



Transportation Master Plan Update

Town of East Gwillimbury

Final Report

September 23, 2024



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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.

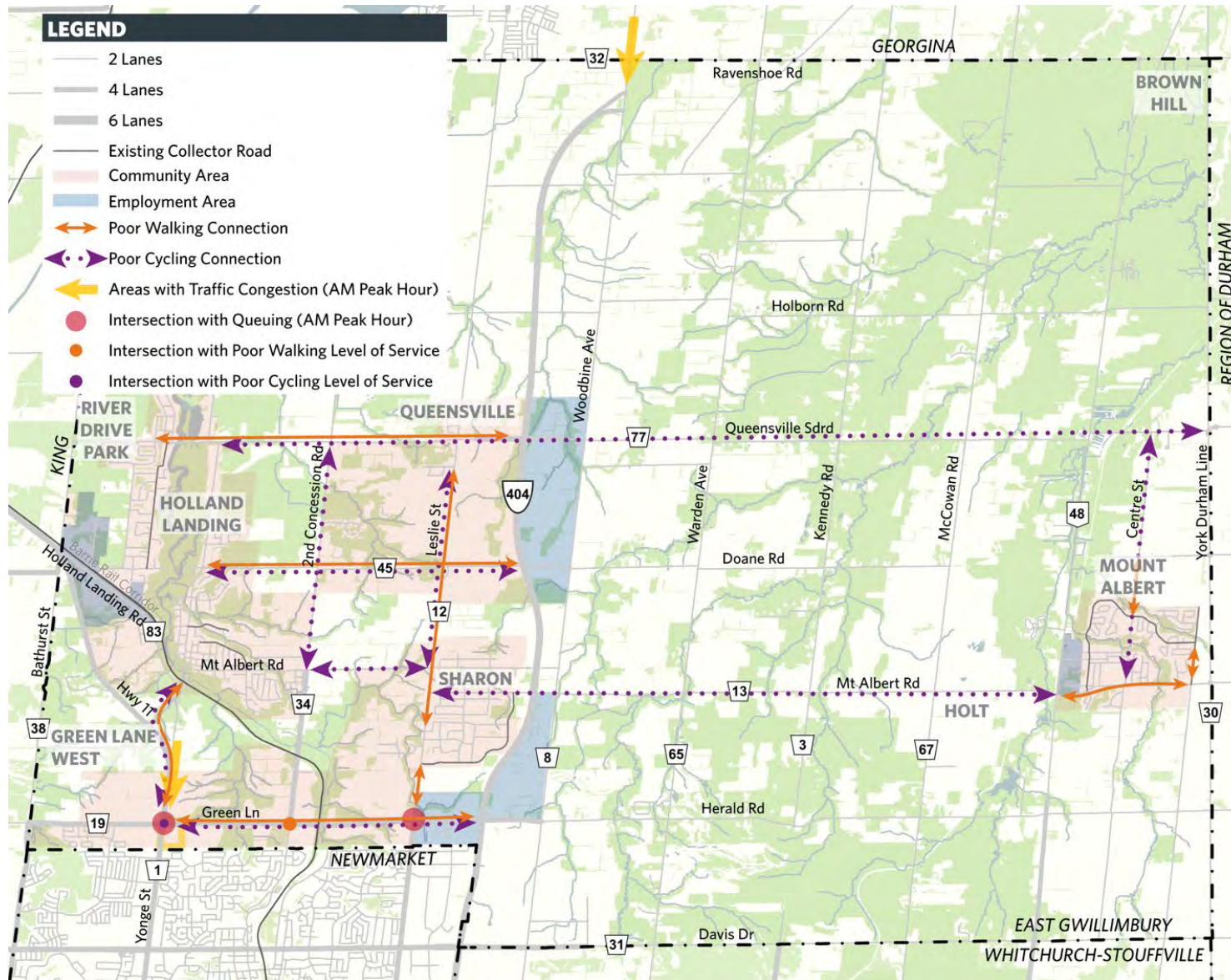
Existing Transportation System

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:



Support **all modes of travel** (auto, transit, on road and off-road active transportation)



Identify **gaps and opportunities** in the transportation network



Accommodate growth to 2051 and beyond



Support existing and future land uses



Develop a **well-integrated, multi-modal, and sustainable transportation network**

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**.

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.

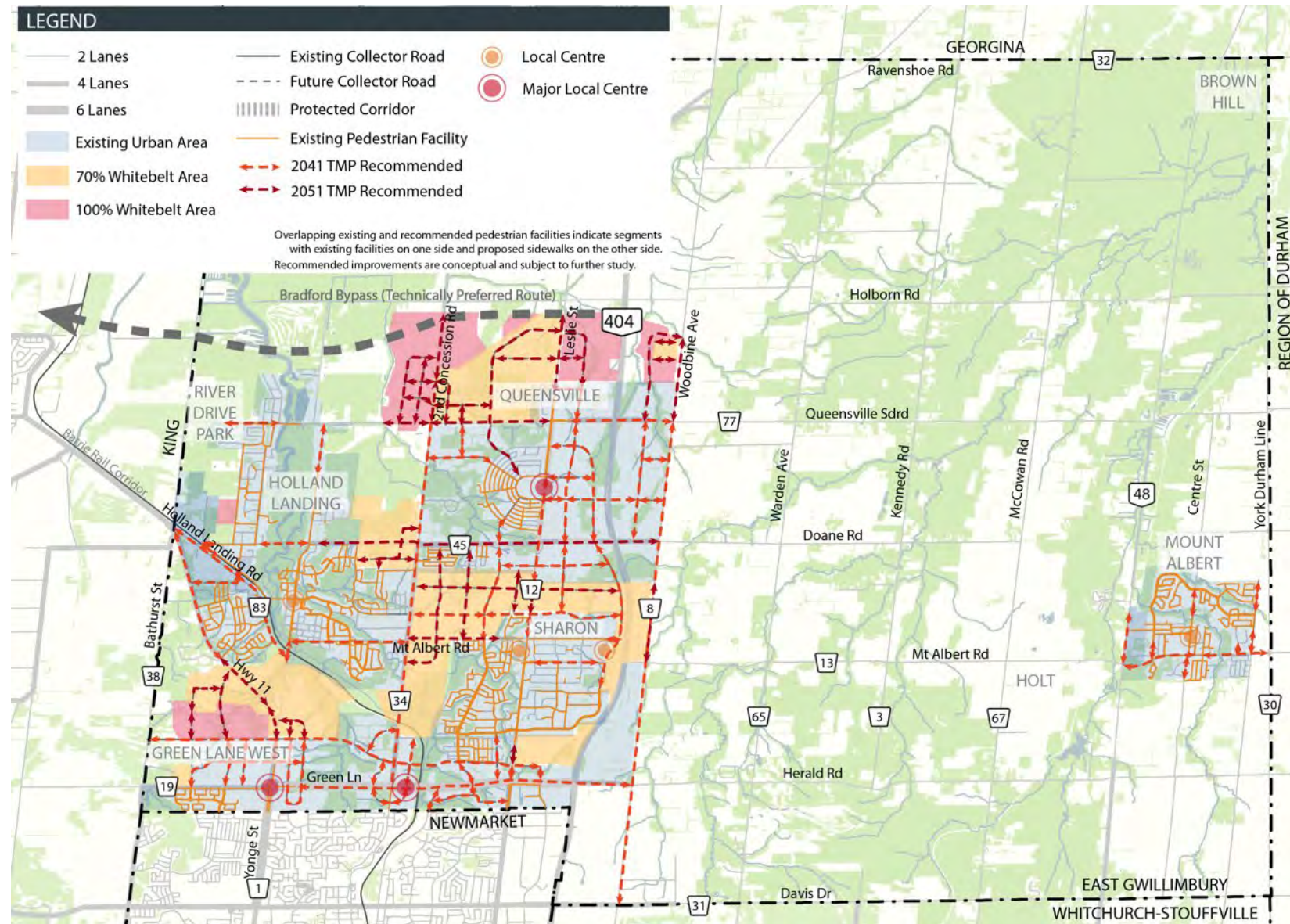
Active Transportation

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**.

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.

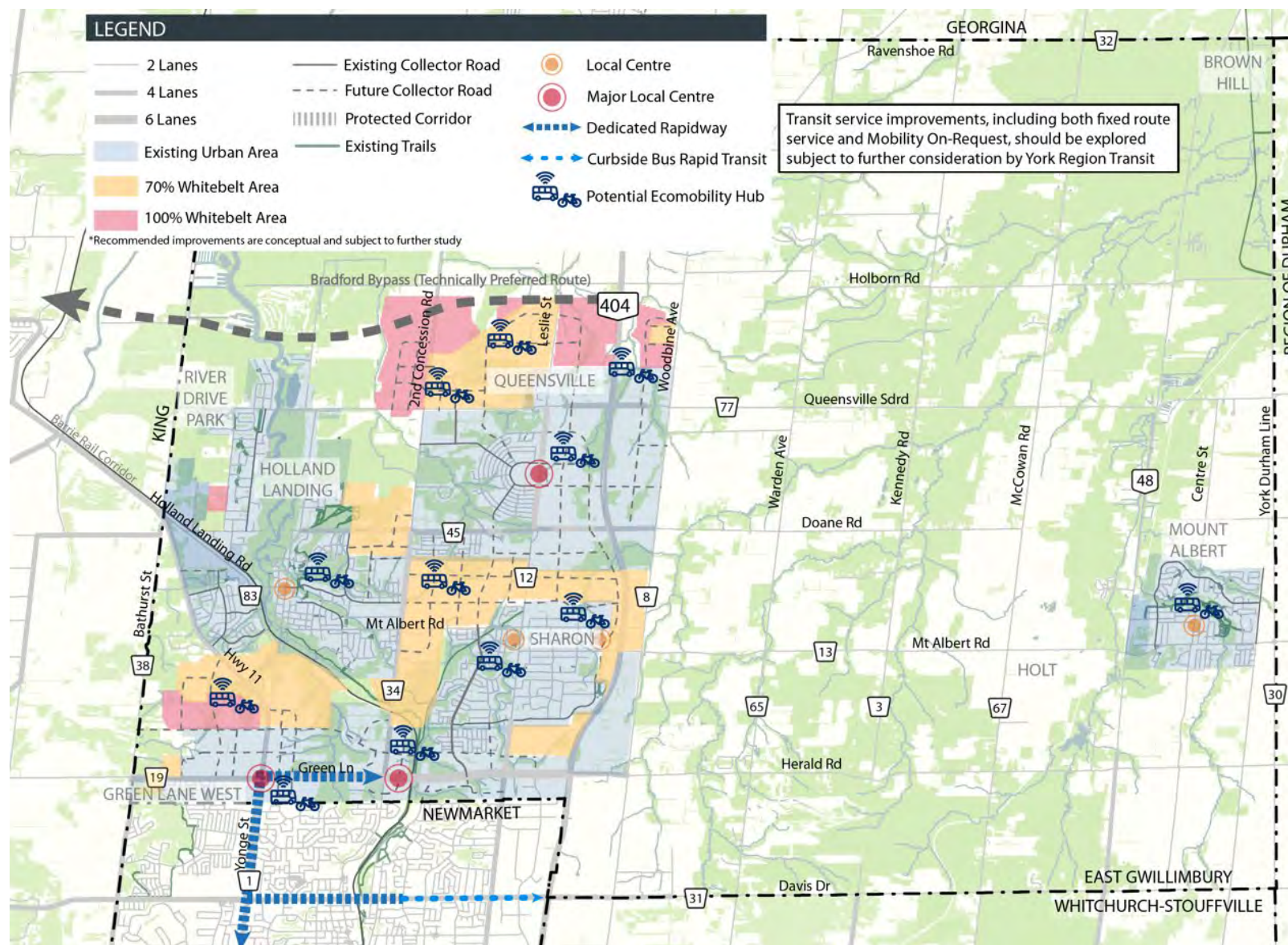
The Green Lane Rapid Transit Corridor will be supported by on-demand local transit services to provide local service within the service area to connect to the Rapid Transit Corridor. As part of the recommended solution, East Gwillimbury can further support York Region and YRT's vision through the EcoMobility Hub¹² 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.

Contents

Executive Summary	i
Study Process and Public Consultation	ii
Existing Transportation System	iii
Future Growth	v
Problem and Opportunity	v
Planning Strategies	vi
Recommended Planning Strategy	vii
Transportation Policies	xviii
Implementation Plan	xviii
Action Item Summary	xxi
1 Introduction	1
1.1 What is a Transportation Master Plan (TMP)?	1
1.2 Study Area	2
1.3 Goals and Objectives of the Study	2
1.4 Study Process and Public Consultation	3
2 Planning Framework	5
2.1 Provincial Planning Context	5
2.2 Regional Planning Context	7
2.3 Local Municipal Planning Context	9
3 Consultation	11
3.1 Public Information Centres	11
3.1.1 Purpose of PICs	11
3.1.2 Findings	12
3.2 Indigenous Consultation	13
4 Transportation System Context	13
4.1 Regional Context and Connectivity	14
4.2 Land Use and Demographics	16
4.2.1 Existing Land Use	16
4.2.2 Population Trends	16
4.3 Environmental Context and Constraints	19
4.4 Existing Transportation Network	22
4.4.1 Road Network	22
4.4.2 Active Transportation	27
4.4.3 Inter-Regional Transit Services	30
4.4.4 Regional Transit Services	33
4.4.5 Taxi Service	35
4.4.6 MTO Carpool Parking Lots	36
4.4.7 Goods Movement	36
4.5 Planned Transportation Network	37

4.5.1	York Region Transportation Master Plan	37
4.5.2	Town of East Gwillimbury.....	45
5	Problem and Opportunity	49
5.1	Land Use.....	49
5.1.1	Projected Population and Employment Growth	49
5.2	Travel Patterns	52
5.2.1	Travel Demand	52
5.2.2	Internal Travel Demand.....	54
5.2.3	Future Travel Patterns	56
5.2.4	Mode Share	58
5.3	Vehicular Traffic Assessment	59
5.3.1	Existing Traffic Conditions.....	59
5.3.2	Future Traffic Conditions.....	68
5.4	Active Transportation Demand	70
5.4.1	Mode Share and Trip Length.....	70
5.4.2	Active Transportation Hotspots	72
5.4.3	Active Transportation Desire Lines.....	74
5.4.4	Pedestrian Level of Service (PLOS).....	76
5.4.5	Bicycling Level of Service (BLOS).....	78
5.5	Transit Demand and Opportunities	80
5.5.1	Inter-Regional Transit Demand	80
5.5.2	Regional Transit Demand	82
5.6	Existing Transportation Issues.....	82
5.7	Problem and Opportunity Statement.....	84
6	Planning Strategies	85
7	Evaluation of the Planning Strategies	89
7.1	Evaluation Criteria	89
7.2	Evaluation of the Scenarios	91
8	Detailing of the Preferred Scenario	92
8.1	Road Projects and Intersection Improvements	93
8.2	Road Jurisdiction Review	95
8.3	Active Transportation.....	95
8.3.1	Pedestrian Infrastructure.....	95
8.3.2	Cycling Infrastructure	97
8.4	Transit	100
8.5	EcoMobility Hubs.....	100
8.5.1	Bike Share	104
8.6	Improving Connectivity to the GO Station	104
9	Implementation Plan	106
9.1	Infrastructure Phasing	106
9.2	Infrastructure Planning Requirements.....	106

9.3	Transportation Demand Management (TDM)	107
9.3.1	TDM Checklist	108
9.4	Zoning By-law Update	110
9.5	Program Cost Estimates	110
10	Transportation Policy Review	113
10.1	All-way Stop Installation Policy	113
10.2	Speed Limit Reduction	114
10.3	Sidewalk Installation	114
10.4	Pedestrian Crossover Installation	114
10.5	Crossing Guard Warrant	115
10.6	Radar Message Speed Boards	115
10.7	Roundabouts	115
10.8	Road Ecology	115
10.9	Dead-end Road Turnaround Policy	116
11	Future Considerations and Next Steps	117
11.1	New and Emerging Technologies	117
11.2	Climate Change	117
11.3	Partnerships and Funding Sources	118
11.4	Plan Monitoring	119

Tables

Table 2-1:	Provincial Planning Policies	5
Table 2-2:	Regional Planning Policies and Guidelines	7
Table 2-3:	Municipal Planning Policies and Guidelines	9
Table 4-1:	Function of Road Facilities	24
Table 5-1:	V/C Ratios and Operating Conditions	61
Table 5-2:	Carpool Lot Utilization Survey	65
Table 5-3:	Number of Trips by Access Distance (Manhattan Distance)	81
Table 5-4:	GO Rail Trip Access Mode	81
Table 5-5:	Daily Boarding at GO Bus Stations in East Gwillimbury	81
Table 5-6:	York Region Transit Ridership Statistics (2015 Fourth Quarter)	82
Table 6-1:	Planning Strategies	85
Table 7-1:	Evaluation Criteria and Measures	90
Table 7-2:	Summary Evaluation of Scenarios	91
Table 8-1:	Types of Cycling Facilities	98
Table 9-1:	Capital Costs by Project Type	111
Table 9-2:	Capital Costs by Cross Section Type	112
Table 9-3:	Active Transportation Facilities Cost	112



Figures

Figure 1-1: Elements of a Transportation Master Plan	1
Figure 1-2: Study Area	2
Figure 1-3: Study Process	4
Figure 4-1: Regional Context	15
Figure 4-2: Connectivity with Surrounding Municipalities	16
Figure 4-3: Population Growth (1996-2021)	17
Figure 4-4: Population by Age (1996-2021)	18
Figure 4-5: 2022 Official Plan Review Schedule 4 – Natural Heritage System	20
Figure 4-6: Official Plan Schedule D-2 – Oak Ridges Moraine	21
Figure 4-7: Existing Road Network	23
Figure 4-8: Existing Sidewalks and Trails (2021)	28
Figure 4-9: Existing Cycling Network (2021)	29
Figure 4-10: Barrie GO Rail Service and GO Bus Route 65	31
Figure 4-11: Keswick / North York GO Bus Route	32
Figure 4-12: YRT Services within the Town of East Gwillimbury	34
Figure 4-13: Mobility On-Request North Service Boundary	35
Figure 4-14: Truck Restriction on Herald Road, east of Woodbine Avenue	37
Figure 4-15: Proposed 2051 Regional Road Network	39
Figure 4-16: Proposed 2051 Regional Active Transportation Network	41
Figure 4-17: Proposed 2051 Regional Trail Network	42
Figure 4-18: Proposed 2051 Regional Transit Network	43
Figure 4-19: Proposed 2041 Regional Goods Movement Network	44
Figure 4-20: Recommended Local Road Improvements	46
Figure 4-21: Recommended Transit Improvements	47
Figure 4-22: Recommended Cycling Improvements	48
Figure 5-1: Future Urban Area for 2051 Horizon	50
Figure 5-2: Population and Employment Forecast	51
Figure 5-3: 2016 Regional Travel Distribution in the AM Peak Period	53
Figure 5-4: Daily Existing Internal Travel Demand	55
Figure 5-5: 2051 Regional Travel Distribution in the AM Peak Period	57
Figure 5-6: Mode Share (AM Peak Period)	58
Figure 5-7: Historic Mode Share (AM Peak Period)	59
Figure 5-8: AADT	60
Figure 5-9: Screenline Analysis (2011 York Region Model)	62
Figure 5-10: Existing Intersection Analysis (2016)	64
Figure 5-11: Top 10 High Collision Locations in the Town of East Gwillimbury	66
Figure 5-12: AM Peak Hour Truck Volumes	67
Figure 5-13: 2051 Screenline Analysis – 100% Whitebelt	69
Figure 5-14: Active Mode Share for Trips Less Than or Equal to 5km in Length	71
Figure 5-15: Trip Length Distribution	72

Figure 5-16: Strava Cycling Heat Map	73
Figure 5-17: Future Active Transportation Desire Lines	75
Figure 5-18: Existing Pedestrian Level of Service	77
Figure 5-19: Existing Bicycle Level of Service	79
Figure 5-20: Daily GO Rail Trip Origins at East Gwillimbury Station.....	80
Figure 5-21: Summary of Existing Transportation Issues	83
Figure 6-1: 2041 Scenario Planning Strategies Road Network.....	86
Figure 6-2: 2041 Scenario Planning Strategies Cycling Network.....	87
Figure 6-3: 2041 Scenario Planning Strategies Transit Network, Planning Strategies, and Policy Development.....	88
Figure 7-1: Evaluation Criteria.....	89
Figure 8-1: Proposed 2051 Road Network	94
Figure 8-2: Proposed 2051 Sidewalk Network.....	96
Figure 8-3: Proposed 2051 Cycling Network	99
Figure 8-4: Large Scale EcoMobility Hub	101
Figure 8-5: Proposed 2051 Transit Strategy.....	103
Figure 9-1: TDM Checklist.....	109
Figure 9-2: East Gwillimbury TMP Capital Cost Distribution	110

Appendices

Appendix A. Engagement Comments

Appendix B: Planning Strategies

Appendix C: Detailing the Preferred Scenario

Appendix D. Project List and Cost

Appendix E. Transportation Policies

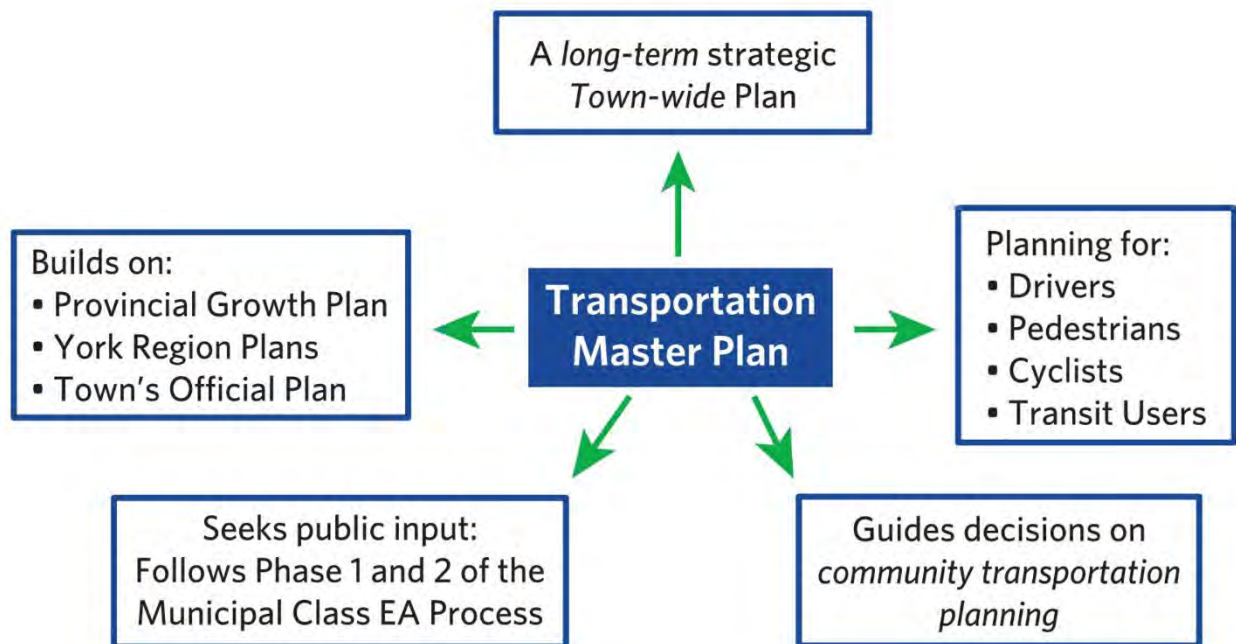
1 Introduction

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**.

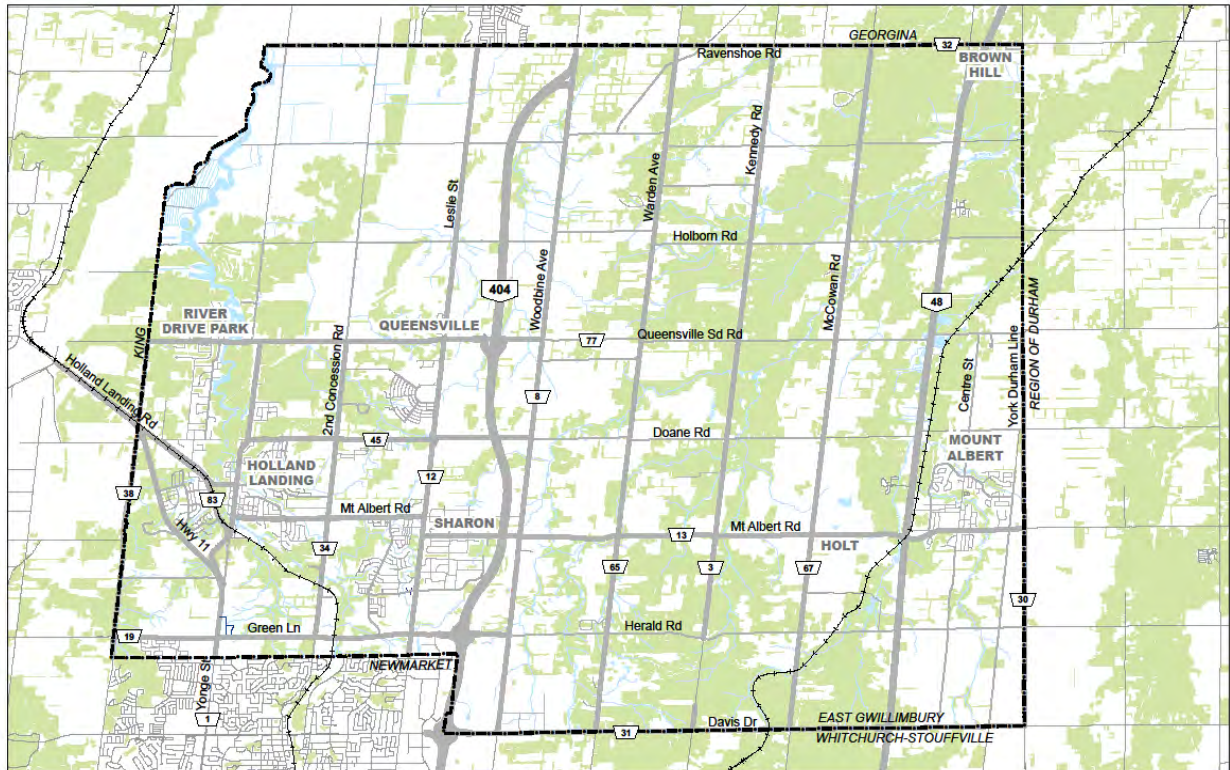
Figure 1-1: Elements of a Transportation Master Plan



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:
 - o Assessing current travel conditions, the impacts of growth, and defining these issues in a problem and opportunity statement;
 - o Identifying and evaluating alternative solutions to address the problem and opportunity statement;
 - o Selecting a preferred alternative for a sustainable, multimodal transportation network that decreases auto dependency and is truly accessible to all;
 - o 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.

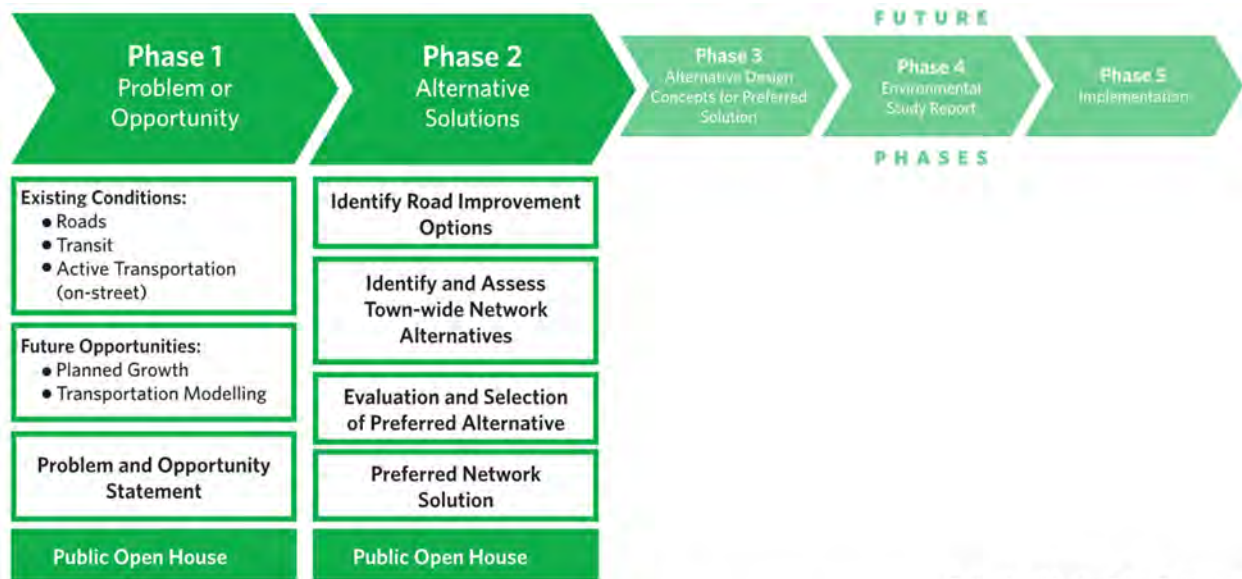
The TMP builds on the approaches and ideas conveyed in the ***Sustainable Planning Guidelines*** report (developed by Transport Canada and the Transportation Association of Canada). Furthermore, it is supported by the Province of Ontario’s ***Places to Grow Act***, and adheres to the ***Municipal Class 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, Indigenous communities, 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 Planning Statement 2024	The Provincial Planning Statement (PPS) 2024 consolidates and replaces the PPS 2020 and A Place to Grow: Growth Plan for the Greater Golden Horseshoe 2020. The policy promotes integrated land use and transportation planning by encouraging compact, transit-supportive development, efficient use of infrastructure, and safe, multimodal transportation systems. It supports complete communities, improved connectivity, and strategies like transportation demand management to reduce car dependency and enhance mobility. Notable changes identified in the PPS 2024 includes: • Definition of low- and moderate-income individuals will be defined by the municipality; • Settlement Area Boundary Expansions can be proposed through municipal or private applications meeting certain criteria. • Planning authorities, though encouraged to identify and focus growth in strategic growth areas, are no longer obliged to designate Strategic Growth Areas as central hubs for growth and development and set minimum density targets
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. 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: • Making the best use of infrastructure and services; • Enhancing partnerships; • Encouraging all types of travel; • Actively engaging and sharing information; • Providing a resilient and adaptable transportation network; and • Aligning project costs. Findings of the York Region TMP that will impact East Gwillimbury by 2051 include: • Green Lane, west of the East Gwillimbury GO Station has been identified as a Rapid Transit Corridor; • 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 • An extensive cycling network with dedicated and separated facilities. 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: • Function and general design requirements for different road classifications (Table 4-1); and • Significant natural heritage and environmental areas, representing constraints to developing the transportation system. 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: • Enhanced Transportation and Mobility; • Community Vitality and Livability; • Environmental Leadership; and • 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 will review and update the recommendations, policies and findings.

Document/Study	Direction
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 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 engagements are provided in **Appendix A**.

3.2 Indigenous Consultation

The following Indigenous groups were consulted during the study. All groups were contacted via email. Details on dates and methods of communication are summarized in **Appendix A**.

- Alderville First Nation
- Beausoleil First Nation
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Curve Lake First Nation
- Hiawatha First Nation
- Huron-Wendat First Nation
- Iroquois Confederacy
- Kawartha-Nishnawbe First Nation
- Métis Nation of Ontario
- Mississaugas of Scugog Island First Nation
- Mississaugas of the New Credit First Nation
- Mohawks of the Bay of Quinte First Nation
- Moose Deer Point First Nation
- Six Nations of the Grand River
- Williams Treaties First Nations

The Alderville First Nation group was the only group that provided follow-up; however, no comments were noted.

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.

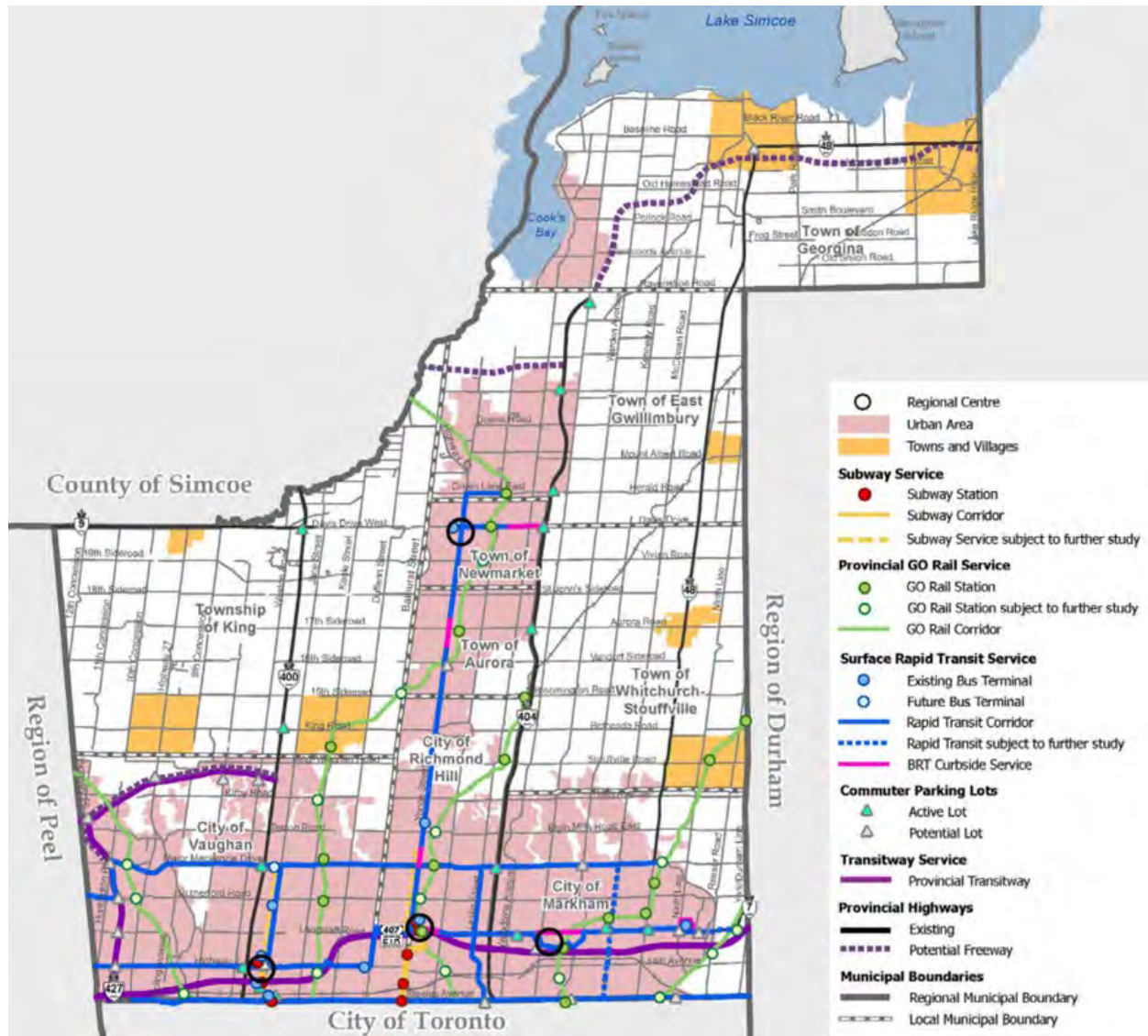
The Town of East Gwillimbury is further connected to its neighbours via the Regional Road network and local YRT transit service supplementing the provincial networks (**Figure 4-2**).

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.

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

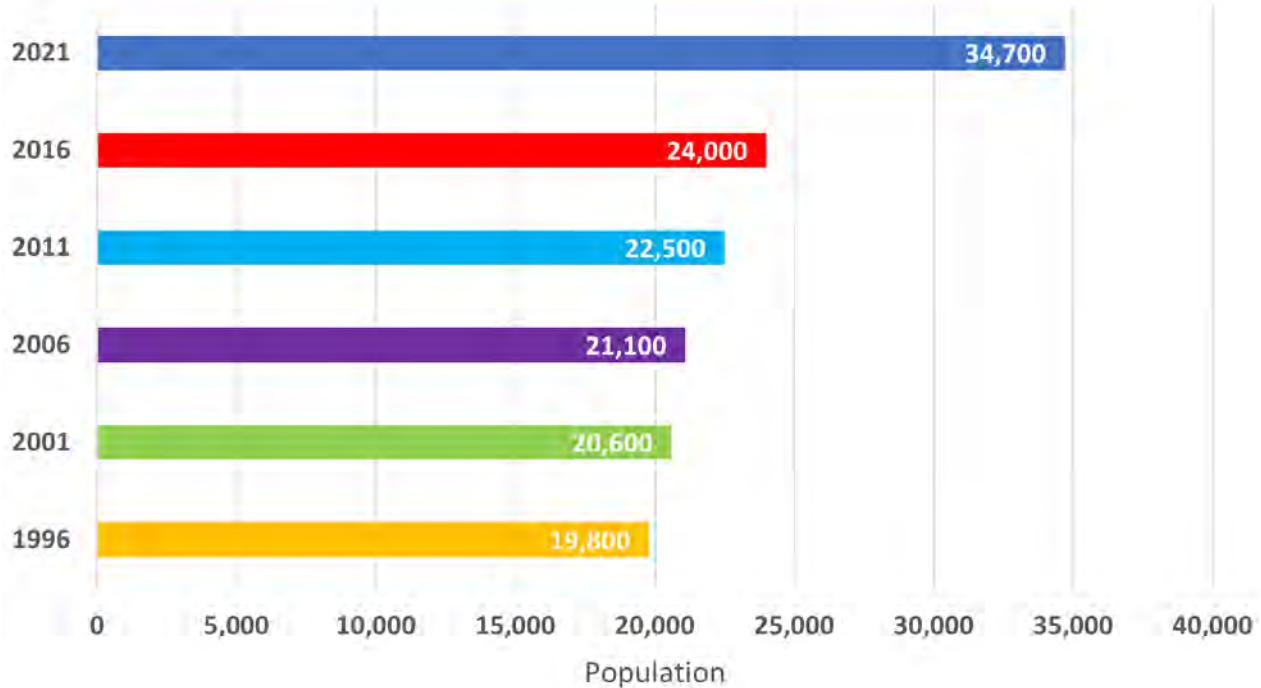
The Town of East Gwillimbury is a mix of urban and rural area that is primarily composed of agricultural land from the protected countryside of the Ontario Greenbelt and the Oak Ridges Moraine. There are eight communities with the Town: River Drive Park, Holland Landing, Queensville, Sharon, Green Lane 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.

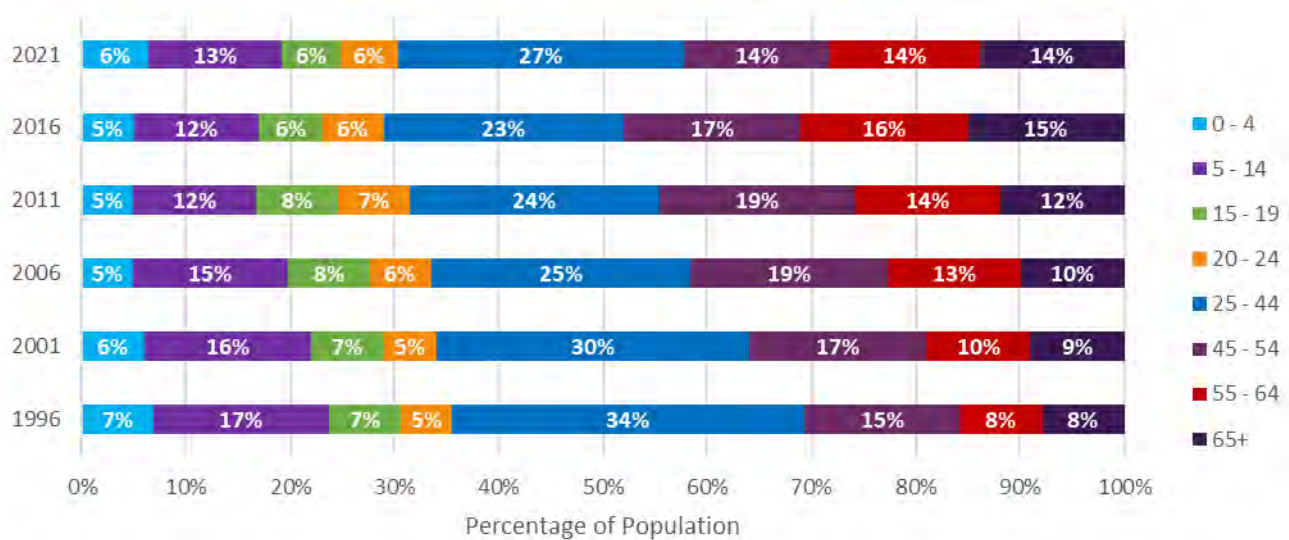
Figure 4-3: Population Growth (1996-2021)



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

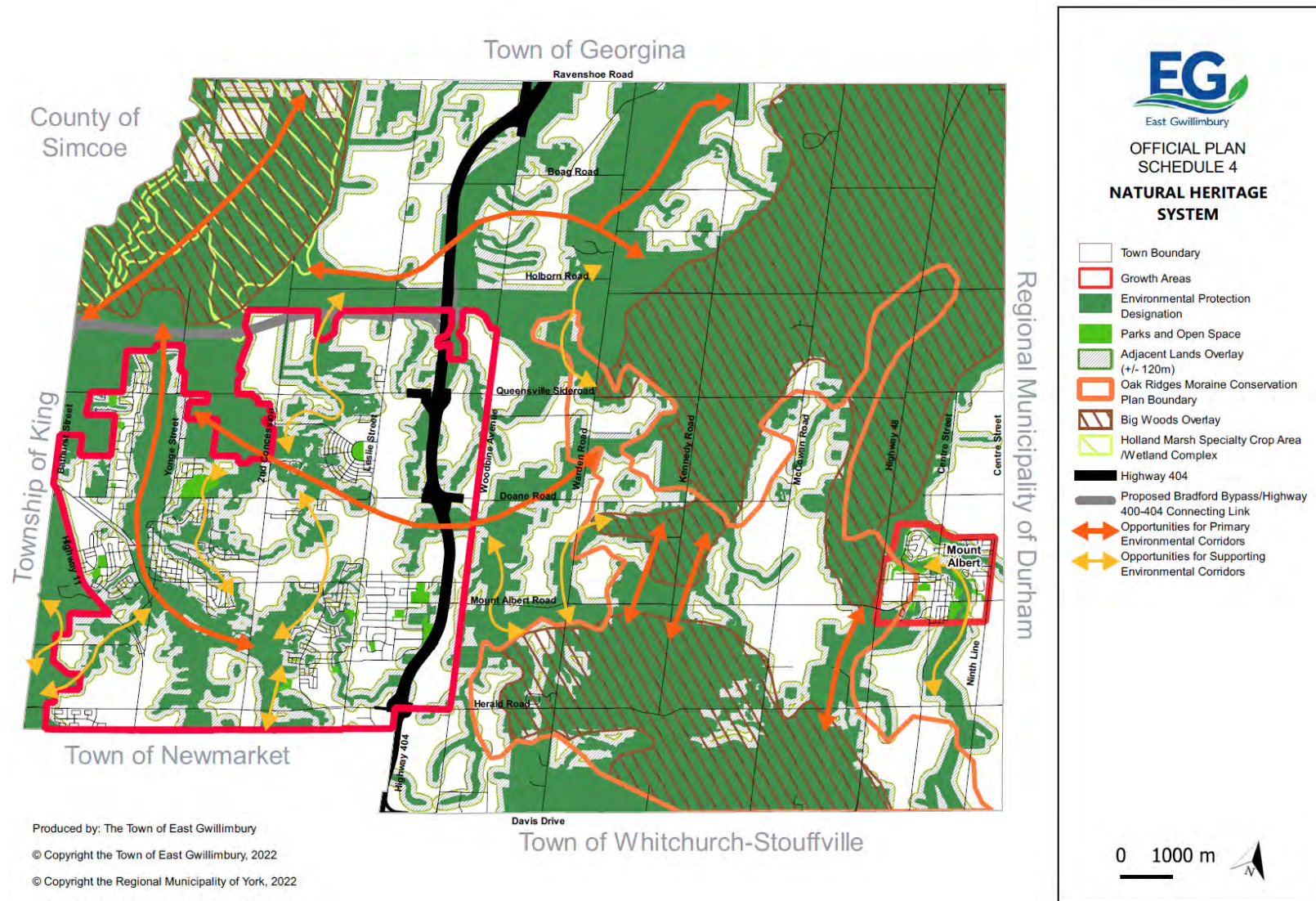
Both the aging population and the increased density within the Town are indicators of the need to ensure that the communities within the Town are accessible, safe, and walkable, in keeping with the Town's Community Vision.

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.

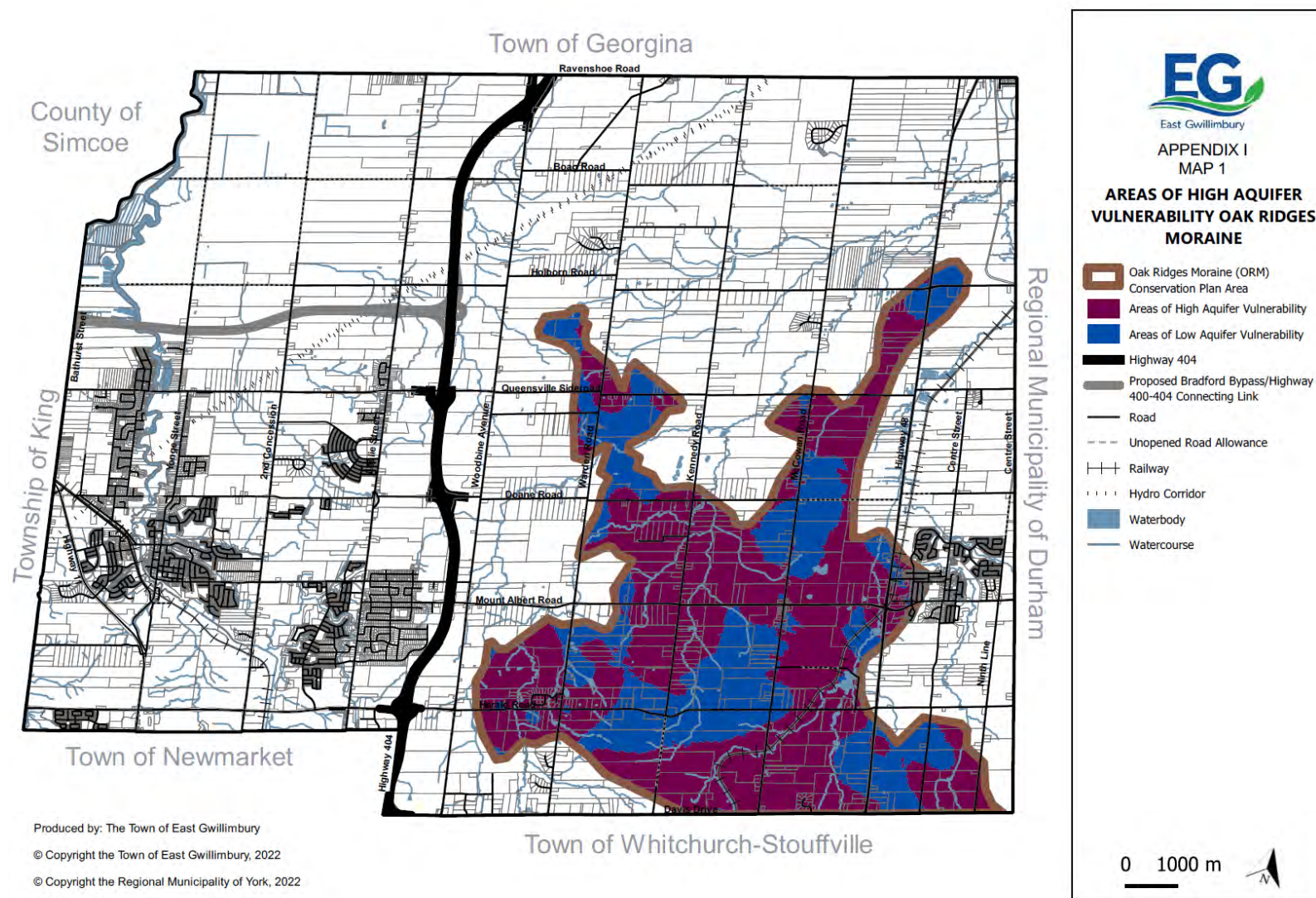
Mitigating impacts to environmental features will be a key consideration for expanding the network to accommodate growth in East Gwillimbury.

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



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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.

