 14.7% |
| Widening | $2,700,000 | 0.4% |
| New Construction | $408,600,000 | 56.0% |
| Standalone Structure Projects (Barrie GO Grade Separation and Highway 404 / Doane Road Interchange) | $59,000,000 | 8.1% |
| Paved Shoulders | $28,200,000 | 3.9% |
| Sidewalk on Both Sides | $23,700,000 | 3.3% |
| Sidewalk on One Side | $10,200,000 | 1.4% |
| MUP | $12,500,000 | 1.7% |
| Painted Bike Lanes / Sharrows | $4,600,000 | 0.6% |
| Intersection Improvement | $4,500,000 | 0.6% |
| Roundabout | $3,400,000 | 0.5% |
| Other Improvements (bike share, EcoMobility Hub) | $0 | 0% |
| Streetlights | $27,700,000 | 3.8% |
| Land Acquisition* | $37,400,000 | 5.1% |
| **Total** | **$730,000,000** | **100%** |

*Land acquisition reflects property for road projects in Whitebelt lands only. Land acquisition for road projects in non Whitebelt lands are captured in total road costs. Costs rounded to the nearest 100,000.

As the Town of East Gwillimbury grows and intensifies, the TMP will focus more so on providing vital urban infrastructure. Urban works account for the majority share of this TMP's capital program, as is demonstrated in **Table 9-2**.

### Table 9-2: Capital Costs by Cross Section Type

| Summary by Cross-Section | Cost | Distribution |
|---|---|---|
| Urban | $622,800,000 | 85% |
| Rural | $107,200,000 | 15% |
| **Total** | **$730,000,000** | **100%** |

Costs rounded to the nearest 100,000.

As mentioned earlier in the section, road related capital expenditures are estimated at $519 million (or 71% of the total program) while the investment needed to complete the active transportation network is approximately $79 million (11% of the total). The breakdown of active transportation facilities, displayed in **Table 9-3** shows that sidewalks and paved shoulders together account for most of the AT program.

### Table 9-3: Active Transportation Facilities Cost

| Active Transportation | Cost | Distribution |
|---|---|---|
| Sidewalks | $34,000,000 | 43% |
| Painted Bike Lanes / Sharrows | $4,600,000 | 5% |
| Paved Shoulders | $28,200,000 | 36% |
| MUP | $12,500,000 | 16% |
| **Total Active Transportation** | **$79,300,000** | **100%** |

Costs rounded to the nearest 100,000.

# 10 Transportation Policy Review

Supplemental to the Transportation Master Plan, a review of transportation policies was conducted. The review included the following policies:

- All-way stop control warrants;
- Crossing guard warrants;
- Pedestrian cross-overs;
- Radar message boards;
- Sidewalk installation;
- Speed limit reduction;
- Roundabouts;
- Road ecology; and
- Dead-end Road Turnaround Policy.

Additional details for revised polices are included in **Appendix E**, if available.

## 10.1 All-way Stop Installation Policy

The warrant for All-Way Stop Control (AWSC) installation, which is applicable to local and collector roads, should be consistent with industry standards and specifically with the Ontario Traffic Manual. The current policy matches the warrant within the Ontario Traffic Manual Book 5 (Regulatory Signs) and is based on 8-hour traffic counts for collector roads, and 4-hour counts for local roads. The collector road warrant also has an additional delay criterion which the Town may utilize in some instances based on engineering judgement and the conditions unique to each individual intersection – for example, when the warrant is not met based on the volume criteria but there is a perception of high delays on the minor street approach which may warrant AWSC.

The town may consider the development of roundabout screening criteria to determine if some locations which may be appropriate for AWSC are also potential candidates for roundabout control, since roundabouts can provide some advantages against AWSC depending on the context.

## 10.2 Speed Limit Reduction

Minor modifications to the speed limit policy have been made upon review. One modification has been made to the pedestrian volume criteria to consider a lack of separation or buffer since an uncomfortable pedestrian environment often influences the decision to walk or not. It is recommended that the criteria consider speed limit reductions where the lateral distance from curb face to sidewalk is less than 1.8m, as according to the TAC Geometric Design Guide for Canadian Roads 2017, 90% of roadside collisions occur within that zone.

## 10.3 Sidewalk Installation

The primary comment is to take other sensitive land uses into consideration, such as hospitals and care facilities, when determining if a sidewalk should be installed. The policy currently references “high pedestrian generators” only.

It is also recommended that implementation priority be based on:

12. Proximity to sensitive locations / vulnerable users such as children and seniors.
13. Roadways with higher speed.
14. Roadways with higher AADT.

## 10.4 Pedestrian Crossover Installation

The current policy for Pedestrian Crossover Installation would benefit from following OTM Book 15 – Pedestrian Crossing Treatments, more closely. The current policy does not recognize the traffic signal warrant (OTM Book 12 Justification 6 – Pedestrian Volume) as a precursor to the Pedestrian Crossover Selection Matrix. According to OTM, Justification 6 should be reviewed first and a signal should be disqualified prior to assessing the pedestrian crossover justification. The Pedestrian Crossover Selection Matrix itself does not constitute a confirmation that signals are, or are not, warranted. The policy has been updated accordingly.

## 10.5 Crossing Guard Warrant

This policy is a variation on the Ontario Traffic Council School Crossing Guard Guide and is generally more conservative. The minimum student volume required for a warrant analysis to be considered is half of that recommended in the OTM (20 instead of 40), however OTM also recognizes the need for discretion from each municipality. As such the Town's current approach is acceptable and only minor edits have been applied. One area for further consideration is the consideration of beginning data collection for the Exposure Index method as soon as the policy is approved, or request data from another comparable municipality.

## 10.6 Radar Message Speed Boards

The Town's current policy related to implementation of Radar Message Speed Boards is appropriate. HDR has noted some considerations for clarifying the further assessments required for locations with 85$^{th}$ percentile speed in excess of the posted speed limit between 16% and 24%. This includes:

- Defining the proximity to sensitive land uses required for implementation. For example, within 200m of a building entrance;
- Clarifying the road geometrics assessment – i.e. speed boards are further warranted as safety concerns are enhanced where substandard geometrics are present within 100m of the location where speeds are measured.

## 10.7 Roundabouts

See **Section 8.1**.

## 10.8 Road Ecology

Road ecology addresses the impacts of road construction to the environment with an emphasis on potential barrier impacts for wildlife migration and habitat fragmentation considering all species from herptiles to large mammals. When negative impacts are mitigated through the planning, design, assessment and construction of new roads, and the retrofitting of existing roads, the benefits are received by both humans and the environment. The principle of maintaining and enhancing wildlife movement corridors is also supported through provincial legislation such as the Lake Simcoe Protection Plan.

It is the policy of the Town to require that road ecology practices be incorporated into Capital Road Projects when passing through a road mortality hotspot, as identified in the LSRCA Mapping Potential Road Mortality Hotspots for Amphibians and Reptiles in the Lake Simcoe Watershed (2015), as amended. This includes the expansion and replacement of existing road infrastructure, while exempting pavement preservation techniques and operational and maintenance activities of existing roads. It is recommended that the Town conducts further study through subsequent phases of the municipal class EA process to investigate noise, air, hydrological, hydrogeological, and natural environment impacts for each prescribed project, as required.

## 10.9 Dead-end Road Turnaround Policy

The Town's existing dead-end roads do not provide adequate turnaround space for larger vehicles, including maintenance and emergency vehicles. This condition can be observed in locations including Mill Road east of McCowan Road and Doane Road west of Centre Street, and is likely attributed to the Town not having design standards for dead-end roads to accommodate large vehicle turning movements.

In order to address this issue, it is recommended that the Town update its Engineering Standards and Design Criteria document (September 2012) to incorporate appropriate design standards. The design standards may refer to Ontario Provincial Standard Drawings (OPSD), which include:

- 500.010 (turning basins for terminated rural roadways);
- 500.020 (turning basins for terminated urban roadways residential); and
- 500.030 (turning basins for terminated urban roadways industrial and commercial).

The Town may also wish to review standard drawings of adjacent municipalities such as the Town of Whitchurch-Stouffville WS-115 (Ditched cul-de-sac residential and industrial) and WS-116 (Curbed cul-de-sac residential and industrial). Finally, other turn-around solutions such as a "hammerhead" configuration may be developed from other jurisdiction standards or through Swept Path Analysis.