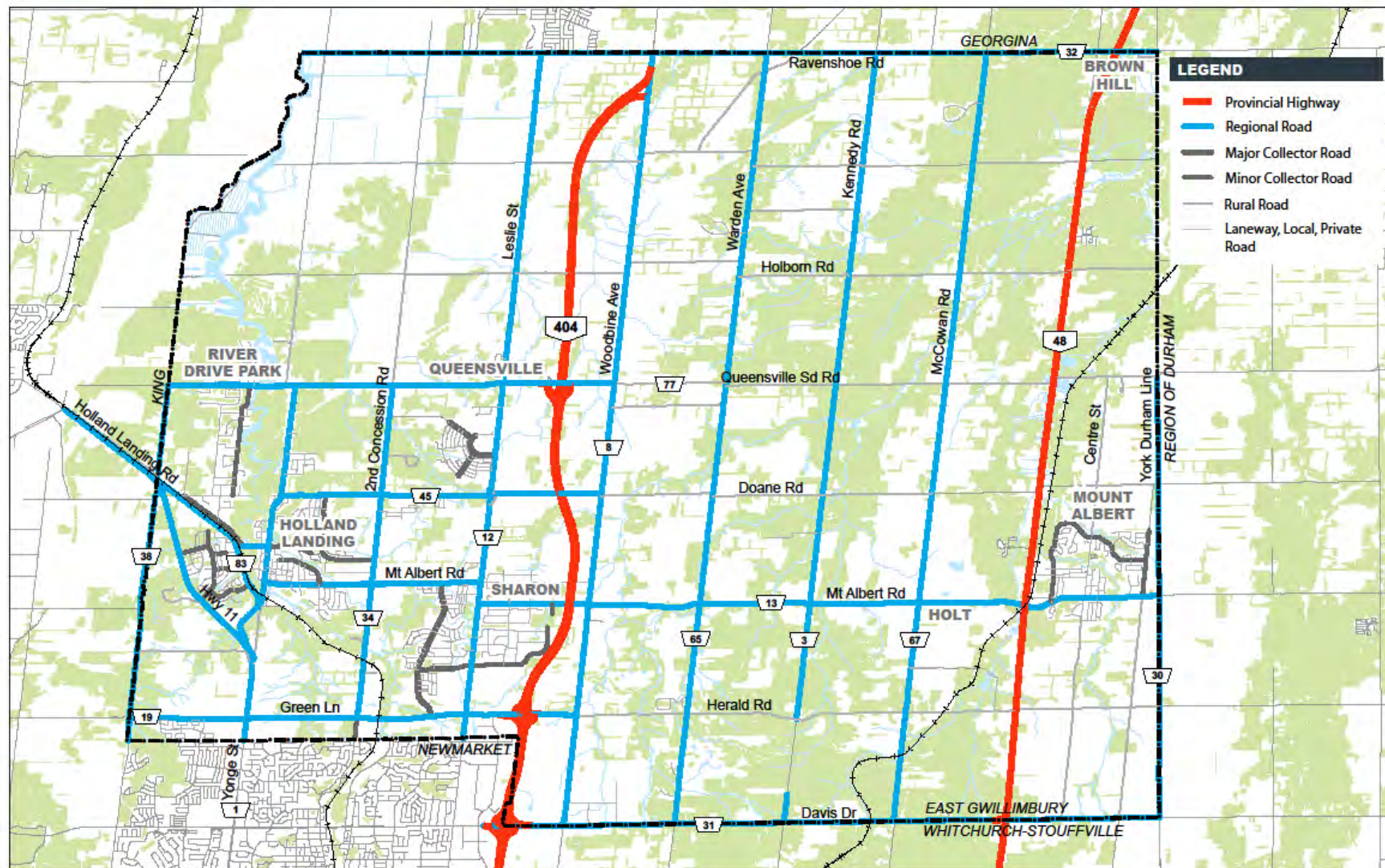
4.4.1 Road Network

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 - Shall accommodate Community Trail Linkages - 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 - Carry large volumes of traffic - Connect Collector and other Arterial roads - Accommodate higher order transit	- Provincial highways to the satisfaction of the Ministry of Transportation or any other authority having jurisdiction The following pertain to Arterial Roads: - High degree of access control, especially in rural areas, with direct access from abutting properties discouraged; - Maximum 6 travel lanes; - Right-of-way width up to 45 metres, in accordance with Regional standards; - Where transit is proposed, right-of-way width may be in excess of 36 metres; - Pavement width 11 to 22 metres excluding turning lane requirements; - 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 - Bicycle lanes provided in accordance with YR's Pedestrian and Cycling Master Plan - Sidewalks on both sides of the road in urban areas
Major Collector Roads	- Serve local travel demands between Secondary Plan Areas - Carry medium volumes of traffic - Provide connection between Arterial Roads - Accommodate transit	- Access restricted with direct access from abutting properties discouraged - Maximum 4 travel lanes - Right-of- way width 23 to 26 metres - Pavement width maximum 10-15 metres - 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 - Bicycle lanes provided - Sidewalks on both sides of the road
Minor Collector Roads	- Serve local travel demands within Secondary Plan Areas - Carry medium volumes of traffic - Provide connections between Major Collector and Local Roads - Accommodate local transit	- Direct access from abutting properties permitted - Right-of- way width 20 to 23 metres - Pavement width maximum 10-15 metres - 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 - Sidewalks on both sides of the road - Bicycle lanes provided where appropriate
Local Roads	- Intended for local traffic only - Serves residential neighbourhood and employment area travel demands;	- No access control with the exception of safety related restrictions - Direct connection with Arterial Roads shall be discouraged - Maximum 2 travel lanes - 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 - Pavement width max. 8.6 metres (in residential areas) to 12 metres (in employment areas) - Sight triangles at intersections with collectors and other local streets: 5 metres x 5 metres in residential areas 10 metres x 10 metres in employment areas - 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 - Connect to Collectors and Arterials	- No access control with the exception of safety related restrictions - Generally, maximum 2 travel lanes - Right-of-way width 20 metres - Pavement width max. 8.6 metres (in residential areas) to 12 metres (in employment areas) - Sight triangles at intersections with collectors and other local streets: 5 metres x 5 metres in residential areas 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)

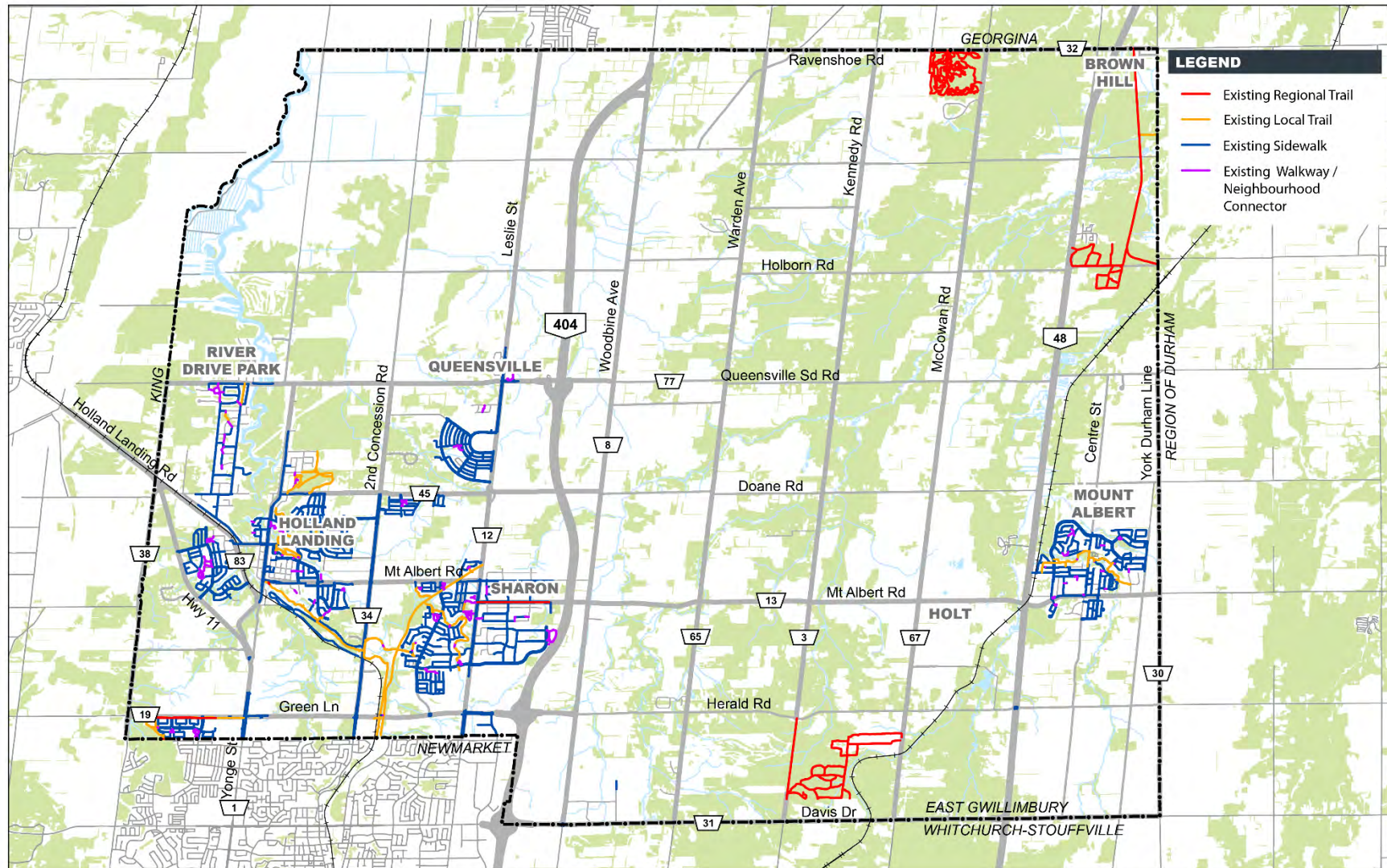
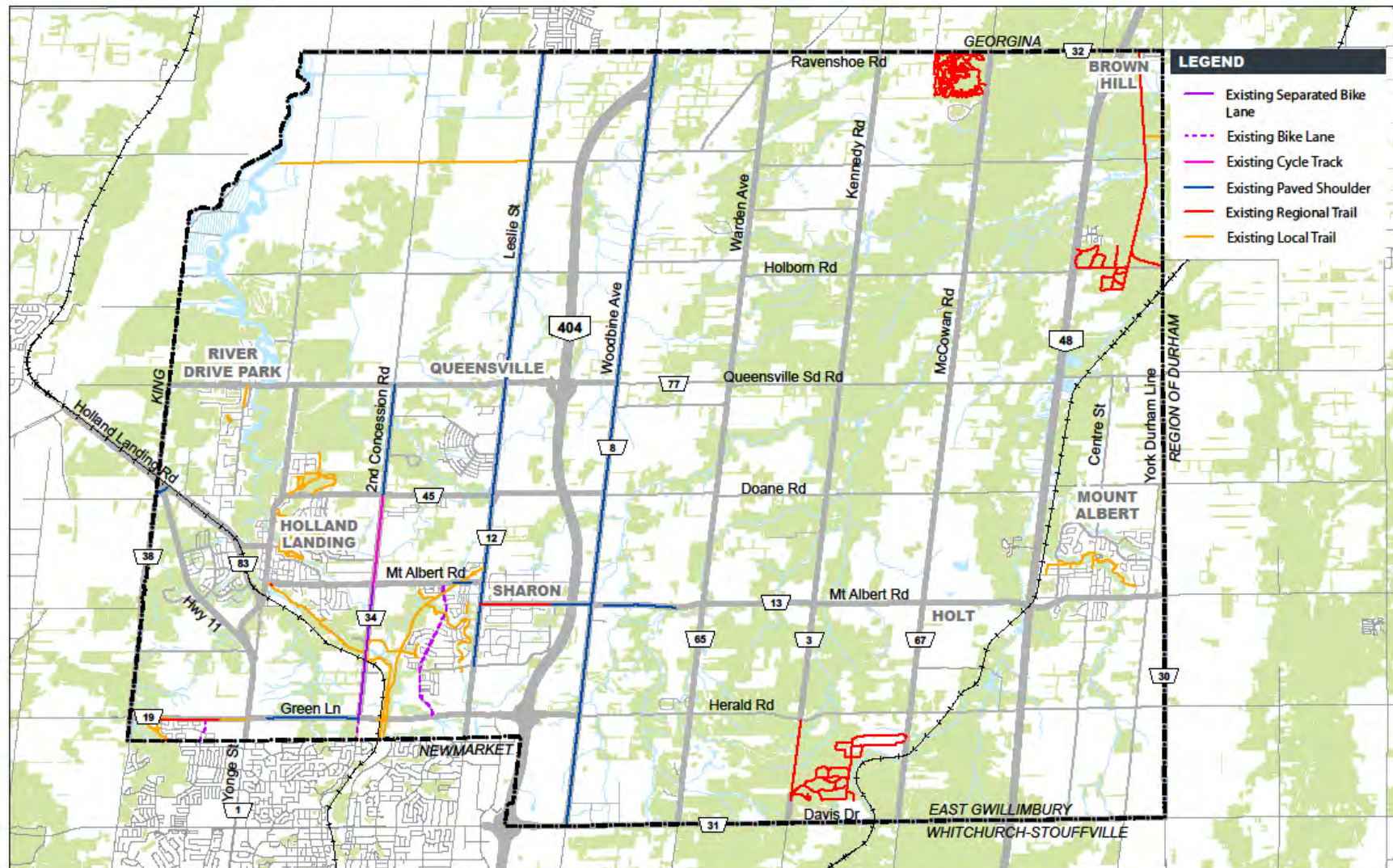


Figure 4-9: Existing Cycling Network (2021)



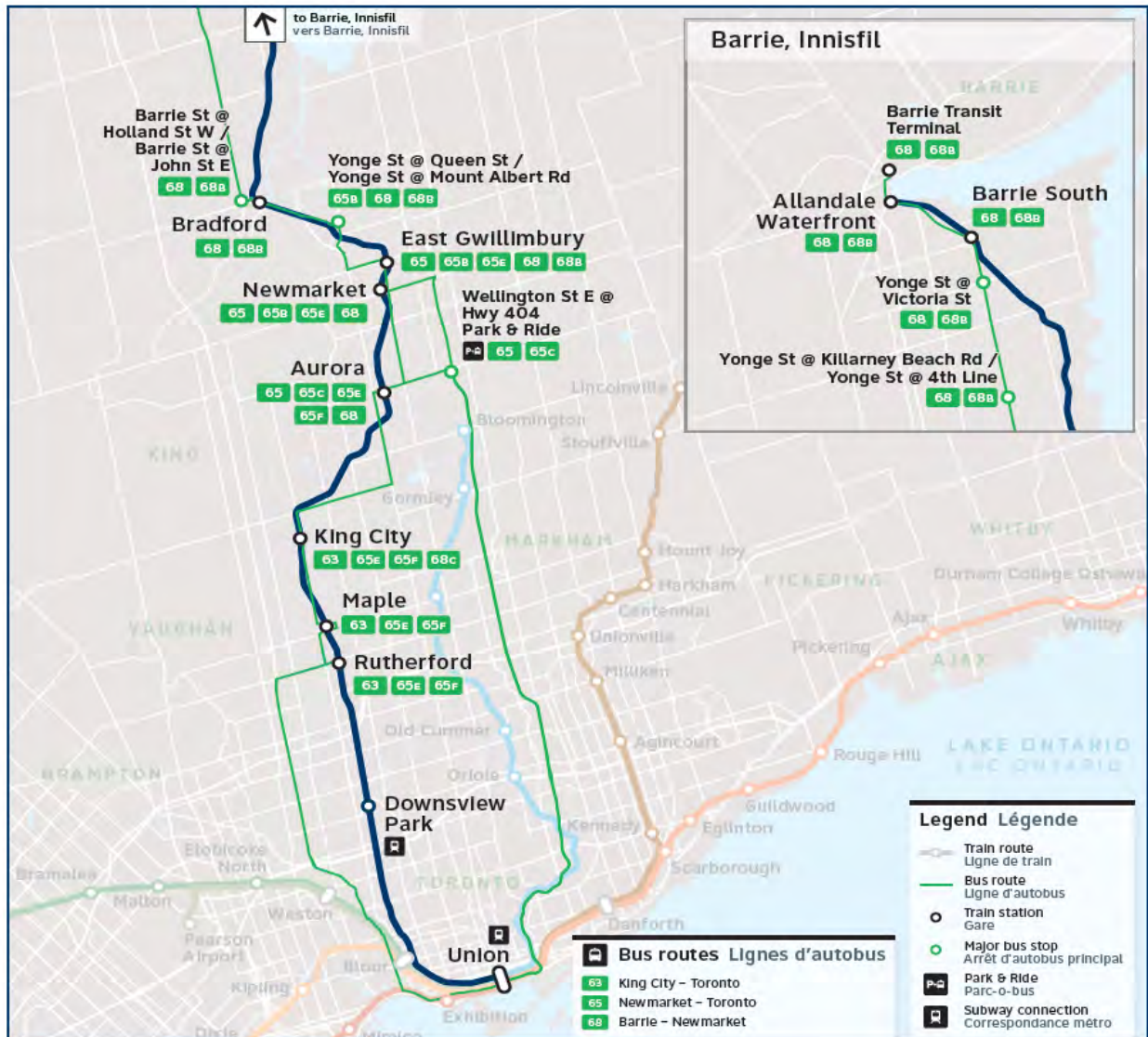
As seen above, the majority of active transportation facilities in the Town serve the communities. However, there is a significant amount of natural environmental areas, open space, and parkland within the Town of East Gwillimbury that lack active transportation connections. In addition, there is little 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

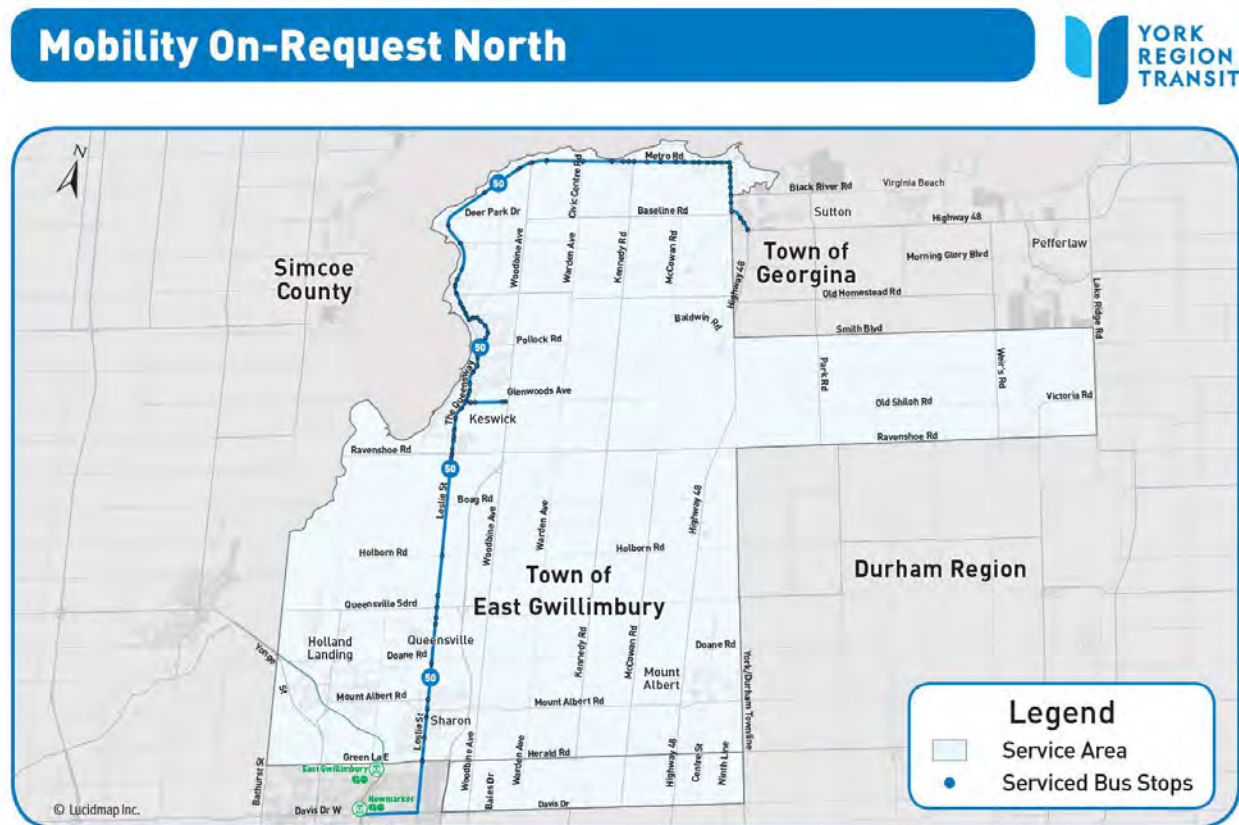
The Town of East Gwillimbury is serviced by York Region Transit (YRT).

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.

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.

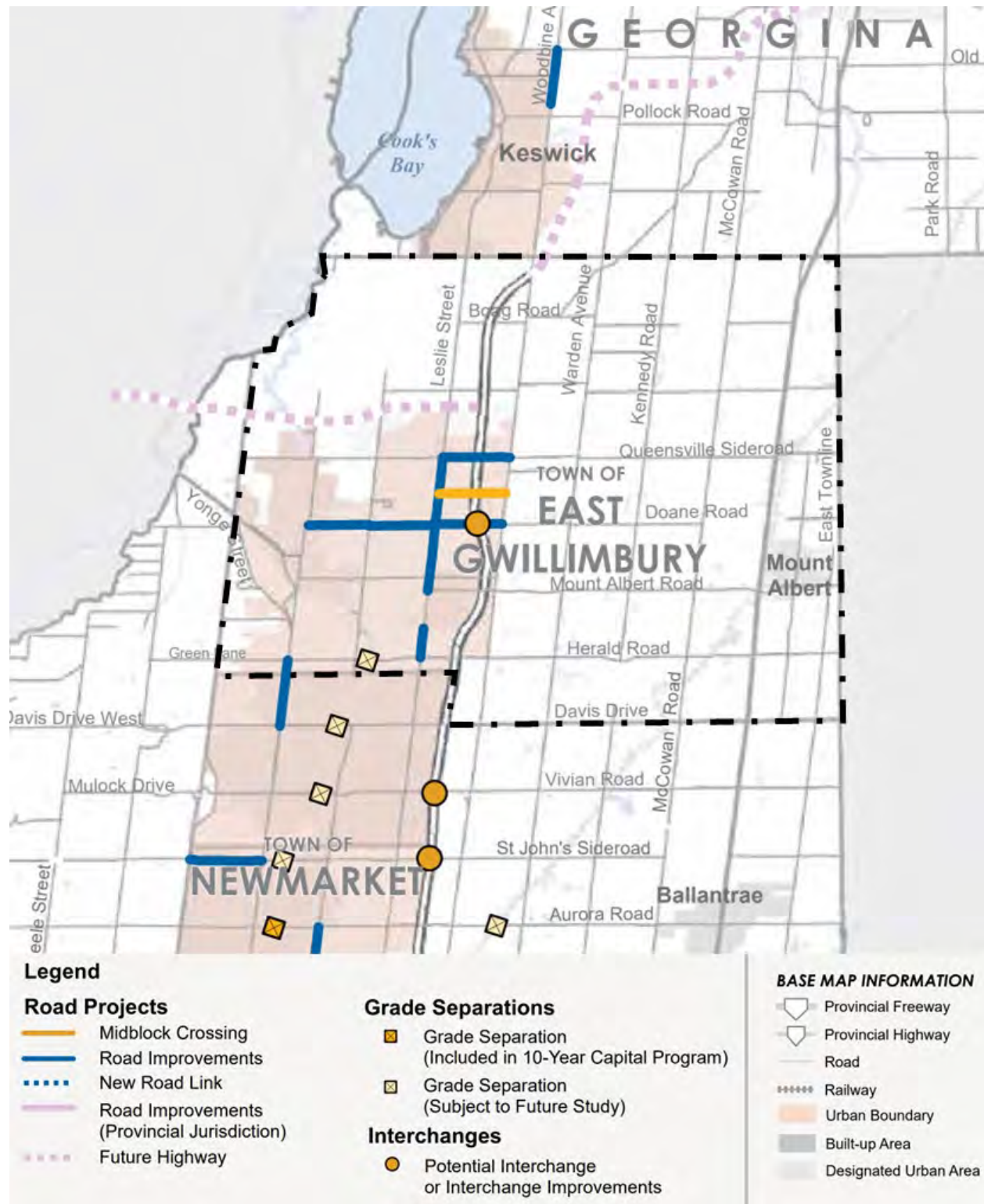
The York Region TMP also identifies several road improvements and future links in the Town of East Gwillimbury:

- 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)

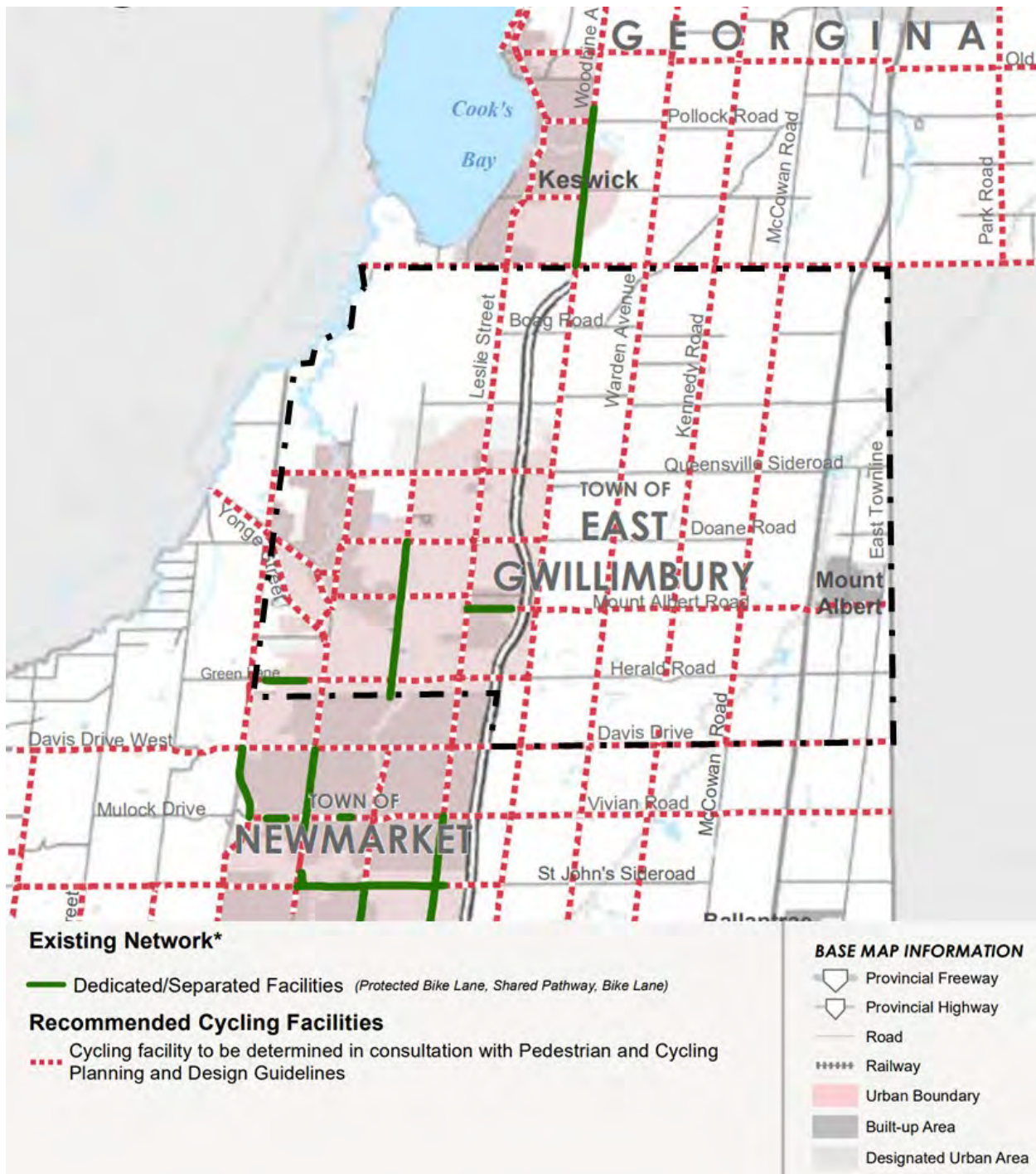
Active Transportation

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 through the addition of dedicated or separated cycling facilities.

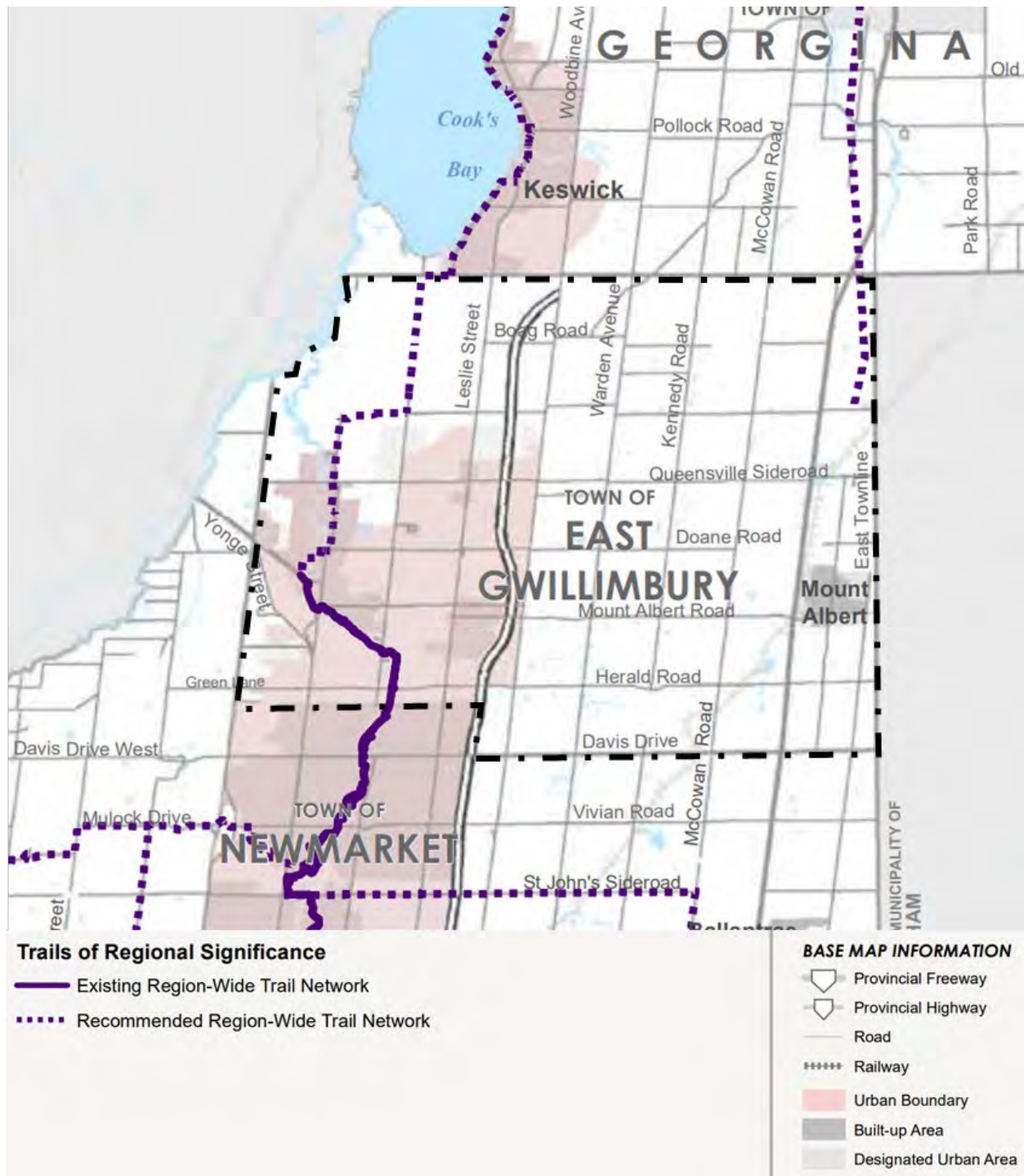
A conceptual Region-wide cycling trail has also been identified and would run through the Town parallel to 2nd Concession Road in northern East Gwillimbury and Yonge Street in the southern East Gwillimbury, as shown in **Figure 4-17**.

Figure 4-16: Proposed 2051 Regional Active Transportation Network



Source: York Region Transportation Master Plan (2022)

Figure 4-17: Proposed 2051 Regional Trail Network

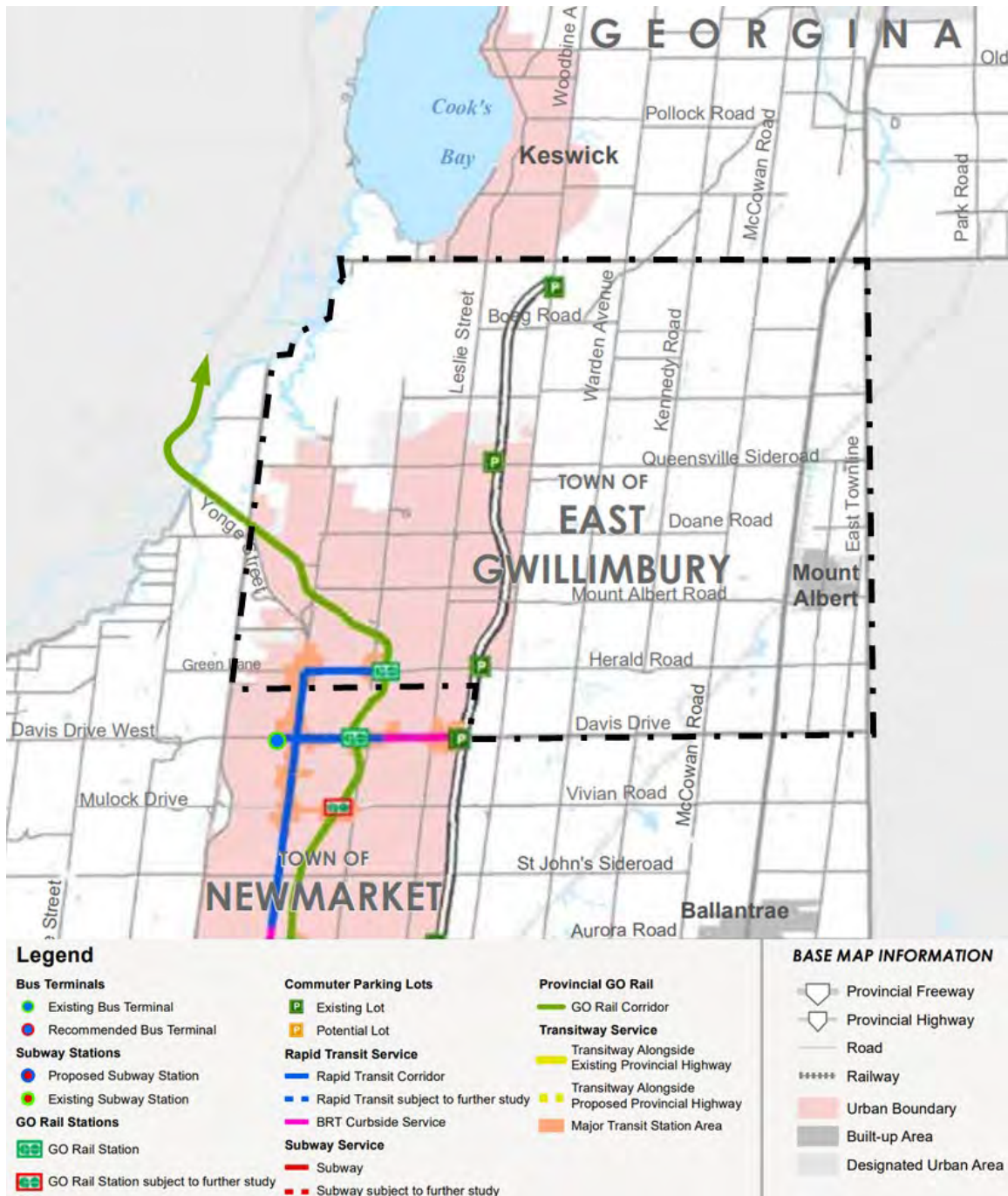


Source: York Region Transportation Master Plan (2022)

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



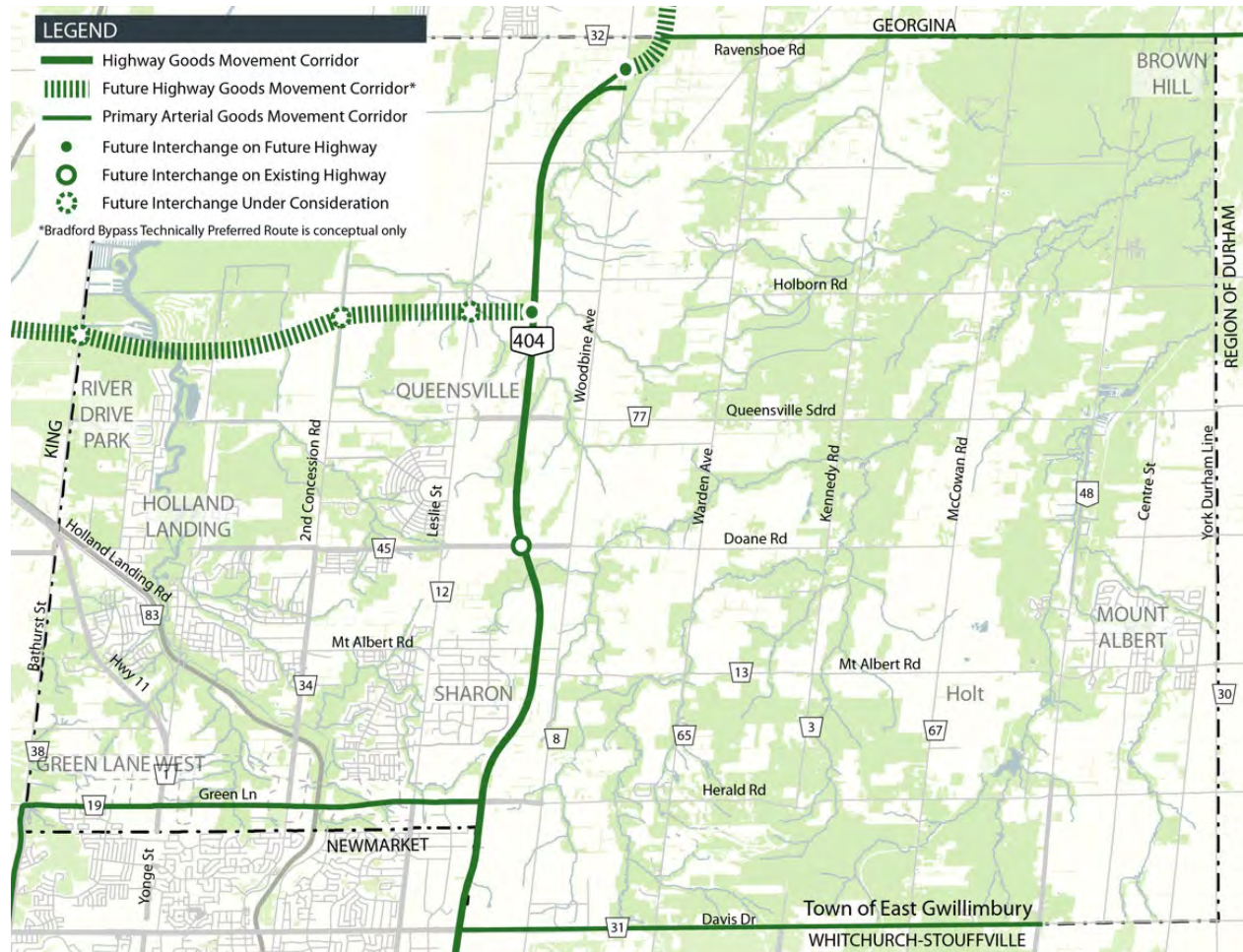
Source: York Region Transportation Master Plan (2022)

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

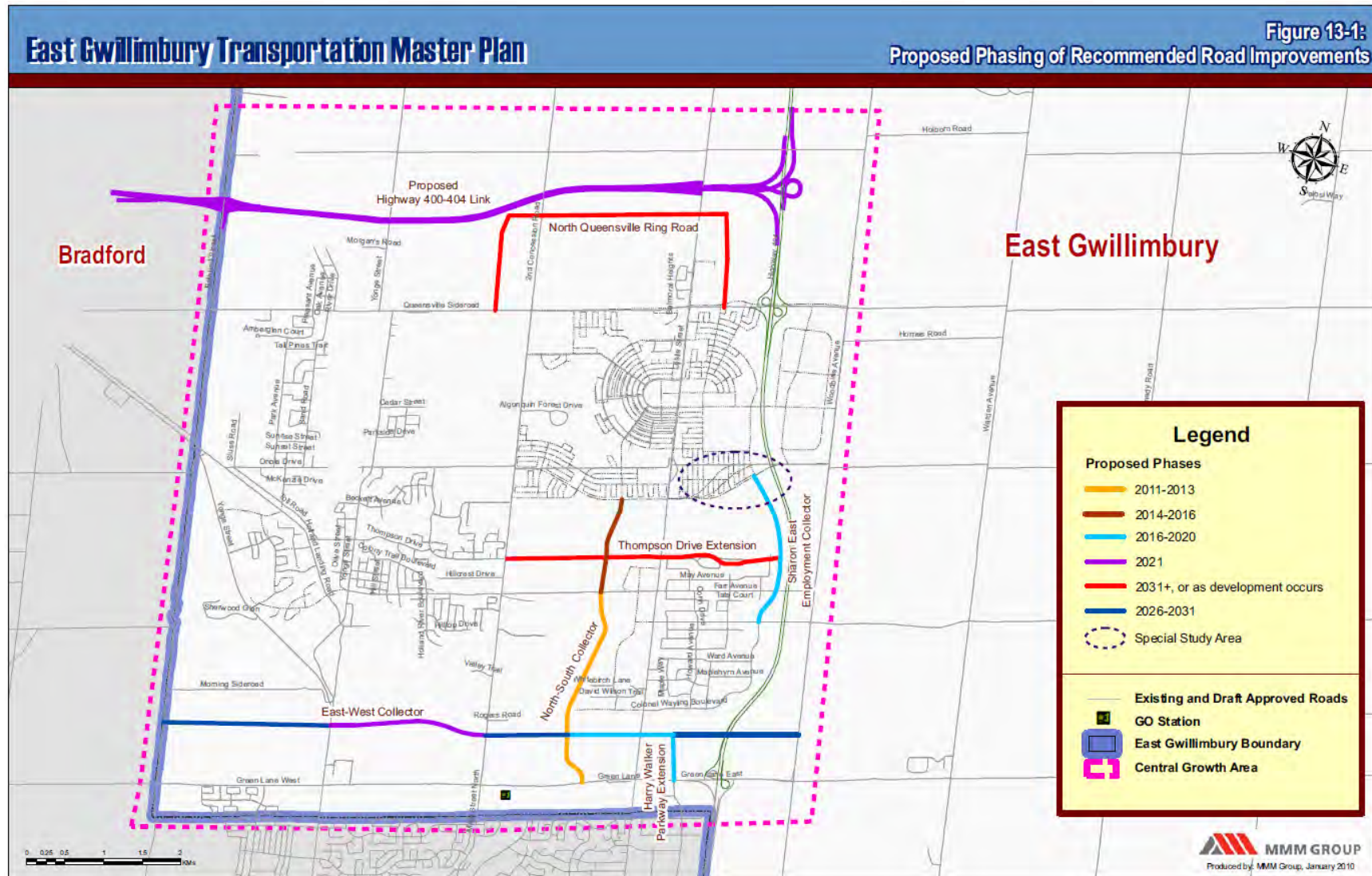


Source: York Region Transportation Master Plan (2016)

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

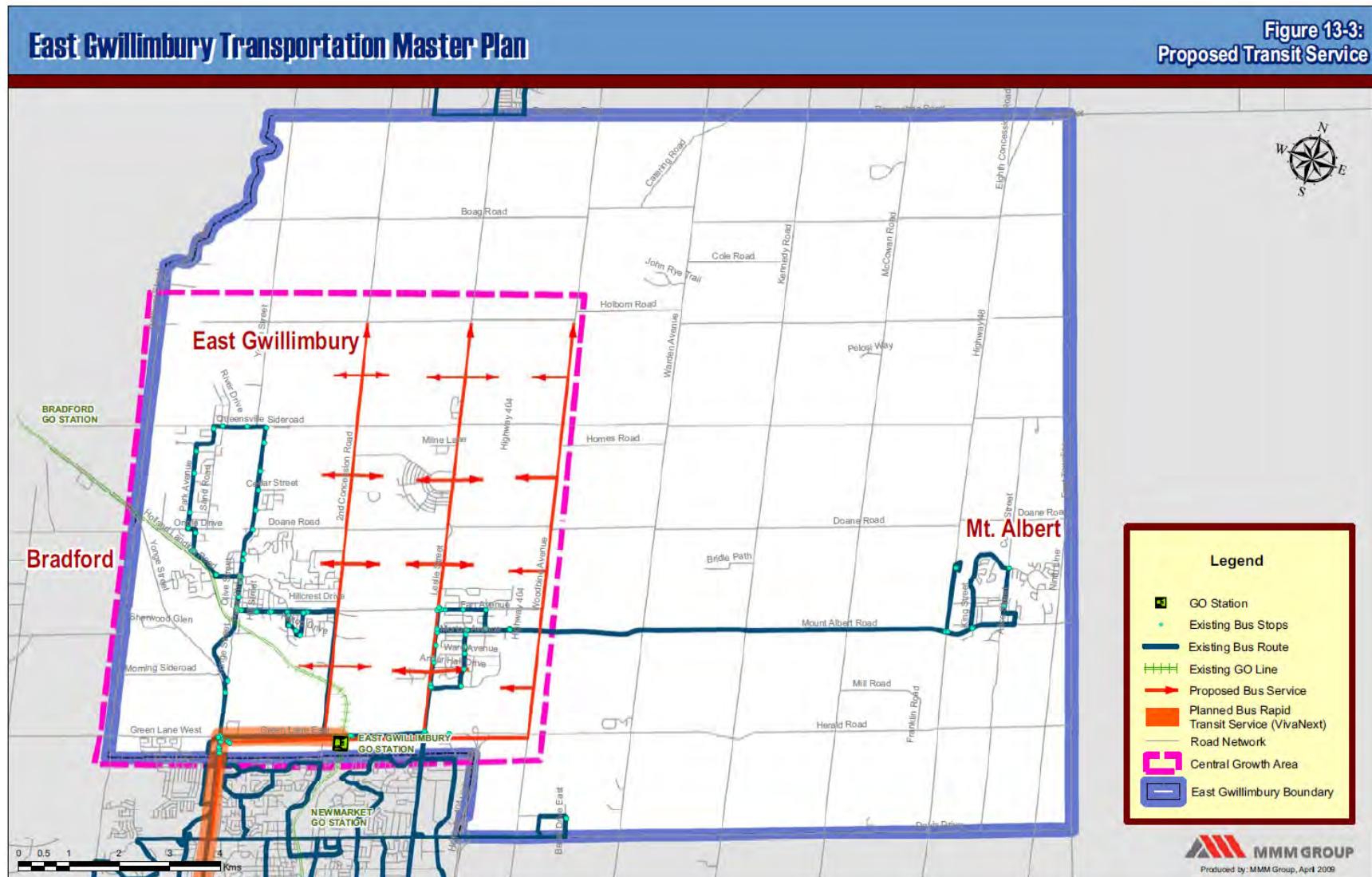


Source: Town of East Gwillimbury Transportation Master Plan (2010)

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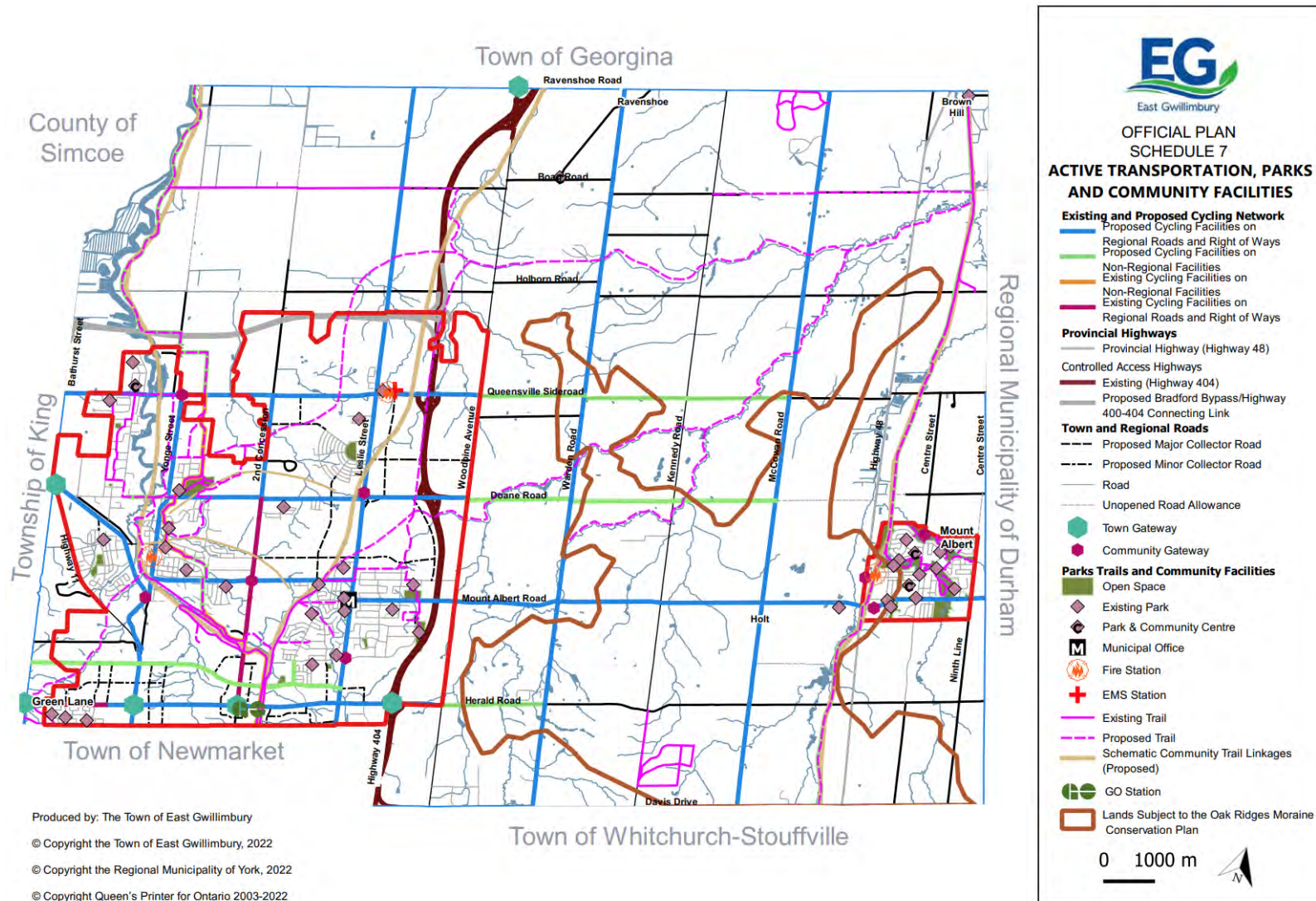
70 University Avenue, Suite 800, Toronto, ON, CA M5J 2M4
(647) 777-4900

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

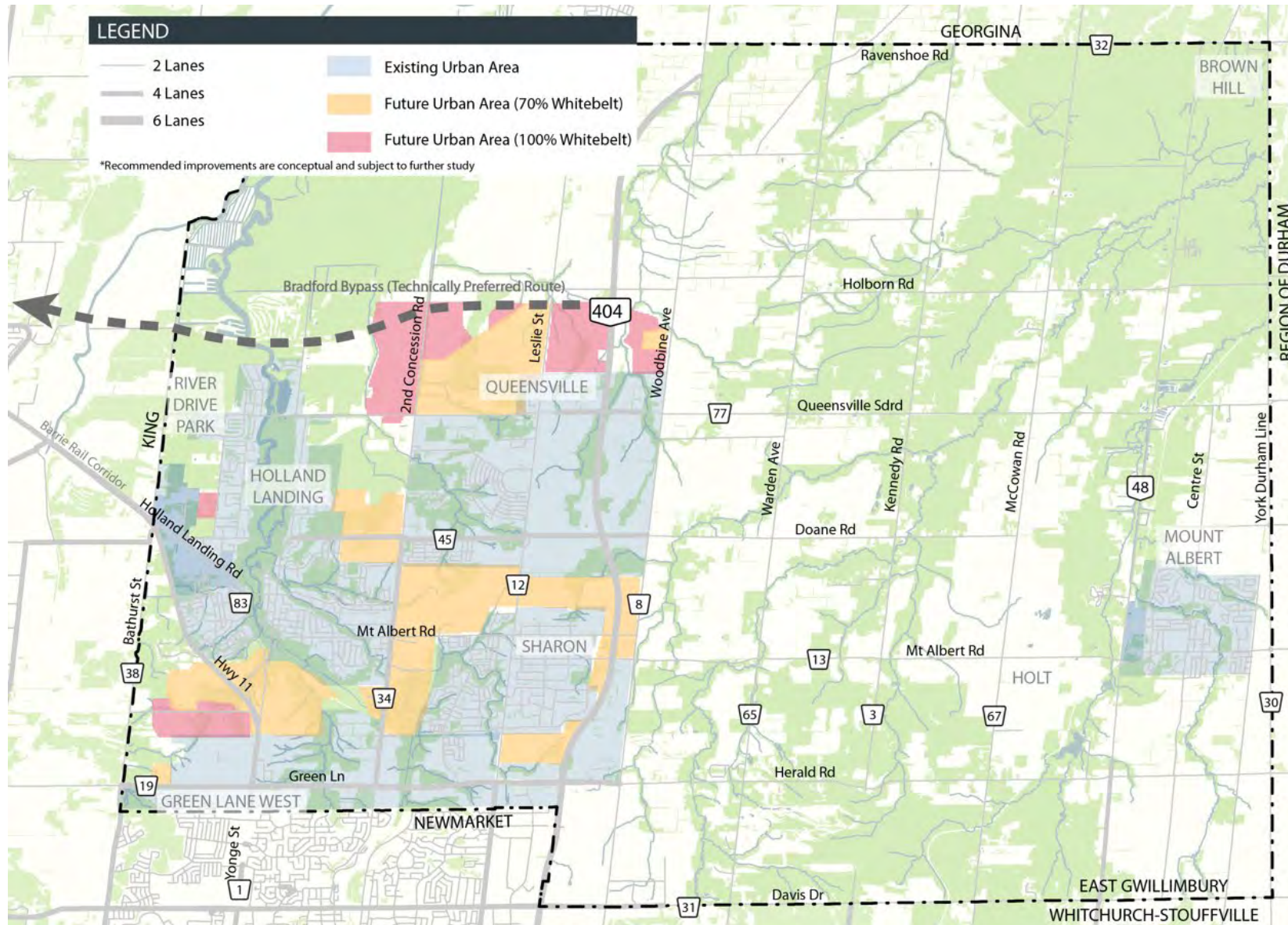
The Town of East Gwillimbury is projected to be one of the fastest growing municipalities in the Greater Golden Horseshoe (GGH) over the next 30 years. The Town's population will quadruple from 36,500 persons in 2016 to 141,000 by 2051, based on the latest projections by York Region. Similarly, employment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

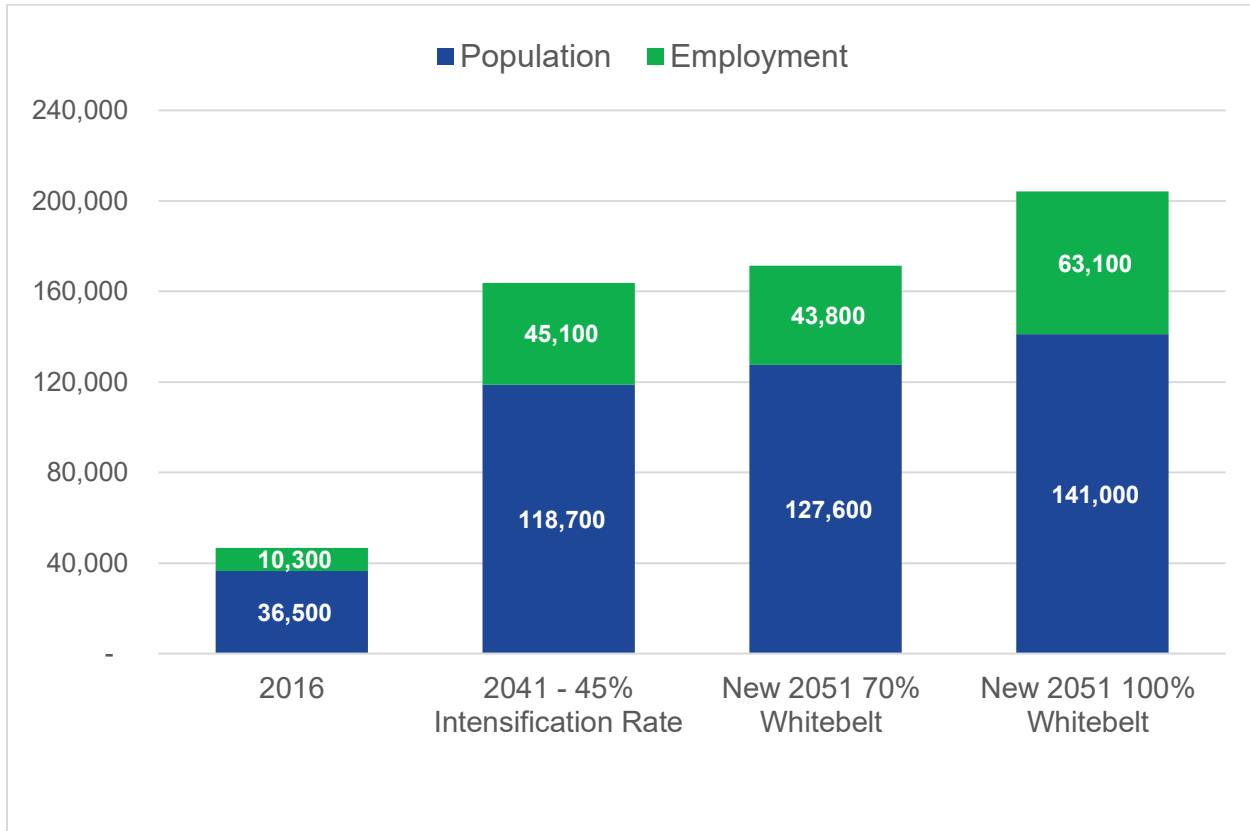
The expanded future urban area for 2051 is shown in **Figure 5-1**. Two development stages are anticipated – '70% Whitebelt development' and '100% Whitebelt development' – which can provide phasing opportunities to the 2051 horizon.

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.

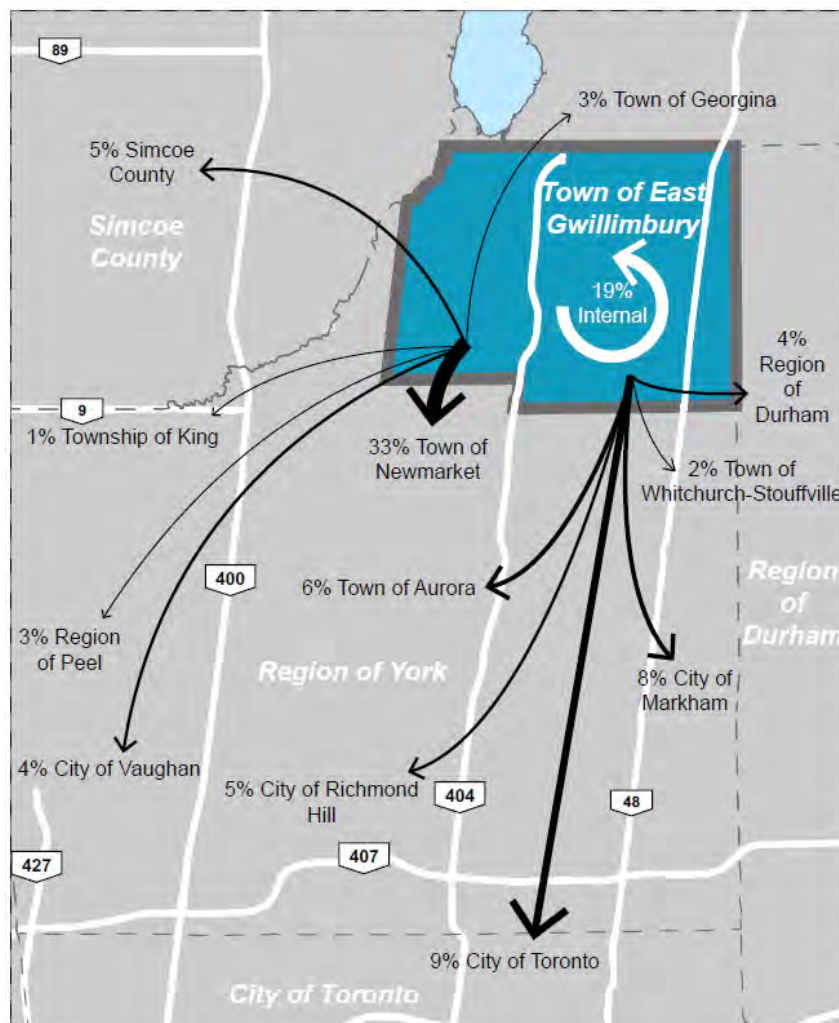
5.2.1 Travel Demand

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”.

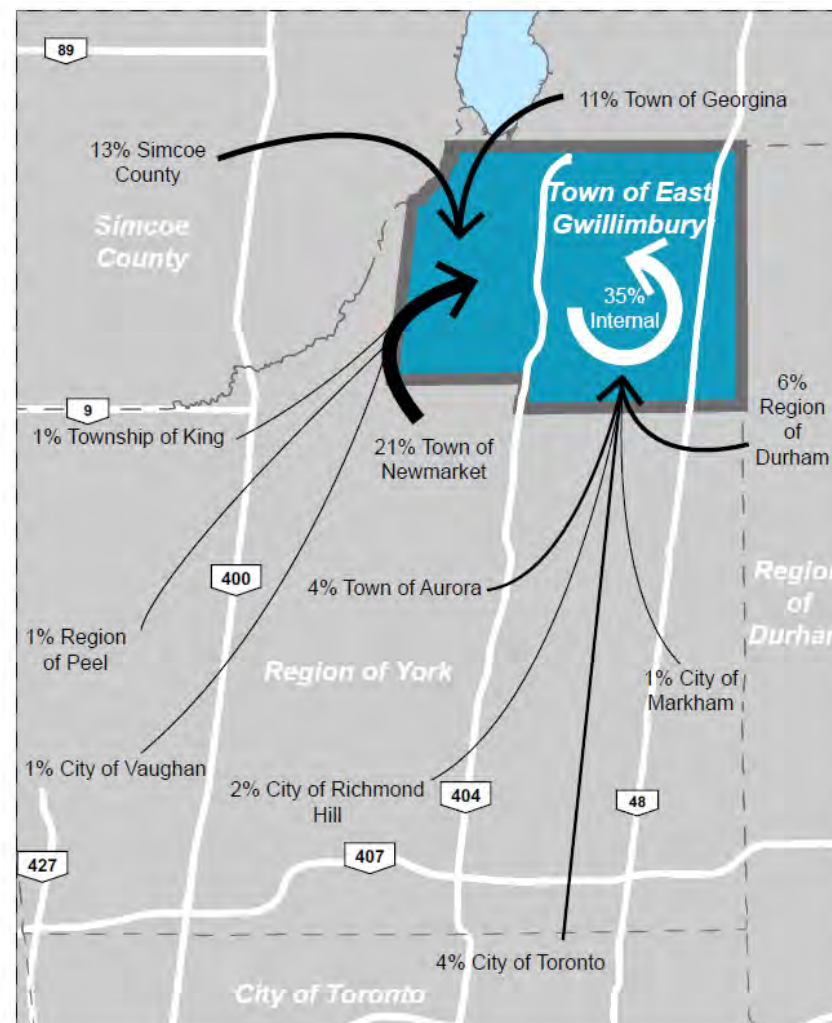
Significantly fewer (6,400) trips are destined to the Town in the AM weekday peak period. Approximately 35% of these trips are internal. A higher proportion of trip origins come from northern municipalities and Simcoe County, indicating that the Town does serve as an employment base for more rural communities.

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



AM Peak Trip Origins: 12,200

Source: 2016 TTS Data



AM Peak Trip Destinations: 6,400

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**.

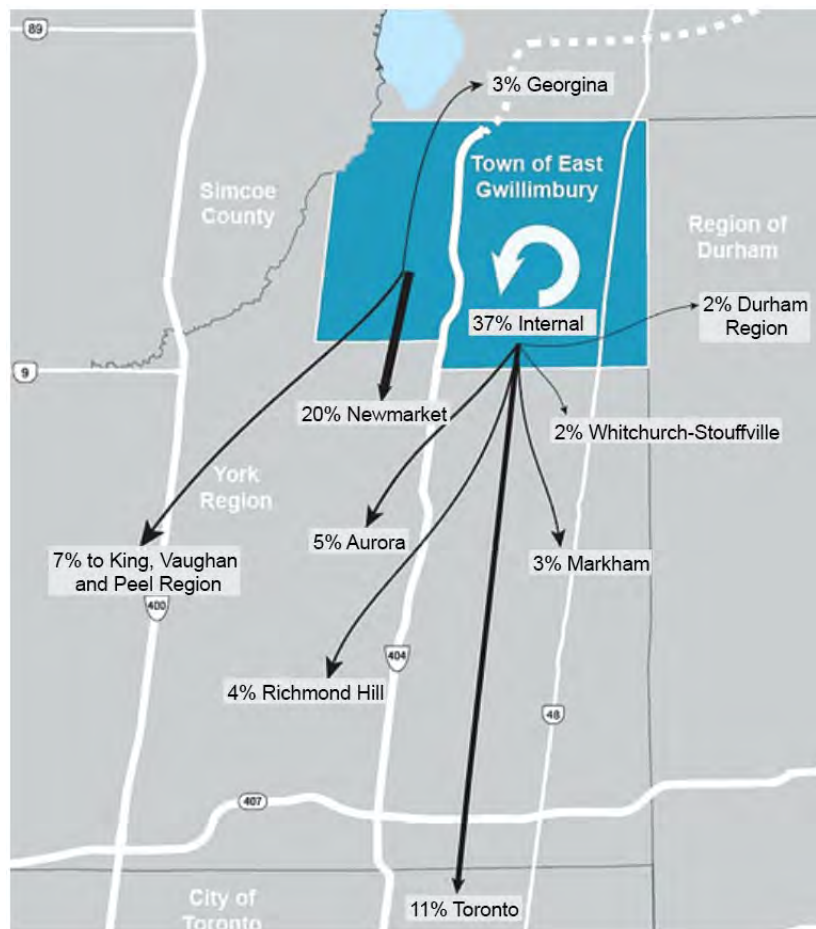
Approximately 10,150 daily trips are made within the Town by residents. The majority of internal trips are made within the community, as seen with Holland Landing and Mount Albert. Mount Albert is the focal point of travel with 17% of internal trips occurring within Holland Landing. Holland Landing is 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.

5.2.3 Future Travel Patterns

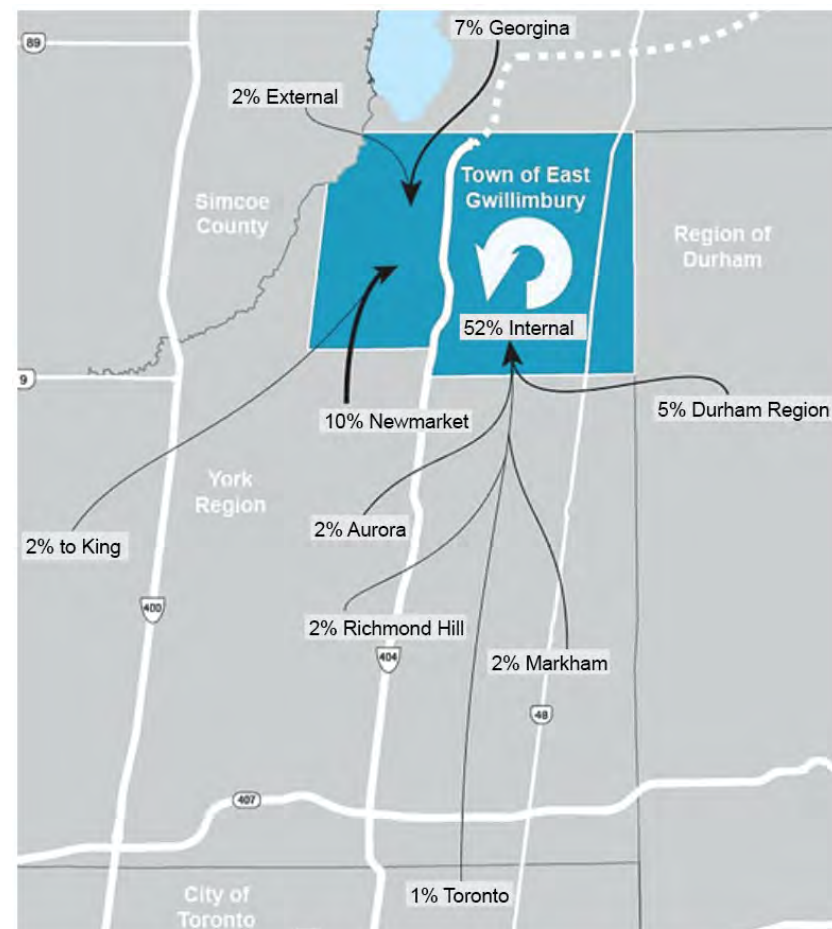
With the planned improvements from the York Region Transportation Master Plan (2022) and with the population and employment growth in the Town, travel patterns will change significantly in the future. The distribution of travel to and from the Town has shifted towards a greater focus on self-containment. 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



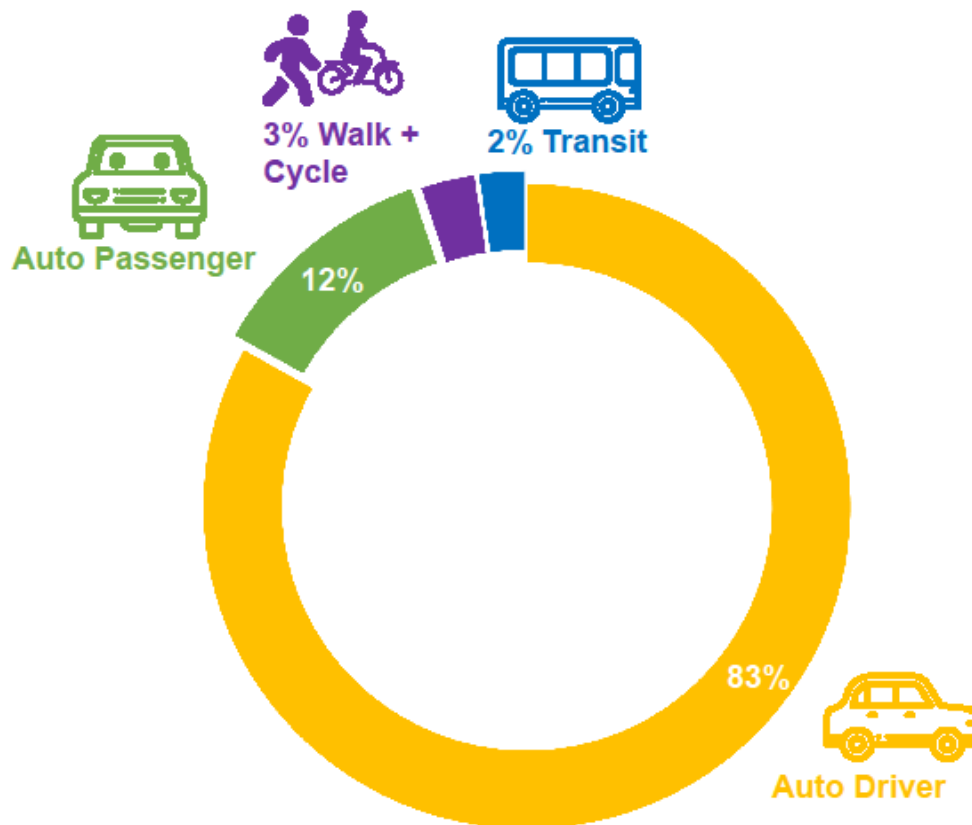
AM Peak Trip Destinations: 33,200

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%.

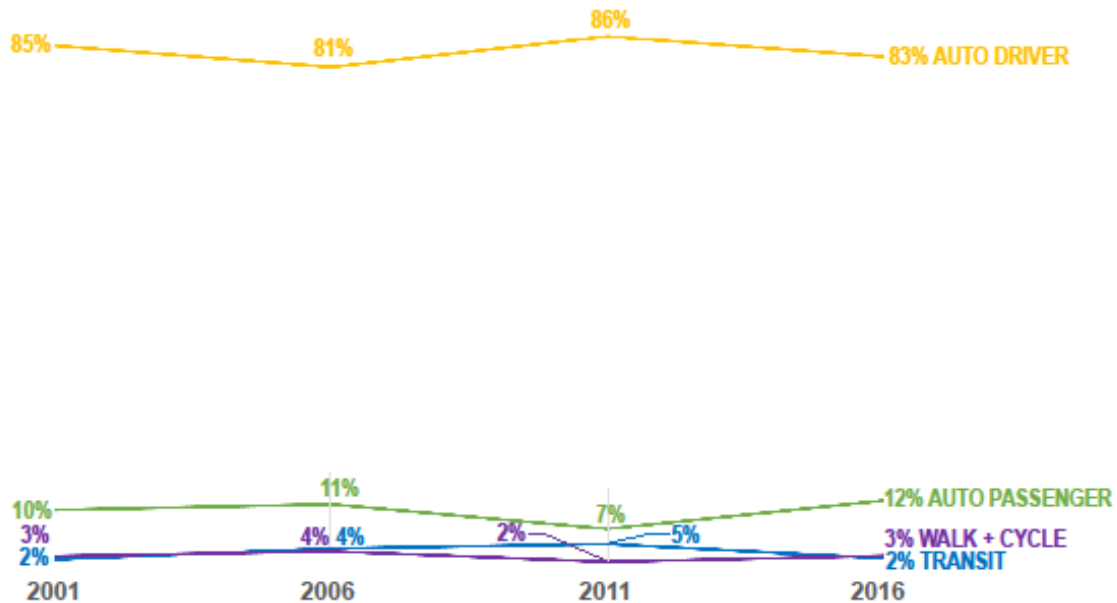
Figure 5-6: Mode Share (AM Peak Period)



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

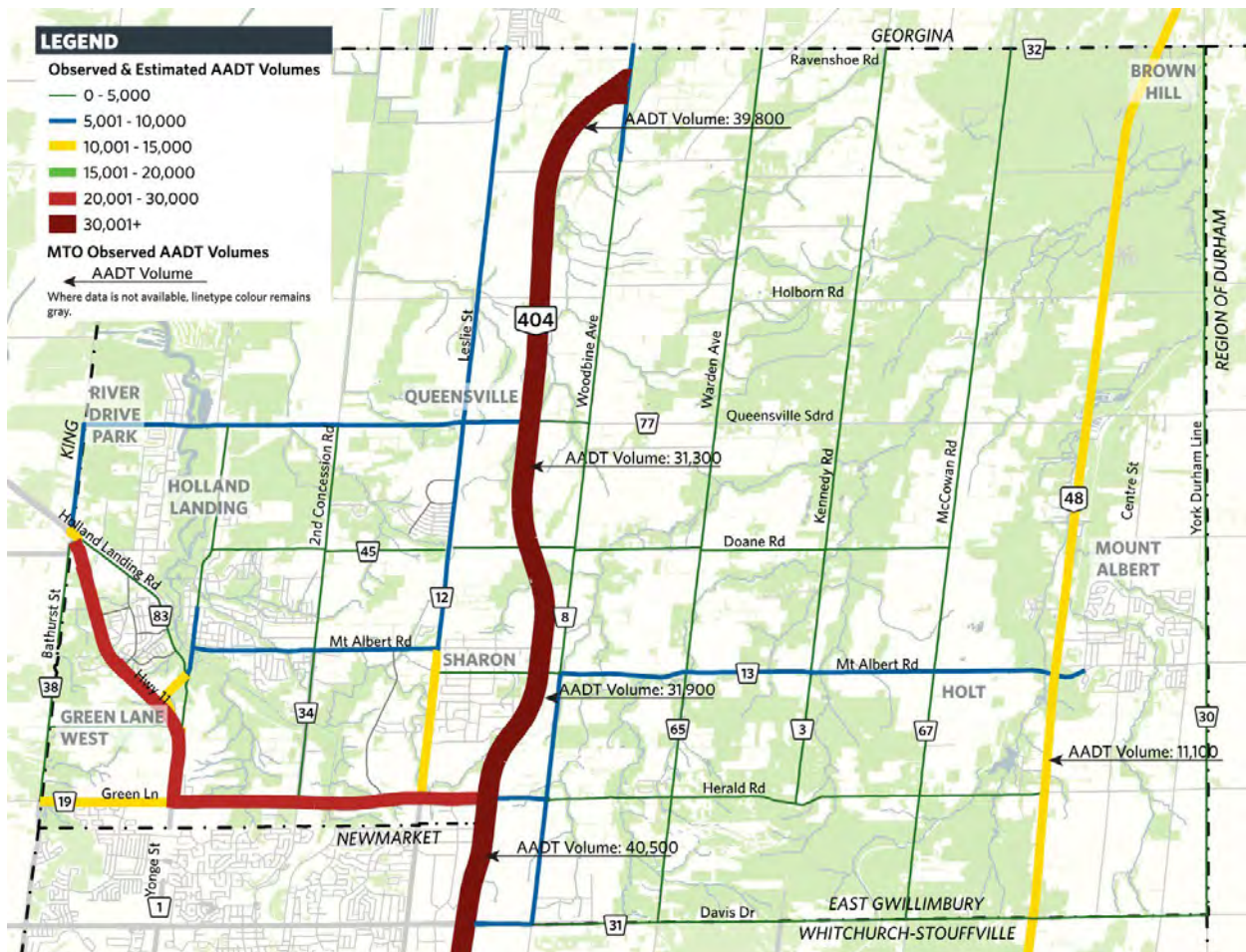
5.3 Vehicular Traffic Assessment

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

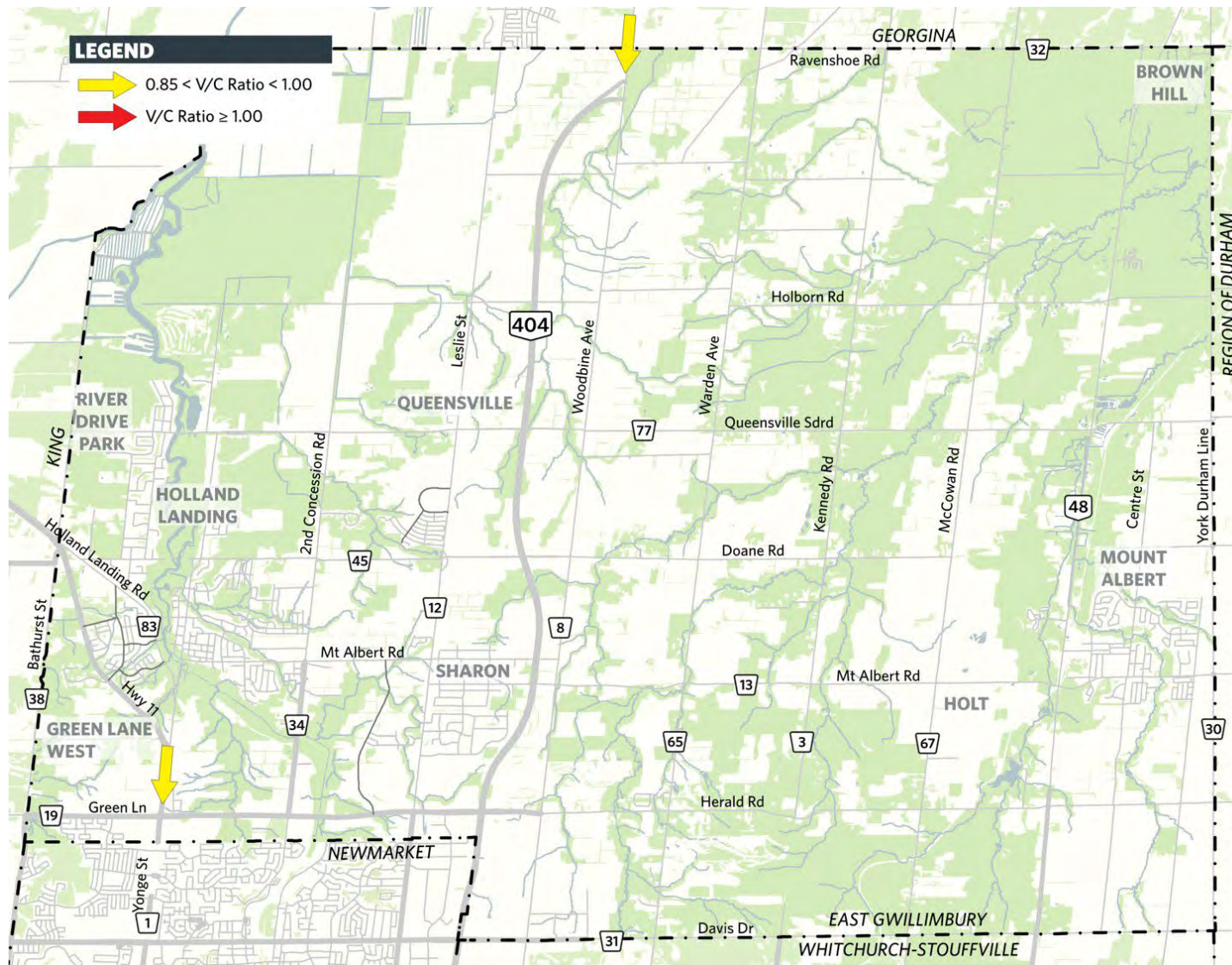
To assess the current level of traffic congestion on roadways throughout the Town of East Gwillimbury, a screenline volume to capacity analysis was conducted based on 2011 York Region Model which is the most recent model at the time of study initiation in 2016. The screenline analysis assesses the total 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)



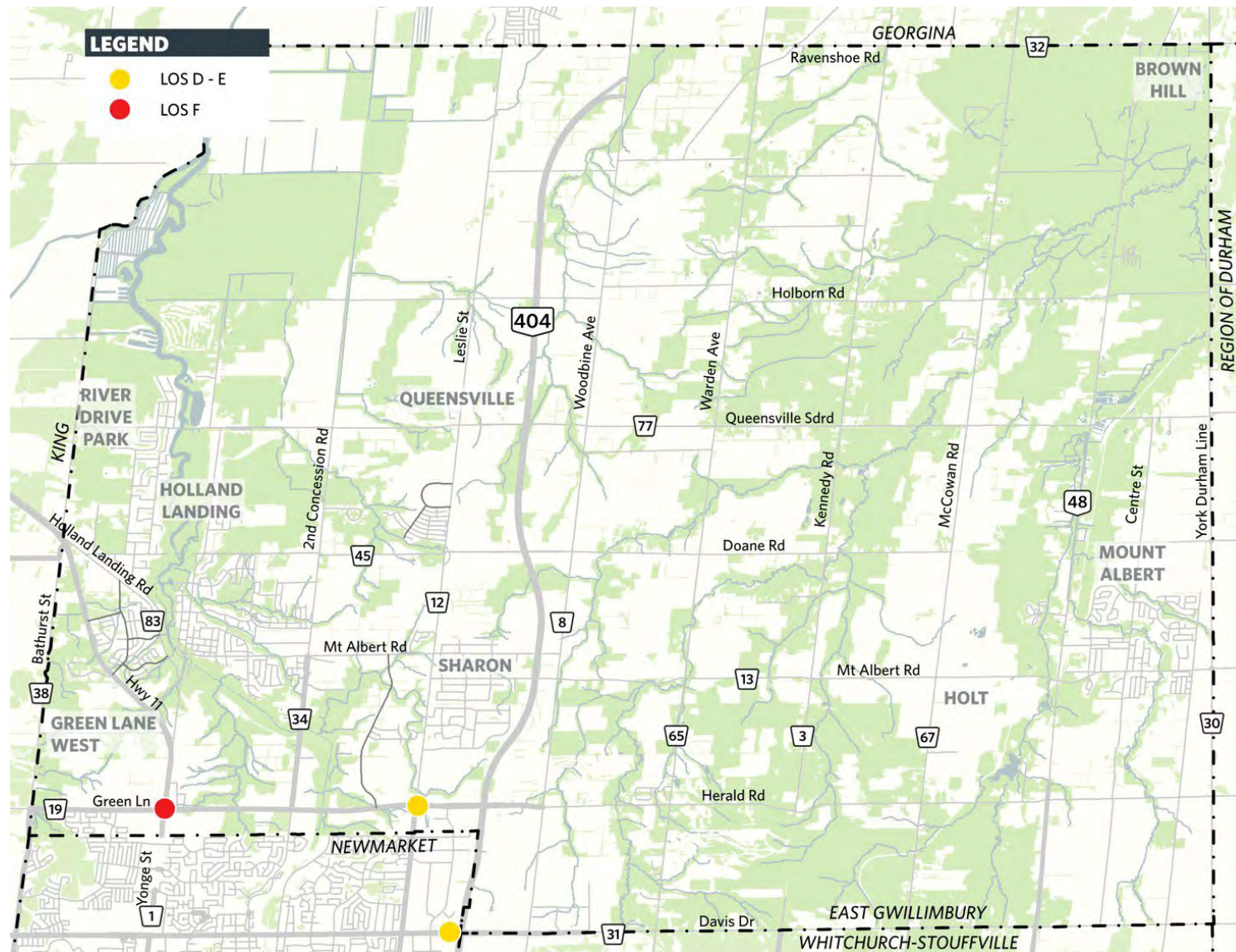
Note: 2011 York Region model was the most recent model available at the time of study initiation.

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

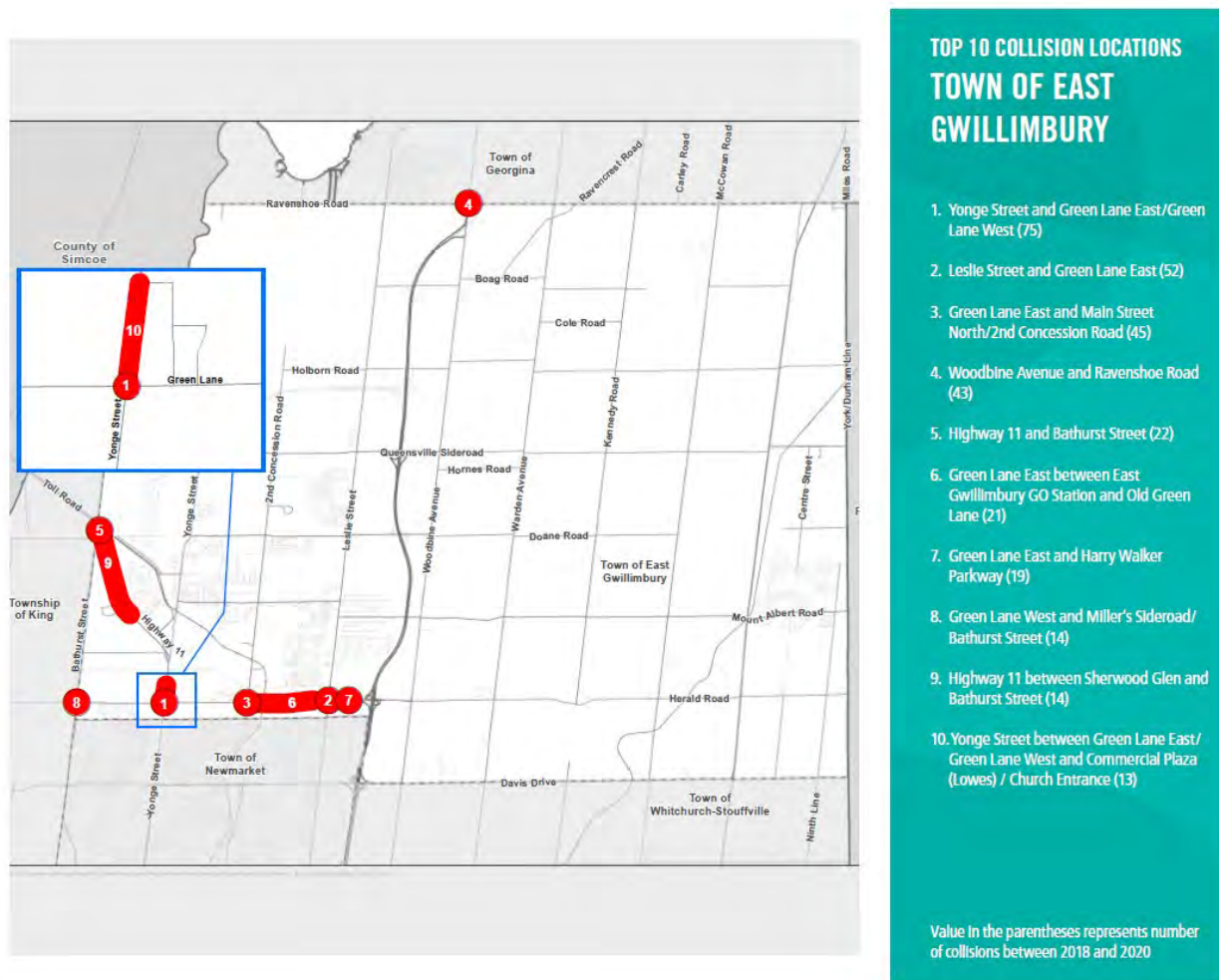
Carpool Lot Location	Capacity	No. of Vehicles Parked	% Utilization
Woodbine Avenue	67	46	69%
Queensville Sideroad	213	35	16%
Green Lane	156	64	41%
Davis Drive	187	69	37%

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



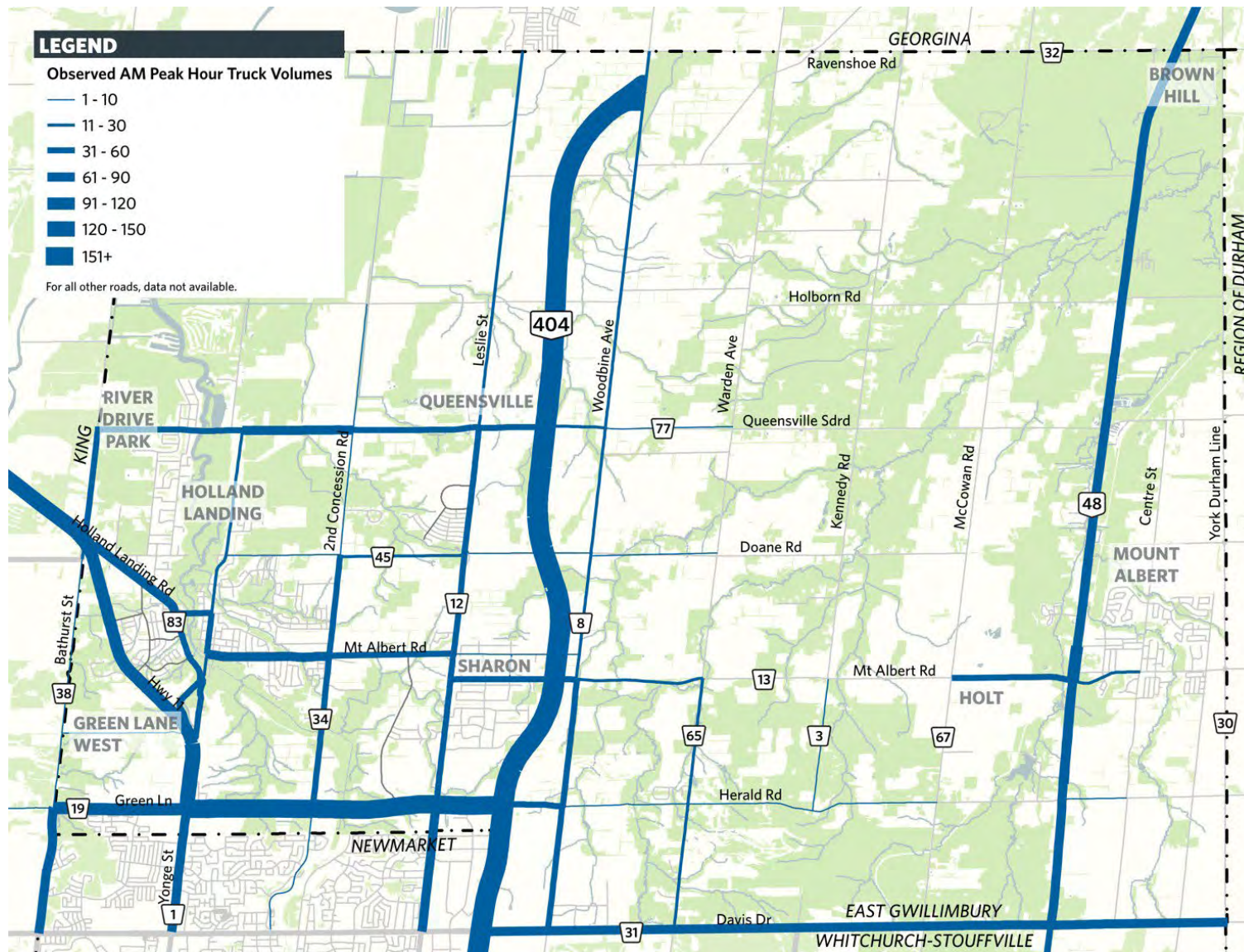
Source: York Region 2021 Traveller Safety Report

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.

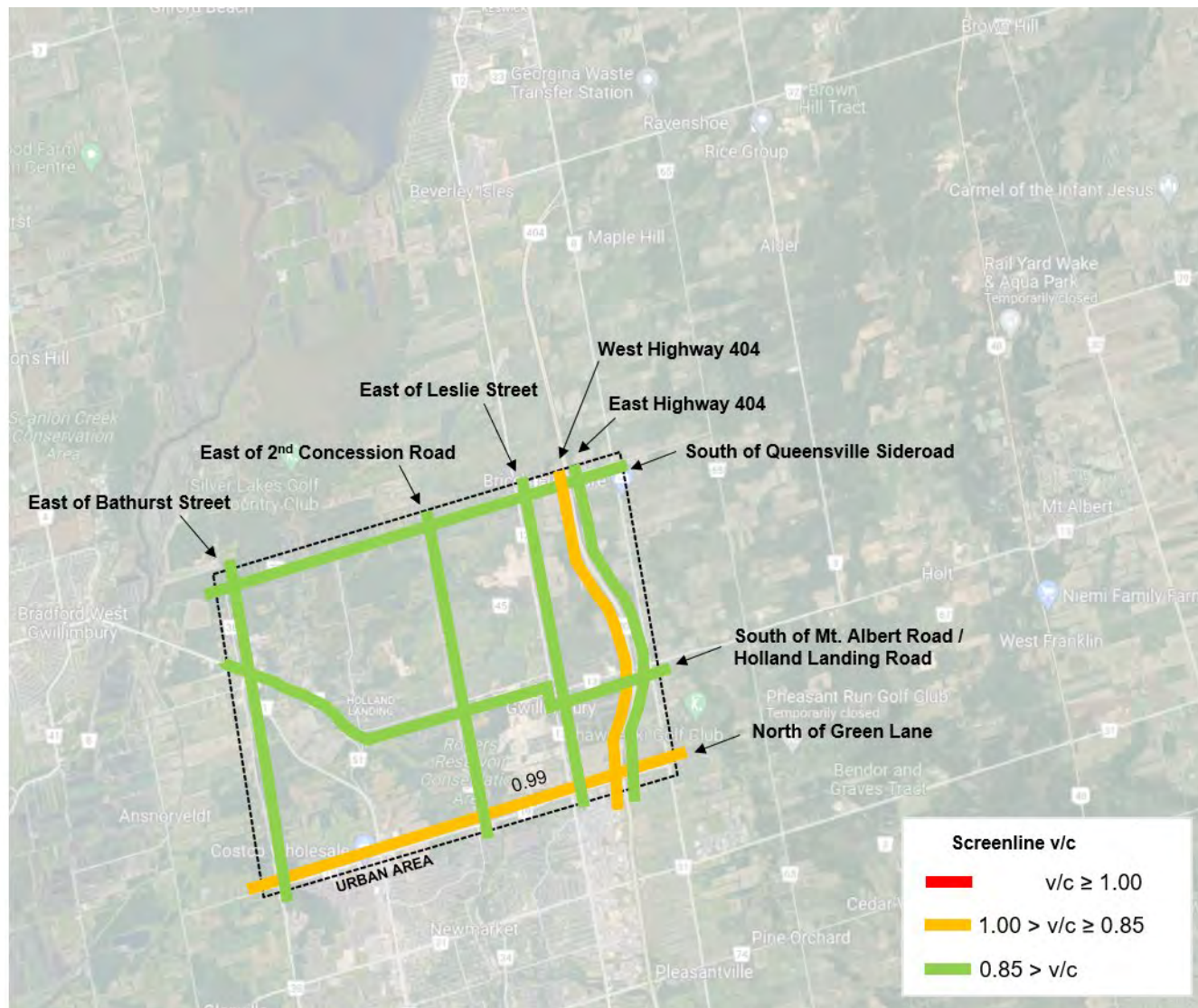
Network results for the 2051 100% Whitebelt scenarios is shown in **Figure 5-13**, respectively. It is noted the screenlines shown do not include Highway 404. Some individual corridors (such as Arterial roads) appear to operate poorly; however, there is sufficient capacity with the supporting proposed 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 automobile³. 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.

MODE FOR SHORT TRIPS BY EAST GWILLIMBURY RESIDENTS

15,515 TRIPS ≤ 5KM

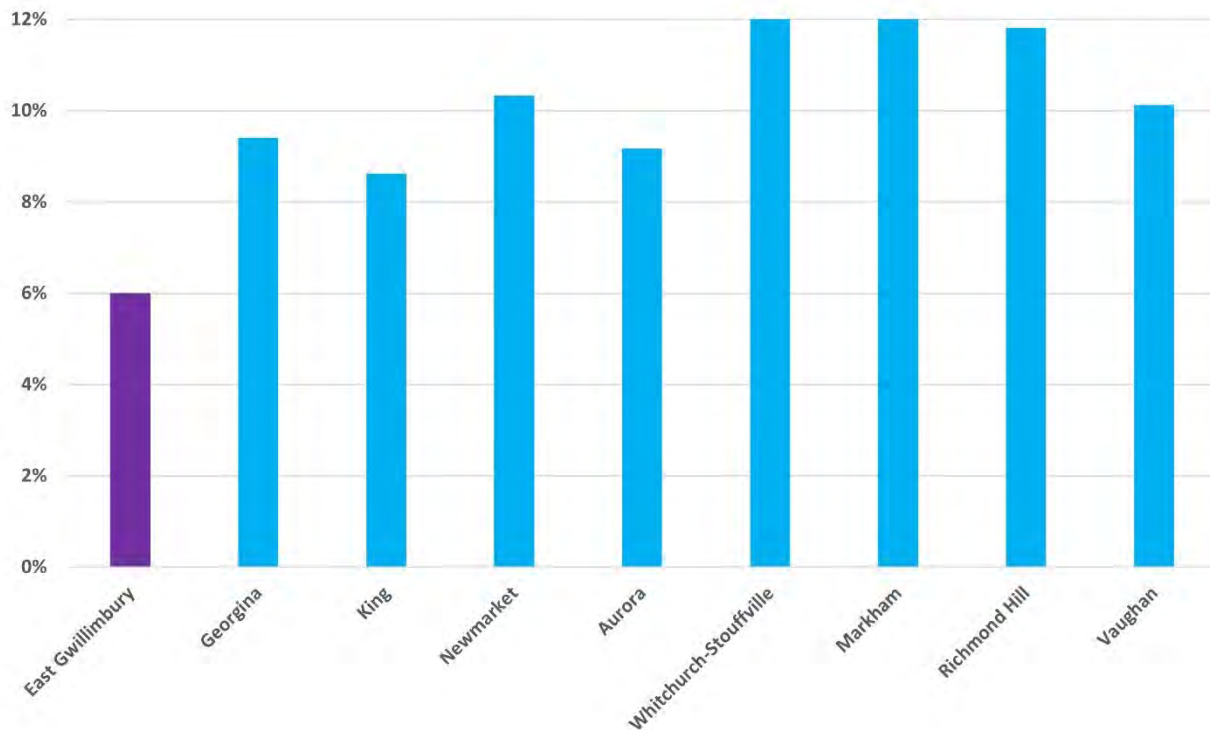
AUTO DRIVER 68% AUTO PASSENGER 13% WALK + CYCLE 6% TRANSIT <1% OTHER 12%

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.