# 11 Future Considerations and Next Steps

## 11.1 New and Emerging Technologies

Advances in transportation technology can help provide more diverse mode choices. New mobility technologies to be considered in the future include shared mobility such as bike-share and car-share programs, micro-mobility such as e-scooters, ride-hailing, as well as Mobility as a Service (MaaS). Many of these services and opportunities can be consolidated into EcoMobility Hubs, as discussed in **Section 8.5**. Other technological advances include connected and automated vehicles and can improve the accessibility in less-connected areas and provide options for vulnerable users. Many emerging technologies also use clean technologies such as alternative fuels or higher fuel efficiencies to help address the concerns in emissions.

The Town of East Gwillimbury should begin exploring opportunities to integrate emerging mobility technology in future studies to remain flexible, responsive, and resilient in accommodating future growth and transportation requirements.

## 11.2 Climate Change

Climate change happens when long-term temperature patterns change and could lead to risks in health, environment, and economy. In response to climate change, on April 18, 2023, the Town's Council declared a Climate Emergency to formalize the Town's concerns and actions with the next steps determined. The Town's 2022 Official Plan Review also addresses the needs to establish climate change adaptation policies to all capital works projects within existing neighborhoods and rural/agricultural area. As a result, it is recommended that the Town implements the proposed projects while complying the current environmental policies and initiatives and integrating climate change mitigation and adaptation measures to reduce the impacts of climate change. It is also recommended that the Town continues to support sustainable transportation modes such as walking, cycling and transit to promote low-carbon or no-carbon travelling.

## 11.3 Partnerships and Funding Sources

Financing implementation of active transportation in particular could be supported by a variety of provincial and federal transit financing programs. One of the most widely used programs is the Gas Tax Fund (New Deal for Cities and Communities) initiative which consists of an ongoing transfer of funds from the federal government to municipalities. The funds are generally allocated to municipalities on a per capita basis and are to be used for "environmentally sustainable municipal infrastructure." Eligible expenditures include public transit, water, wastewater, solid waste, community energy systems, as well as local roads, bridges and tunnels, and active transportation infrastructure (e.g. bike lanes) that enhance sustainability outcomes. Funds must result in net incremental capital spending on public transit infrastructure. There cannot be any reduction in capital funding provided by the municipality and the funds must be used within three years of receipt.

A similar program to the Federal Gas Tax Fund is offered by the province of Ontario. The Ontario Gasoline Tax is an ongoing transfer of funds to municipalities exclusively for public transit. The Provincial Gas Tax has reached 14.7 cents per litre in June 2023. The existing allocation is based upon each municipality's proportionate share of the province's population. The funds can be used for either operating or capital costs.

Other outside funding opportunities include:

- Infrastructure Canada Smart Cities Challenge;
- Federal / Provincial Gas Tax (as identified above);
- Federation of Canadian Municipalities Green Municipal Fund;
- Federal / Provincial infrastructure stimulus funding;
- Ontario Ministry of Tourism, Culture and Sport Cycling Tourism Development Fund;
- Ontario Ministry of Health and Long Term Care grant programs;
- Partnership funding with York Region for infrastructure and health promotion related initiatives; and
- Ontario Trillium Foundation.

Governments around the world, including the Province of Ontario and York Region, are facing challenges with respect to funding infrastructure and other transportation programs. New sources of funding and innovative ways of

delivering services will need to be explored to ensure the continued affordability and sustainability of the system for all users.

The Town of East Gwillimbury will continue to work in partnership with other levels of government, institutions, the private sector and the public to find funding solutions and infrastructure delivery methods that provide the most efficient and effective results.

## 11.4 Plan Monitoring

The Town of East Gwillimbury Transportation Master Plan requires ongoing monitoring of the Plan's progress to ensure its success. The continued growth of the Town and development from a mostly rural, automobile-oriented suburb into a *safe, accessible, and livable community in the future* is dependent on the continued monitoring of TMP progress and implementation.

To ensure that the Master Plan recommendations are carried out, each recommendation should be tracked to document progress through the municipal monitoring system and through capital planning. Public input to Plan recommendations is also very valuable to ensure that residents' needs are being met. Town-wide or focus group surveys can be considered. Finally, the Town should update the Transportation Master Plan every 5 years. In addition to monitoring progress, the update would also reconfirm the need for plan recommendations considering the constant evolution of provincial and regional planning as well as new and emerging technologies.