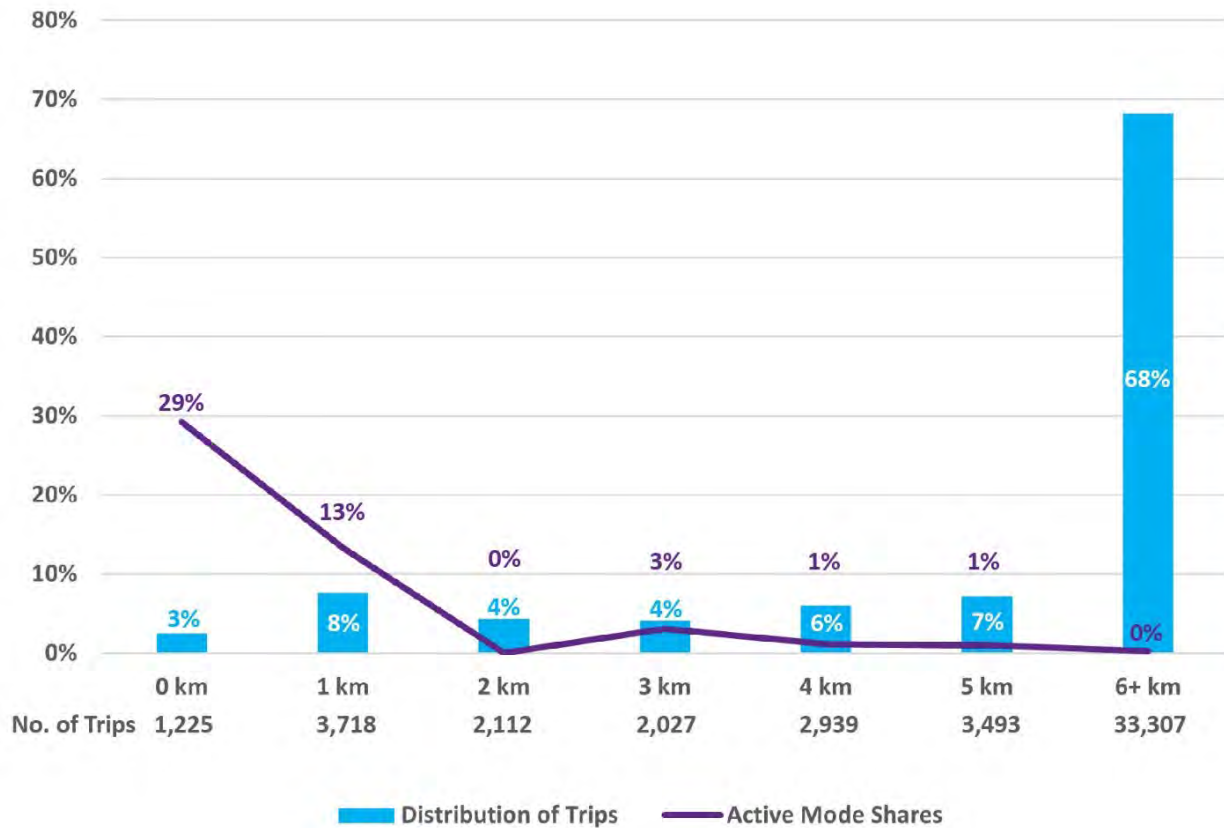
Figure 5-14: Active Mode Share for Trips Less Than or Equal to 5km in Length



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

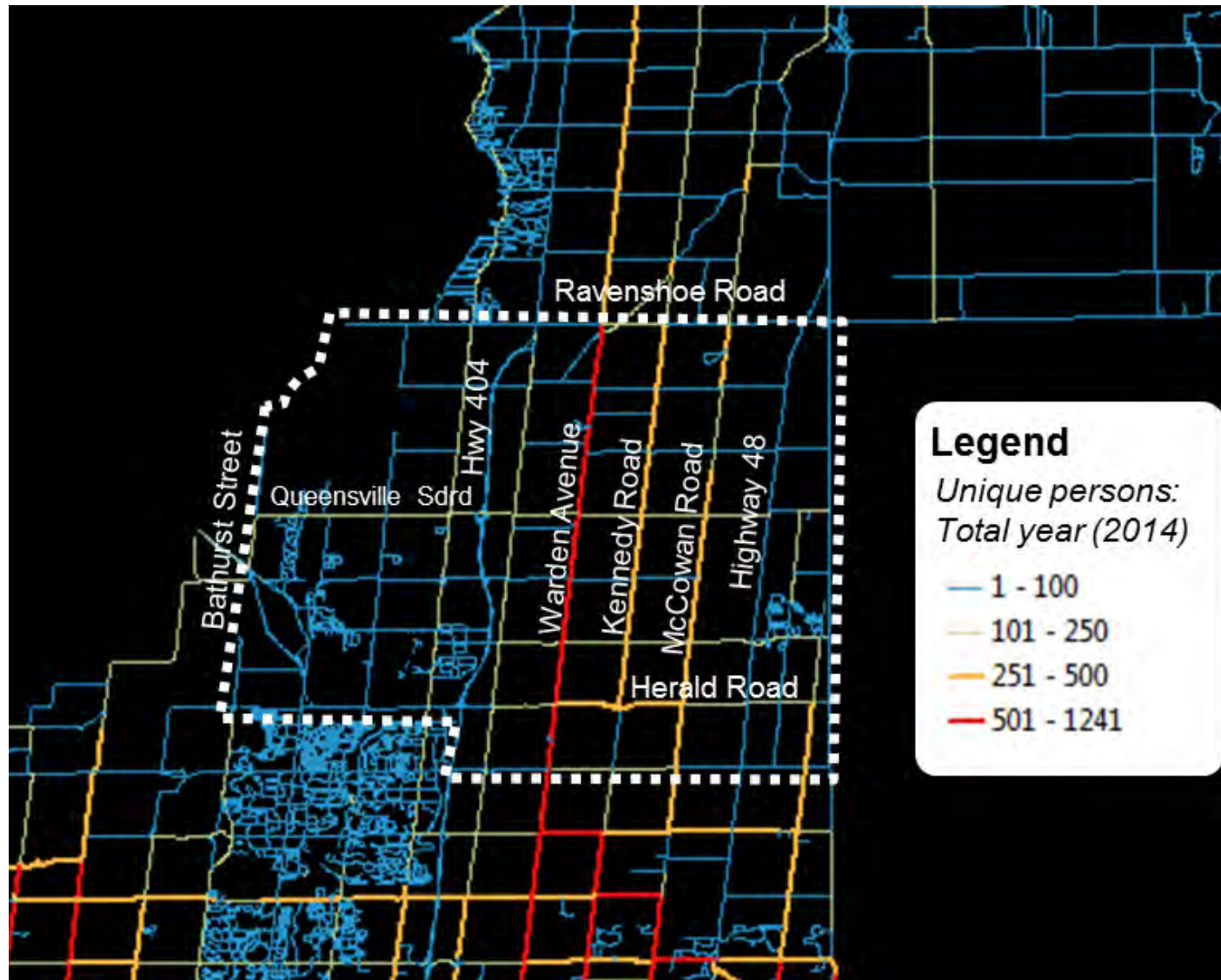


Source: 2016 TTS Data

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

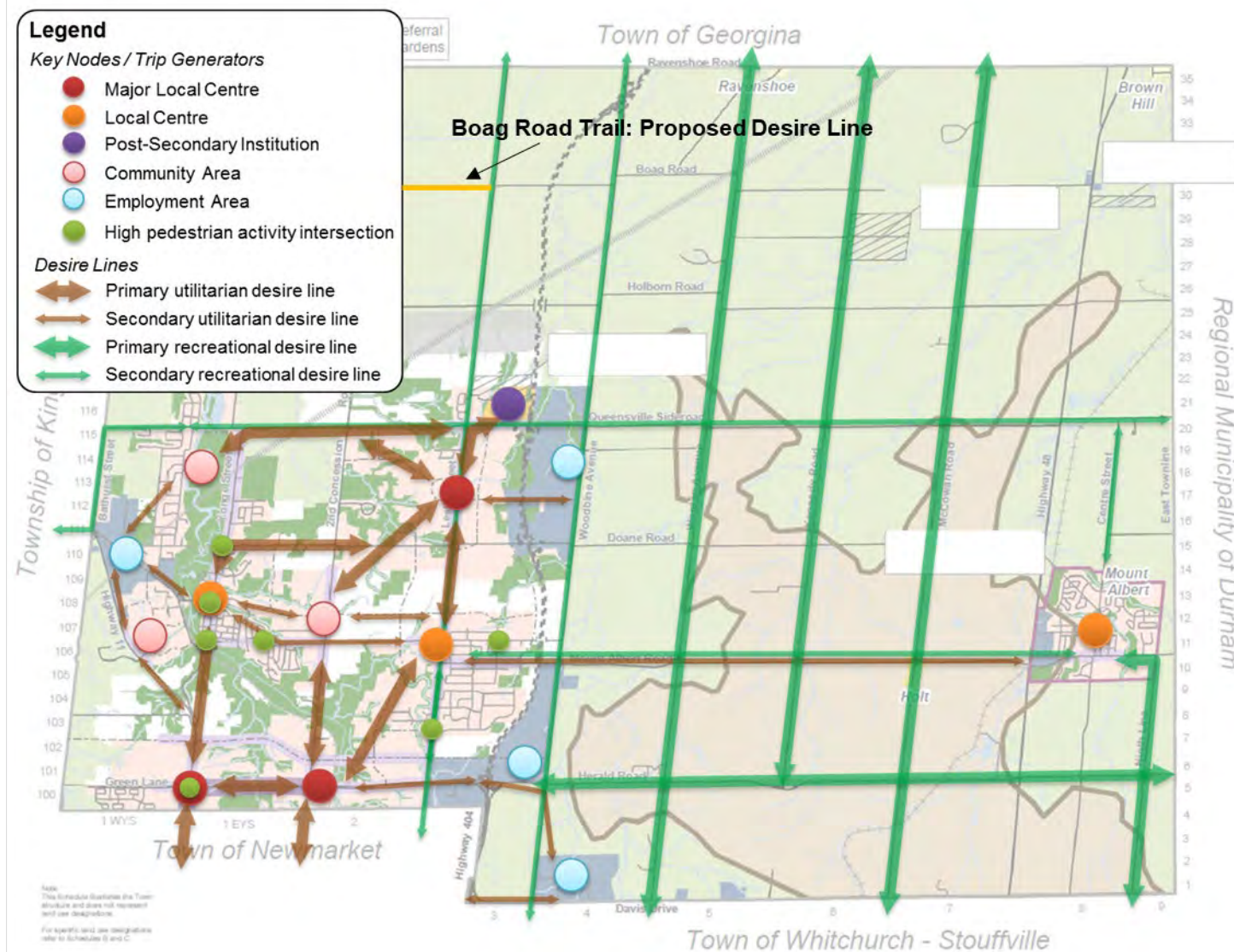
The importance of Warden Avenue as a cycling corridor not only within the Town but as a Regional corridor, extending north and south of the Town is recognized in this data as an opportunity to further encourage cycling travel for both recreational and commuter trips.

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.

LEGEND

Corridor LOS	Intersection LOS
LOS A - C	LOS A - C
LOS D - E	LOS D - E
LOS F	LOS F

The map displays the proposed transit network for the East Gwillimbury GO area. Corridors are color-coded: green for LOS A-C, yellow for LOS D-E, and red for LOS F. Intersections are marked with colored dots: green for LOS A-C, yellow for LOS D-E, and red for LOS F. A blue star marks the location of the East Gwillimbury GO station. The map includes labels for various roads and locations, such as River Drive Park, Holland Landing, Green Lane West, Sharon, Mount Albert, and Holt. Major roads like Hwy 8, Hwy 12, Hwy 45, and Hwy 48 are also shown.

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.

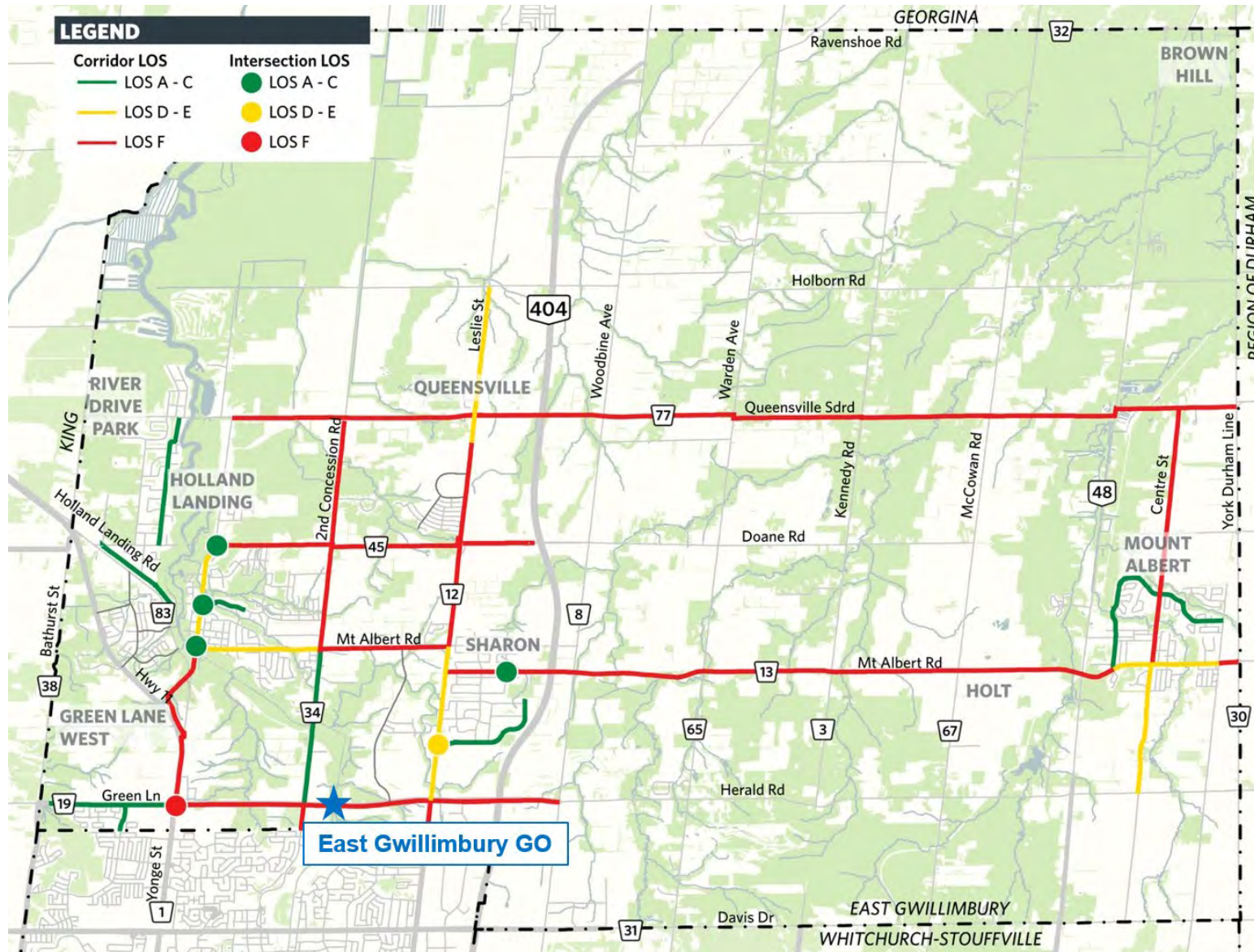
The BLOS methodology is similar to the PLOS method explained in **Section 5.4.4**, and is based on roadway characteristics and facility type and quality. The methodology measures each segment's and intersection's level of traffic stress (LTS) experienced by the cyclist.

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

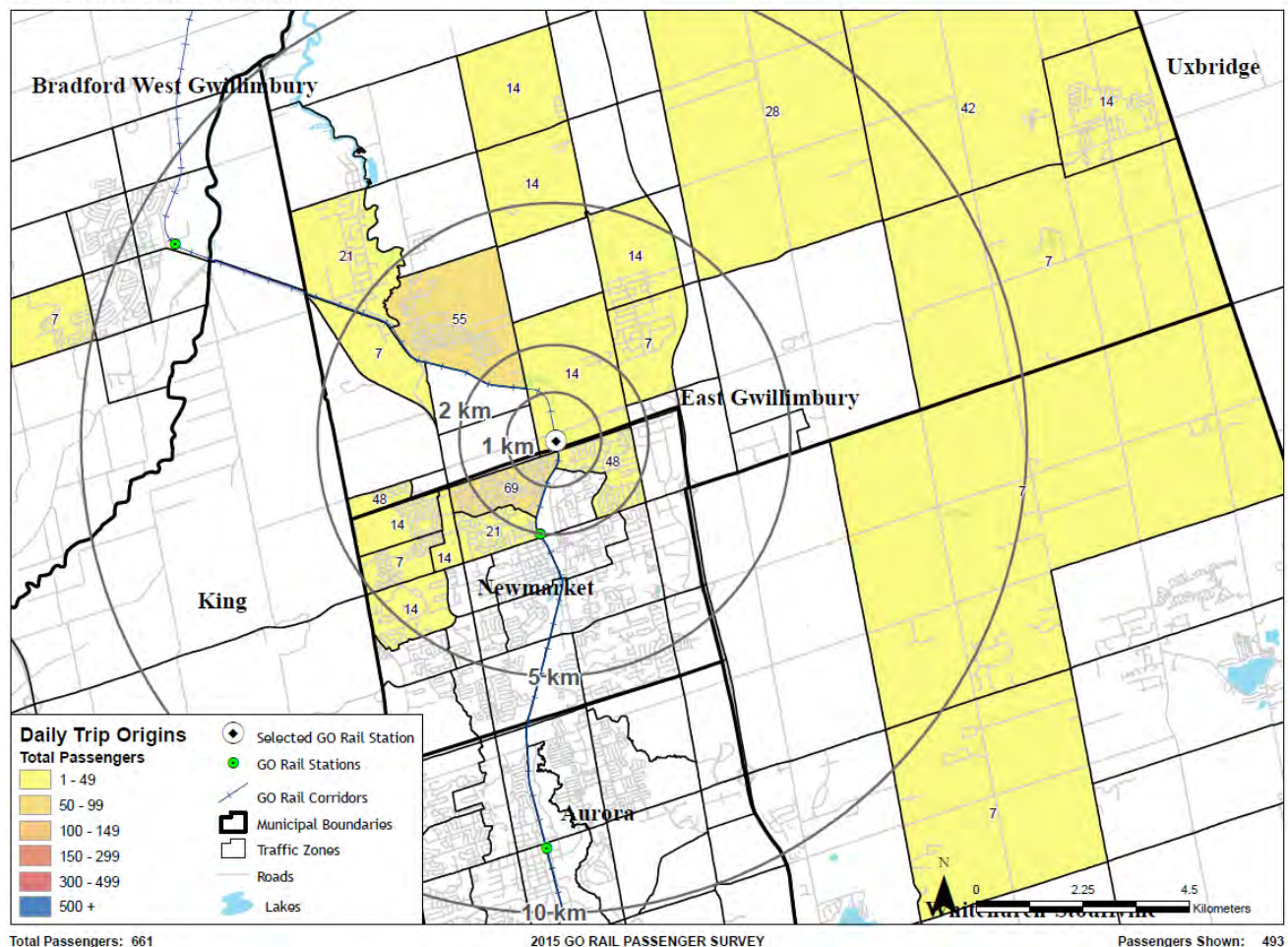
5.5.1 Inter-Regional Transit Demand

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

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)

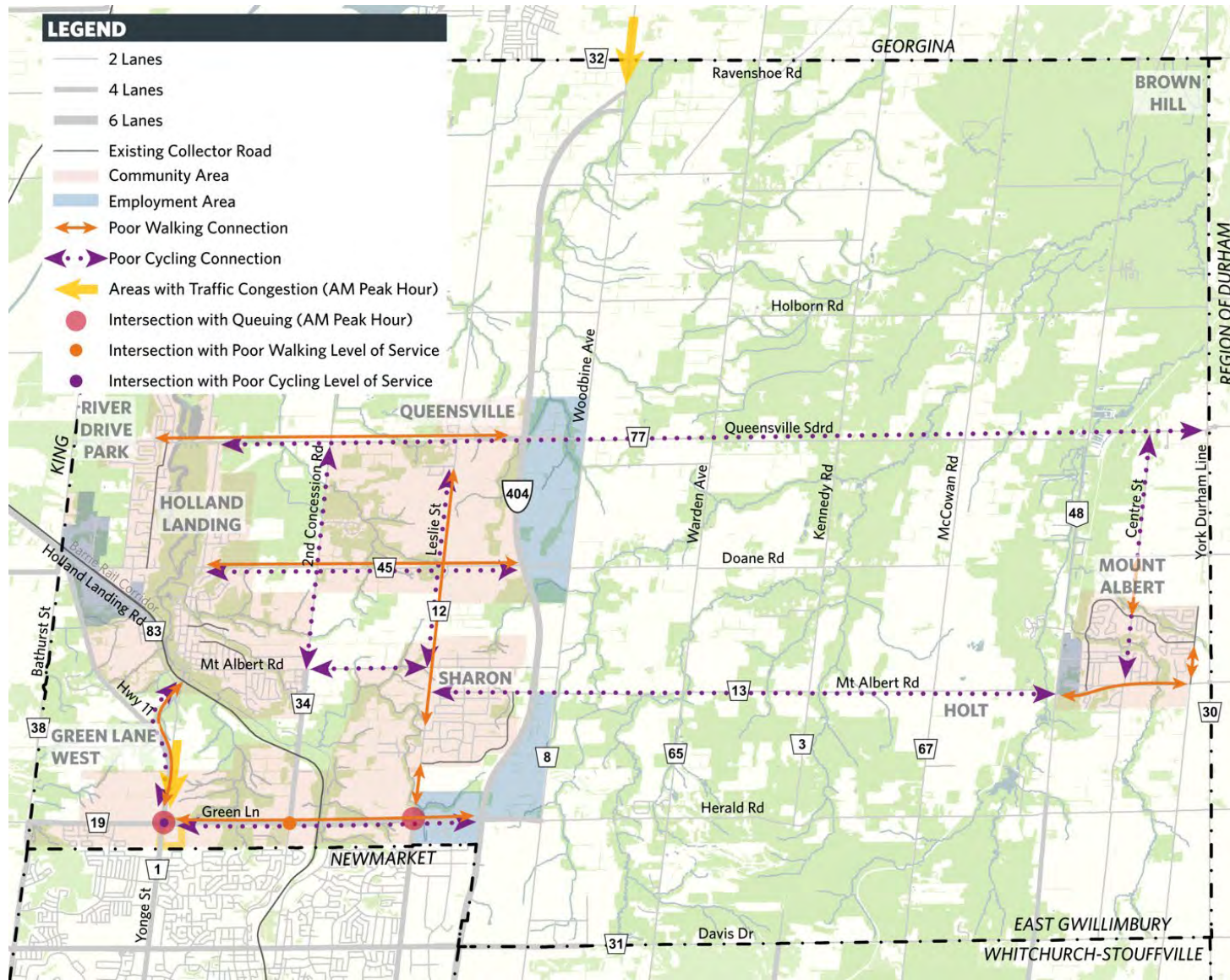
YRT Route No.	Route Name	2014 Boardings		2015 Boardings		Total Boardings (Month)		Total Boardings (Year to Date)	
		Avg Weekday	Avg Sat.	Avg Weekday	Avg Sat.	2014	2015 (% Diff)	2014	2015 (% Diff)
52	Holland Landing	262	108	196	99	6,230	4,662 (-25.2%)	52,630	49,669 (-5.6%)
58	Mount Albert	130	9	128	5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



Support **all modes of travel** (auto, transit, on road and off-road active transportation)



Identify **gaps and opportunities** in the transportation network



Accommodate growth to 2051 and beyond



Support existing and future land uses



Develop a **well-integrated, multi-modal, and sustainable transportation network**

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: - Ministry of Transportation (MTO); - York Region; and - 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: New connections; and Road improvements.	Confirm the desire to invest in new road infrastructure.
4	Enhanced Town Network	Further to Scenario 3, Implement cycling facilities on all new road improvements; Implement cycling facilities on existing roadways; and 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

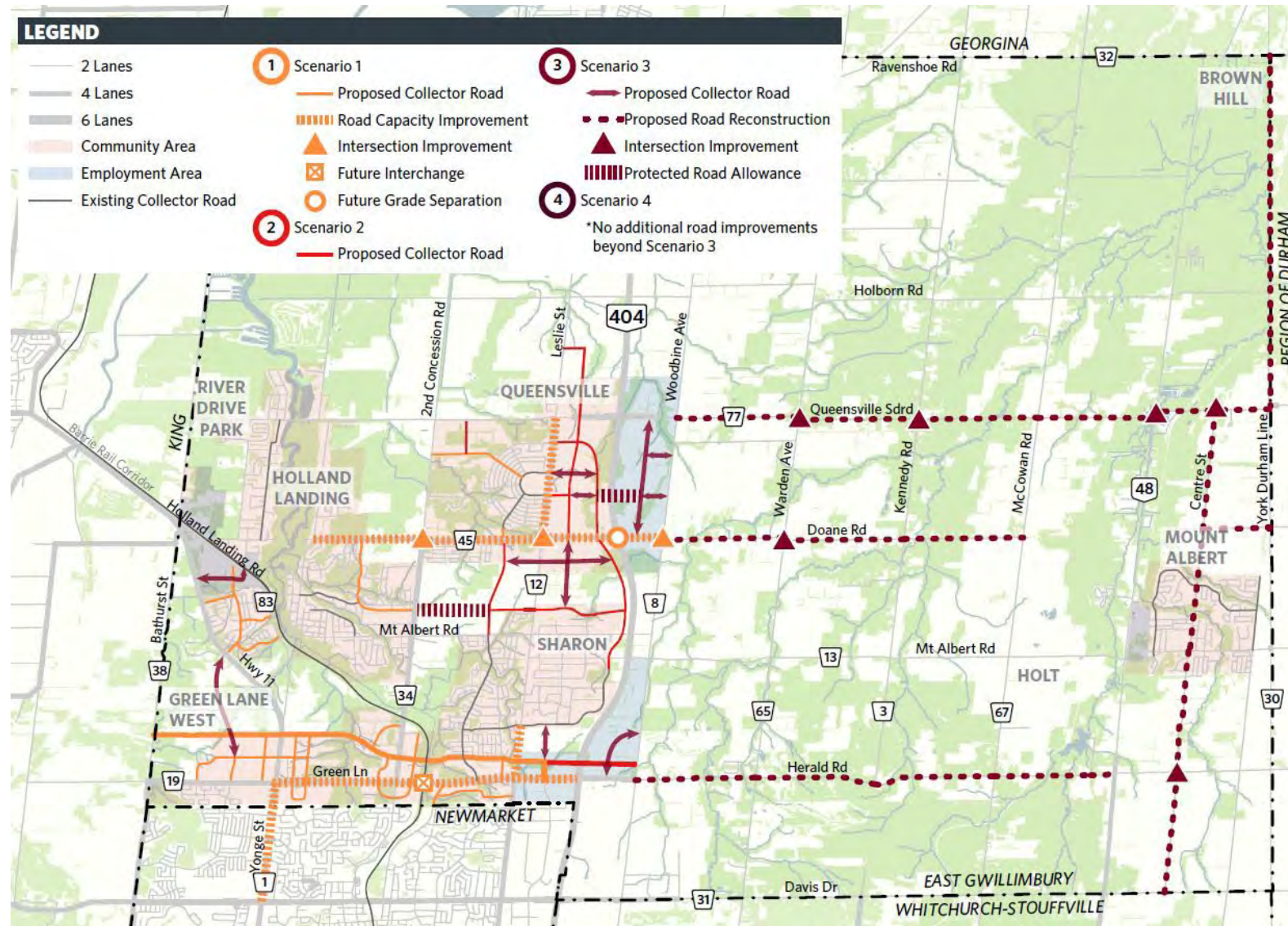


Figure 6-2: 2041 Scenario Planning Strategies Cycling Network

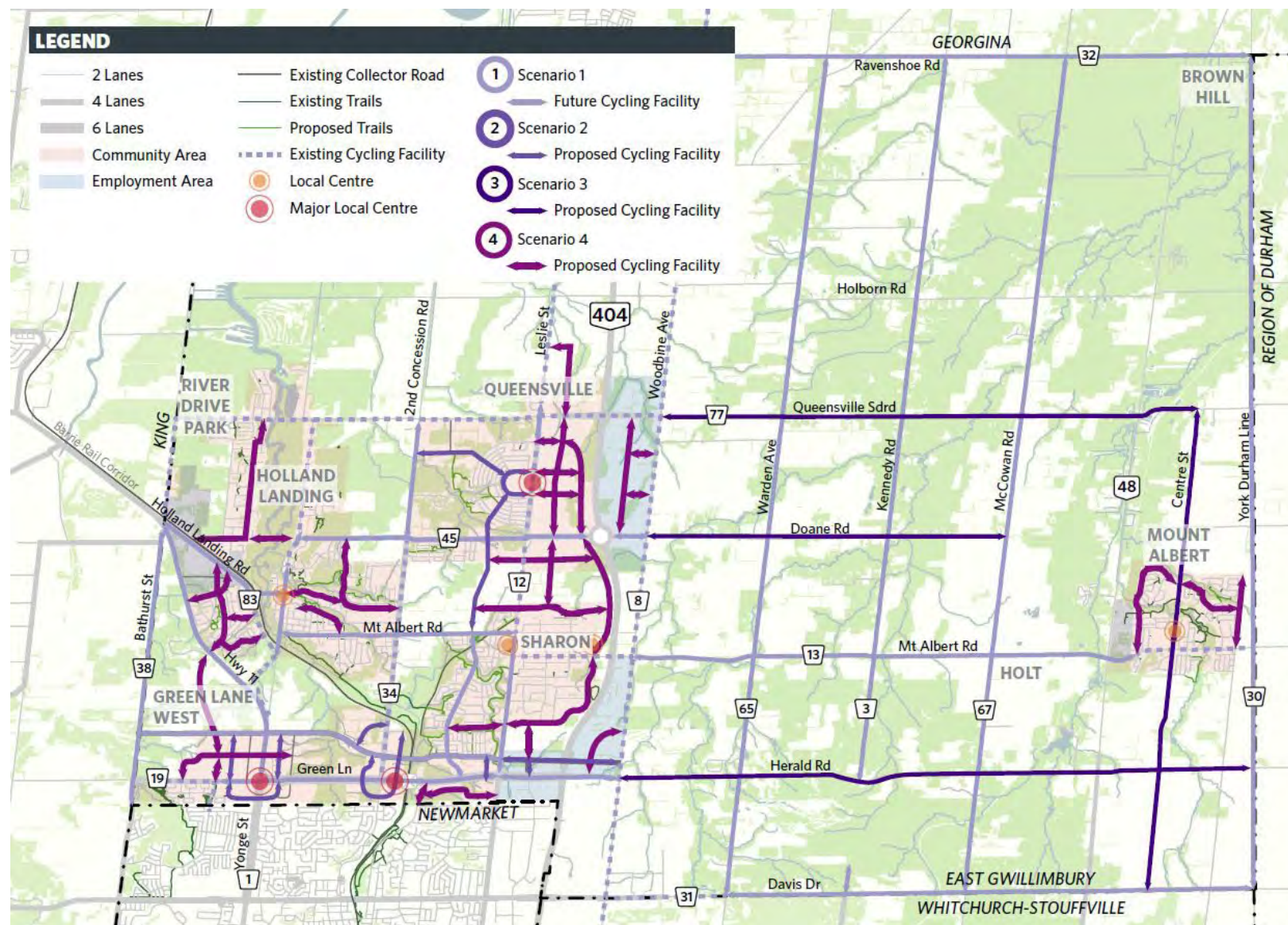
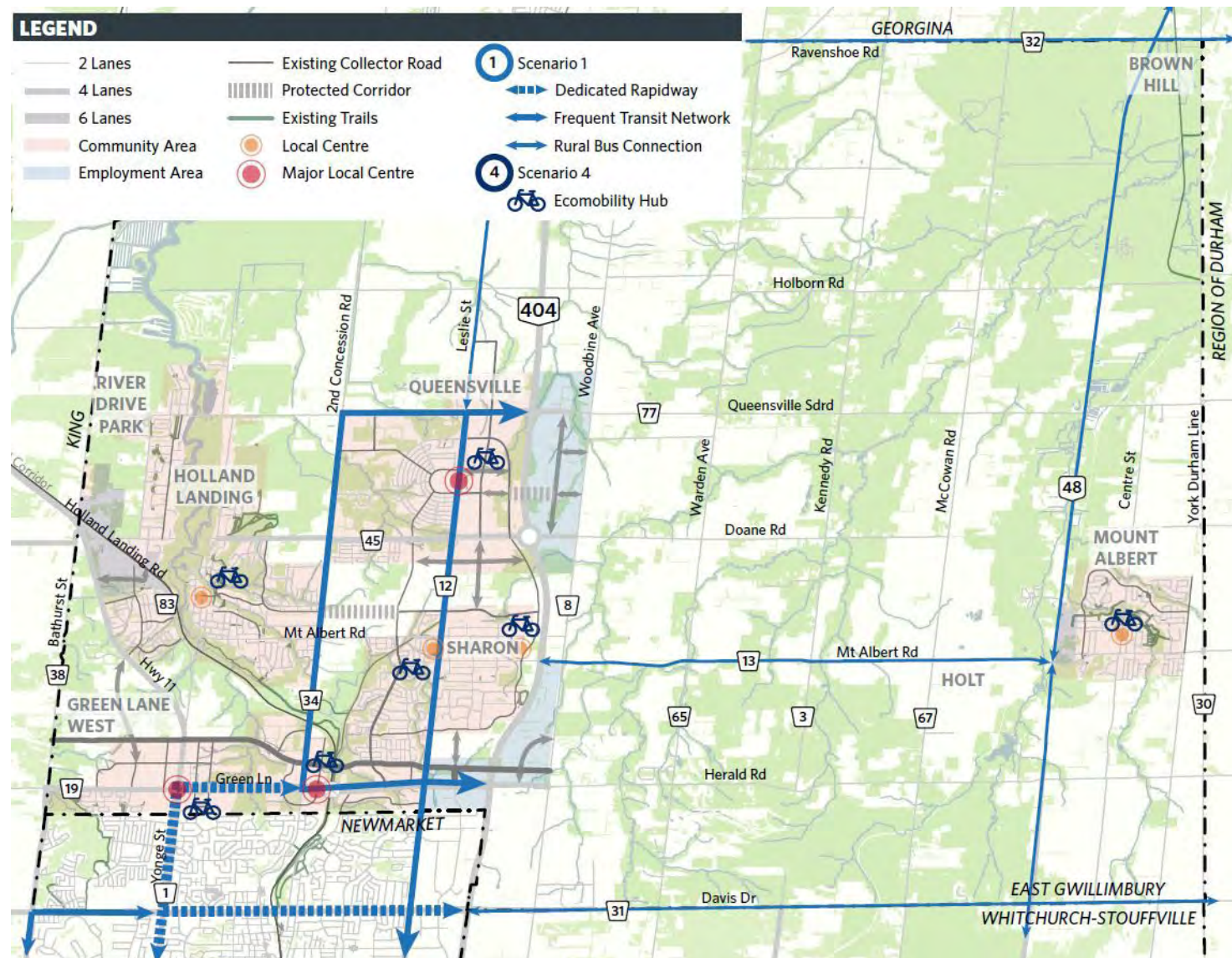


Figure 6-3: 2041 Scenario Planning Strategies Transit Network, Planning Strategies, and Policy Development



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

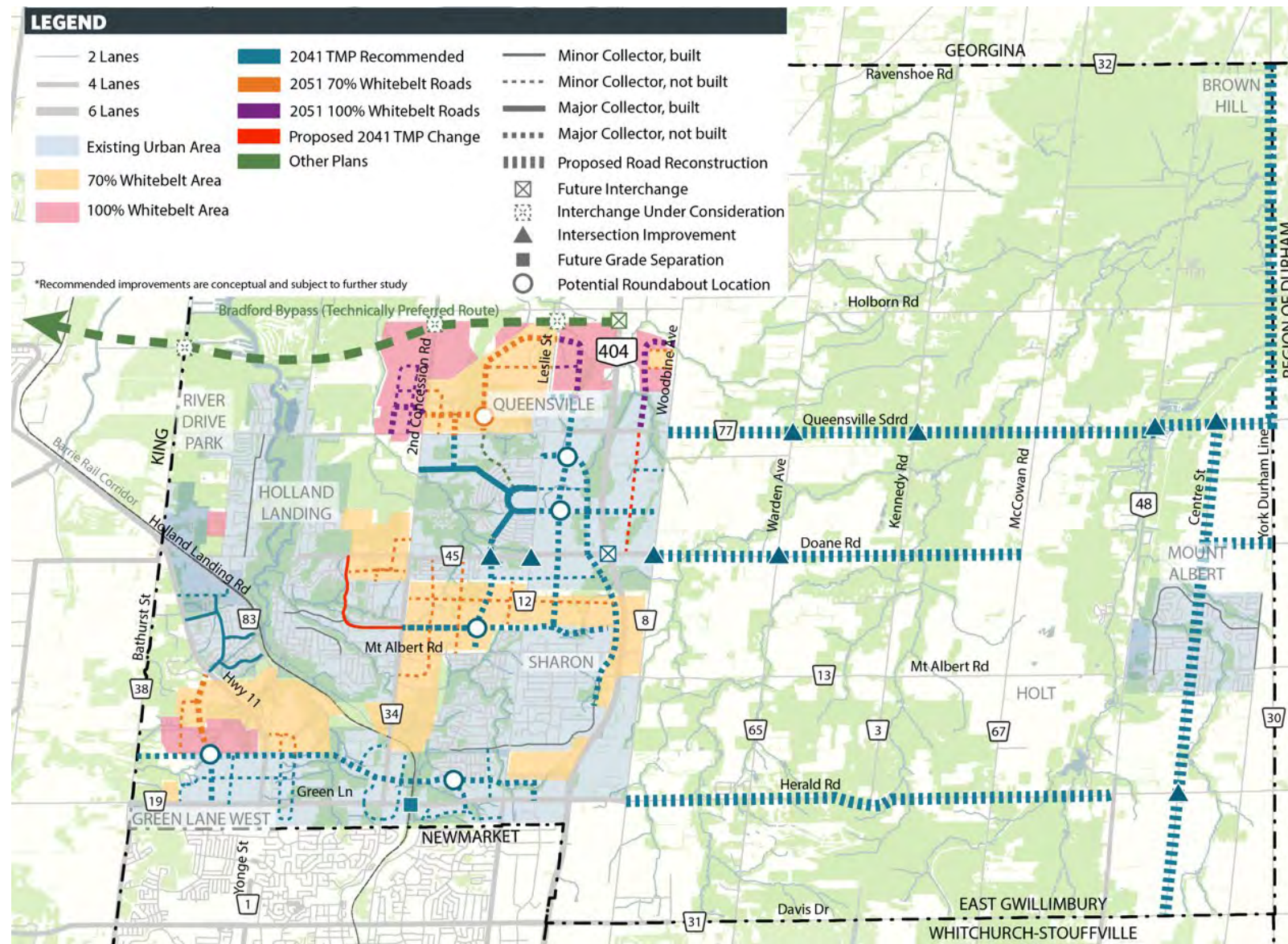
New road projects are required to support the significant growth that the Town will experience over the next 30 years. These projects will also help support the proposed active transportation and transit opportunities for the Town by providing more direct connections between communities.

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.

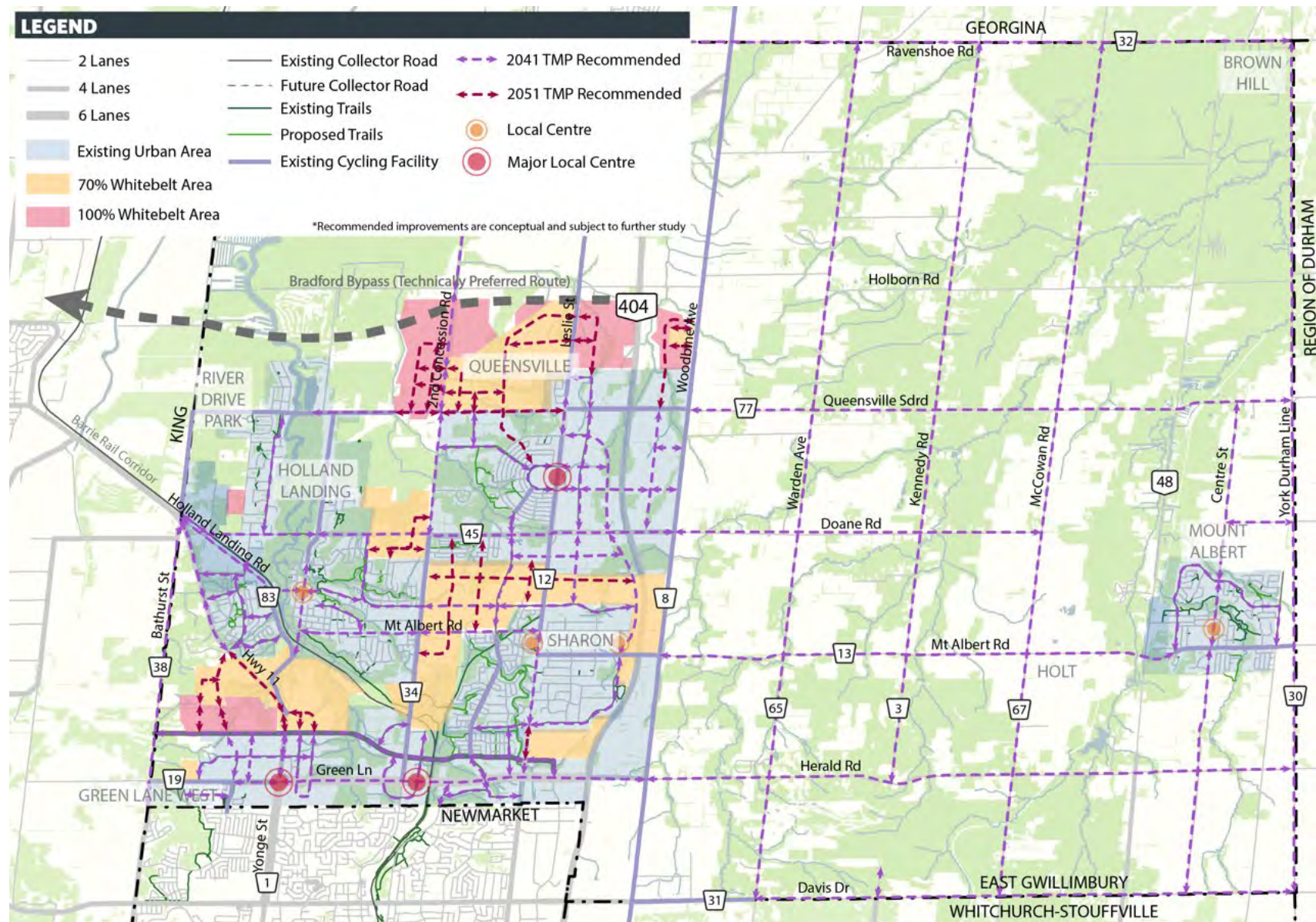
8.3.2 Cycling Infrastructure

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 - Lane is shared with vehicles and cyclists - Requires no additional street space or narrowing of travel lanes - Provides a wayfinding element along bike routes - No separation from traffic	
Paved Shoulders	- Can be shared with pedestrians and cyclists - Generally recommended for rural areas - Requires road signs and pavement markings to ensure visibility of the facility - Minimum width of 2.0m to be considered as an active transportation facility	
Painted Bike Lane	- Dedicated on-road cycling facility - Some separation from traffic - Can accommodate cyclists on both sides of streets - May require narrowing of travel lanes to accommodate - Minimum width of 1.5m, but recommended to be 1.8m	
Multi-Use Path	- Off-road facility - Shared facility between pedestrians and cyclists - Accommodates cyclists on one side of the street only - Offers routes with minimal vehicular conflict - 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 services⁴⁵. 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.

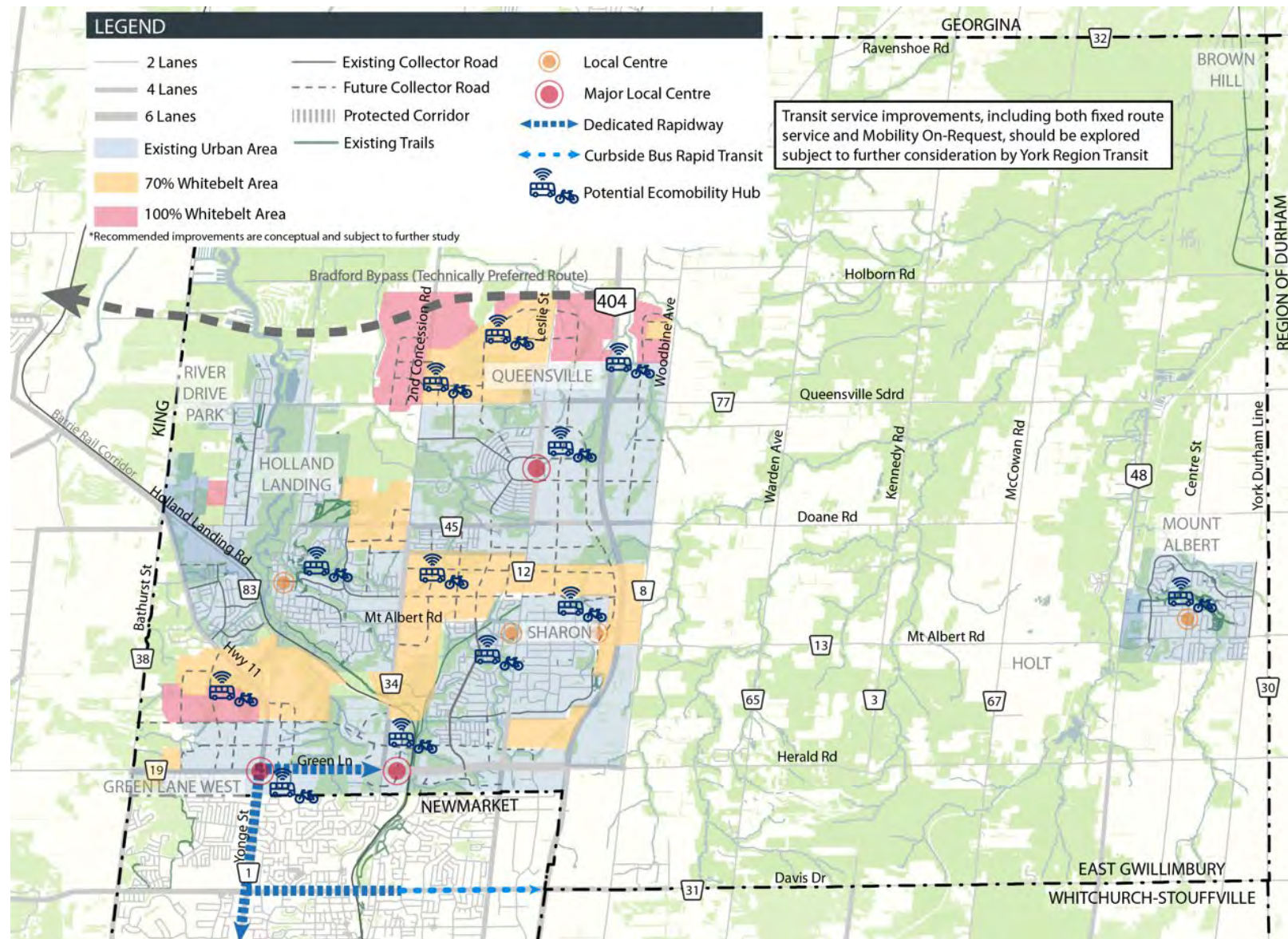
Consideration may be warranted, in the immediate future, for providing small scale EcoMobility hubs in popular areas such as The Civic Centre, East Gwillimbury GO, and other major local centres.

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

Recommended infrastructure projects are subject to 2024 Municipal Class Environmental Assessment requirements which are identified based on the Schedules below. It is noted that Schedule A / A+ projects (projects limited in scale and have minimal adverse environmental effects) have been removed in the 2023 MCEA amendment.

- **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.

While some roads could be Schedule C based on cost, road projects within a single parcel of land or development block may be delivered through development. Full details of infrastructure planning requirements for projects including recommended MCEA schedule 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.

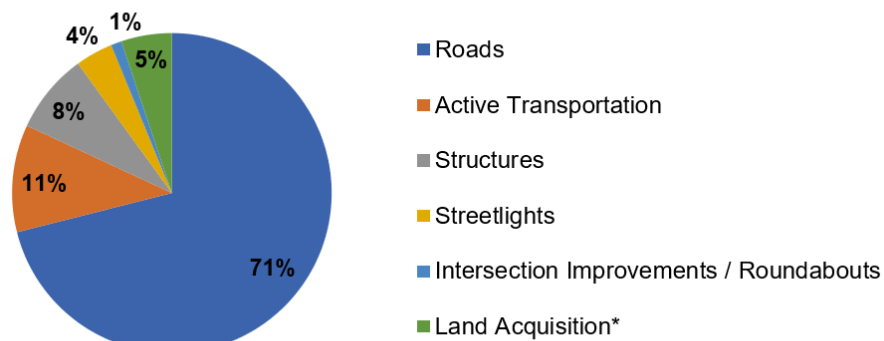
9.5 Program Cost Estimates

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

Total Capital Cost Distribution (2022\$)



*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

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 policies 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 85th 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.



Transportation Master Plan Update

Appendix A – Engagement Comments

Town of East Gwillimbury
Final Report

November 2024



Summary of Project Notices

Notice	Date of Notice	Distribution Method	Other Notes
Notice of Commencement (2016)	November 23, 2016	1. Email sent to internal and external stakeholders 2. Updates on Town's website	
Notice of Commencement Re-Issue (2017)	November 9, 2017	1. Email sent to internal and external stakeholders 2. Updates on Town's website	
Notice of Public Consultation 1	March 8, 2018	1. Email sent internal and external stakeholders 2. Updates on Town's website 3. Event blast on Town's Social media 4. Local newspaper ad	Held on March 22, 2018
Notice of Public Consultation 2	March 27, 2019	1. Email sent internal and external stakeholders 2. Updates on Town's website 3. Event blast on Town's Social media 4. Local newspaper ad	Held on April 10, 2019
Notice of Commencement (2023)	February 9, 2023	1. Email sent to internal and external stakeholders 2. Updates on Town's website	
Notice of Public Consultation 3	April 26, 2023	1. Email sent internal and external stakeholders 2. Updates on Town's website 3. Event blast on Town's Social media 4. Local newspaper ad	Held on April 26, 2023
Notice of Master Plan Completion	April 10, 2024	1. Email sent to internal and external stakeholders 2. Updates on Town's website	

Summary of Indigenous Consultation

Notice	Date of Notice	Other Notes
Notice of Commencement (2016)	November 23, 2016	
In-Person Stakeholder Meeting	March 8, 2017	Introduce study to stakeholders, outline initial network conditions travel trends, next steps, and draft problem/opportunity
Notice of Commencement Re-Issue (2017)	November 9, 2017	
Notice of Public Consultation 1	March 8, 2018	Held on March 22, 2018
Notice of Public Consultation 2	March 27, 2019	Held on April 10, 2019
Notice of Commencement (2023)	February 9, 2023	
Notice of Public Consultation 3	April 18, 2023	Held on April 26, 2023
Notice of Master Plan Completion	April 10, 2024	

All indigenous groups were contacted via email

Notice of Commencement
November 23, 2016
Re-issued November 9, 2017



NOTICE OF STUDY COMMENCEMENT
TOWN OF EAST GWILLIMBURY TRANSPORTATION MASTER PLAN

The Town of East Gwillimbury has initiated a Transportation Master Plan (TMP) Study to provide a sustainable blueprint for the planned growth of the Town over the next 30 years. The TMP will serve as a combined update to both the 2010 Transportation Master Plan and the 2012 Active Transportation and Trails Master Plan by building upon sustainable transportation policies and plans developed by York Region and the Province of Ontario.

The Town is committed to managing growth in a responsible manner, planning for the safe, efficient and reliable movement of people and goods, and ultimately achieving the Town's vision for a safe, accessible and liveable community. With these goals in mind, the TMP will guide the development of the Town's long-term, multi-modal transportation network, define policies, programs, and infrastructure required to meet the City's mobility needs, and provide a context for transportation decisions.

THE PROCESS

This notice signals the commencement of the East Gwillimbury Transportation Master Plan Study. This Study will follow the master planning process described in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007 and 2011), including consultation with the public and stakeholders, consideration of all reasonable alternatives, a high level assessment of the effects on the environment at the network level, evaluation of alternatives highlighting advantages and disadvantages, and full documentation of the process providing a traceable rationale for conclusions reached. The Master Plan process will satisfy Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements.

The East Gwillimbury TMP study will be carried out in two Phases:

- Phase 1 will assess existing conditions, context and challenges; and
- Phase 2 will develop network plans and identify triggers for different infrastructure needs, phasing of projects and an action plan.

CONSULTATION

A key component of the study will be consultation with stakeholders, regulatory agencies and the general public. Everyone with an interest in this study is invited to get involved and provide input. Public Information Centres (PIC's) will be held during the study to inform the process, present findings and receive public input. A notice indicating the time and location of the PIC's will be provided to registered stakeholders, published in local newspapers and posted on the Town's website.

CONTACTS

If you require additional information or would like to be placed on the project contact list, please visit the Town's website at www.eastwillimbury.ca or contact one of the individuals below:

Jamal Massadeh, P. Eng. OR
Senior Traffic & Transportation Technologist
Town of East Gwillimbury
 19000 Leslie Street
 Sharon ON L0G 1V0
 Phone: 905-478-4283 Ext. 1224
 Email: jmassadeh@eastgwillimbury.ca

Jonathan Chai, P. Eng.
Consultant Project Manager
HDR Corporation
100 York Boulevard, Suite 300
Richmond Hill ON L4B 1J8
Phone: 289-695-4629
Email: jonathan.chai@hdrinc.com

Notice of Public Consultation #1
March 8, 2018
Held on March 22, 2018



NOTICE OF PUBLIC INFORMATION CENTRE #1
TOWN OF EAST GWILLIMBURY TRANSPORTATION MASTER PLAN

The Town of East Gwillimbury has initiated a Transportation Master Plan (TMP) Study to provide a sustainable blueprint for the planned growth of the Town over the next 30 years. This study will update the 2010 Transportation Master by building upon sustainable transportation policies and updated plans developed by York Region and the Province of Ontario.

The Town is committed to managing growth in a responsible manner, planning for the safe, efficient and reliable movement of people and goods, and ultimately achieving the Town's vision for a safe, accessible and liveable community. With these goals in mind, the TMP will guide the development of the Town's long-term, multi-modal transportation network, define policies, programs, and infrastructure required to meet the Town's mobility needs, and provide a context for transportation decisions.

THE PROCESS

This Study follows the master planning process described in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), including consultation with the public and stakeholders, consideration of all reasonable alternatives, a high level assessment of the effects on the environment at the network level, evaluation of alternatives highlighting advantages and disadvantages, and full documentation of the process providing a traceable rationale for conclusions reached. The Master Plan process will satisfy Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements:

- Phase I will assess existing conditions, context and challenges; and
- Phase II will develop network plans and identify triggers for different infrastructure needs, phasing of projects and an action plan.

PUBLIC INFORMATION CENTRE (PIC) #1

PIC #1 will introduce the study to you, provide information on the existing conditions and seek your input on identifying opportunities, challenges, and ideas for the future vision of transportation in the Town.

Date: Thursday March 22nd, 2018
Time: 5:30-7:30 PM: Drop-in Interactive Open House
Location: East Gwillimbury Sports Complex, Canada Hall
1914B Mount Albert Road, Sharon, ON L0G 1V0

CONTACTS

If you require additional information or would like to be placed on the project contact list, please visit the Town's website at www.eastgwillimbury.ca or contact one of the individuals below:

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Senior Traffic & Transportation Technologist
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Public Consultation #1

Presentation Boards



Transportation Master Plan & Water and Wastewater Master Plan Update

Town of East Gwillimbury

WELCOME

to Public Information Centre 1



Transportation Master Plan & Water and Wastewater Master Plan Update

Town of East Gwillimbury

Station 1

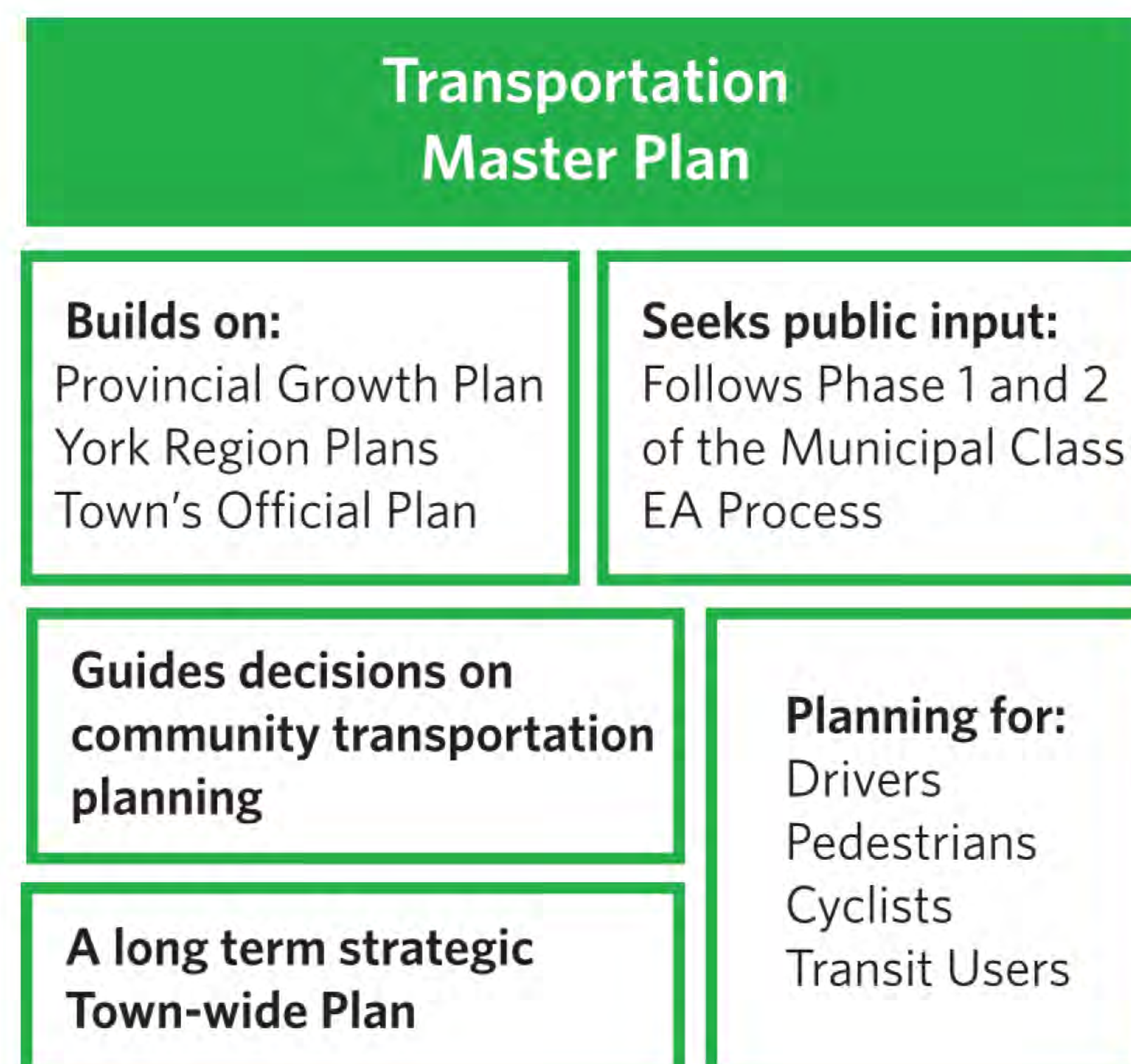
Sign-in, Welcome, and Context

Transportation Master Plan

Water and Wastewater Master Plan Update

What is a Transportation Master Plan?

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.



What is a Water and Wastewater Master Plan?

A Water and Wastewater Master Plan (W/WWMP) provides a 'roadmap' of water and wastewater infrastructure requirements based on existing and future capacity deficiencies identified, as well as associated cost details and recommended implementation timing. The W/WWMP will ensure accommodation of the expected population of developments to increase to the year 2041. The purpose of the Master Plan is to provide input into required infrastructure projects and budget decisions based on five year incremental growth scenarios.

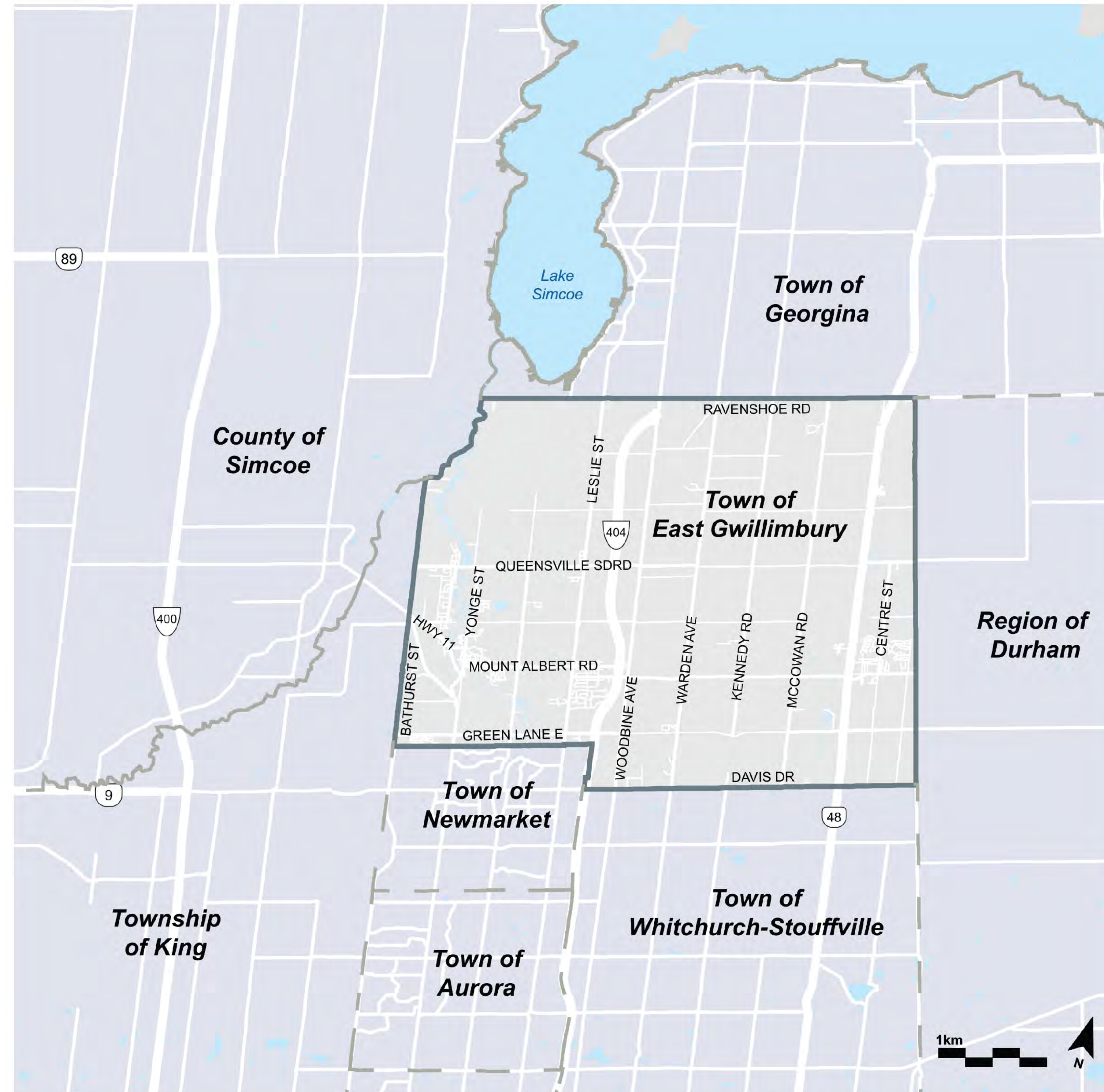


Transportation Master Plan

Water and Wastewater Master Plan Update

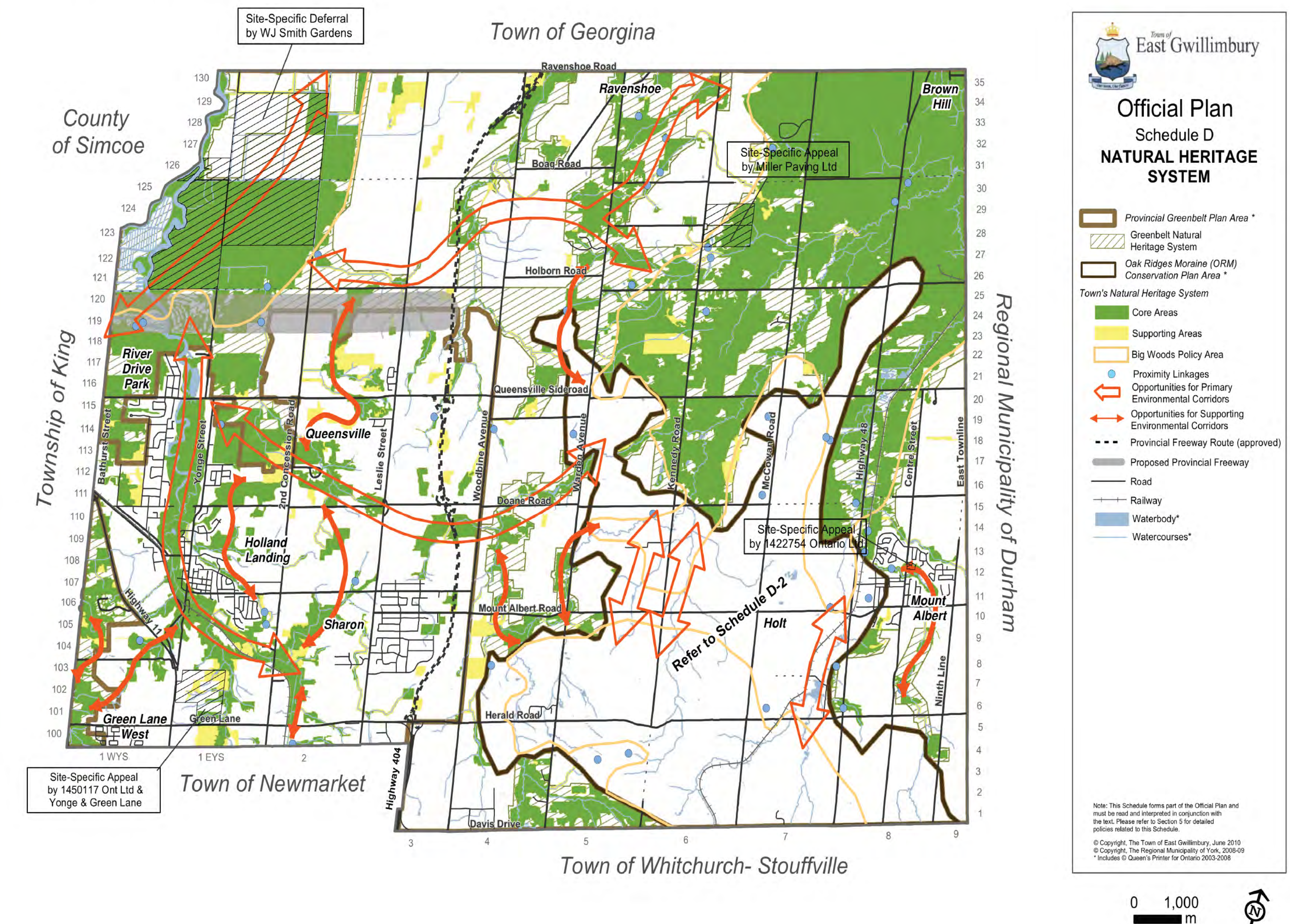
Regional Context

The Town of East Gwillimbury is located in northern York Region and borders Simcoe County, Durham Region, and Lake Simcoe.



Constraints

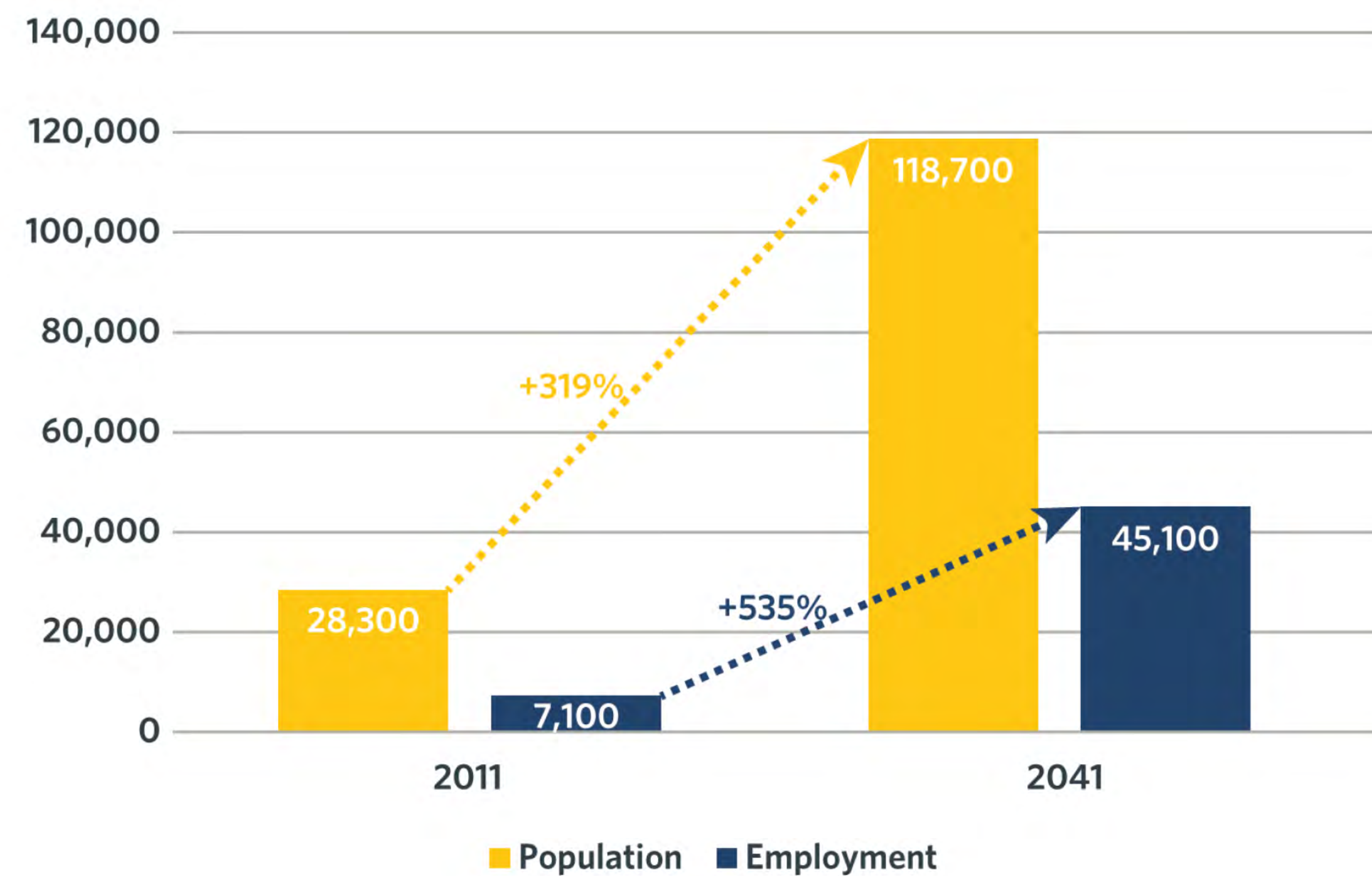
The Town has several environmental constraints due to the Greenbelt Natural Heritage System (NHS) and the Oak Ridges Moraine (ORM). Outside of the existing Secondary Plan areas, new development requires special permits.



Transportation Master Plan

Water and Wastewater Master Plan Update

Planned Growth



The Town's population and employment is expected to grow significantly. Growth is concentrated is centered around Green Lane West, Sharon, and Queensville¹.

Planning Context

The Town's TMP and W/WWMP will be developed within the context of existing policies and initiatives at the provincial, regional, and local levels.

Provincial

- Provincial Policy Statement, 2014
- Growth Plan for the Greater Golden Horseshoe, 2017 Update
- Regional Transportation Plan, 2017 Update
- GO Regional Express Rail (RER), 2016
- GO Station Access Plans, 2016
- Highway 404 Class EA & Preliminary Design Study
- Highway 400 - Highway 404 Extension Link
- Transit Supportive Guidelines
- #CycleON: Ontario's Cycling Strategy

Local

- Official Plan, 2010
- Strategic Plan, 2015 - 2018
- Water and Wastewater Master Plan, 2009
- Transportation Master Plan, 2010
- Active Transportation and Trails Master Plan, 2012
- Green Lane Secondary Plan, on-going
- Roads Needs Assessment Study, 2009

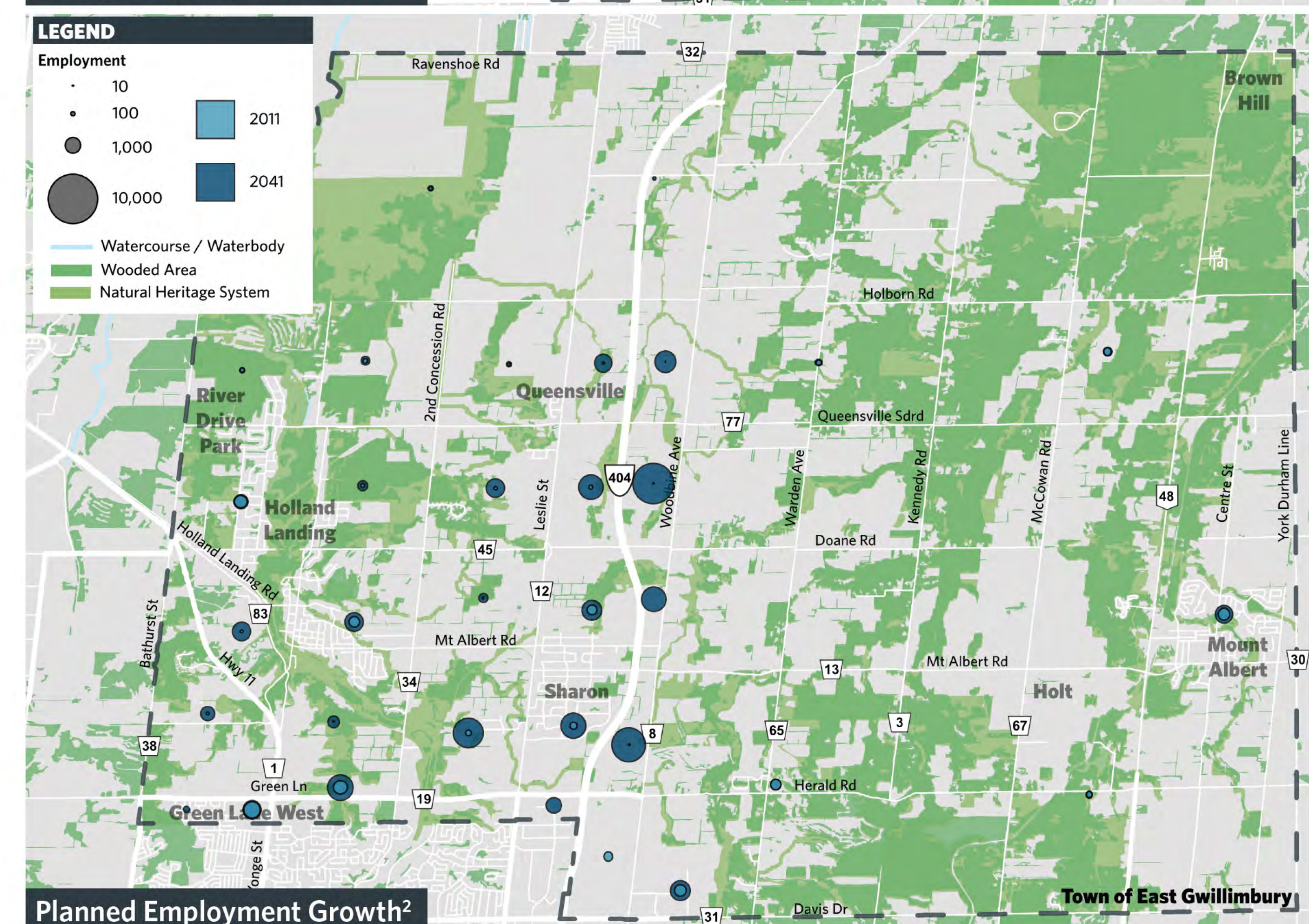
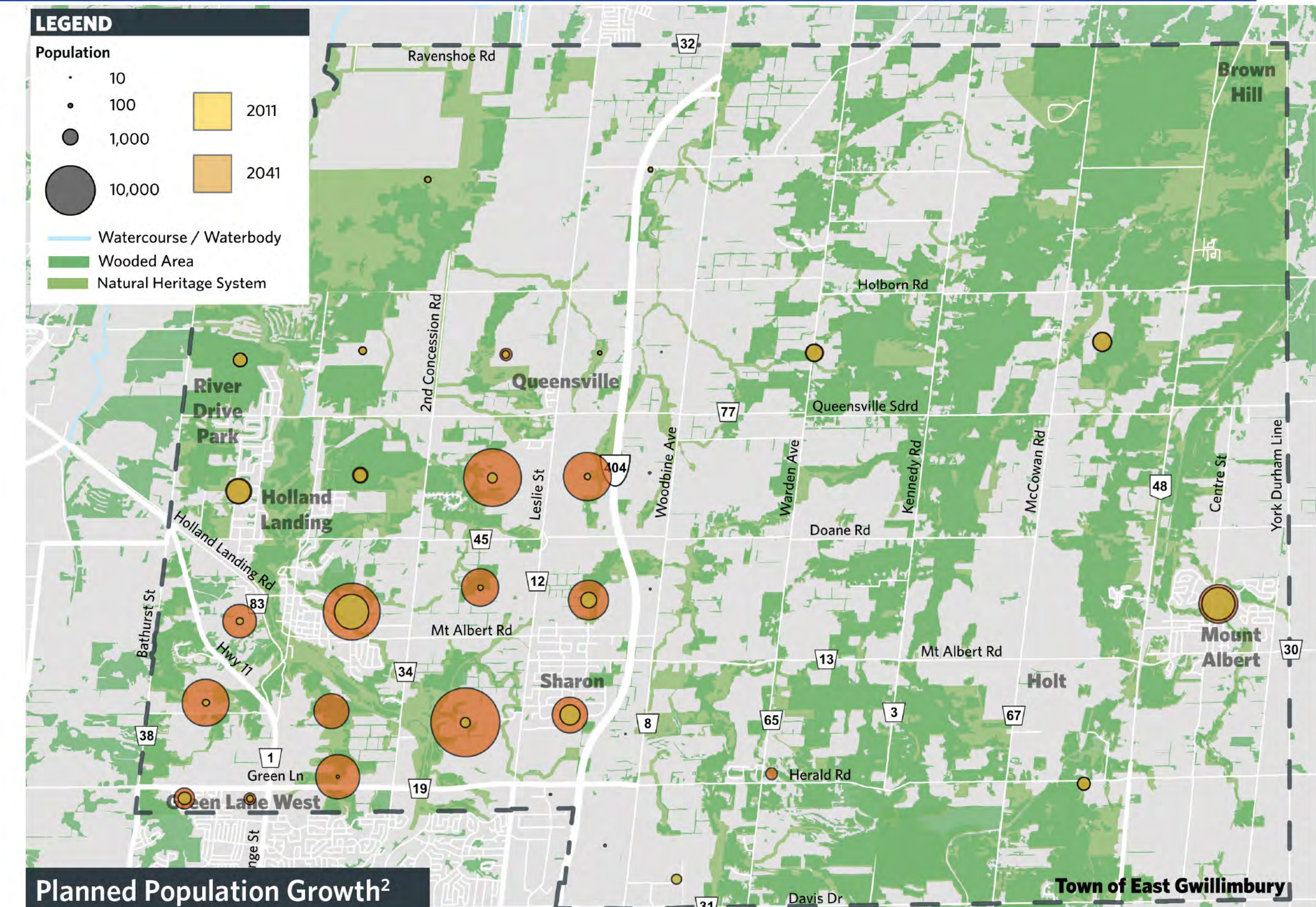
Regional

- York Region Water and Wastewater Master Plan, 2016
- York Region Transportation Master Plan, 2016
- New Communities Guidelines, 2013
- Transportation Mobility Plan Guidelines for Development Applications, 2016
- Access Guidelines for Regional Roads, 2007

Notes:

¹The urban boundary is subject to change. York Region is currently undertaking the Municipal Comprehensive Review (MCR) to determine where growth will occur.

²York Region 45% Intensification Scenario, 2016 - Subject to Change





Transportation Master Plan

Town of East Gwillimbury

Station 2

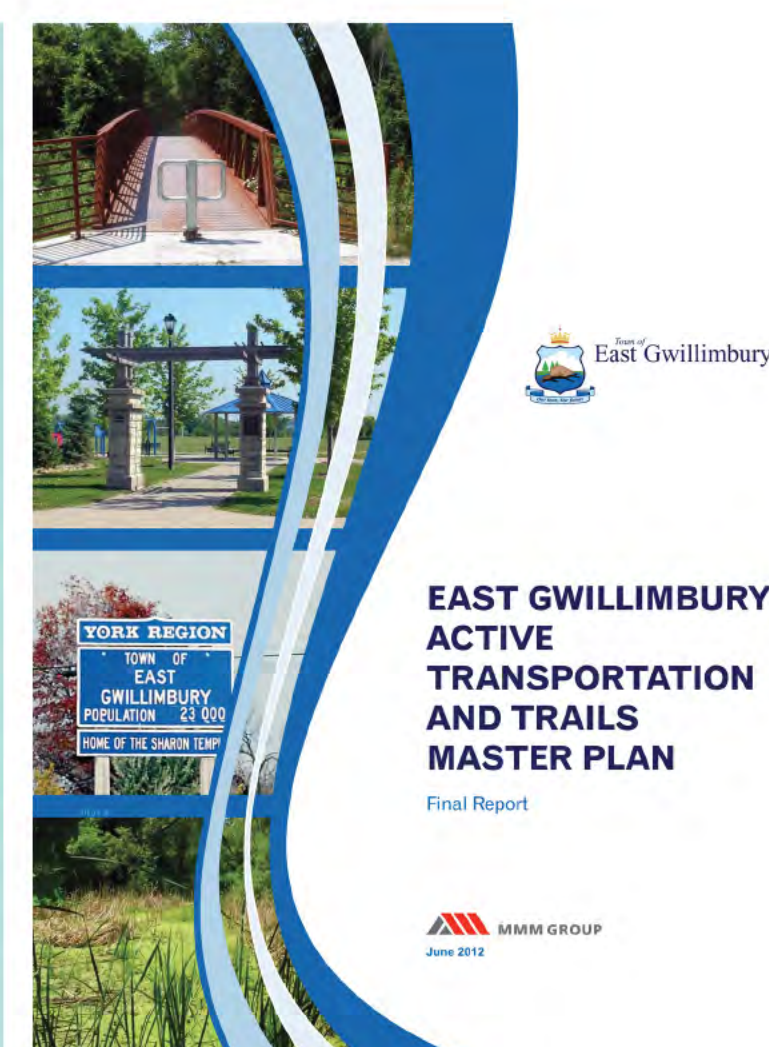
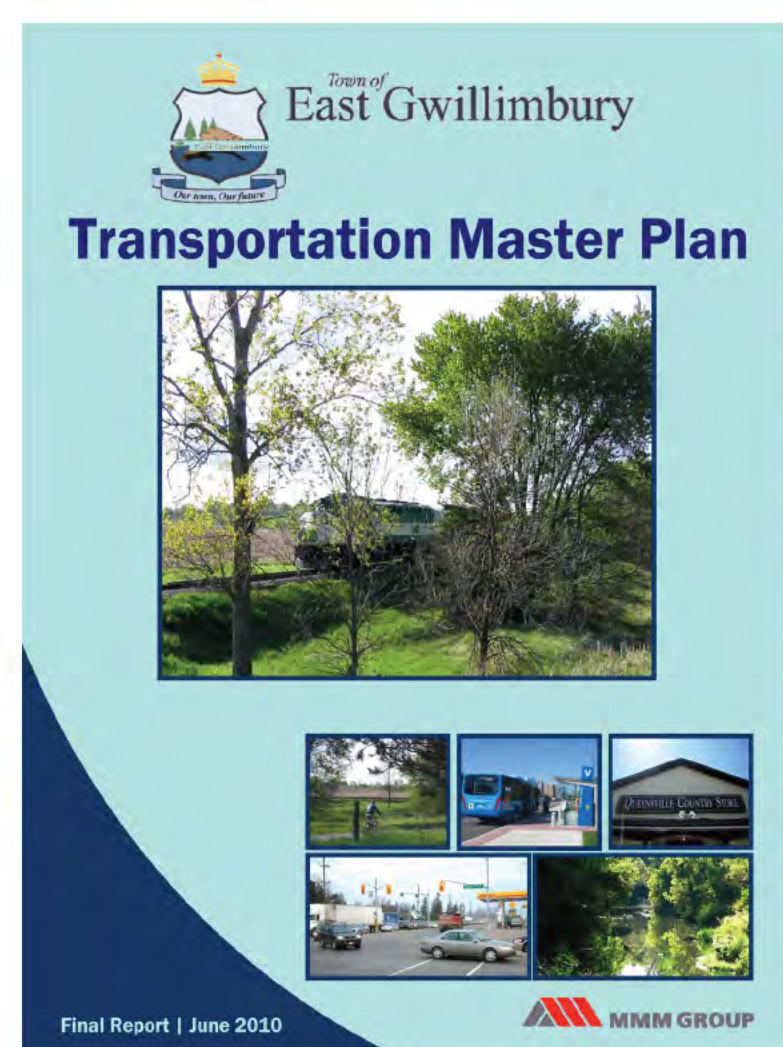
Transportation Master Plan

What is this study about?

Purpose

-  Support all modes of travel (auto, transit, on road and off road active transportation)
-  Identify gaps and opportunities in the transportation network
-  Accommodate growth to 2041 and beyond
-  Support existing and future land uses
-  Develop a well-integrated, multi-modal, and sustainable transportation network

This Transportation Master Plan (TMP) will:



Update the Town's 2010 TMP and inform the 2012 Active Transportation and Trails Master Plan

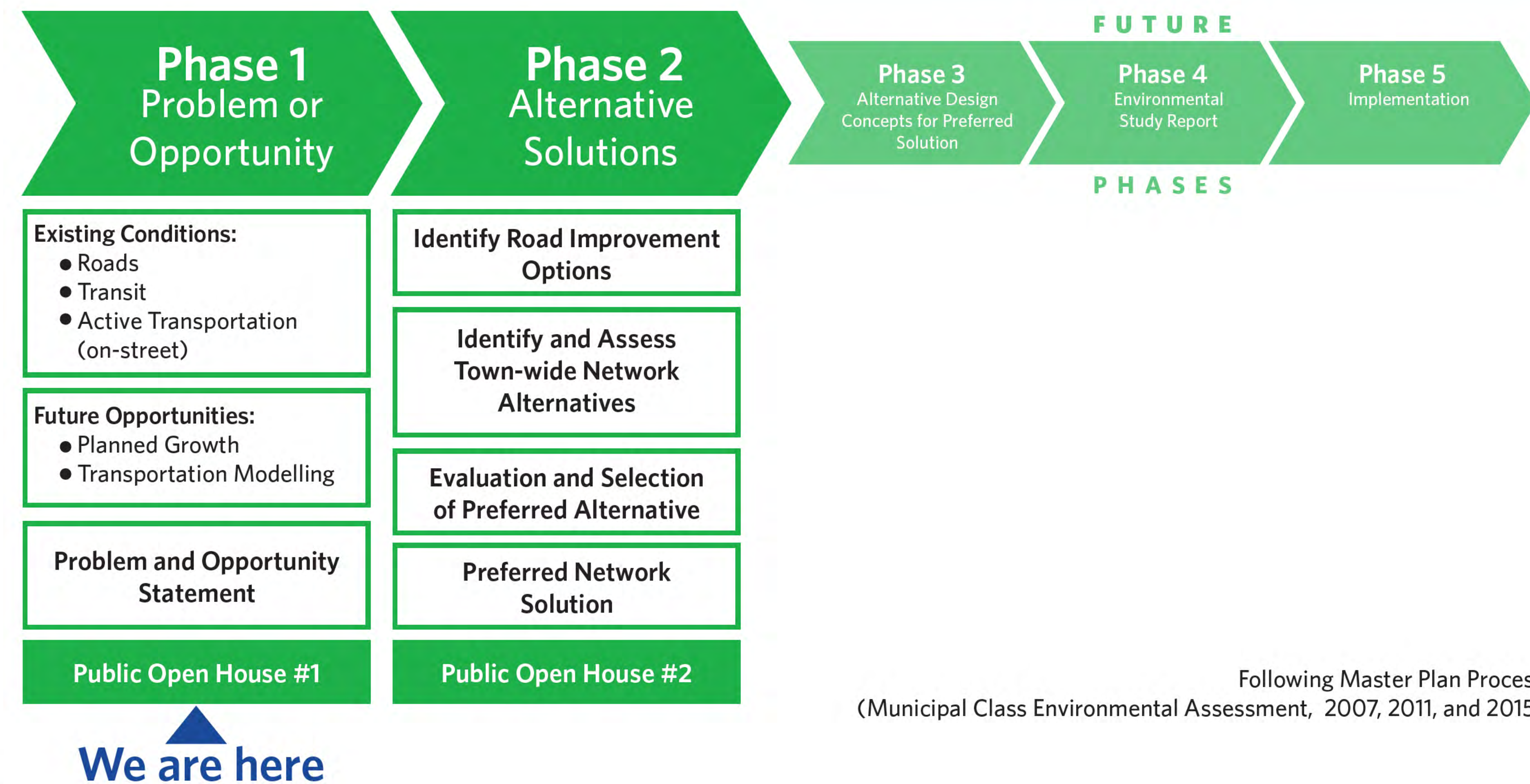
Serve as a blueprint for the Town to develop its future transportation network

Focus on active transportation, connectivity, and accessibility

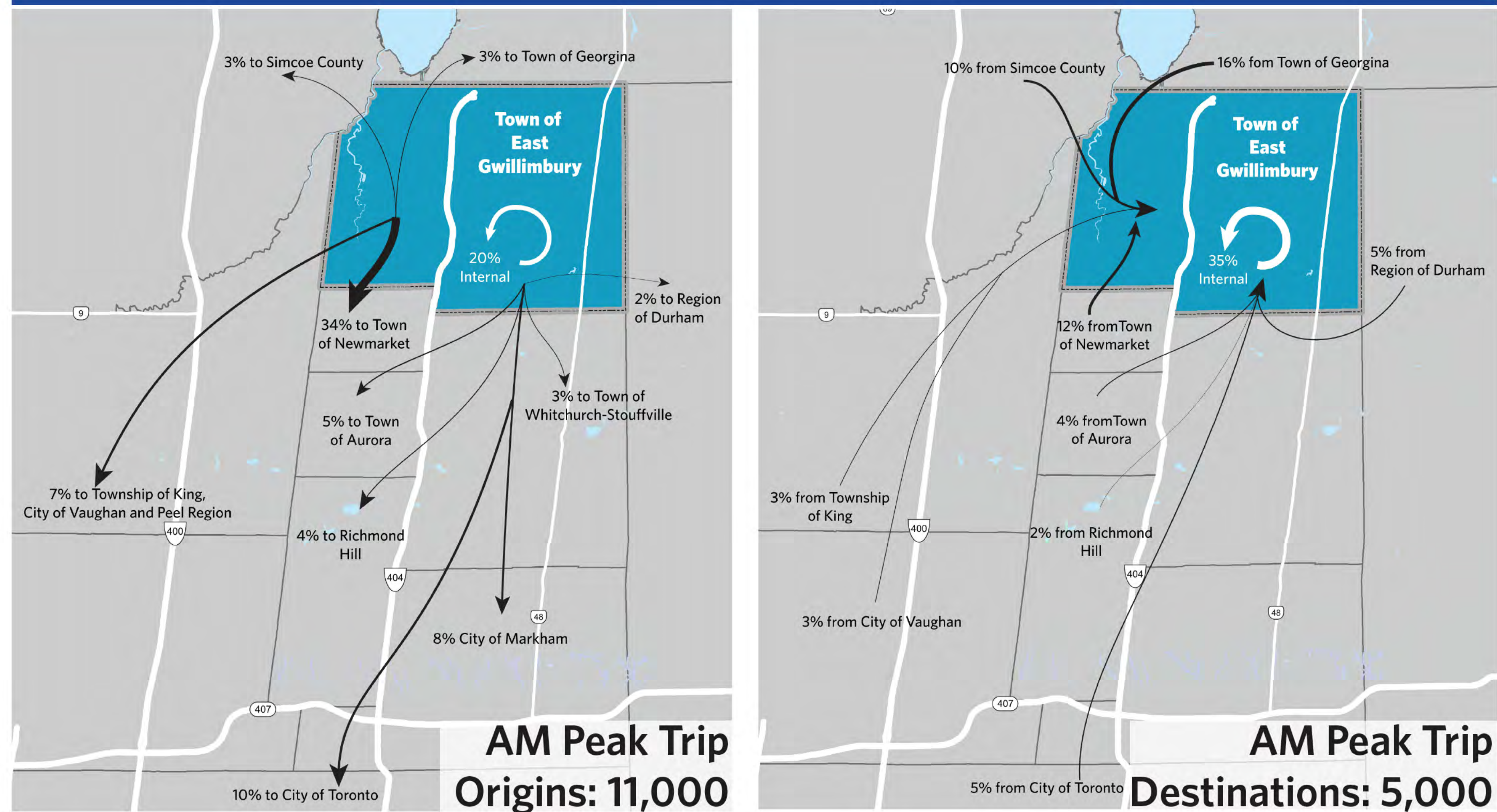
Promote community prosperity and sustainability

Support the Town's vision for a safe, accessible, and livable community

Following Phase 1 and 2 of the EA Process



East Gwillimbury Today Travel Patterns (6 -9 AM)



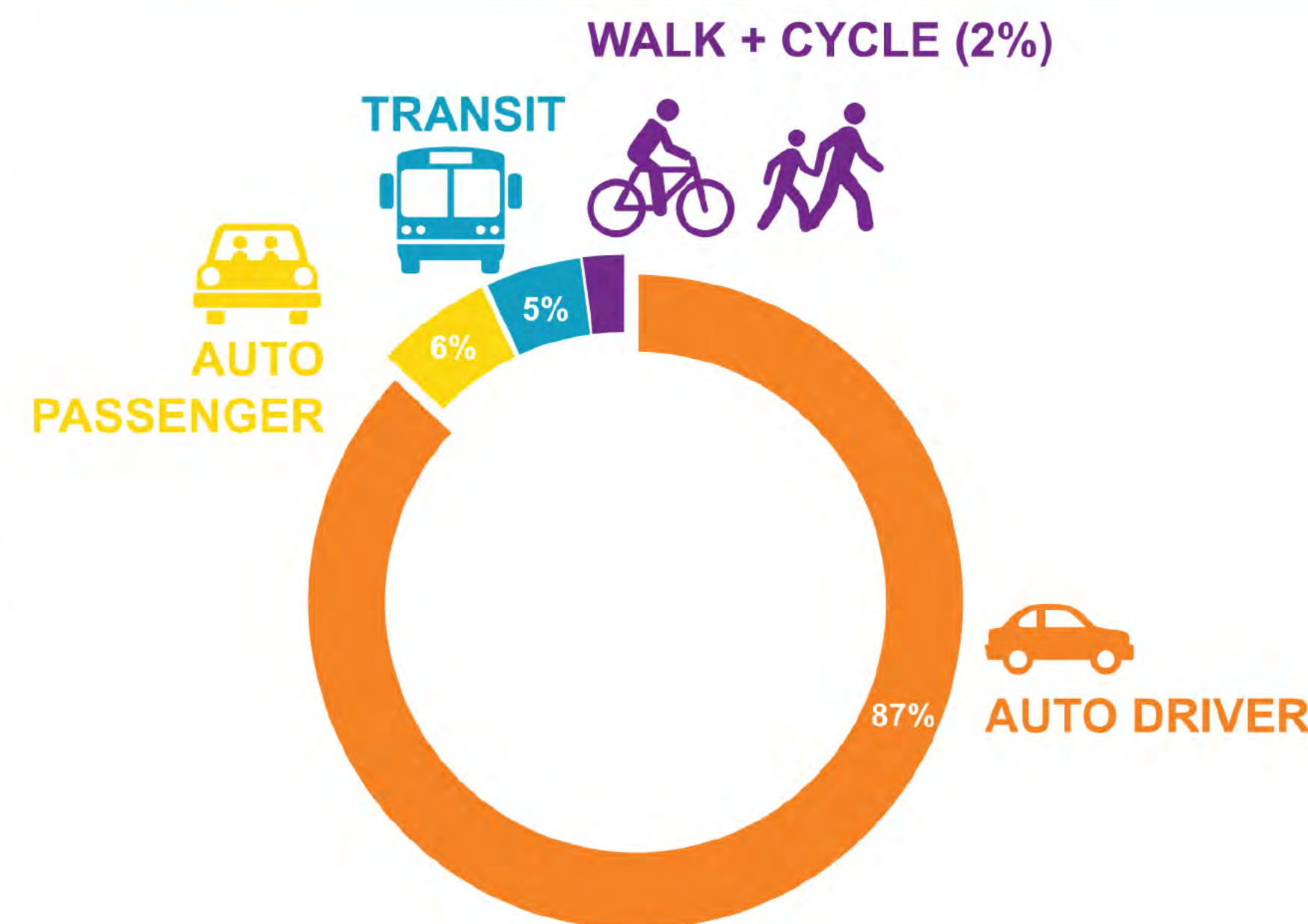
AM Peak Period Modal Split

11,000 trips are made by residents in the AM peak period of these trips are made by car

93% of these trips are by transit (YRT or GO)

5% of these trips are by active modes

2% of these trips are by active modes



Internal Travel Demand (Daily)



Daily Modal Split

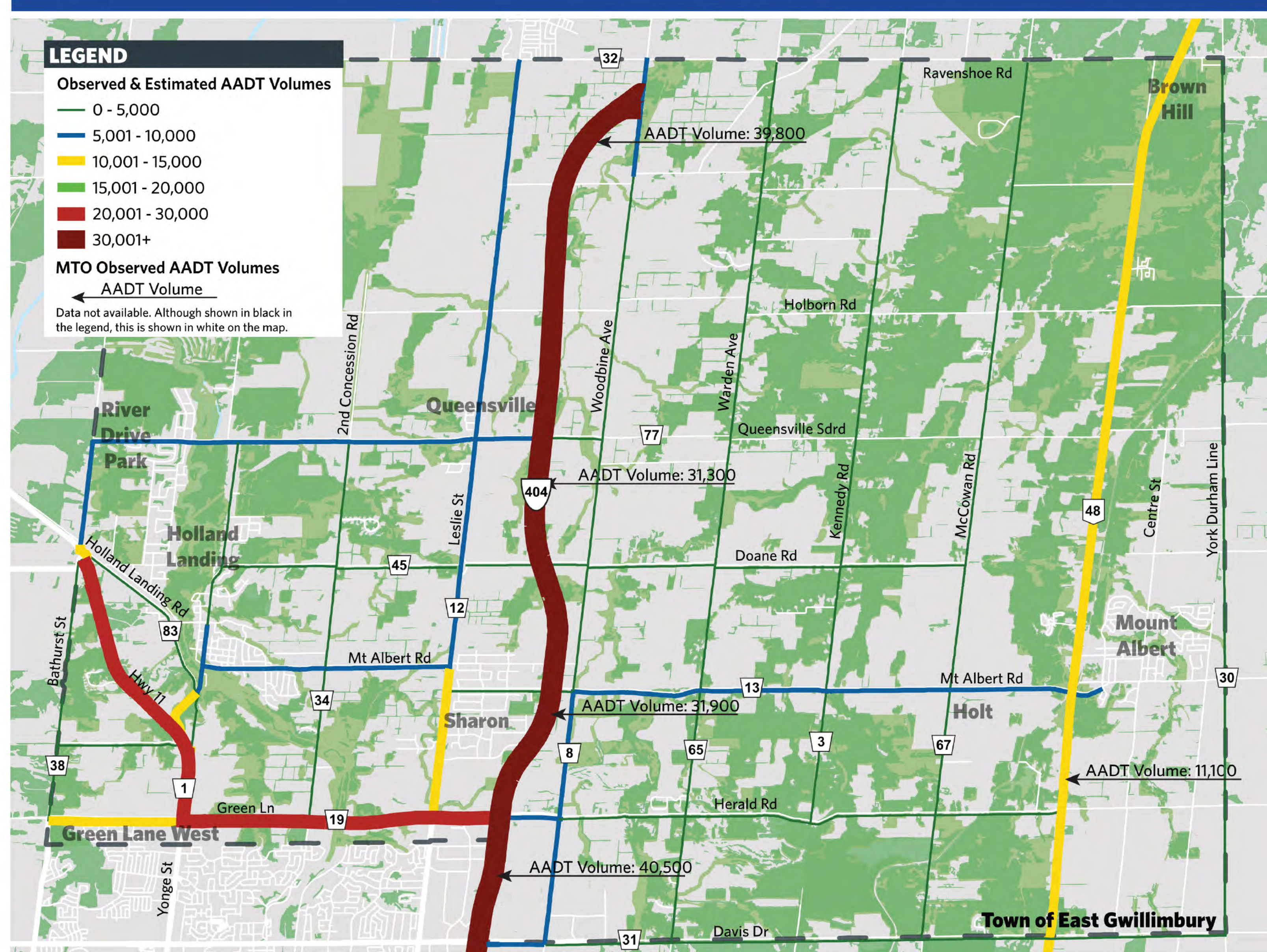
85% of trips that are less than or equal to **5km** in length are made by car

TRIP LENGTHS BY EAST GWILLIMBURY RESIDENTS



AUTO DRIVER 72% AUTO PASSENGER 13% TRANSIT 10% WALK + CYCLE 5%

Existing Conditions Daily Traffic Volumes



Transit Demand

	2014 Boardings		2015 Boardings	
	Avg Weekday	Avg Saturday	Avg Weekday	Avg Saturday
 Route 52 Holland Landing	262	108	↘ 196	↘ 99
 Route 58 Mount Albert	130	9	↘ 128	↘ 5

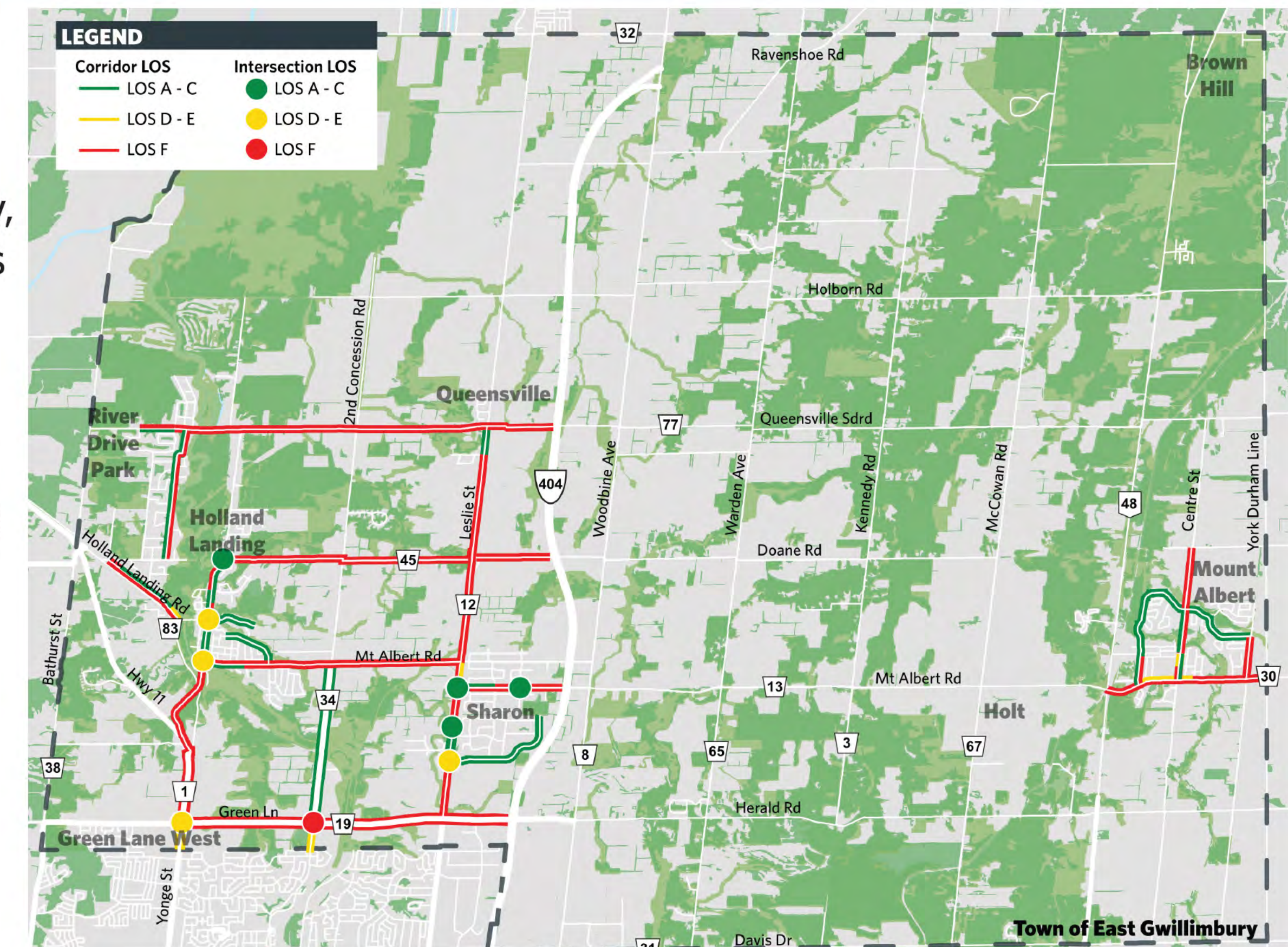
Transit trips are trending downwards.

Active Transportation Level of Service

Pedestrian Level of Service (PLOS)

Based on user comfort, safety, and convenience and are thus subjective.

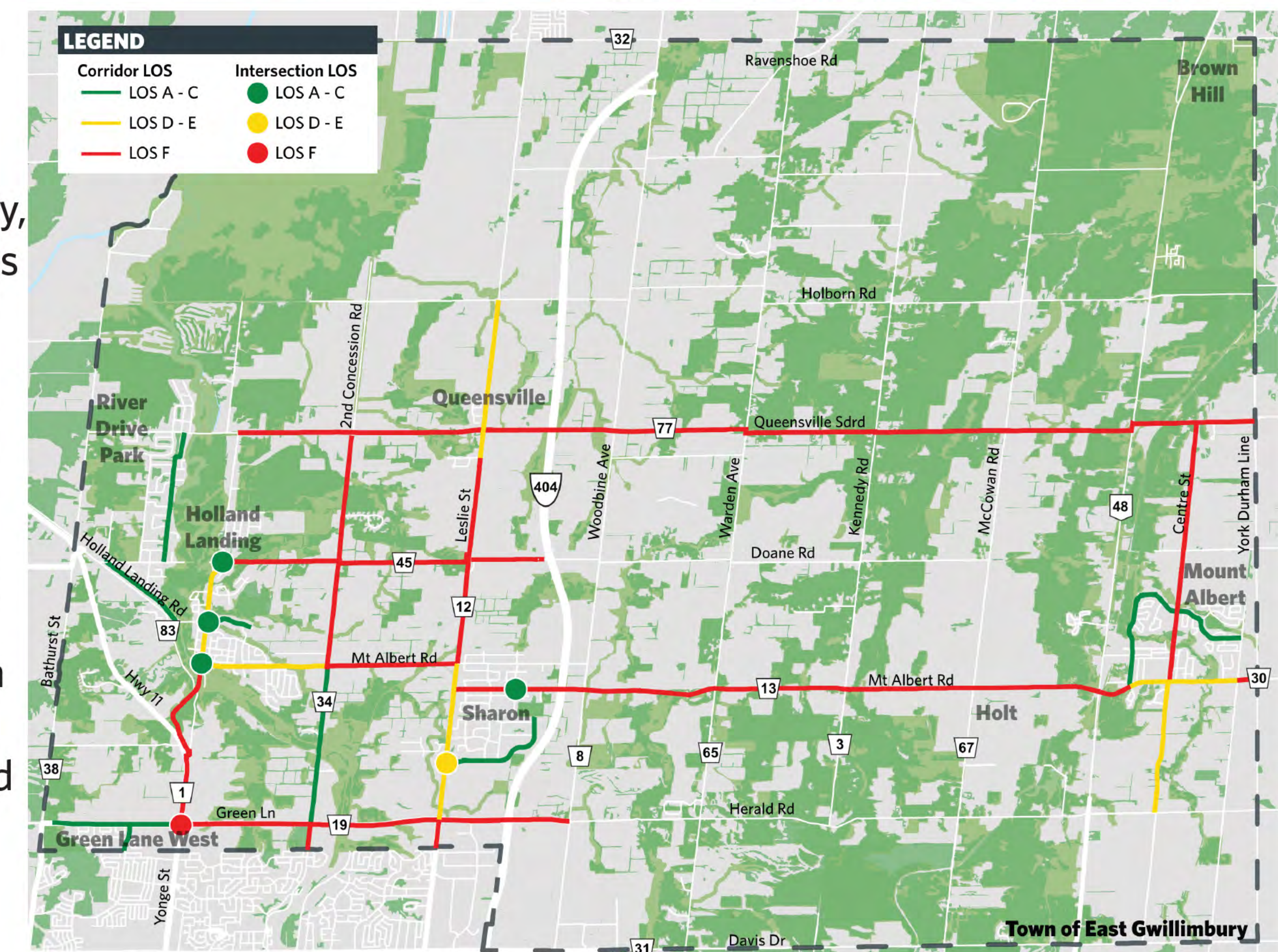
Higher segment scores are found at locations where vehicle speeds and volumes are lower, and where there are wider sidewalks.



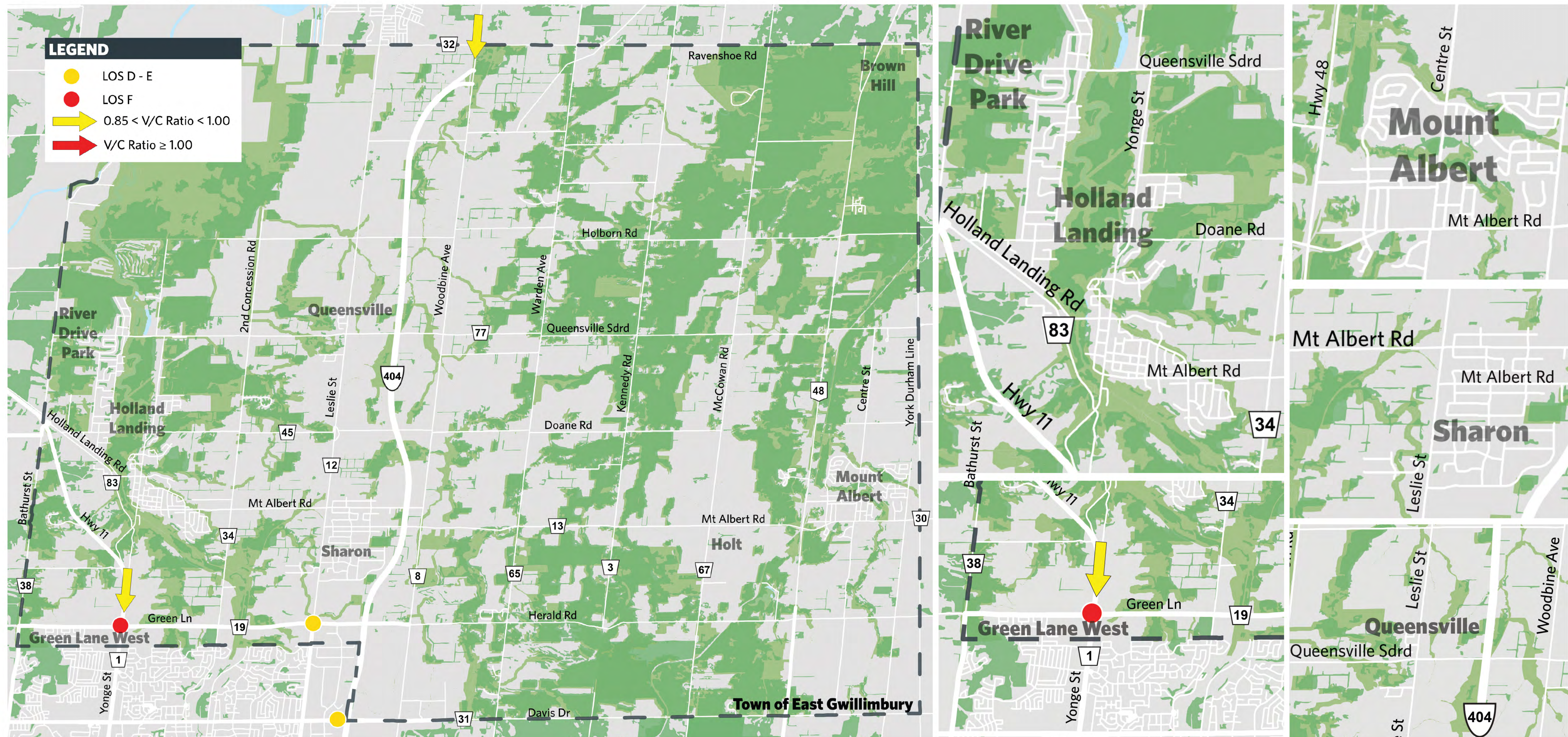
Bicycling Level of Service (BLOS)

Based on user comfort, safety, and convenience and are thus subjective.

It is most sensitive to facility type. Physically separated bikeways such as cycle tracks, protected bike lanes, and multi-use paths receive the highest scores. Cycling in mixed traffic conditions with varying operating speeds and street widths score lower.



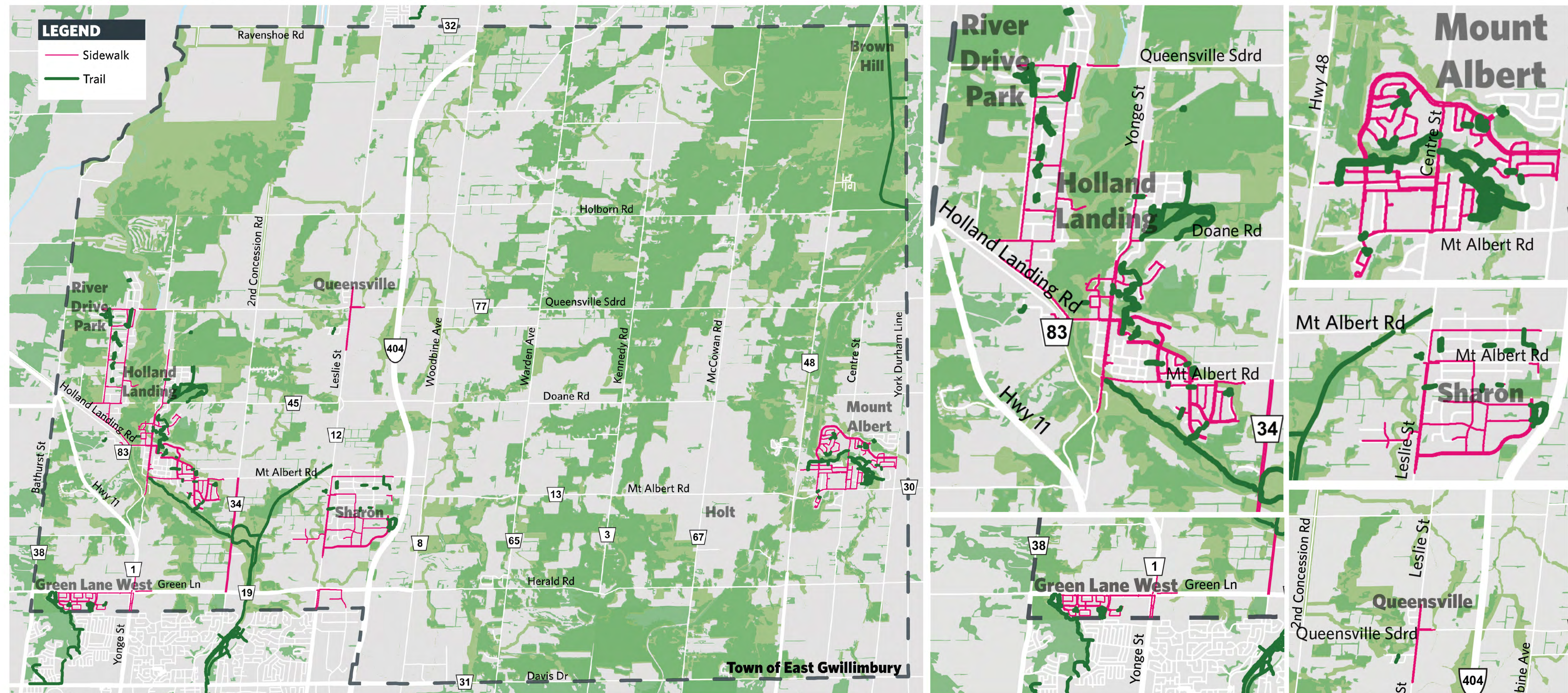
The map below illustrates where there is known traffic congestion. Place a **red dot** where you experience traffic congestion. Place a **green dot** for areas where you see opportunities to improve traffic. Comments can also be provided on **post-it notes**.



Pedestrian Network

Where do you see gaps or opportunities in the network?

The map below illustrates the existing pedestrian facilities. Place a **red dot** where you see a gap in the network. Place a **green dot** for areas where you see opportunities for the pedestrian network. Comments can also be provided on **post-it notes**. **Where would you like to walk to and from?** Put pins and strings on the map to indicate your preference.



Where do you see gaps or opportunities in the network?

Problem and Opportunity Statement

The Town of East Gwillimbury is planned to grow significantly over the next 25 years by about 5 times its current population. This growth will result in additional and shorter trips within the Town, adding strain on the Town's internal transportation network.

At the same time, this growth represents opportunities to:



Provide new road linkages



Improve the streets within the Town, making them safe and accessible for all road users



Promote walking as the first choice for short trips



Make cycling an option for more than just recreational trips



Grow the role of transit in the Town

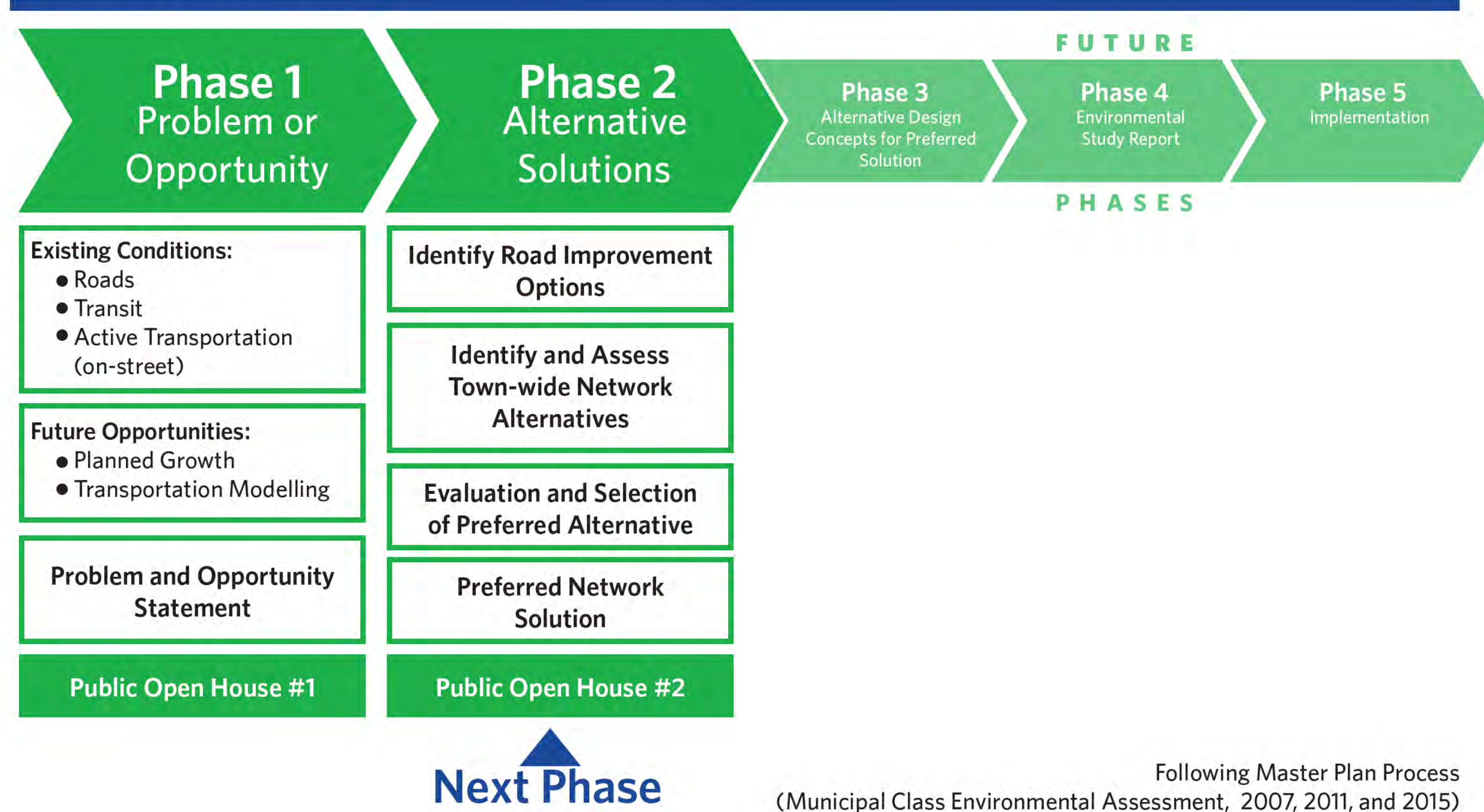
Ultimately, this multimodal vision for transportation will ensure that the Town is a safe, accessible, and livable community in the future

What do you think of this draft Vision Statement?

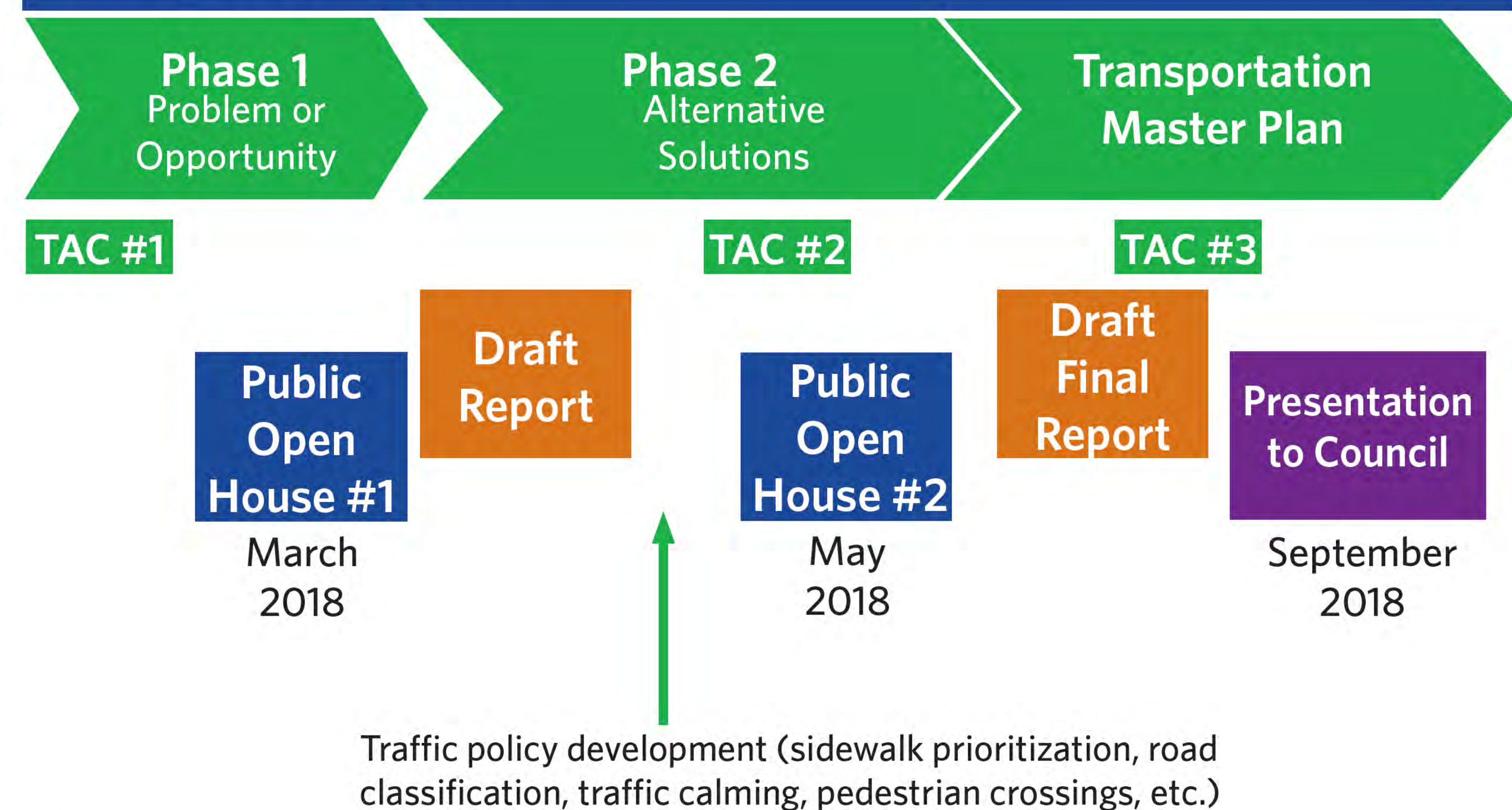
Place a **green dot** if you like it, and a **red dot** if you think it needs improvement. Comments can also be provided on **post-it notes**.

Thank you for attending Public Information Centre 1

Next Phase



Study Schedule



Keep Informed and Get Involved



Please fill out a **comment form** and return it to us today or provide your comments online by March 30, 2018.



For more information, visit us at:

www.eastgwillimbury.ca

Contact Us

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100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8
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Water and Wastewater Master Plan Update

Town of East Gwillimbury

Station 3

Water and Wastewater Master Plan Update



Town of
East Gwillimbury



First Name	Last Name	Address / Community	Email

[illegible][illegible]

Notice of Public Consultation #2
March 27, 2019
Held on April 10, 2019



NOTICE OF PUBLIC INFORMATION CENTRE #2

TOWN OF EAST GWILLIMBURY TRANSPORTATION MASTER PLAN AND WATER/WASTEWATER MASTER PLAN

The Town of East Gwillimbury has initiated a Transportation Master Plan (TMP) Study and a Water & Wastewater Master Plan (W/WWMP) Study to provide a sustainable blueprint for the planned growth of the Town to 2041. The TMP and W/WWMP will serve as updates to the Town's 2010 Transportation Master Plan and to the Town's 2009 Water & Wastewater Master Plan respectively by building upon sustainable policies and plans developed by York Region and the Province of Ontario.

Public feedback will help structure these Master Plan updates and build a stronger understanding of the public's interest, identify opportunities, challenges, and ideas for the future vision of transportation and water & wastewater infrastructure in the Town. As such, we intend to host a joint Public Information Centre for both of these Master Plan updates.

THE PROCESS

This Study follows the master planning process described in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), including consultation with the public and stakeholders, consideration of all reasonable alternatives, a high level assessment of the effects on the environment at the network level, evaluation of alternatives highlighting advantages and disadvantages, and full documentation of the process providing a traceable rationale for conclusions reached. The Master Plan process will satisfy Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements:

- Phase I will assess existing conditions, context and challenges; and
- Phase II will develop network plans and identify triggers for different infrastructure needs, phasing of projects and an action plan.

PUBLIC INFORMATION CENTRE (PIC) # 2

Thank you for your input at PIC # 1 on March 22, 2018.

PIC #2 will introduce and develop network plans and identify triggers for different infrastructure needs, the phasing of projects, and an action plan. We require your input on the vision of transportation, and water/wastewater servicing in the Town

Date: April 10, 2019

Time: 5:00-8:00 PM: Drop-in Interactive Open House

Location: East Gwillimbury Civic Centre
19000 Leslie Street, Sharon, ON L0G 1V0

CONTACTS

If you require additional information or would like to be placed on the project contact list, please visit the Town's website at www.eastgwillimbury.ca or contact one of the individuals below:

OR

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WSP Canada Inc.
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Thornhill, ON L3T 0A1
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mazahir.aladina@wsp.com

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Public Consultation #2

Presentation Boards



Transportation Master Plan Update

Town of East Gwillimbury

Welcome

to Public Information Centre 2

What is a Transportation Master Plan?

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.



Planning Context

The Town's TMP will be developed within the context of existing policies and initiatives at the provincial, regional, and local levels.

Provincial

- Provincial Policy Statement, 2014
- Growth Plan for the Greater Golden Horseshoe, 2017 Update
- Regional Transportation Plan, 2017 Update
- GO Regional Express Rail (RER), 2016
- GO Station Access Plan, 2016
- Highway 400-404 Extension Link
- Transit Supportive Guidelines
- #CycleON: Ontario's Cycling Strategy

Regional

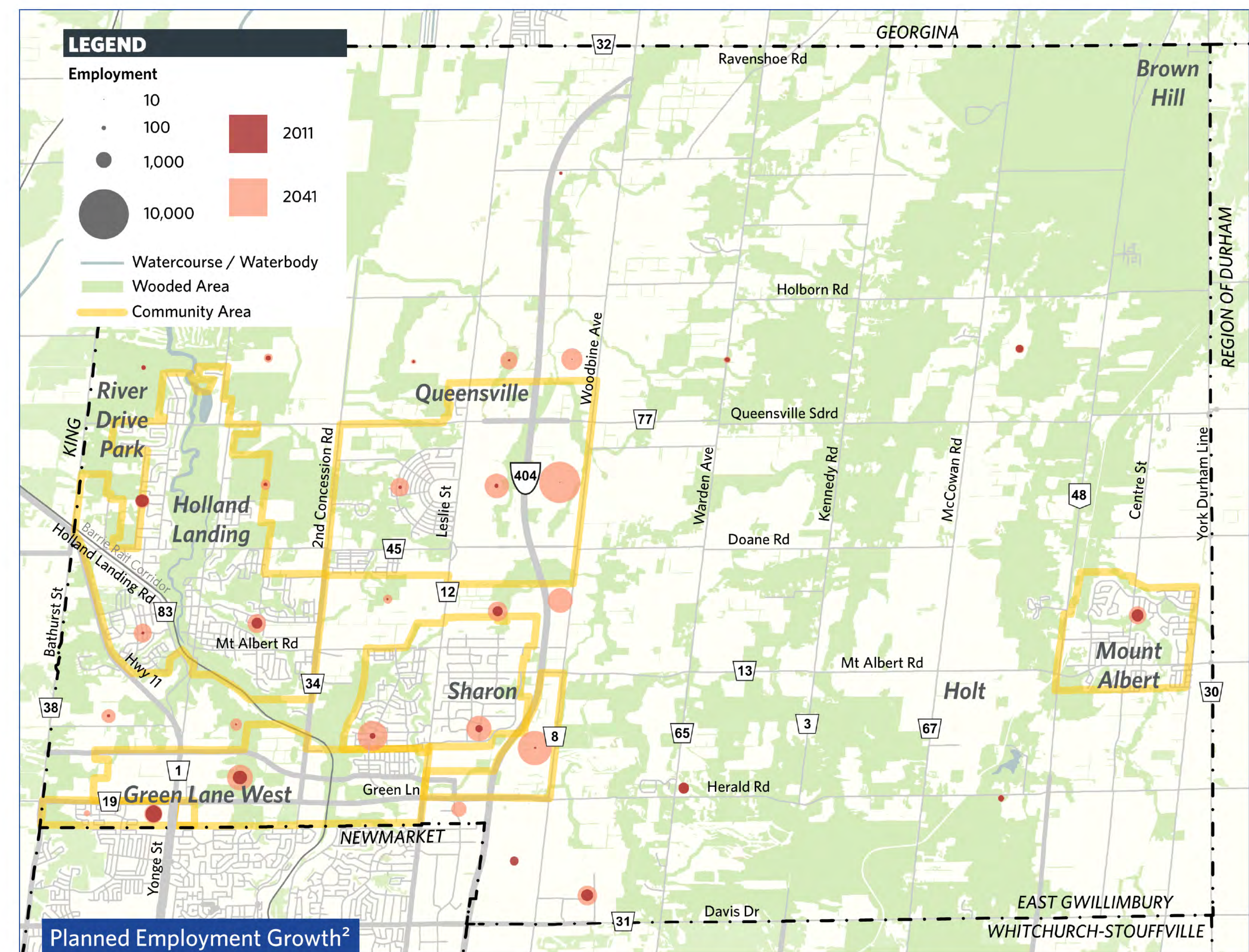
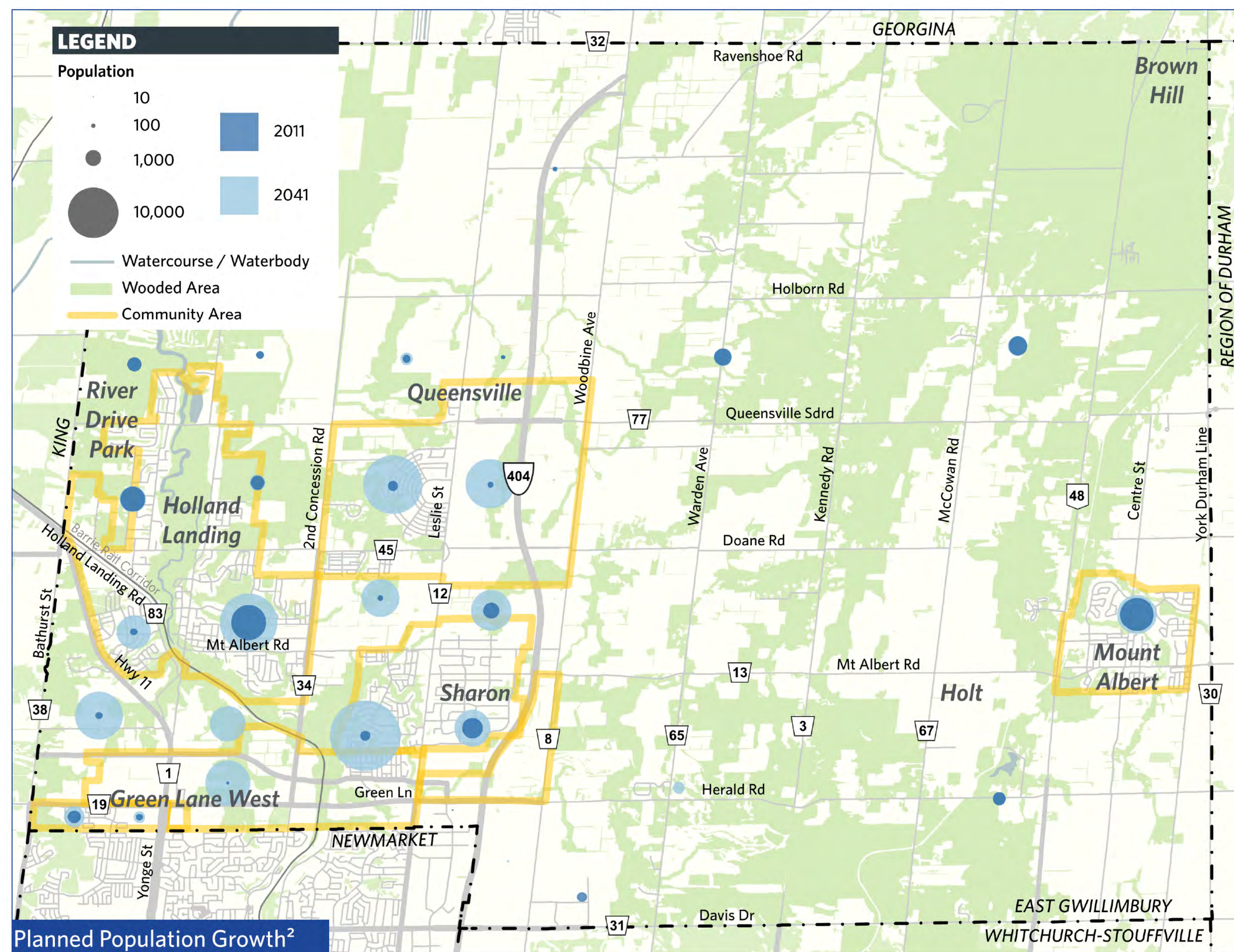
- York Region Transportation Master Plan, 2016
- New Communities Guidelines, 2013
- Transportation Mobility Plan Guidelines for Development Applications, 2016
- Access Guidelines for Regional Roads, 2007

Local

- Official Plan, 2010
- Strategic Plan, 2015-2018
- Transportation Master Plan, 2010
- Active Transportation and Trails Master Plan, 2012
- Green Lane Secondary Plan, 2018
- Roads Needs Assessment Study, 2009

Planned Growth

The Town's population and employment is expected to grow significantly. Growth is centered around Green Lane West, Sharon, Holland Landing, Mount Albert, and Queensville¹.



Notes:

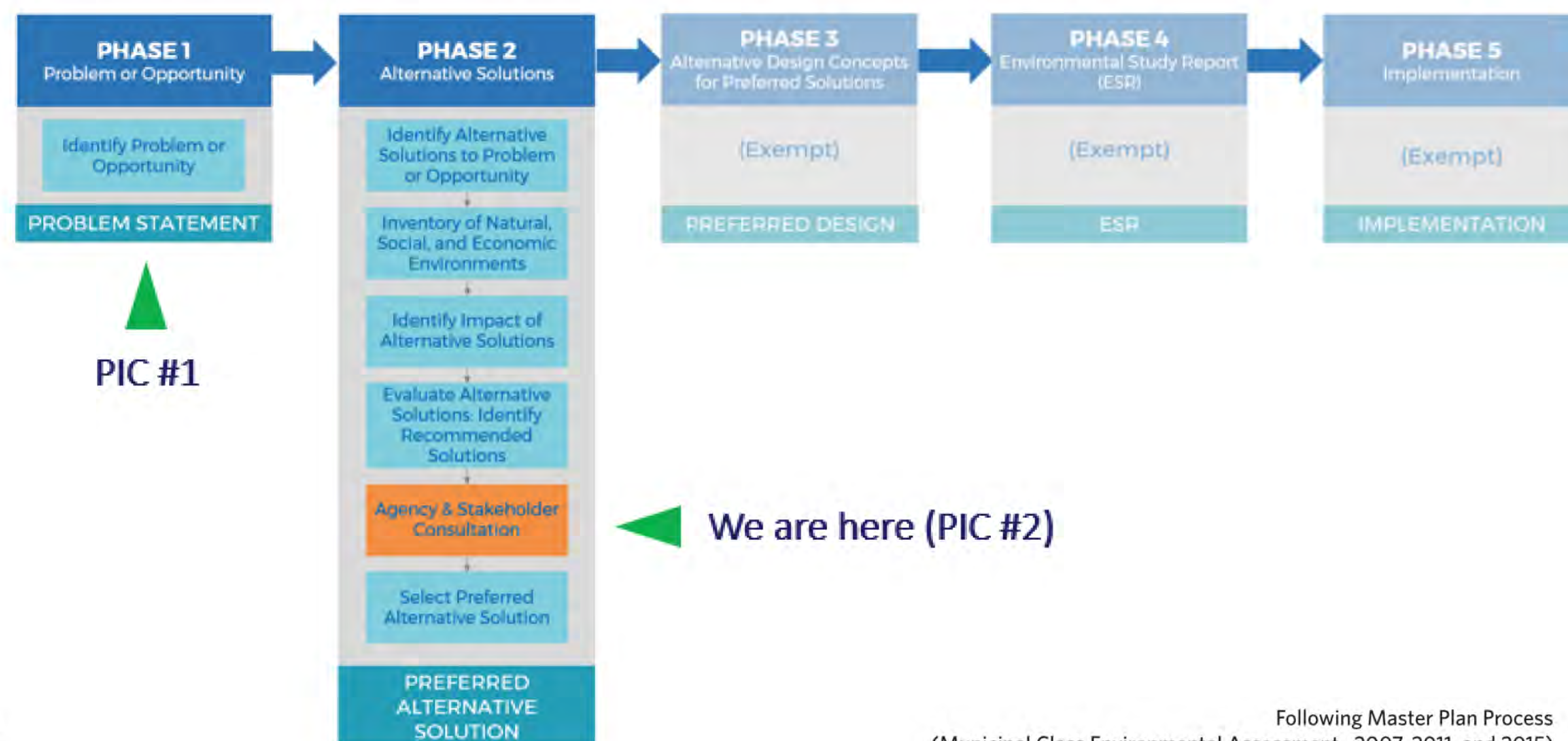
¹The urban boundary is subject to change. York Region is currently undertaking the Municipal Comprehensive Review (MCR) to determine where growth will occur.

²York Region 45% Intensification Scenario, 2016 - Subject to change

Purpose of the TMP

-  Support **all modes of travel** (auto, transit, on road and off road active transportation)
-  Identify **gaps and opportunities** in the transportation network
-  **Accommodate growth** to 2041 and beyond
-  **Support** existing and future land uses
-  Develop a **well-integrated, multi-modal, and sustainable transportation network**

Follows Phase 1 and 2 of the EA Process



Problem and Opportunity Statement

The Town of East Gwillimbury is planned to grow significantly over the next 25 years by about 5 times its current population. This growth will result in additional and shorter trips within the Town, adding strain on the Town's internal transportation network.

At the same time, this growth represents opportunities to:

-  Provide new road linkages
-  Improve streets within the Town, making them safe and accessible for all road users
-  Promote walking as the first choice for short trips
-  Make cycling an option for more than just recreational trips
-  Grow the role of transit in the Town

Ultimately, this multimodal vision for transportation will ensure that the Town is a safe, accessible, and livable community in the future.

Phase 2 of the Municipal Class Environmental Assessment (EA) process requires documentation and examination of scenarios which address the problems and opportunities. Four TMP planning scenarios were identified for the Town:

No.	Scenarios	Description	Objective
1	Base Case	Committed road improvements by Ministry of Transportation, York Region, and the Town	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 TMP and the 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 Scenario 2 to respond to change in the planning context. Invest in new connections and road improvements	Confirm the desire to invest in new road infrastructure.
4	Multimodal Town Network	Further to Scenario 3, implement cycling facilities on existing and all new roadways, and implement Travel Demand Management (TDM) policies and Complete Streets on existing Town roadways	Confirm the desire to invest in new road infrastructure with designated facilities for cyclists, and EcoMobility hubs to support YRT On-Demand Transit Service

Road Network

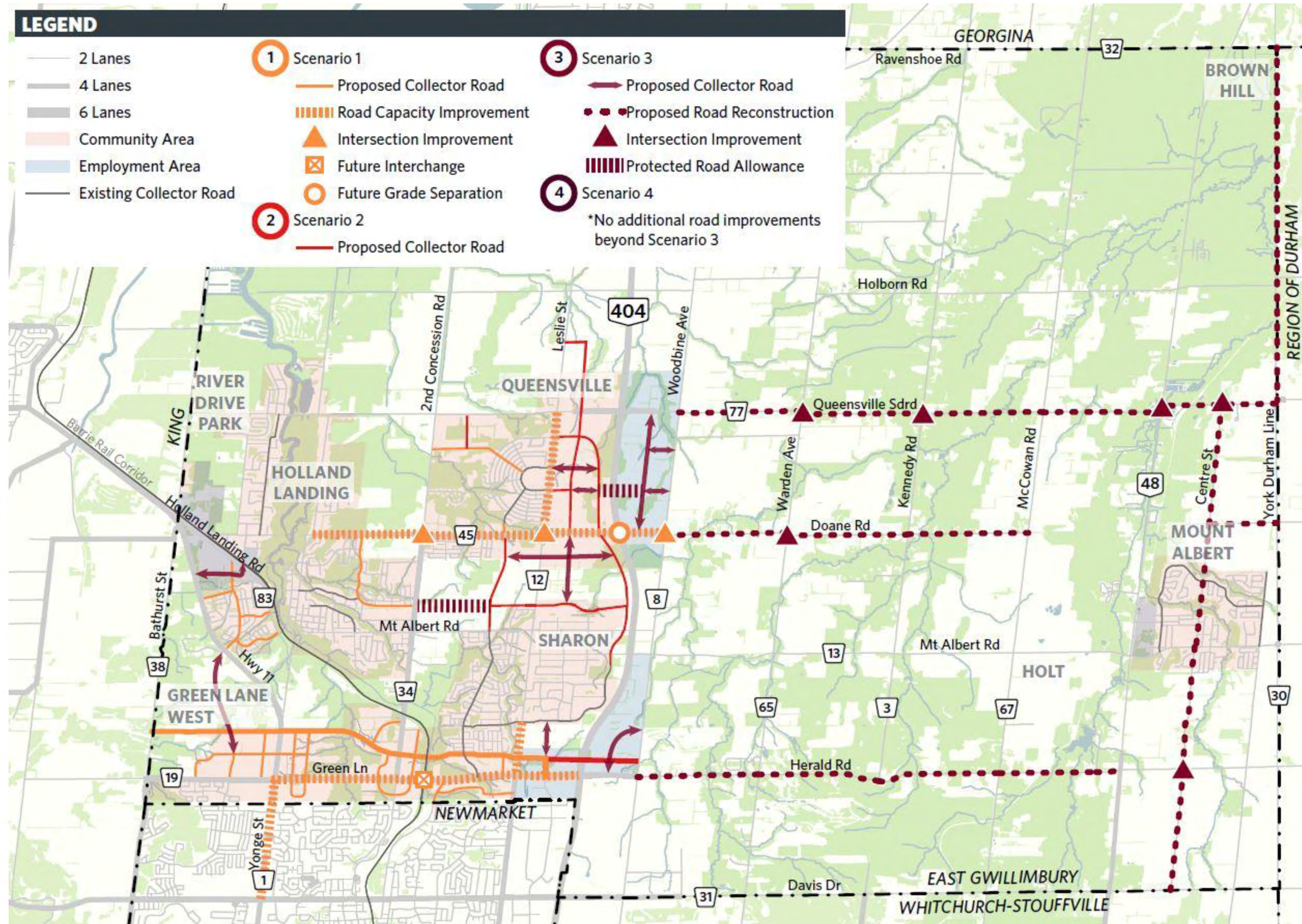
Intersection Improvement



Road Widening



Grade Separation



On Road Cycling Network

There are many types of cycling facilities. This can include:

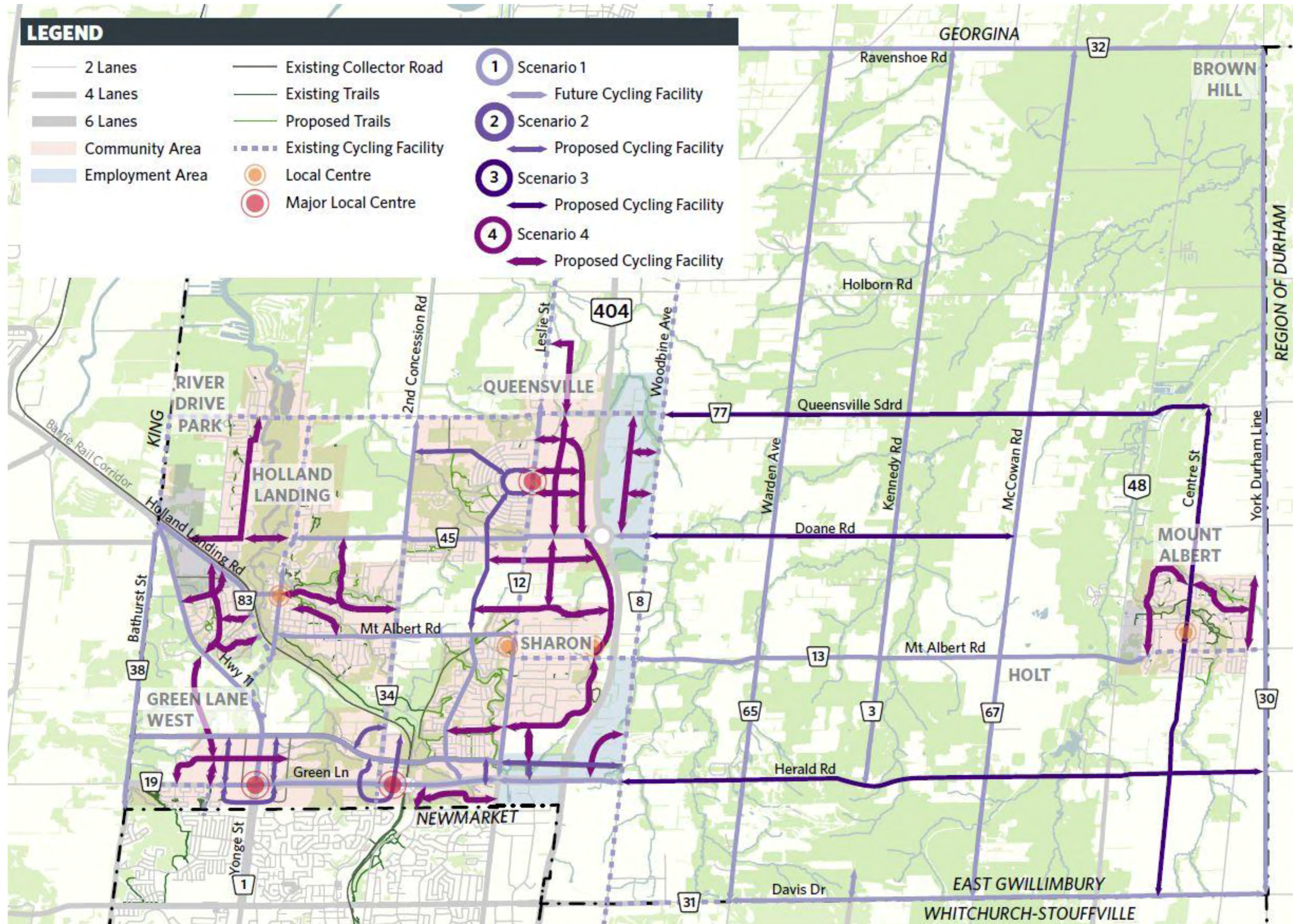
Sharrows



Bike Lane



Disclaimer: Refer to ATTMP for off road cycling facility



Transit Network, Planning Strategies, and Policy Development

* EcoMobility Hubs incorporate multiple shared mobility services (i.e. bike share, electric vehicle car share, and safe and comfortable waiting areas for ride share) at a single location. They can be placed at central locations in a community to provide more travel options^{1 2}.

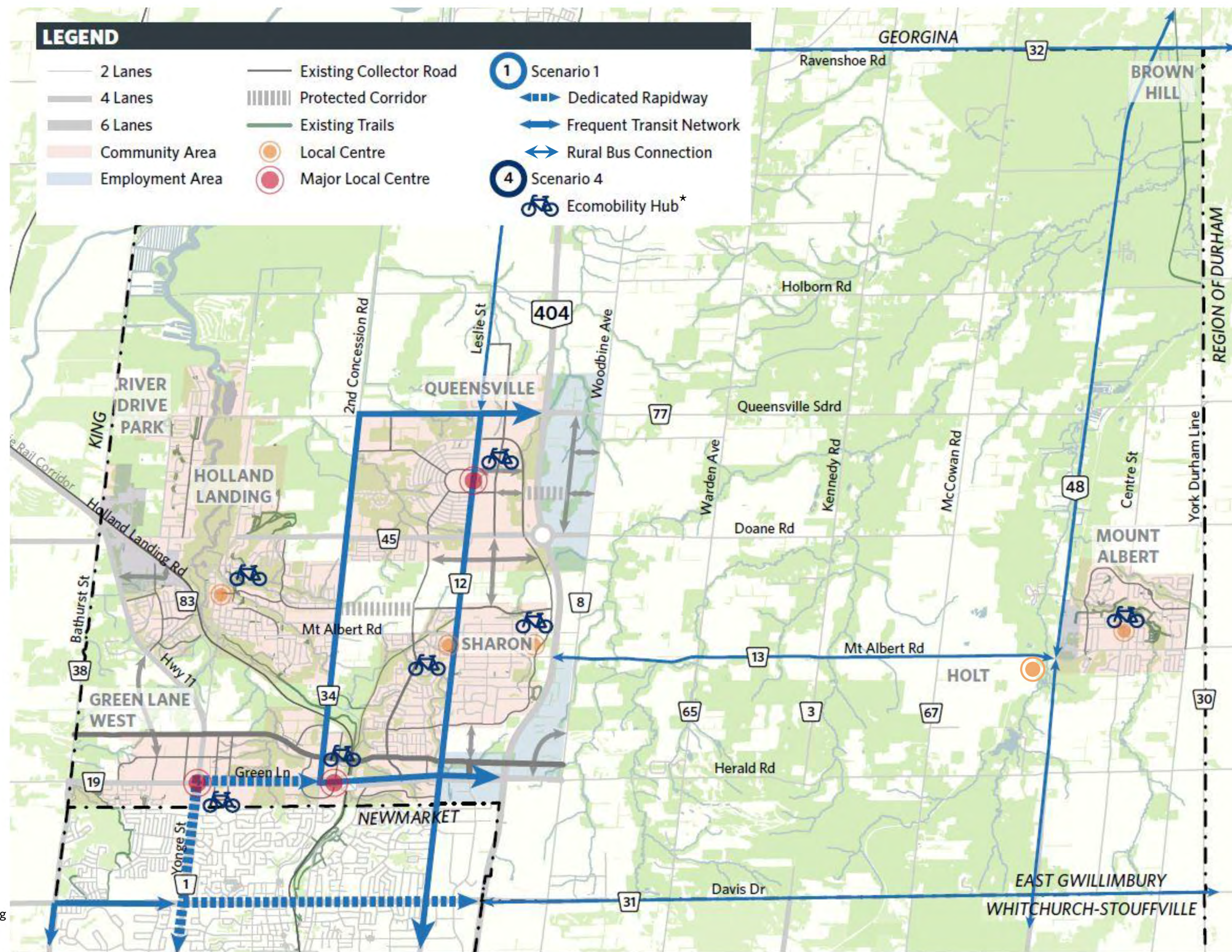


Source: Multi Mobility, Sophia von Berg, 2014

Notes:

¹Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11-13, 2015.

²Karim 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.



Evaluation Criteria



Evaluation Criteria and 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
- Support 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

Evaluation of the Scenarios

Evaluation Criteria	Scenario 1: Base Case	Scenario 2: Currently Planned Town Network	Scenario 3: Revised Town Network	Scenario4: Multimodal Town Network
Transportation Service				
Social Equity				
Policy Environment				
Affordability				
Natural Environment				
Socio-Economic Environment				
Total Graphically	Screen Out	Screen Out	Screen Out	Preferred Scenario

Preferred Scenario 4: Enhanced Town Network

Scenario 4 is the preferred planning alternative of the TMP. The preferred alternative aims to reduce the dependency on vehicles and increase the modal split of transit, cycling, and walking.

This can be achieved by the following actions:

- Constructing key road connections to connect the communities within the Town
- Connecting the missing gaps in the sidewalk network to promote walking as the first choice for short trips
- Implementing cycling infrastructure throughout the Town
- Sustainable updates to the Town's Zoning By-law
- Develop new transportation policies
- Leverage shared mobility through EcoMobility hubs
- Advocate for and support York Region's Transit plans

Notes:

¹Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11-13, 2015.

²Karim 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.

EcoMobility Hub Pilot Program

An EcoMobility Hub is a multi-modal one-stop point intended to facilitate smart and easy access to mobility services^{1 2}. 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 modes

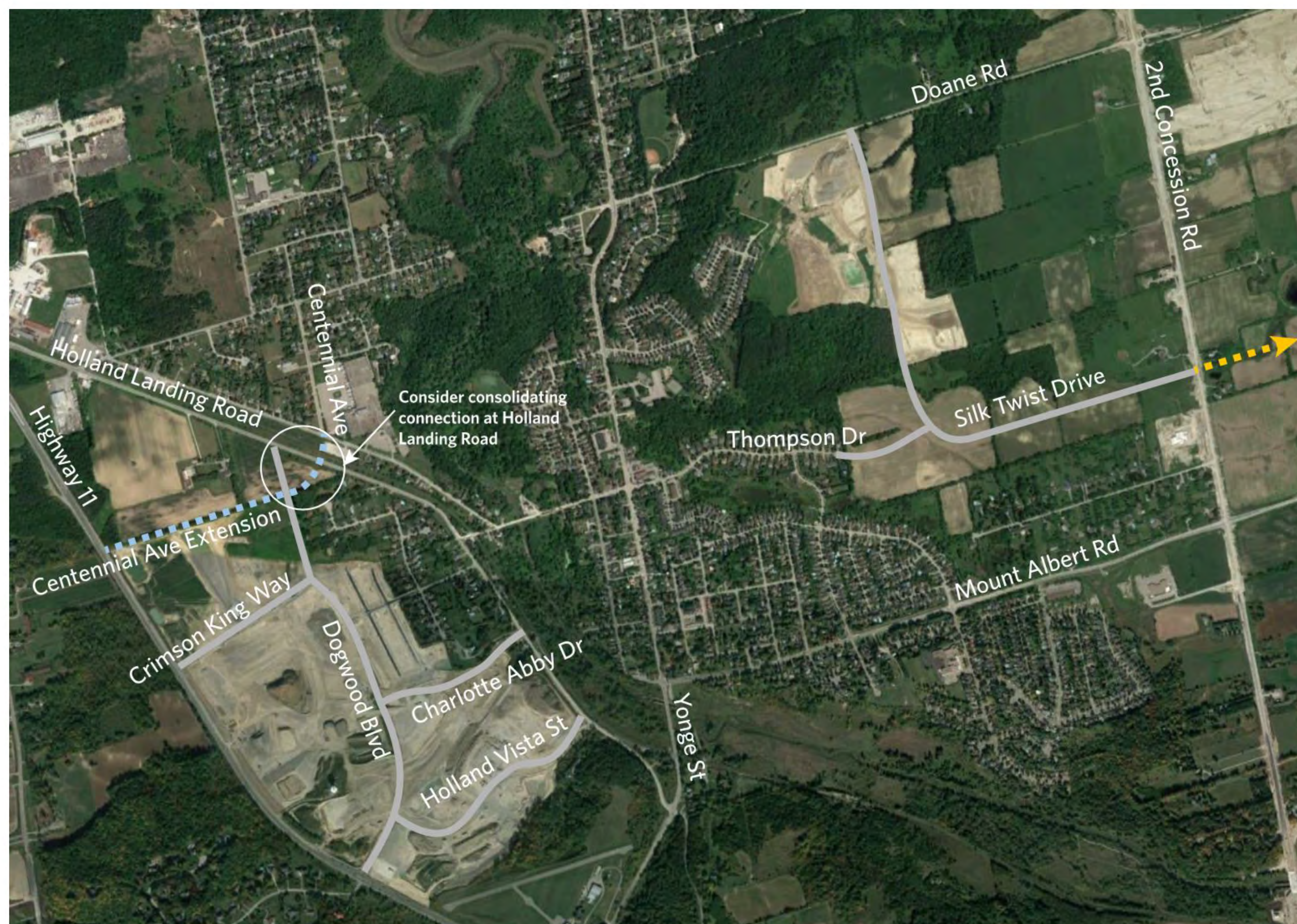
Do you want to see an EcoMobility Hub pilot in Town?



Source: Multi Mobility, Sophia von Berg, 2014

Proposed Improvements to the Town Road Network

Holland Landing



Sharon



Legend

- Proposed Major Collector Road
- Proposed Minor Collector Road
- Road Widening (2-4 Lanes)
- Roundabout
- Structure

Proposed Improvements to the Town Road Network

Mount Albert

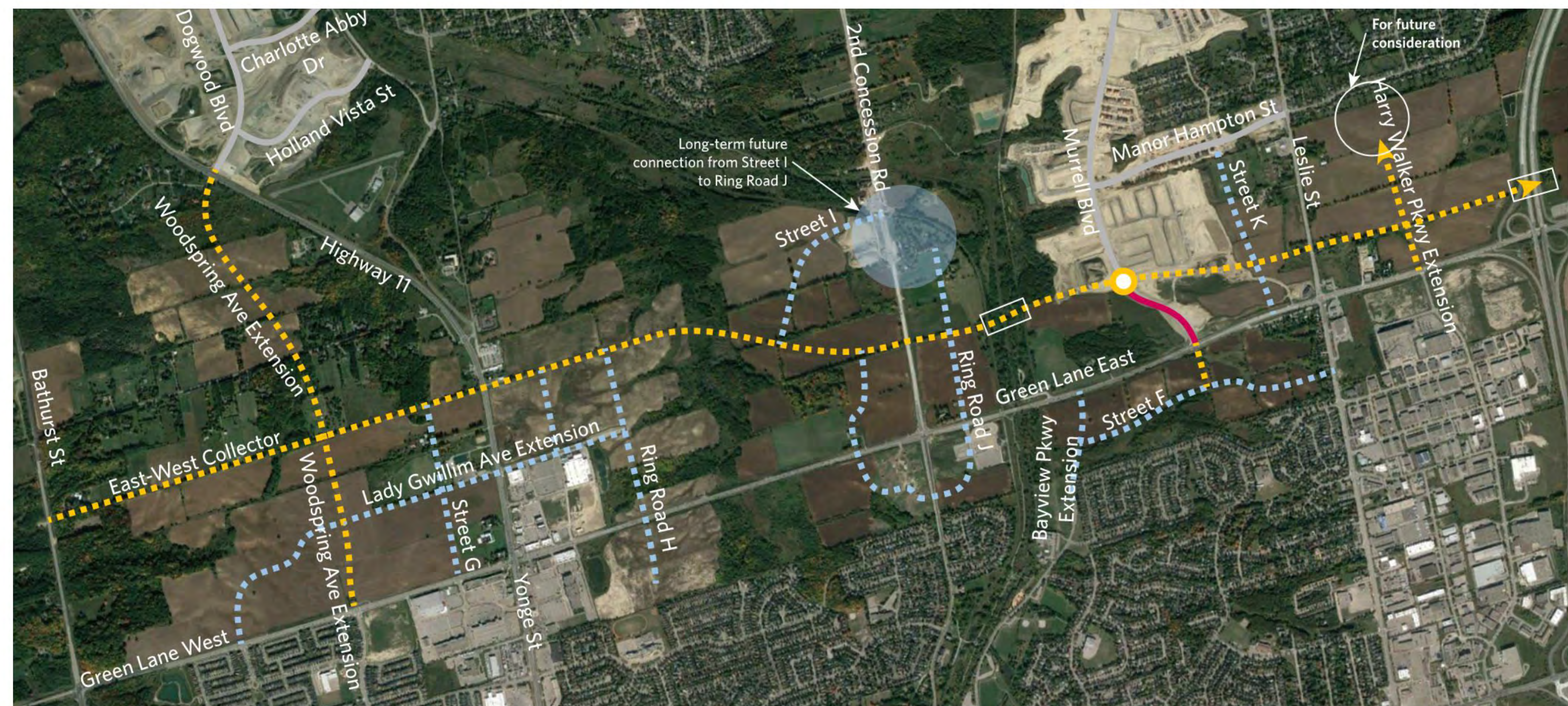


Queensville



- Legend**
- Proposed Major Collector Road
 - Proposed Minor Collector Road
 - Road Widening (2-4 Lanes)
 - Roundabout
 - Structure

Green Lane Corridor



Note: Proposed Road Alignments are CONCEPTUAL only and subject to further study.

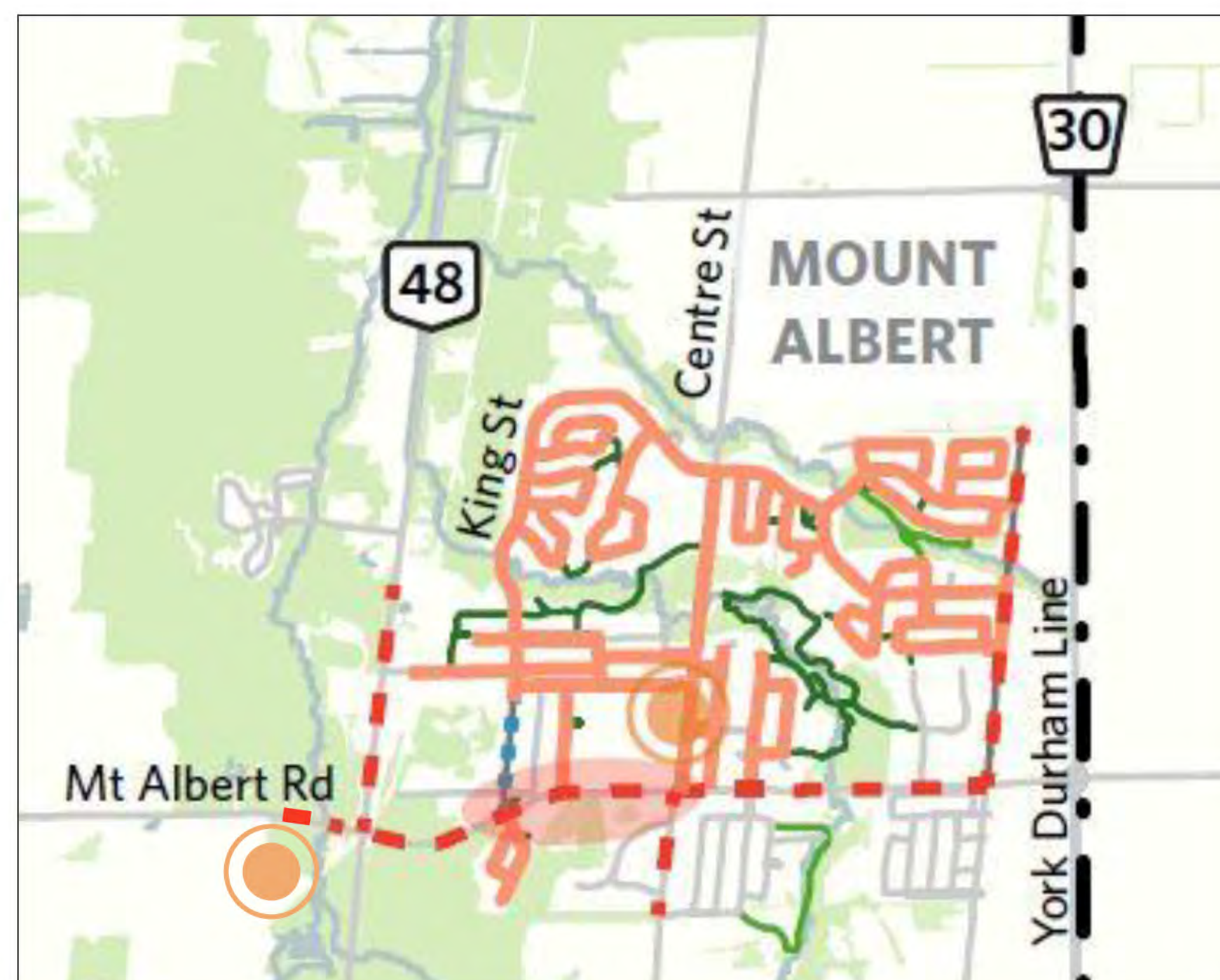
Missing Link Sidewalk Network



Note: Proposed improvements could include widening of existing sidewalks, adding separation between the sidewalk and the vehicular travel lanes, adding street furniture (e.g. benches), or landscaping additions

Disclaimer: Refer to ATTMP for the trails system.

Mount Albert



Holland Landing, Queensville, Sharon, and Green Lane West



Consideration of where new sidewalks should be built



Land use, trip generators, and connectivity

- Proximity to institutional uses, including recreation centres and medical facilities
- Proximity to major employment areas



Roadway Characteristics

- Presence of existing sidewalks
- Posted speed limit
- Number of travel lanes



Public Support

- Number of requests
- Evidence of pedestrian use

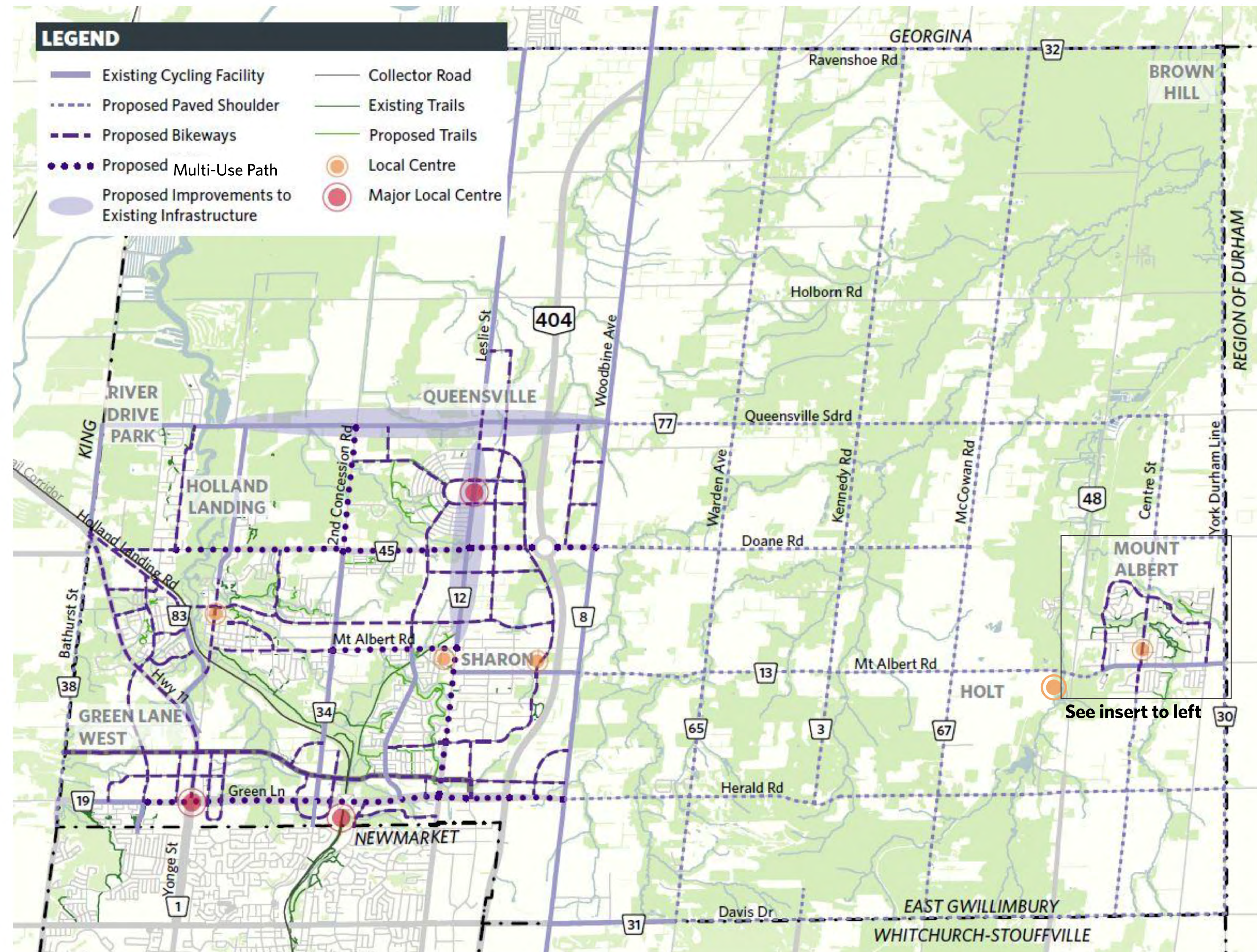
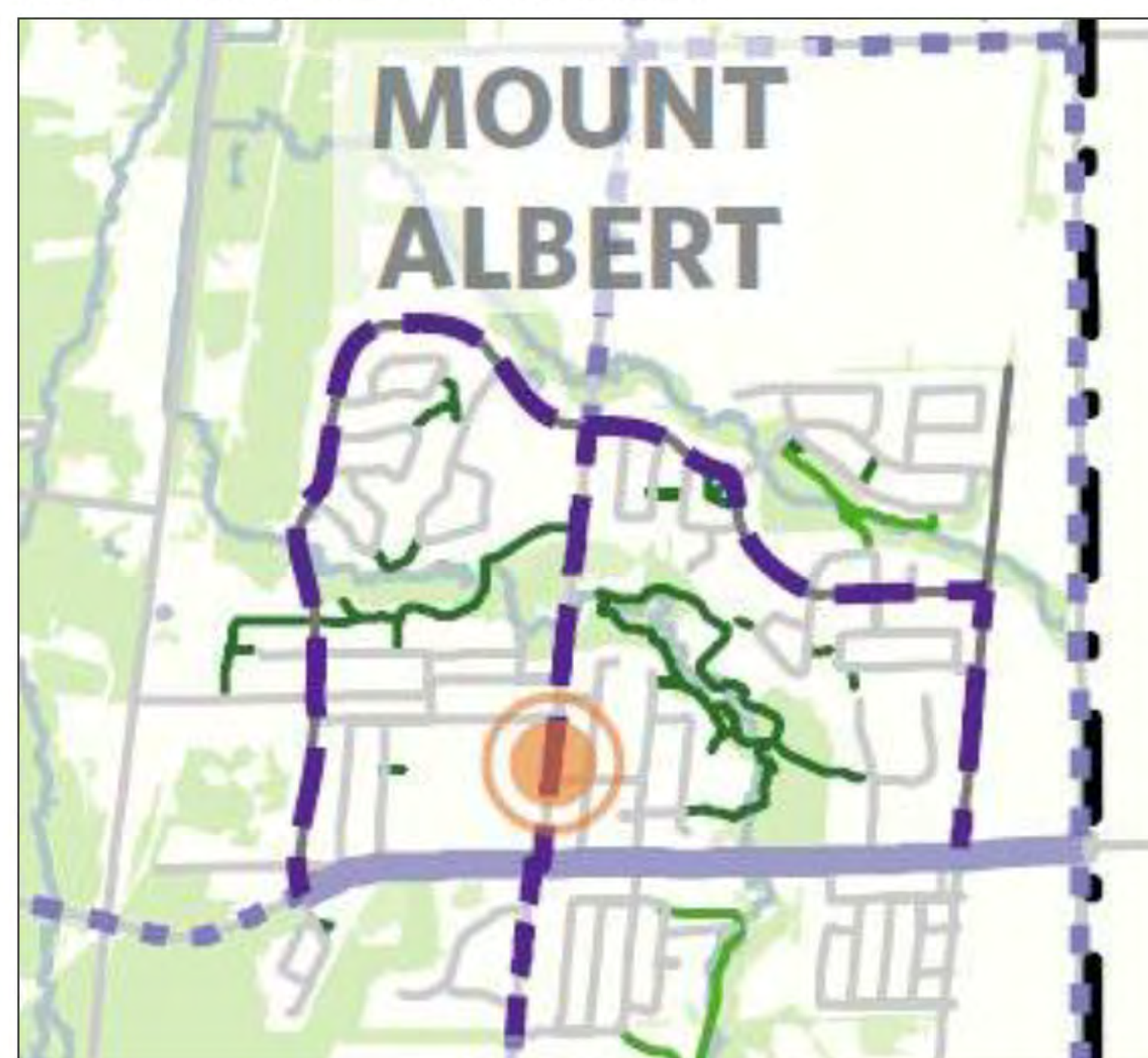


Constructability and Cost

- Available right-of-way
- Cost
- Impact to the environment

Proposed On Road Cycling Network

Mount Albert Insert



Disclaimer: For the full off road cycling plan, refer to ATTMP

Potential intersection treatments to consider to improve traffic operations

Roundabouts

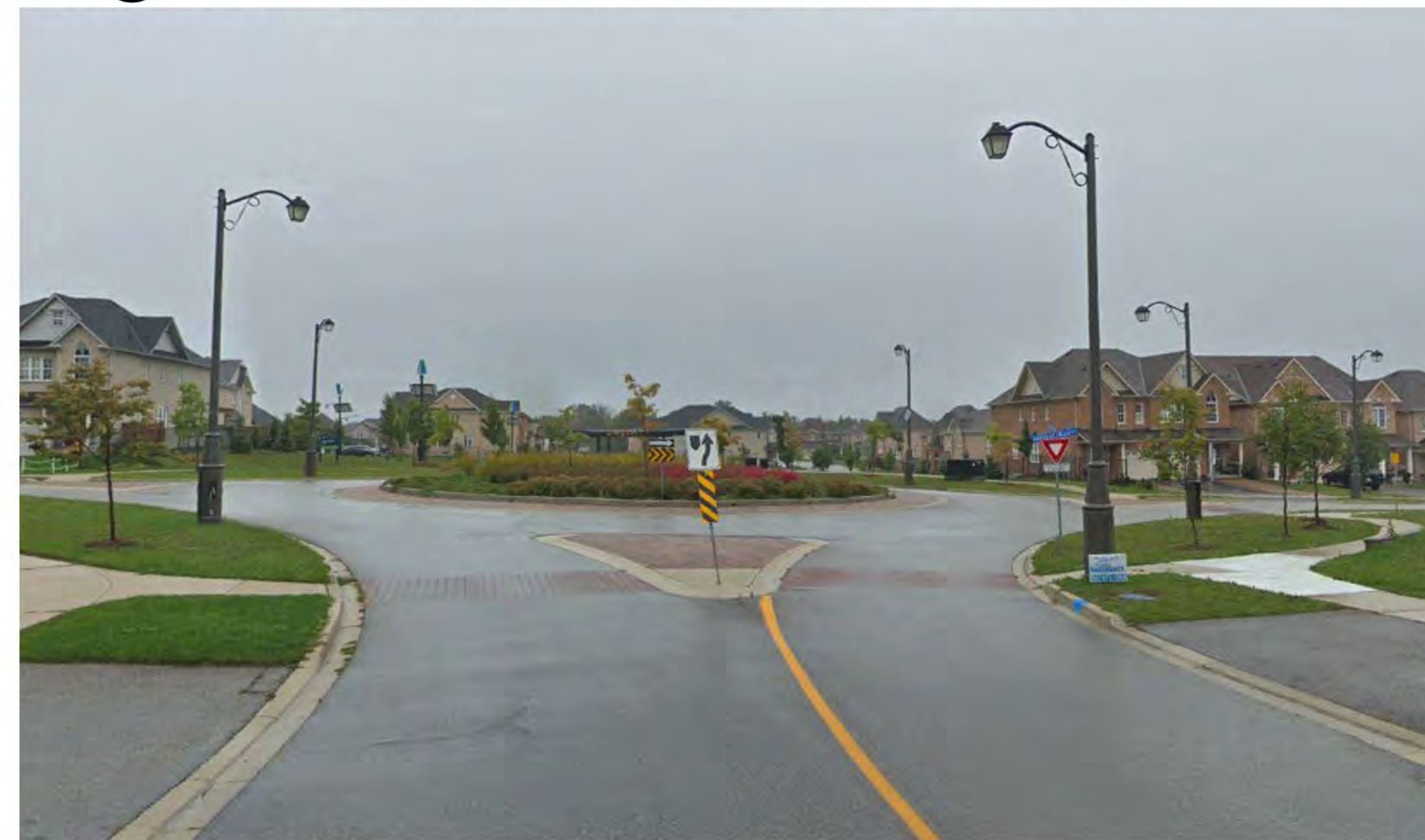
Roundabouts can be used at intersections instead of stop control or signalized intersections. They are known to improve traffic flow and reduce delay at intersections. Do you want to see **roundabouts** in the Town? Where would you like to see them?

Multi-lane Arterial Roundabout



Source: Town of Collingwood

Single Lane Residential Roundabout



Source: Google Maps

Mini Roundabout



Source: Google Maps

Thank you for attending Public Information Centre 2 Keep Informed and Get Involved



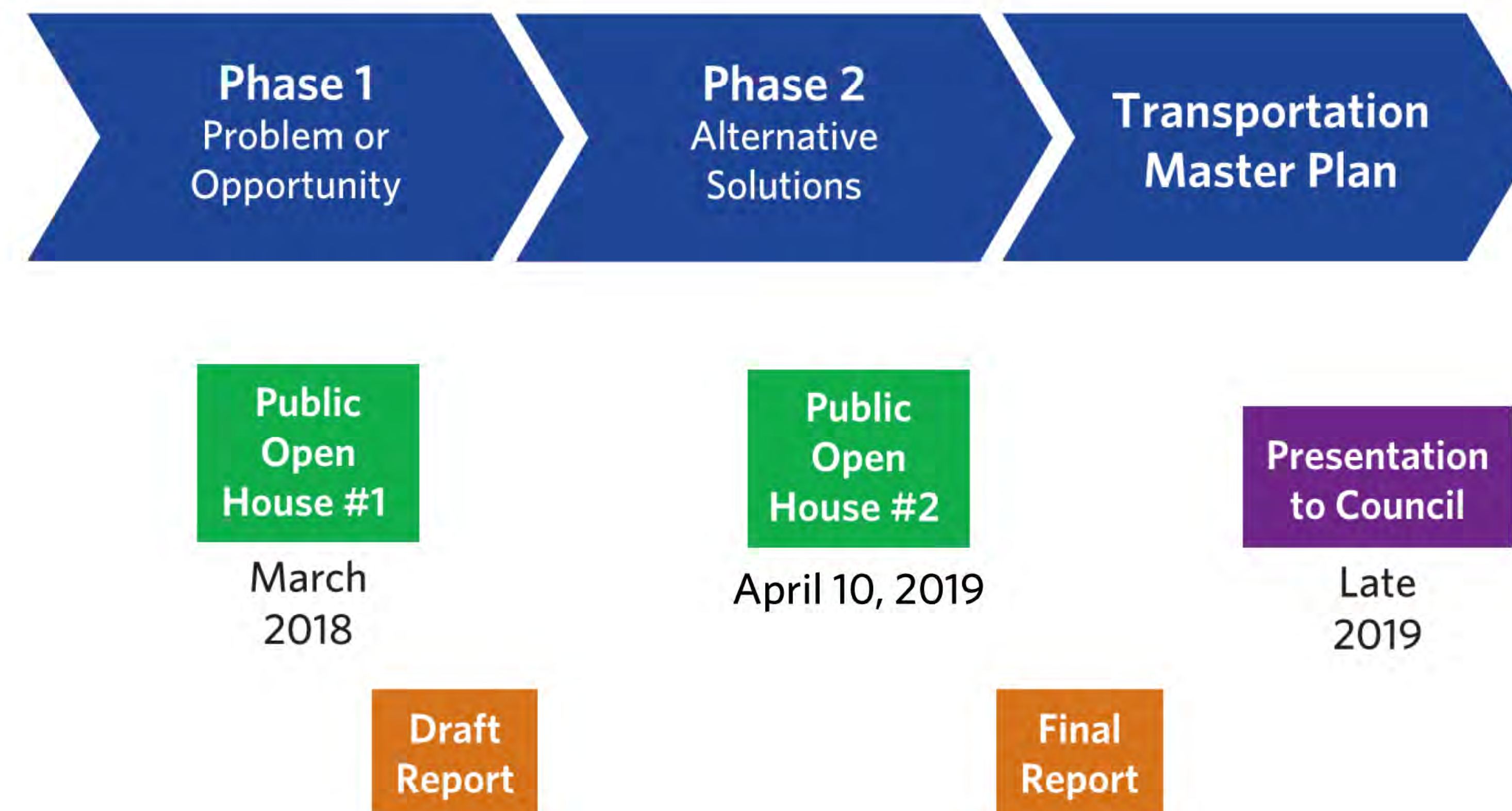
Please fill out a comment form and return it to us today or provide your comments online by May 1, 2019.



For more information, visit us at:

www.eastgwillimbury.ca/projects

Study Schedule



Keep Informed, Get Involved, and Contact Us

Please share your thoughts or opinions about the East Gwillimbury Transportation Master Plan by contacting our project team:

Jonathan Chai, P.Eng
Consultant Project Manager
HDR Corporation
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8
Phone: 289-695-4629
Email: jonathan.chai@hdrinc.com

Jamal Massadeh, P. Eng
Senior Traffic & Transportation
Technologist
Town of East Gwillimbury
19000 Leslie Street
Sharon, ON L0G 1V0
Phone: 905-478-4283 ext. 1224
Email: jmassadeh@eastgwillimbury.ca

Denny S. Boskovski, C.E.T.
Asset Management and Capital Project
Manager
Town of East Gwillimbury
19000 Leslie Street
Sharon, ON L0G 1V0
Phone: 905-478-4283 ext. 3818
Email: dboskovski@eastgwillimbury.ca



First Name	Last Name	Address / Community	Email

[illegible][illegible]

Notice of Commencement (2023)
February 9, 2023

TRANSPORTATION MASTER PLAN

PROJECT DESCRIPTION

This notice of commencement is being issued to ensure administrative compliance and to provide all stakeholders with a status of the work that is being undertaken. The Town of East Gwillimbury previously initiated a Transportation Master Plan (TMP) Study in 2017 to provide a sustainable blueprint for the planned growth and transportation needs to the year 2041 and to serve as an update of the 2010 TMP by building upon sustainable transportation policies and plans developed by York Region and the Province of Ontario.

In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections to the year 2051. The TMP was updated to address the transportation needs to 2051 while accounting for a new study context including updated transportation policies and plans by York Region and the Province of Ontario.

The Town is committed to managing growth in a responsible manner, planning for the safe, efficient and reliable movement of people and goods, and ultimately achieving the Town's vision for a safe, accessible and liveable communities. With these goals in mind, the TMP update will guide the development of the Town's long-term, multi-modal transportation network, define policies, programs, and infrastructure required to meet the Town's mobility needs, and provide a context for transportation decisions.

THE PROCESS

This Study will follow the master planning process described in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007 and 2011), including consultation with the public and stakeholders, consideration of all reasonable alternatives, a high level assessment of the effects on the environment at the network level, evaluation

of alternatives highlighting advantages and disadvantages, and full documentation of the process including rationale for conclusions reached. The Master Plan process will satisfy Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements.

CONSULTATION

A key component of the study will be consultation with stakeholders, regulatory agencies and the public. Members of the public are invited to get involved in the Study process and provide input. A Public Information Centre (PIC) will be held during the Study to inform the process, present findings, and receive public input. A notice indicating the time and location of the PIC will be provided to registered stakeholders, published in local newspapers, on the Town's website and social media.

CONTACTS

If you require additional information or would like to be placed on the project contact list, please visit the Town's website at www.eastgwillimbury.ca/TMP or contact one of the individuals below:

Jamal Massadeh, P. Eng.

Senior Traffic & Transportation Technologist
Town of East Gwillimbury, 19000 Leslie Street, Sharon ON L0G 1V0
905-478-4283 Ext. 1224 | jmassadeh@eastgwillimbury.ca

Jonathan Chai, P. Eng.

Consultant Project Manager, HDR Corporation
100 York Boulevard, Suite 300, Richmond Hill ON L4B 1J8
289-695-4629 | jonathan.chai@hdrinc.com

Information is being collected under the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record. This Notice first issued November 23, 2016. This Notice was reissued November 9, 2017, and February 9, 2023

Notice of Public Consultation #3
April 18, 2023
Held on April 26, 2023

Transportation Master Plan Update

April 26, 2023, at 5 p.m.

Council Chambers and Atrium at the Civic Centre (19000 Leslie Street, Sharon)

The Town of East Gwillimbury previously initiated a Transportation Master Plan (TMP) Study in 2017 to provide a sustainable blueprint for the planned growth and transportation needs to the year 2041 and to serve as an update of the 2010 TMP by building upon sustainable transportation policies and plans developed by York Region and the Province of Ontario.

In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections to the year 2051. The TMP was updated to address the transportation needs to 2051 while accounting for a new study context including updated transportation policies and plans by York Region and the Province of Ontario.

The Town is committed to managing growth in a responsible manner, planning for the safe, efficient and reliable movement of people and goods, and ultimately achieving the Town's vision for a safe, accessible and liveable communities. With these goals in mind, the TMP update will guide the development of the Town's long-term, multi-modal transportation network, define policies, programs, and infrastructure required to meet the Town's mobility needs, and provide a context for transportation decisions.

THE PROCESS

This Study will follow the master planning process described in the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011, 2015 and 2023) including consultation with the public and stakeholders, consideration of all reasonable alternatives, a high level assessment of the effects on the environment at the network level, evaluation of alternatives highlighting advantages and disadvantages, and full documentation of the process including rationale

for conclusions reached. The Master Plan process will satisfy Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements.

CONSULTATION

Public Information Centre #3 will inform you about this process, present findings and receive public input for the future vision of transportation in the Town. This is the final PIC, once the Study is complete, the Master Plan will be filed for public review.

Drop-in Interactive Open House

Date: Wednesday, April 26, 2023

Time: 5 to 8 p.m.

Location: East Gwillimbury Civic Centre
19000 Leslie Street, Sharon, ON L0G 1V0

CONTACTS

If you require additional information or would like to be placed on the project contact list, please visit the Town's website at

www.eastgwillimbury.ca/TMP or contact one of the individuals below:

Jamal Massadeh, P. Eng.

Senior Traffic & Transportation Technologist
Town of East Gwillimbury
19000 Leslie Street, Sharon ON L0G 1V0
905-478-4283 Ext. 1224
jmassadeh@eastgwillimbury.ca

Jonathan Chai, P. Eng.

Consultant Project Manager
HDR Corporation
100 York Boulevard, Suite 300, Richmond Hill ON L4B 1J8
289-695-4629
jonathan.chai@hdrinc.com

Public Consultation #3

Presentation Boards



Transportation Master Plan Update

Town of East Gwillimbury

Welcome

to Public Information Centre 3

Wed April 26, 2023

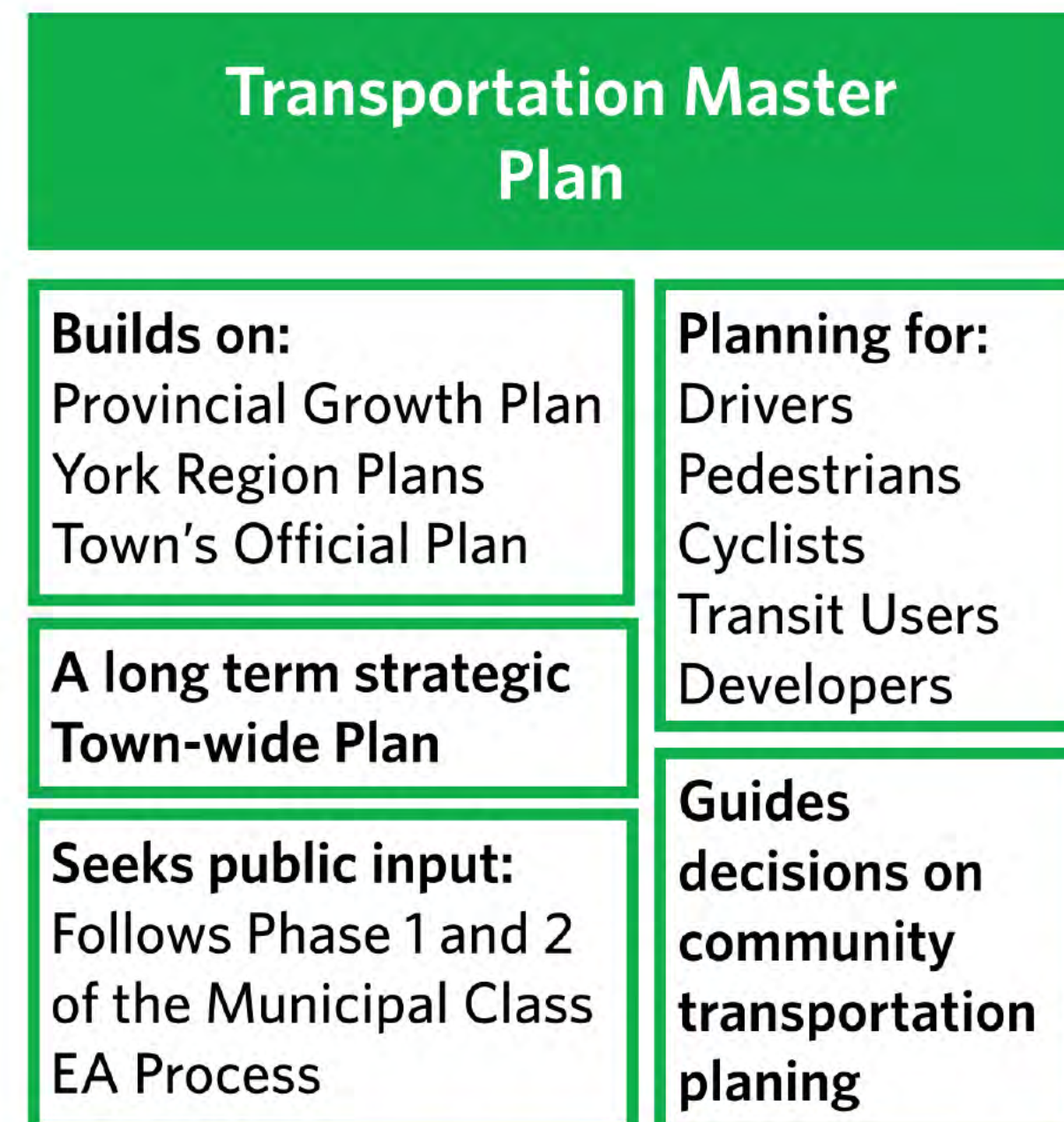
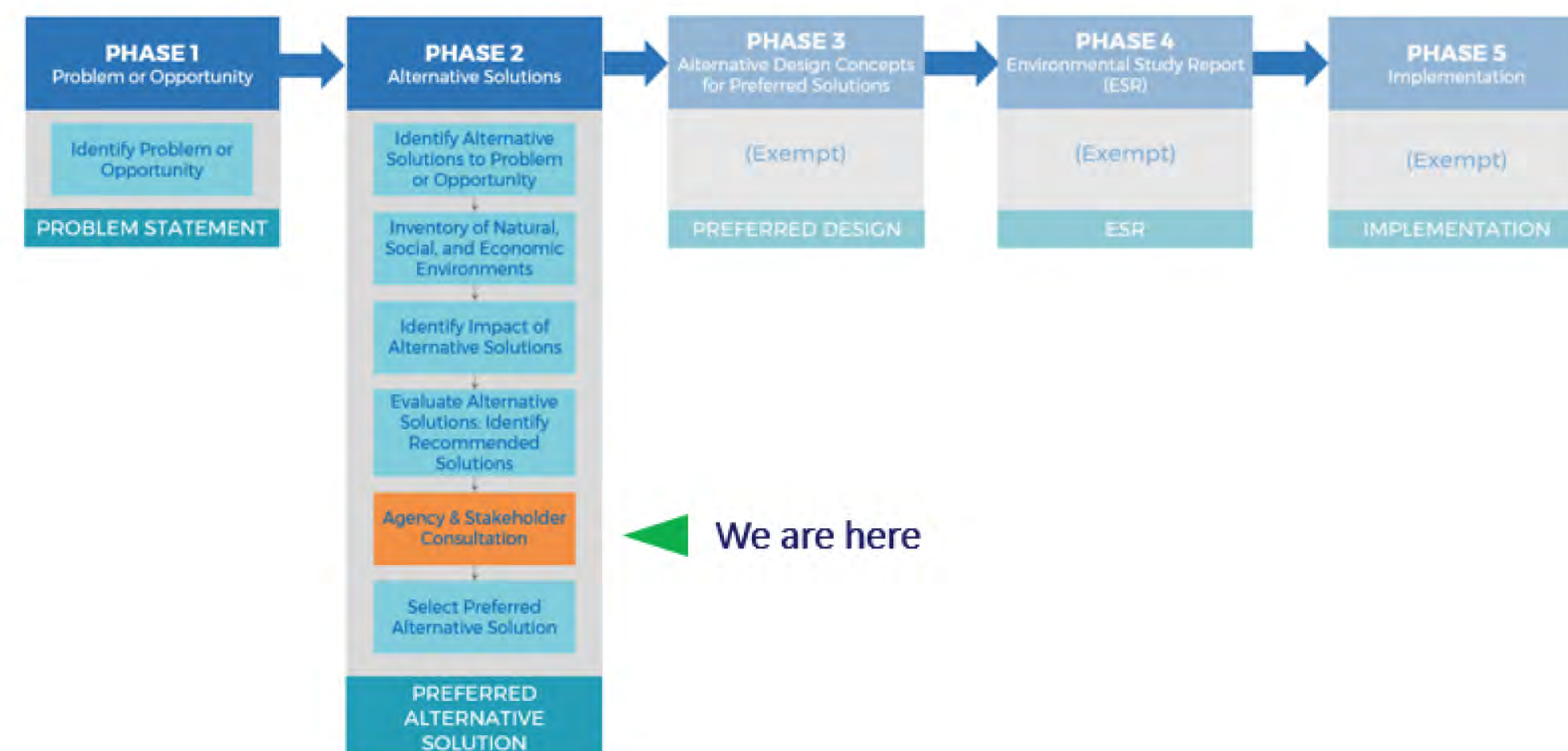
What is a Transportation Master Plan?

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.

Follows The Municipal EA Process



Planning Context

The Town's TMP will be developed within the context of existing policies and initiatives at the provincial, regional, and local levels.

Provincial

- Provincial Policy Statement, 2020
- Growth Plan for the Greater Golden Horseshoe, 2017 Update
- 2041 Regional Transportation Plan, 2017 Update
- GO Regional Express Rail (RER), 2016
- GO Station Access Plan, 2023
- Highway 400-404 Extension Link
- Transit Supportive Guidelines
- #CycleON: Ontario's Cycling Strategy

Regional

- York Region Transportation Master Plan, 2022
- New Communities Guidelines, 2013
- Transportation Mobility Plan Guidelines for Development Applications, 2016
- Access Guidelines for Regional Roads, 2020

Local

- Official Plan (OP), 2022
- Strategic Plan, 2015-2018
- Transportation Master Plan, 2010
- Active Transportation and Trails Master Plan, 2022 (Draft)
- Green Lane Secondary Plan, 2018
- Holland Landing Secondary Plan, 2022
- Highway 404 Employment Corridor Secondary Plan, 2020
- Roads Needs Assessment Study, 2009

Purpose of the TMP

-  Support all modes of travel (auto, transit, on road and off-road active transportation)
-  Identify gaps and opportunities in the transportation network
-  Accommodate growth to 2051 and beyond
-  Support existing and future land uses
-  Develop a well-integrated, multi-modal, and sustainable transportation network

Build from the draft 2041 TMP recommendations (completed 2019) to accommodate new urban areas (Whitebelt lands) by 2051.

Problem and Opportunity Statement

The Town of East Gwillimbury is planned to grow significantly over the next 25 years by about 4 times its current population. This growth will result in additional and shorter trips within the Town, adding strain on the Town's internal transportation network.

At the same time, this growth represents opportunities to:

-  Provide new road linkages
-  Improve streets within the Town, making them safe and accessible for all road users
-  Promote walking as the first choice for short trips
-  Make cycling an option for more than just recreational trips
-  Grow the role of transit in the Town

Ultimately, this multimodal vision for transportation will ensure that the Town is a safe, accessible, and livable community in the future.

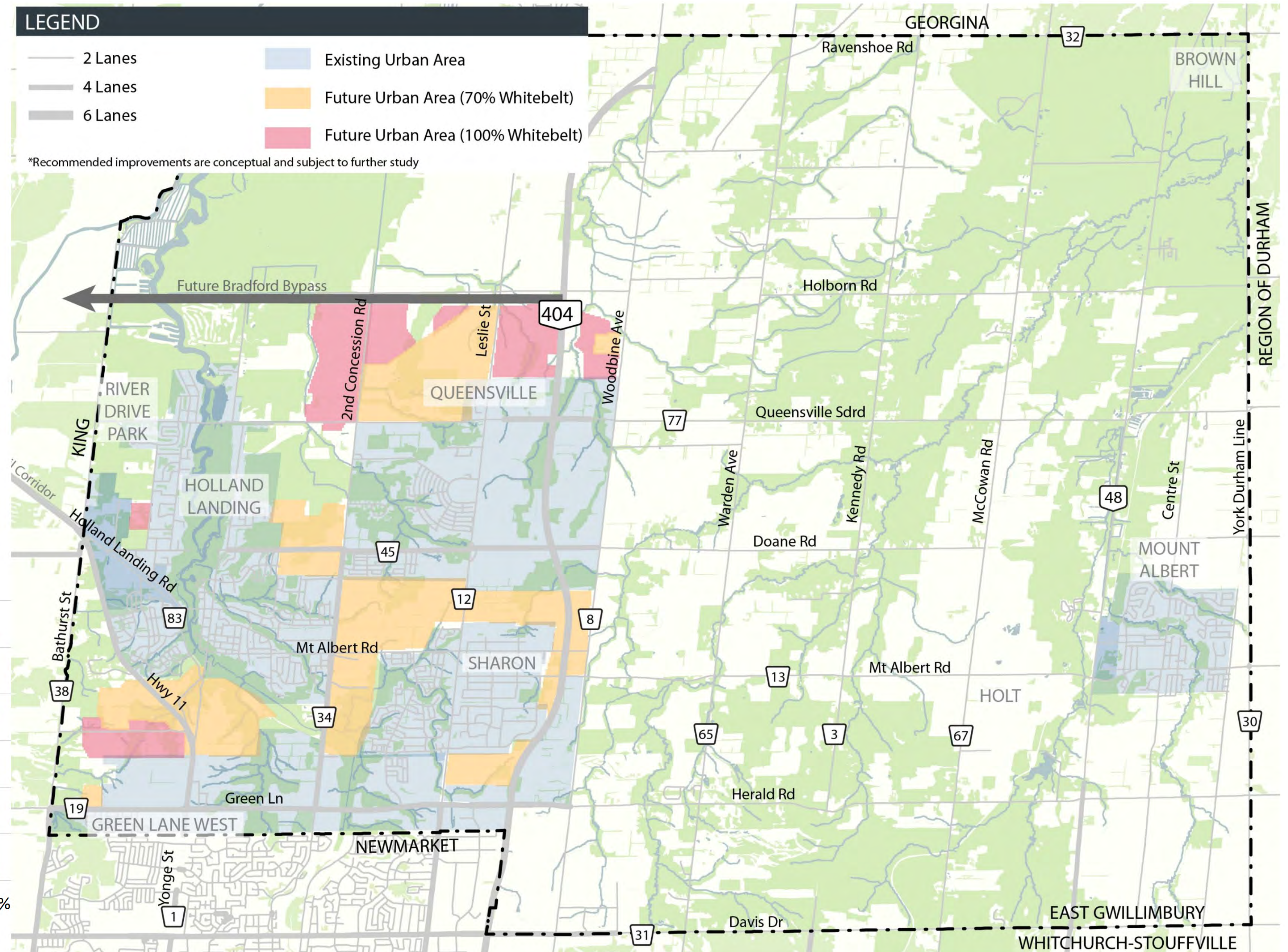
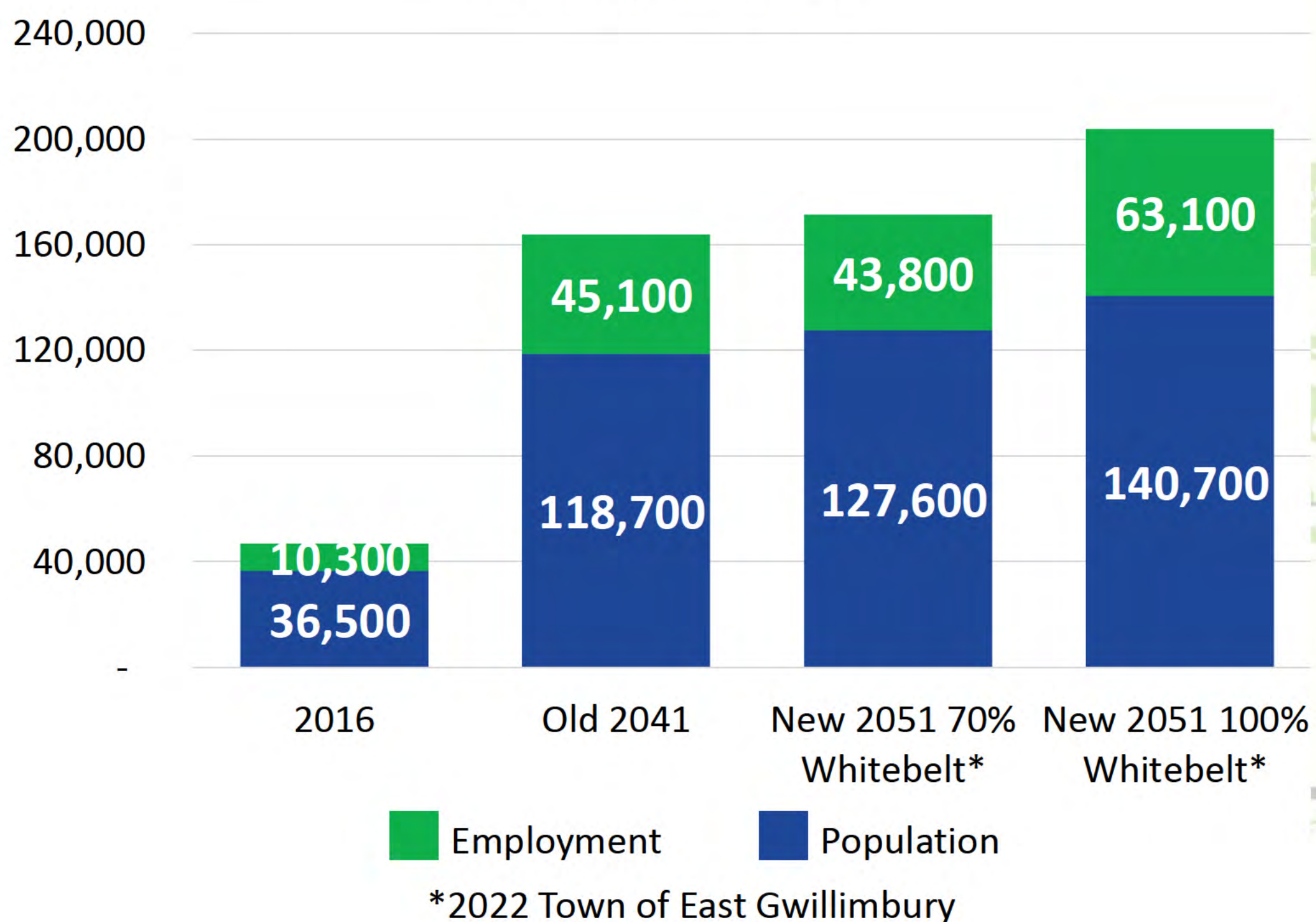
Updates from the draft 2041 TMP recommendations (Completed in 2019)

Major Changes:

- Additional Urban Areas (Whitebelt)
- Incorporate York Region's 2022 Transportation Master Plan
- Completion of local Secondary Plans



Population and Employment Comparison



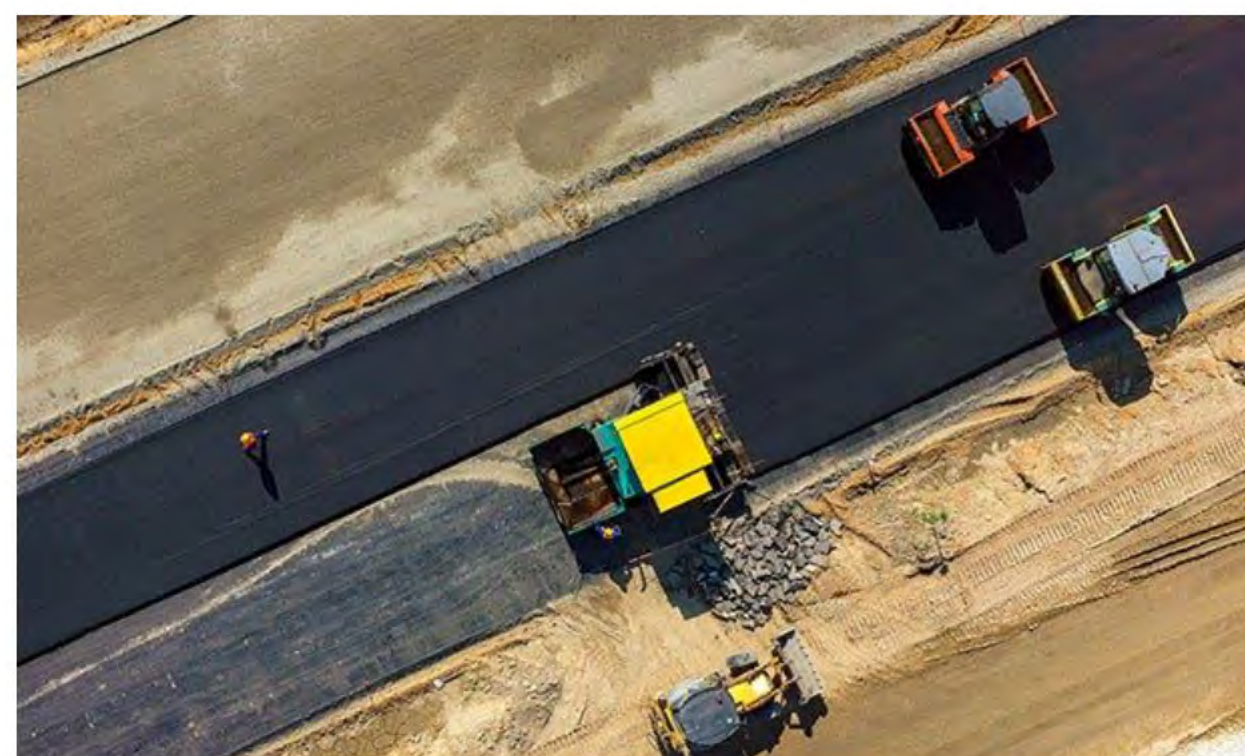
Road Network

Proposed changes to the road network include:

Intersection Improvement

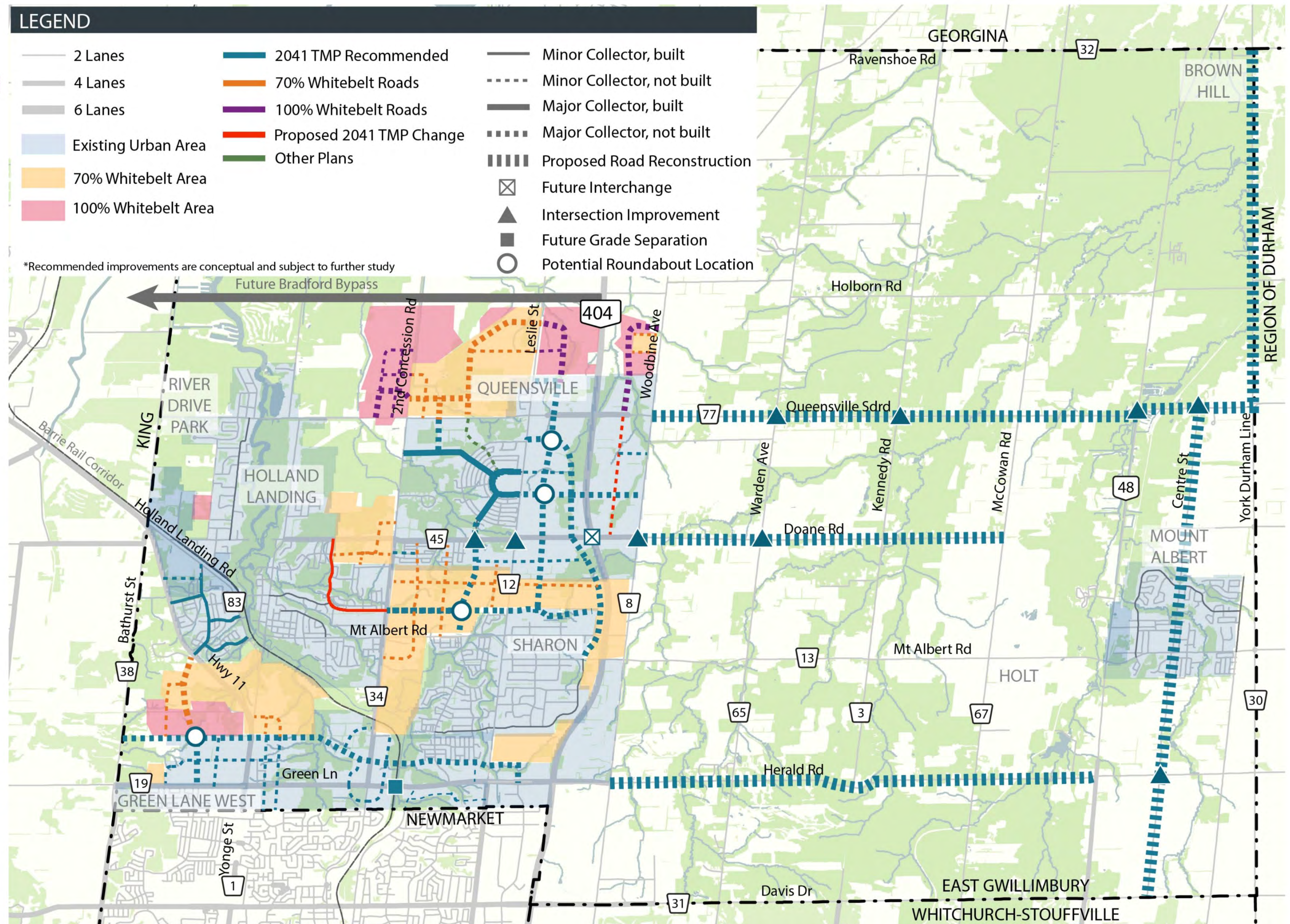


Road Reconstruction



Source: Studies To Bolster Rural Motorist Safety, Cut Road Building Costs, Richard Nira, 2018

Grade Separation



Pedestrian Network

Pedestrian facilities can include the following:

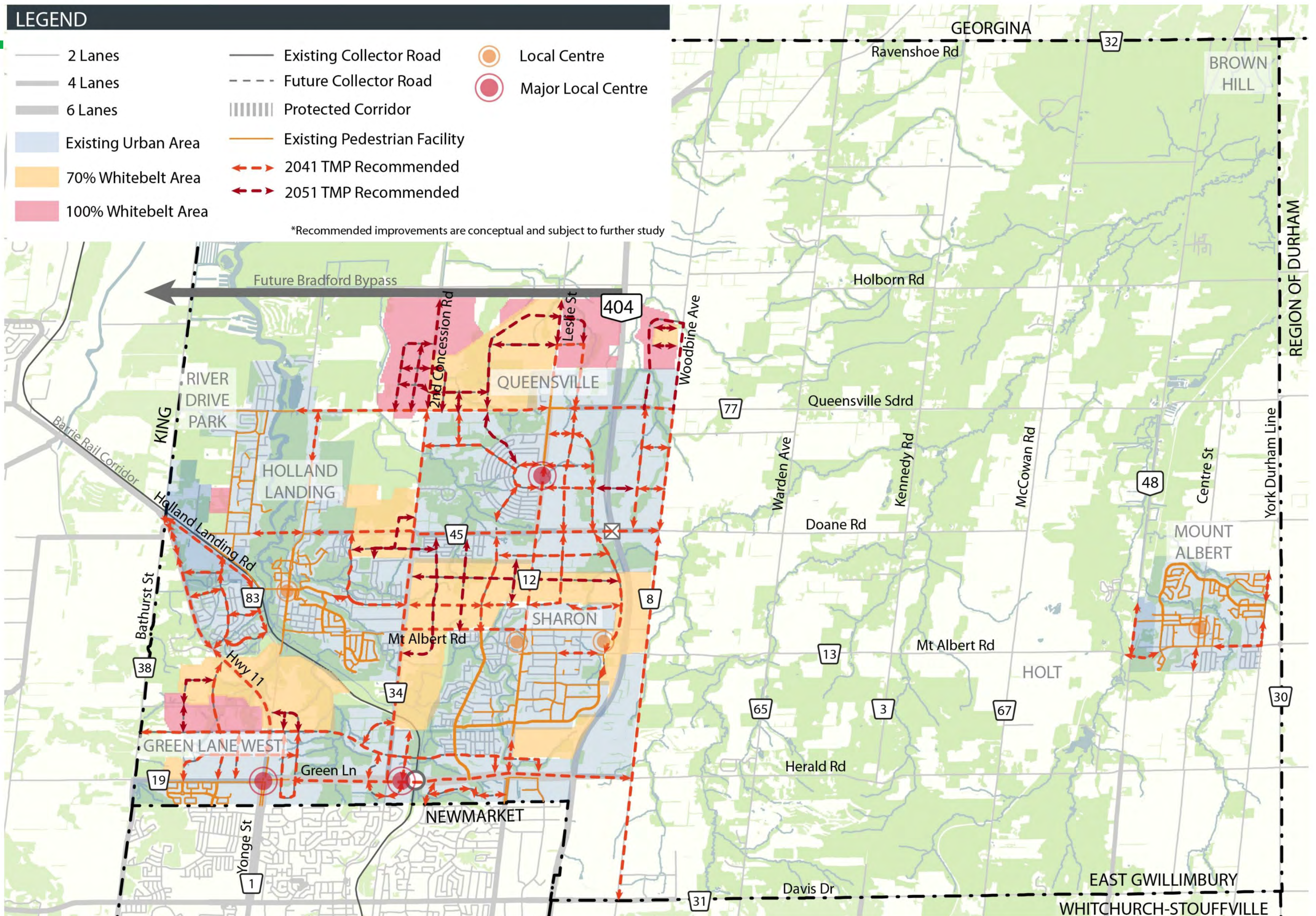
Sidewalks



Multi-use Path



Streetlights are typically provided with sidewalks and multi-use paths within urban boundary roadways.



Cycling Network

There are many types of cycling facilities and can include the following:

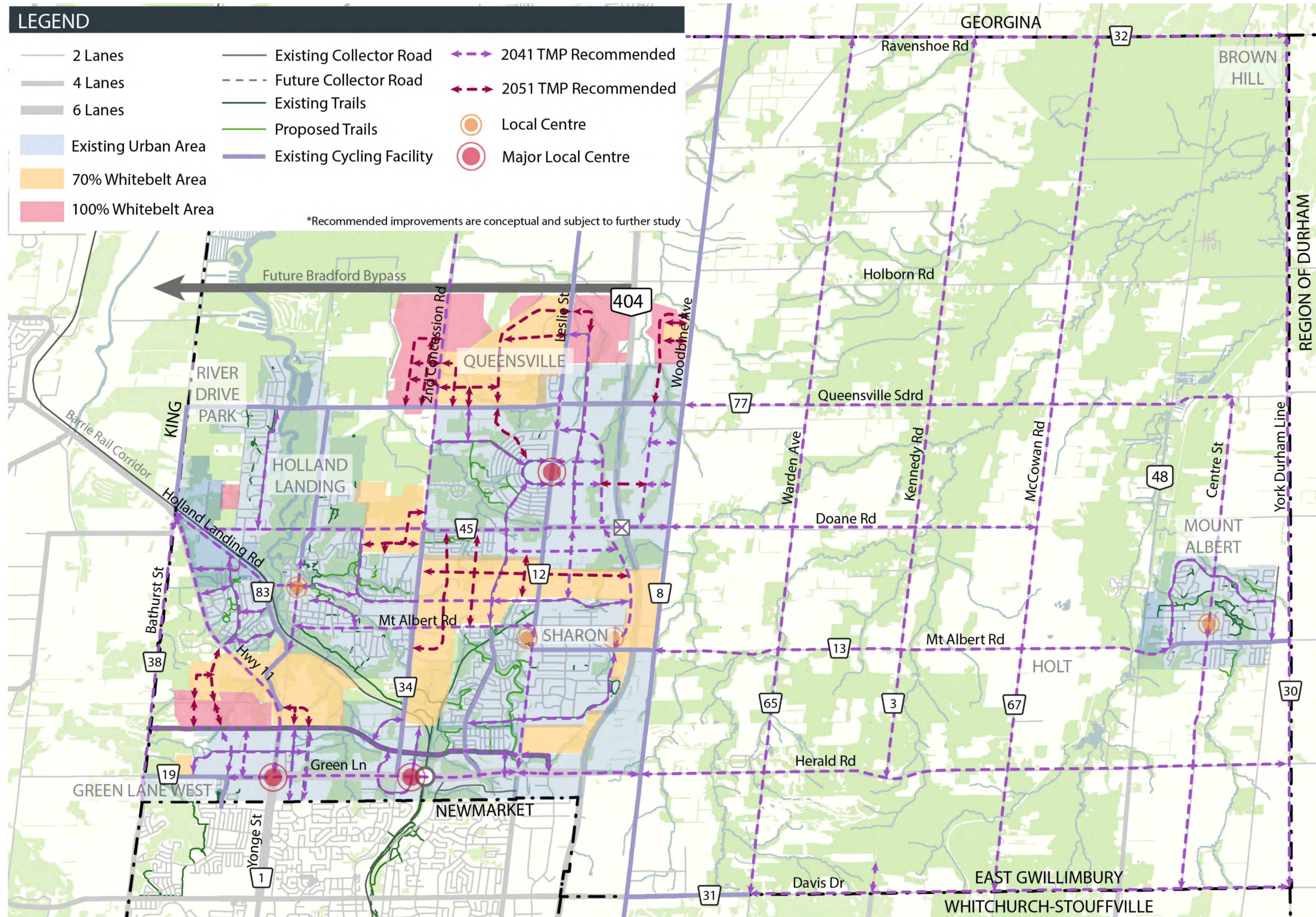
Sharrows



Bike Lane



Multi-use Path



Transit Strategy

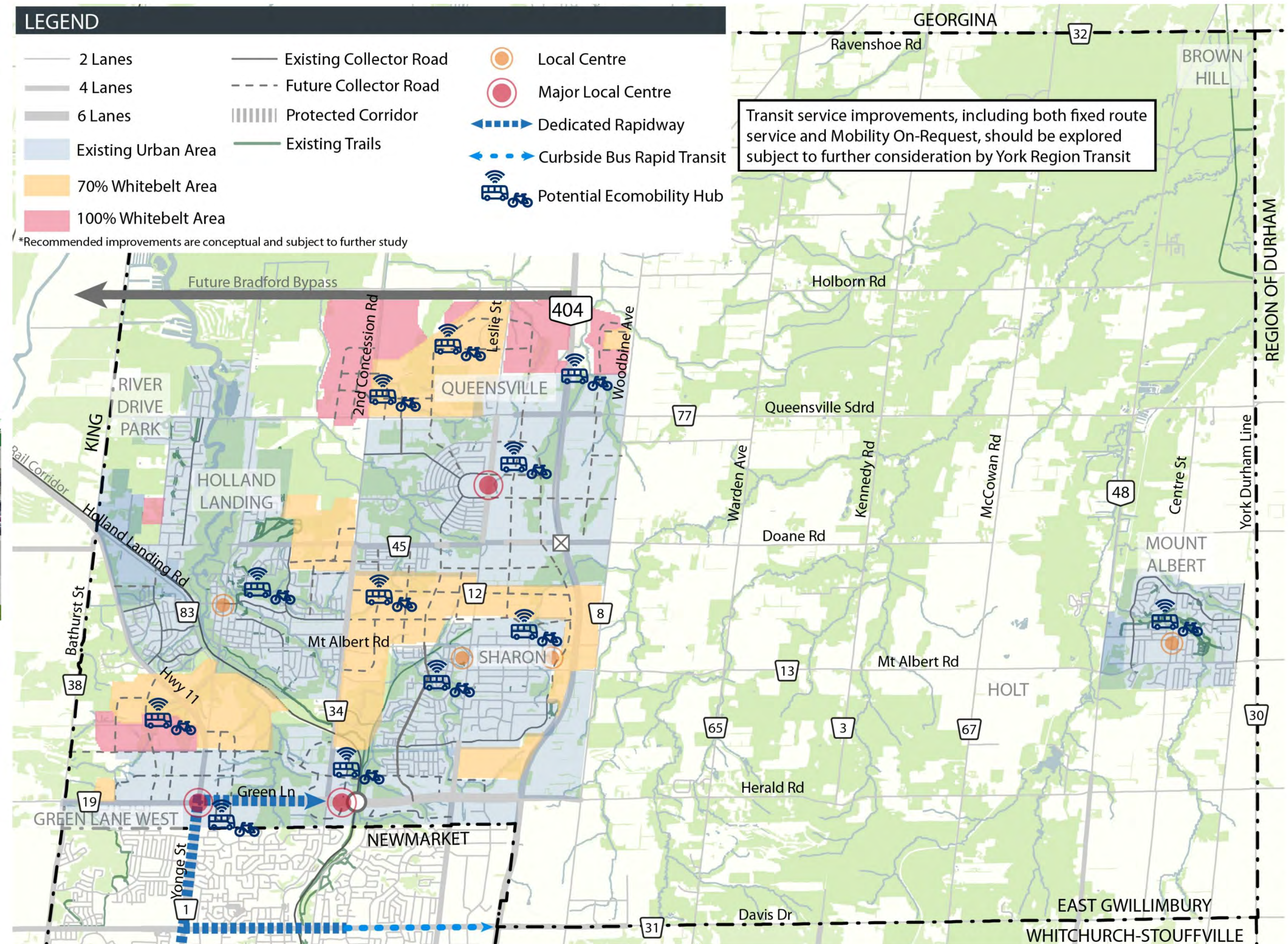
Transit in East Gwillimbury is delivered by York Region Transit.

The Town can support new transit services through a well-connected walking and cycling network, and planning for EcoMobility Hubs* at key locations throughout the Town, such as Local Centres.



Image source: Multi Mobility, Sophia von Berg, 2014

- * EcoMobility Hubs incorporate multiple shared mobility services (i.e. transit, bike share, electric vehicle car share, and safe and comfortable waiting areas for ride share) at a single location. They can be placed at central locations in a community to provide more travel options^{1 2}.



Notes:

¹Karim D. M., Innovative Mobility Master Plan: Connecting Multimodal Systems with Smart Technologies, Disrupting Mobility Conference, MIT Media Lab, Cambridge, USA, November 11~13, 2015.

²Karim D. M., *Creating an Innovative Mobility Ecosystem for Urban Planning Areas, Disrupting Mobility - Impacts of Sharing Economy and Innovative Transportation on Cities*, Springer Books, Lectures in Mobility, ISBN: 978-3-319-51601-1, pages 21-47, 2017.



Transportation Master Plan Update

Thank you for attending Public Information Centre 3 Keep Informed and Get Involved



Please fill out a comment form and return it to us today or provide your comments online by May 10, 2023.



For more information, visit us at:

<https://www.eastgwillimbury.ca/TMP>

Keep Informed, Get Involved, and Contact Us

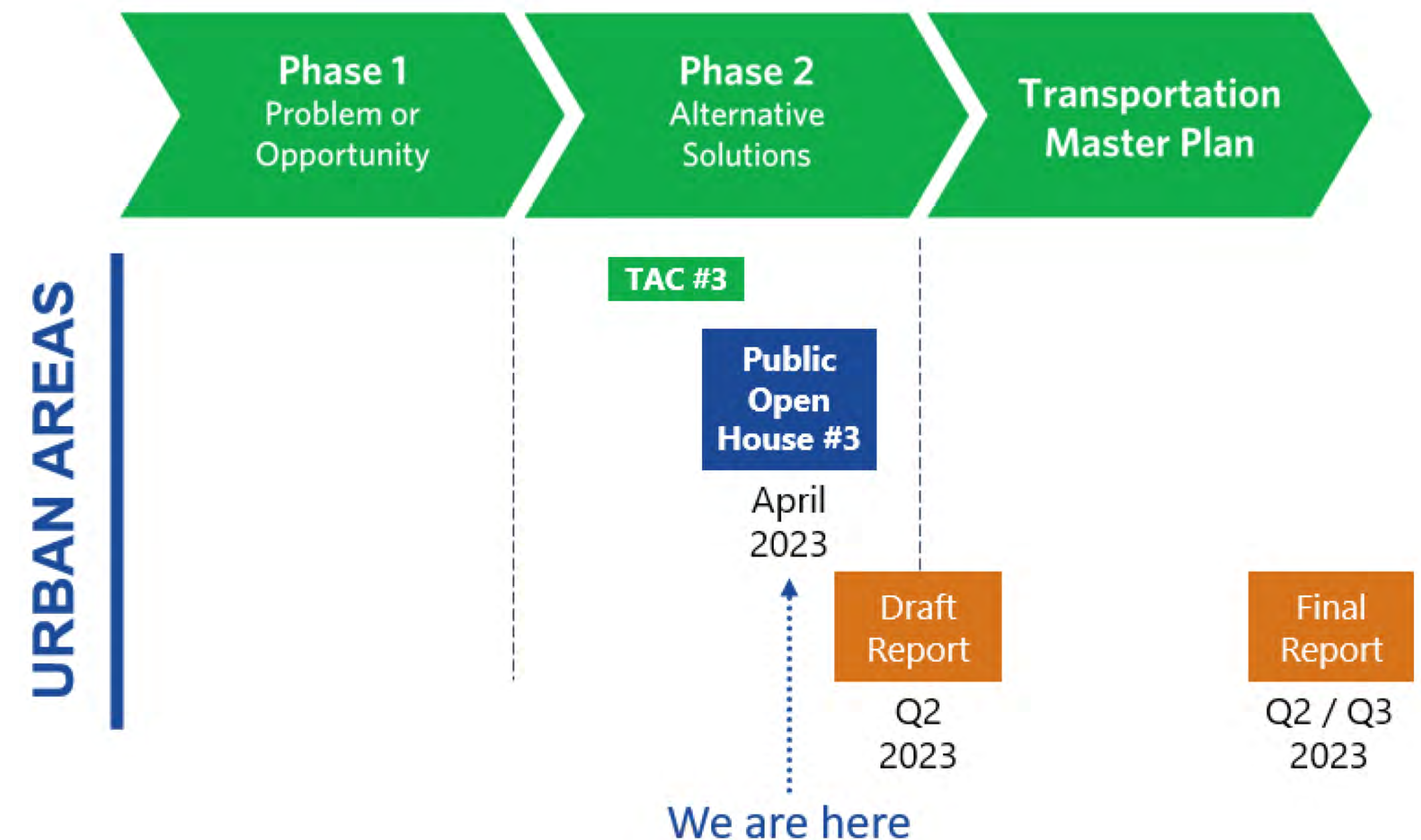
Please share your thoughts or opinions about the East Gwillimbury Transportation Master Plan by contacting our project team:

Jonathan Chai, P.Eng.
Consultant Project Manager
HDR Corporation
100 York Boulevard, Suite 300
Richmond Hill, ON L4B 1J8
Phone: 289-695-4629
Email: jonathan.chai@hdrinc.com

Jamal Massadeh, P.Eng.
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Phone: 905-478-4283 ext. 1224
Email: jmassadeh@eastgwillimbury.ca

Denny S. Boskovski, C.E.T.
Asset Management and Capital Project
Manager
Town of East Gwillimbury
19000 Leslie Street
Sharon, ON L0G 1V0
Phone: 905-478-4283 ext. 3818
Email: dboskovski@eastgwillimbury.ca

Study Schedule





First Name	Last Name	Address / Community	Email

[illegible][illegible]

Notice of Study Completion
April 10, 2024



NOTICE OF MASTER PLAN
TOWN OF EAST GWILLIMBURY TRANSPORTATION MASTER PLAN

This Notice of Master Plan is being issued to ensure administrative compliance and to provide all relevant parties with a status of the work that is being undertaken. The Town of East Gwillimbury previously initiated a Transportation Master Plan (TMP) Study in 2017 to provide a sustainable blueprint for the planned growth and transportation needs until 2041 and to serve as an update of the 2010 TMP by building upon sustainable transportation policies and plans developed by York Region and the Province of Ontario.

In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections until 2051. The TMP was updated to address the transportation needs to 2051 while accounting for a new study context including updated transportation policies and plans by York Region and the Province of Ontario.

The Town is committed to managing growth in a responsible manner, planning for the safe, efficient, and reliable movement of people and goods, and ultimately achieving the Town's vision for safe, accessible, and liveable communities. With these goals in mind, the TMP update will guide the development of the Town's long-term, multi-modal transportation network, define policies, programs, and infrastructure required to meet the Town's mobility needs, and provide context for transportation decisions.

THE PROCESS

This Study followed the Municipal Engineers Association Municipal Class Environmental Assessment (October 2000, as amended in 2007 and 2011, 2015, and 2023) master planning process, which included consultation with the public and relevant parties, consideration of all reasonable alternatives, a high level assessment of environmental impacts at the network level, evaluation of alternatives highlighting advantages and disadvantages, and full documentation of the process including explanations for conclusions reached. The Master Plan process addresses Phase I and II of the Municipal Class EA for recommended transportation infrastructure improvements, while further Study will be required for Schedule B and Schedule C projects.

The East Gwillimbury TMP Final Report will be available online from **April 10 to May 10, 2024** for review for 30 calendar days at www.eastgwillimbury.ca/TMP. Hardcopies are also available for review at:

Town of East Gwillimbury Civic Centre
19000 Leslie Street
Sharon, Ontario L0G 1V0
Monday to Friday
8:30 a.m. to 4:30 p.m.

Interested persons may provide written comments to the project team by May 10, 2024. All comments and concerns should be sent to:

Jamal Massadeh, P. Eng.
Senior Traffic and Transportation Technologist
Town of East Gwillimbury
19000 Leslie Street
Sharon, Ontario L0G 1V0
Tel: 905-478-4283 ext. 1224
Email: jmassadeh@eastgwillimbury.ca

Jonathan Chai, P. Eng.
Consultant Project Manager
HDR Corporation
100 York Boulevard, Suite 300
Richmond Hill ON L4B 1J8
Phone: 289-695-4629
Email: jonathan.chai@hdrinc.com

Information is being collected under the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record. This Notice was issued on April 10, 2024.

Indigenous Correspondence

From: Gandhi, Meeta
Sent: Tuesday, February 14, 2023 4:20 PM
To: Alicia Trivett
Cc: Wrzala, Ray; Hanna, Laura
Subject: Water/Wastewater Master Plan and Transportation Master Plan Updates

Hi Alicia

I hope all is well. I recently moved into an acting HR Director role with the Town of East Gwillimbury – but will continue to support Equity, Diversity, and Inclusion initiatives for the Town. Thankfully, this includes the work we do with the Chippewas of Georgina Island.

In keeping with the approach we established last year, I have the following request for input.

Background: The Town of East Gwillimbury (EG) previously initiated a Water and Wastewater Master Plan (W/WWMP) Study, as well as a Transportation Master Plan (TMP) Study, both in 2017. These master plans serve to provide a sustainable blueprint for the planned growth and infrastructure needs to the 2041 horizon year. In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections to the 2051 horizon year. Consequently, the master plans are being further updated to address these latest growth plan projections and are being prepared in accordance with the requirements of the Municipal Class Environment Assessment (Class EA) process (October 2000, as amended in 2007, 2011 and 2015). These will be addressing Phase 1 – Problem or Opportunity, and Phase 2 – Alternative Solutions of the Municipal Engineers Association (MEA) Class EA process. This notice of commencement is being issued to ensure administrative compliance and also to provide all stakeholders with a status of the work that is being undertaken.

Ask: We are notifying the community including Members of the Chippewas of Georgina Island, about the W/WWMP and TMP updates that are underway. Town staff and the consulting teams are available for any discussions or questions you may have at this stage of the process.

Further details about the Master Plans are available on the EG website: [Water and Wastewater Master Plan - The Town of East Gwillimbury](#) and [Transportation Master Plan - The Town of East Gwillimbury](#)

Please let me know if you require any further information or clarification.

Thank you.

Meeta

Meeta Gandhi
A/Director of Human Resources
Town of East Gwillimbury
19000 Leslie Street
647-405-0121
mgandhi@eastgwillimbury.ca

Subject:

FW: Public Information Centre - Wednesday, April 26 from 5 to 8 p.m.

From: Gandhi, Meeta <MGandhi@eastgwillimbury.ca>

Sent: April 24, 2023 8:59 AM

To: Alicia Trivett <alicia.trivett@georginaisland.com>

Cc: Wrzala, Ray <rwrzala@eastgwillimbury.ca>

Subject: Public Information Centre - Wednesday, April 26 from 5 to 8 p.m.

Hi Alicia

I hope all is well...below is some information regarding an upcoming Public Information Centre.

Background:

In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections until 2051.

As a result of the new growth projections, the Water and Wastewater and Transportation Master Plans, which were initiated in 2017, are being further updated in accordance with the requirements of the Municipal Class Environment Assessment (Class EA) process (October 2000, as emended in 2007, 2011, 2015 and 2023). These master plans provide a blueprint for the planned growth and infrastructure needs to 2041.

These master plans will be addressing Phase 1 – The Problem or Opportunity, and Phase 2 – Alternative Solutions of the Municipal Engineers Association (MEA) Class EA process. We will be hosting the third and final Public Information Centre (PIC) to inform the community about the process, proposed alternatives and recommended solutions. Once the Study is complete, the Master Plan will be filed for public review.

Ask: We are notifying the community including Members of the Chippewas of Georgina Island, about the Water and Wastewater and Transportation Public Information Centre that is scheduled for Wednesday, April 26 from 5 to 8 p.m., at the East Gwillimbury Civic Centre, 19000 Leslie Street, Sharon. Town staff and the consulting teams will be available during the interactive PIC for any discussions or questions. We welcome any discussions you may wish to have outside of the PIC event as well.

Further details about the Master Plans are available on the East Gwillimbury website: [Water and Wastewater Master Plan - The Town of East Gwillimbury](#) and [Transportation Master Plan - The Town of East Gwillimbury](#)

Please let me know if you have any questions.

Thank you.

Meeta

Meeta Gandhi
A/Director of Human Resources
Town of East Gwillimbury
19000 Leslie Street
647-405-0121
mgandhi@eastgwillimbury.ca

Subject:

FW: East Gwillimbury Transportation and Water/Wastewater Master Plans

From: Gandhi, Meeta**Sent:** April 12, 2024 2:47 PM**To:** Alicia Trivett <alicia.trivett@georginaisland.com>**Cc:** Malzaire, Danielle <dmalzaire@eastgwillimbury.ca>; Arsenault, Kevin <karsenault@eastgwillimbury.ca>; Joseph Goode <joseph.goode@georginaisland.com>; Alyssa Warren <alyssa.warren@georginaisland.com>; Ross, Cristina <CRoss@eastgwillimbury.ca>**Subject:** East Gwillimbury Transportation and Water/Wastewater Master Plans

Aaniin Alicia,

I hope all is well. I believe we have a call next week to talk about the Yonge Street Revitalization project. I look forward to that discussion.

In addition to that project, we are seeking input on the Town's Transportation and Water/Wastewater Masterplans. Would you be able to share the information below? I would appreciate it if you could kindly confirm receipt of this email and let me know if there are plans to provide comments.

I'm copying Alyssa and Joseph as I had the pleasure of meeting them at the Wild Rice Workshop last week with my colleague, Criss Ross (also copied). I'm increasingly appreciating the interconnectedness of these efforts and I want to make sure that I'm engaging as many people as possible.

Background:

In 2019, the Town initiated an Official Plan Review, which included a land needs assessment to accommodate land use growth projections until 2051.

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Sharon, Ontario L0G 1V0
Monday to Friday
8:30 a.m. to 4:30 p.m.

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Please let me know if you have any questions.

Miigwetch,

Meeta



Meeta Gandhi (she/her)

General Manager, Corporate Services

Town of East Gwillimbury

19000 Leslie Street, Sharon, Ontario L0G 1V0

647-405-0121

mgandhi@eastgwillimbury.ca

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Subject:

FW: East Gwillimbury Transportation and Water/Wastewater Master Plans

From: Joseph Goode <joseph.goode@georginaisland.com>**Sent:** April 16, 2024 2:32 PM**To:** Gandhi, Meeta <MGandhi@eastgwillimbury.ca>; Alicia Trivett <alicia.trivett@georginaisland.com>**Cc:** Malzaire, Danielle <dmalzaire@eastgwillimbury.ca>; Arsenault, Kevin <karsenault@eastgwillimbury.ca>; Alyssa Warren <alyssa.warren@georginaisland.com>; Ross, Cristina <CRoss@eastgwillimbury.ca>**Subject:** Re: East Gwillimbury Transportation and Water/Wastewater Master Plans

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Thanks @Gandhi, Meeta. I will discuss with the team about next steps, for my involvement.

From: Gandhi, Meeta <MGandhi@eastgwillimbury.ca>**Sent:** Friday, April 12, 2024 2:46 PM**To:** Alicia Trivett <alicia.trivett@georginaisland.com>**Cc:** Malzaire, Danielle <dmalzaire@eastgwillimbury.ca>; Arsenault, Kevin <karsenault@eastgwillimbury.ca>; Joseph Goode <joseph.goode@georginaisland.com>; Alyssa Warren <alyssa.warren@georginaisland.com>; Ross, Cristina <CRoss@eastgwillimbury.ca>**Subject:** East Gwillimbury Transportation and Water/Wastewater Master Plans

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Public and stakeholder Consultation Comments

	LEGEND
A	No action needed: Agree, will comply / revise or response provided
B	Discussion or clarification required
C	Disagree. Response provided

Comment #	Page Reference	Commentor	Comment	Category	Response
1	Pg. xvii	Metrolinx	(Improving Connectivity to East Gwillimbury GO) –Can you confirm where the access numbers listed are from? It's listed that 89% of trips to the GO Rail station are by Drive and Park, 1% are by transit, and no walking or cycling trips were recorded. This does not match our internal information.	A	Acknowledged. The access number were based on the 2016 GO Rail Station Access Plan as this part of the report was completed in 2018. The numbers will be revised in a future TMP update.
2	Pg. 16	Metrolinx	(Active Transportation) – After seeing the active transportation maps included in this TMP, we agree that there are several gaps in the active transportation network, especially on Regional roads connecting residential communities to the GO Rail station. This is something that should be remedied with collaboration between MX, the Region, and the Township in the future as it currently hinders walking and cycling as a <u>mode split to the station</u> .	A	Acknowledged.
3	Pg. 25	Metrolinx	(s. 5.1.1 – Projected Population and Employment Growth & Figure 5-1) – This section identifies 70% and 100% whitebelt development to support expected population growth but does not mention the strategy on the 'Existing Urban Area' which happens to surround the GO Rail station. Are there also plans to continue to build up and densify this area? What are the MTSA plans for the area around the station?	A	Acknowledged. The TMP is based on York Region policy forecasts provided in January 2022 – which we understand to generally incorporate intensification around MTSA's in alignment with provincial policies. In double checking some of the detailed numbers we see significant growth (approximately 12,000 population) in one of the traffic zones adjacent to the GO station.
4	Pg. 28	Metrolinx	(s. 5.2.1 - Travel Demand) – The TMP update references the 2016 Transportation Tomorrow Survey, but we believe there are more recent results available from 2022 or 2023? We recommend updating with newer results. Seeing in s. 5.4 that at the time of writing only 2016 TTS survey data was available. One question remains though, has this changed? It might make sense to wait another couple of months to update wit 2023 data as opposed to publishing with 8-year-old numbers that are likely <u>inaccurate in a post-pandemic world</u> .	A	Acknowledged. We agree, and will reflect updated demand patterns in a future TMP update. Note that 2023 TTS is not yet released, to our knowledge.
5	Pg. 48	Metrolinx	(s. 5.4.2 – Active Transportation Hotspots) – Although Strava is a useful tool to measure cycling activity, there are drawbacks. This app is used primarily by avid cyclists and also sways results to a certain socio-economic profile. In the future it might be useful to explore alternative ways of measuring cycling routes and numbers such as using cycle counters, <u>especially route routes that serve transit / GO</u> .	A	Acknowledged. We agree and will identify for consideration in scoping the Town's future TMP update. We do not recommend any changes for this TMP.
6	Pg. 56	Metrolinx	(s. 5.5.1; Figure 5-20; Tables 5.3 – 5.5) – We noticed that the data and visuals used here are outdated. If you would like, Metrolinx can provide the 2019 Rail Passenger Survey numbers which are the most recent we currently have. This includes a similar map to the one in Figure 5-20 showing the <u>Origin of riders to EG GO</u> .	A	Acknowledged. We appreciate the offer; however, we suggest revising the data in a future TMP update.
7		Town resident	The resident inquired about the Silk Twist Drive extension from Murrell Blvd to Sharon East Employment Collector (ID R-A25). What it may look like? Noise barriers and how far it might be from May Avenue.	A	Based on the TMP's recommended road projects in Sharon, this road is proposed to be a major collector and time of construction is 2025-2031. It is approx. 230-240 m north of May Avenue.
8		Town resident	Would like to see more comprehensive bike and walking trails in Mount Albert. Not urgent Town for these activities.	A	Acknowledged.
9		Town resident	1. Please get moving on the pedestrian walkway at the end of Oriole Drive to provide access to resources (Community centre, commercial shops, post office) on east side of Holland River. 2. Please do something about the traffic congestion at Bathurst St/Yonge St/Holland Landing Road. We cannot get off Oriole Drive some days on account of the traffic => which the 400-404 Bypass would eliminate.	A	Acknowledges. 1. The pedestrian bridge connecting Doane Road to Oriole Drive was built back in 2021. 2. The intersection of Bathurst/HWY 11/ Holland Landing Rd falls under the jurisdiction of York Region and they were notified of the resident's comments.
10		Town resident	East-west collector on xxxxx Yonge Street should be startling each lot line <u>equally not entirely on xxxxx Yonge Street as it is shown</u> .	A	Acknowledged. The EA for the east west collector is laready complete and the road alignment adoptec
11		Town resident	Alternative transportation routes through transit neibourhoods - through a pilot project such as Micro-Transit option in conjunction YRT or Metrolinx = <u>make easier to travelor short times</u> .	A	Acknowledged. The comments was shared with YRT for their consideration.



Transportation Master Plan Update

Appendix B – Analysis of Planning Strategies

Town of East Gwillimbury
Final Report



Contents

Analysis of Planning Strategies	1
1 Planning Strategies	1
2 Components of the TMP Scenarios.....	2
2.1 Road Network	2
2.1.1 Scenario 1: Base Case	2
2.1.2 Scenario 2: Currently Planned Town Network.....	3
2.1.3 Scenario 3: Revised Town Network	3
2.1.4 Scenario 4: Enhanced Town Network	4
2.1.5 Road Network Modifications	6
2.2 Cycling Network.....	8
2.2.1 Scenario 1: Base Case	8
2.2.2 Scenario 2: Currently Planned Town Network.....	9
2.2.3 Scenario 3: Revised Town Network	9
2.2.4 Scenario 4: Enhanced Town Network	9
2.3 Transit Network, Planning Strategies, and Policy Development	11
2.3.1 Scenario 1: Base Case	11
2.3.2 Scenario 2: Currently Planned Town Network.....	11
2.3.3 Scenario 3: Revised Town Network	11
2.3.4 Scenario 4: Enhanced Town Network	11
3 Vehicular Level of Service (LOS)	14
3.1 Scenario 1: Base Case	14
3.2 Scenario 2: Currently Planned Town Network.....	15
3.3 Scenario 3: Revised Town Network	16
4 Evaluation of the Planning Strategies.....	18
4.1 Evaluation Criteria.....	18
4.2 Evaluation of the Scenarios	19

Tables

Table 1: Planning Strategies	1
Table 2. Evaluation Criteria and Measures.....	19
Table 3. Summary Evaluation of Scenarios.....	20

Figures

Figure 1: 2041 Scenario Planning Strategies Road Network	5
Figure 2: 2041 Scenario Planning Strategies Cycling Network.....	10
Figure 3: 2041 Scenario Planning Strategies Transit Network, Planning Strategies, and Policy Development.....	13
Figure 4. 2041 Scenario 1 Base Case Model Output - Peak Hour Traffic Conditions	15
Figure 5. 2041 Scenario 2 Currently Planned Town Network Model Output - Peak Hour Traffic Conditions.....	16
Figure 6. 2041 Scenario 3 Enhanced Town Network Model Output - Peak Hour Traffic Conditions.....	17
Figure 7. Evaluation Criteria.....	18

Attachment

Attachment 1: Whitebelt Model Development and Network Recommendations Technical Memo

Analysis of Planning Strategies

Planning strategies for the transportation network were developed and evaluated for the 2041 horizon. Principles of the preferred scenario were carried forward for the overall development of the transportation network required to support land use growth in the Whitebelt areas to the 2051.

The detailed model development for the Whitebelt areas is provided in **Attachment 1**, respectively. It is noted that some recommendations in the attachments have been revised. The contents in the final report, Appendix C and Appendix D should be followed for the final recommendations.

1 Planning Strategies

Phase 2 of the Municipal Class Environmental Assessment (EA) process requires documentation and examination of scenarios which address the problems and opportunities identified in **Section 5.6**. Four planning scenarios were identified for the Town and are summarized in **Table 1**.

Table 1: Planning Strategies

No.	Scenario	Description	Goal
1	Base Case	Committed road improvements by: • Ministry of Transportation (MTO); • York Region; and • 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: New connections; and Road improvements.	Confirm the desire to invest in new road infrastructure.
4	Enhanced Town Network	Further to Scenario 3, Implement cycling facilities on all new road improvements; Implement cycling facilities on existing roadways; and 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.

2 Components of the TMP Scenarios

2.1 Road Network

The road networks for the planning strategies are detailed in this section. As part of the problem and opportunity statement, this study aims to provide new road linkages throughout the Town. New road linkages improve connectivity within the Town and will provide direct access between the communities.

The generation of scenarios allows for a high-level consideration of the transportation network, which are then refined in as part of the Preferred Scenario. The road network for the 2041 scenarios is shown in **Figure 1**.

2.1.1 Scenario 1: Base Case

Scenario 1 represents the 2041 base case network for the Town of East Gwillimbury. This includes committed projects from Capital Plans, Development Charge (DC) studies, Secondary Plans, and approved subdivisions. This scenario will confirm the need for the Town to make its own investments in transportation infrastructure.

York Region's 2018 10-Year Roads and Transit Capital Construction Program (December 2017) identifies only one improvement in East Gwillimbury: the widening of Yonge Street to six lanes from Green Lane West, south into the Town of Newmarket to Davis Drive.

Based on the 2018 DC Study, York Region recommends several road improvements to the Town of East Gwillimbury. This includes:

- a. Widening of Doane Road from 2 to 4 lanes between Yonge Street and Woodbine Avenue (Regional Road). This widening will also include intersection improvements of Doane Road and Leslie Street;
- b. An interchange at Highway 404 and Doane Road;
- c. Widening of Green Lane West from 4 to 6 lanes between Yonge Street and Highway 404 (Regional Road), including a grade separation at the Barrie GO Rail Corridor;
- d. Widening of Leslie Street from 2 to 4 lanes between Queensville Sideroad and Doane Road (Regional Road); and
- e. Widening of Leslie Street from 2 to 4 lanes between Colonel Wayling Boulevard and Green Lane East (Regional Road).

Through approved subdivision plans, several collector roads are planned throughout the communities of the Town. This includes:

- f. Planned collector roads in the approved subdivision in Holland Landing;
- g. Planned collector roads in the approved subdivision in Queensville;
- h. Planned collector roads in the approved subdivision in Sharon;
- i. Planned collector roads in the approved subdivision in the Green Lane Secondary Plan; and
- j. A four lane east-west collector network from Bathurst Street to Green Lane, part of the Green Lane Secondary Plan.

2.1.2 Scenario 2: Currently Planned Town Network

Building upon the network in Scenario 1, Scenario 2 includes the proposed collector roads from the Town's 2010 Transportation Master Plan. This includes:

- k. North Queensville Ring Road between Queensville Sideroad and Mount Albert Road;
- l. Thompson Drive Extension (connecting between Queensville Sideroad and the existing Thompson Drive terminus to the north and from the current terminus to the Sharon East Employment Collector to the east);
- m. Murrell Boulevard Extension from Doane Road to Mount Albert Road;
- n. Sharon East Employment Collector from Doane Road to Mount Albert Road;
- o. East-West Collector midblock crossing of Highway 404;
- p. North-south collector from Queensville Sideroad to Evans Farm Boulevard.

Scenario 2 will confirm if the proposed collector roads are needed by the horizon year of 2041.

2.1.3 Scenario 3: Revised Town Network

Building upon Scenario 2 and following the recommendations from the previous section, Scenario 3 considers additional connections within the Town to build a complete and connected network. The improvements to the network include:

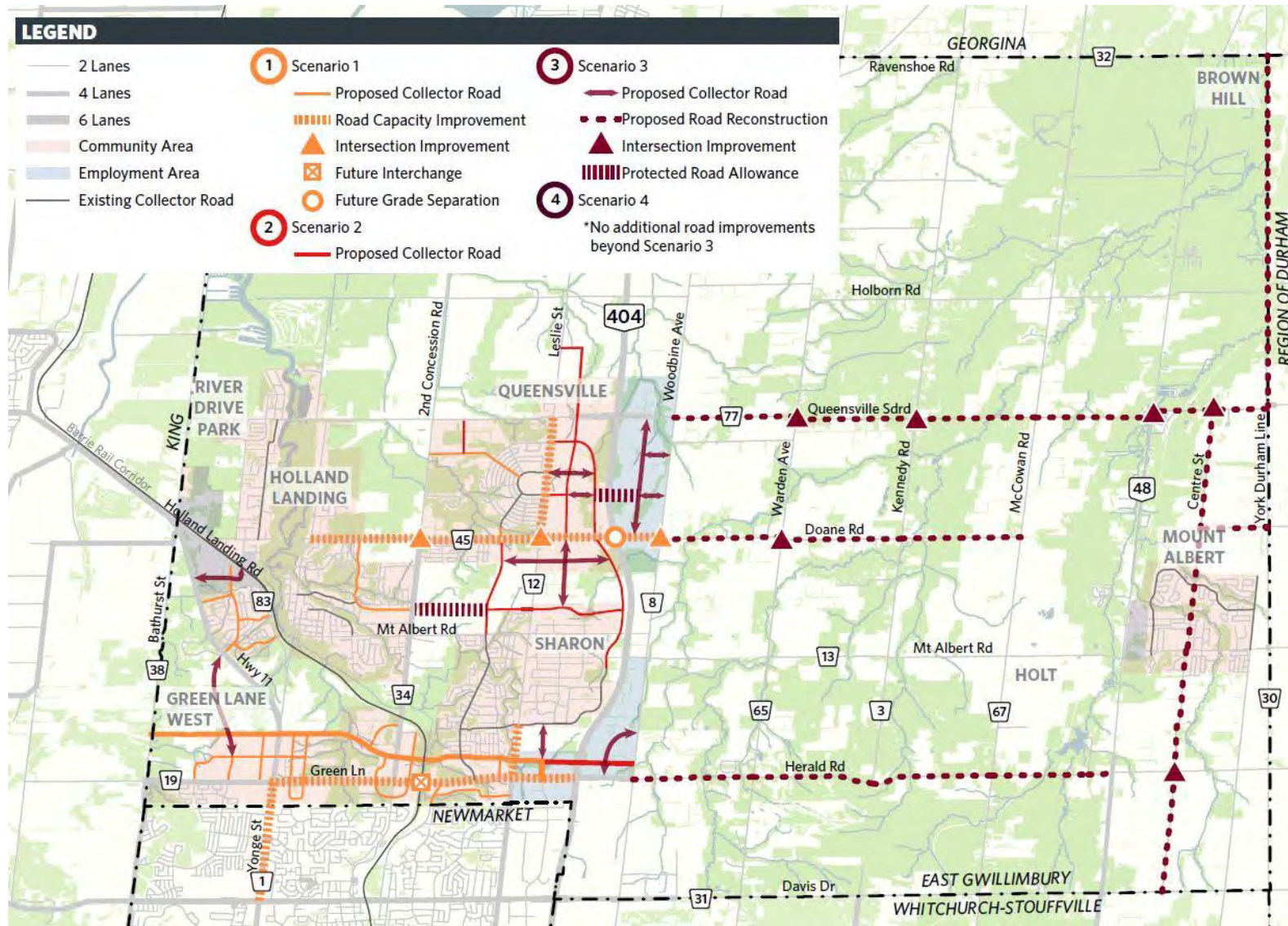
- a. A new north-south connection between Colonel Wayling Boulevard and the Harry Walker Parkway Extension;

- b. A protected road allowance for a midblock crossing of Highway 404 between Queensville Sideroad and Doane Road;
- c. New north-south and east-west collector roads for the employment area bounded by Highway 404, Queensville Sideroad, Woodbine Avenue, and Doane Road;
- d. A north-south connection from Woodbine Avenue to Green Lane in the employment lands east of Highway 404 and south of Mount Albert Road;
- e. The extension of Dogwood Boulevard from Highway 11 to the East-West Collector in the Green Lane West community;
- f. The extension and at grade crossing of Centennial Avenue from Toll Road to Highway 11;
- g. New north-south collector to connect the communities of Queensville and Sharon;
- h. A new east-west collector to connect the Murrell Boulevard extension to the Sharon East Employment collector; and
- i. Reconstruction of the Town's rural roads to improve the road structure, pavement lifecycle, and eliminate jogged intersections to improve sightlines and reduce conflict points; and
- j. Two new east-west collector roads in the Queensville area connecting the Sharon East Employment collector to Leslie Street.

2.1.4 Scenario 4: Enhanced Town Network

There are no additional roadway components for Scenario 4.

Figure 1: 2041 Scenario Planning Strategies Road Network



2.1.5 Road Network Modifications

Based upon a comparison of the 2010 TMP recommended road improvements relative changes in the Town's future growth areas, some modifications to the 2010 TMP network are highlighted in the following subsections, and were applied to Scenario 3.

2.1.5.1.1 North Queensville Ring Road

In the 2010 TMP, the North Queensville Ring Road was proposed to improve access to the future Queensville employment lands. However, the Region's 45% intensification scenario does not identify much growth north of Queensville Sideroad. Most of this growth will be located in the block bounded by Queensville Sideroad, Leslie Street, Holborn Road, and Highway 404.

A traffic analysis shows that the North Queensville Ring Road would carry very little traffic west of Leslie Street, with two-way traffic volumes of 160 vehicles in the AM peak hour. East of Leslie Street, this increases to 670 vehicles. The analysis also shows that the collector road does not help address congestion along Queensville Sideroad, west of Leslie Street.

As the portion west of Leslie Street would have significant impact on whitebelt lands within the area, it is **recommended that the portion of the North Queensville Ring Road east of Leslie Street be carried forward**. This portion will provide access to the employment lands located in that area and will provide connectivity to the collector network south of Queensville Sideroad.

2.1.5.1.2 Silk Twist Drive Extension

The Silk Twist Drive Extension was designed to improve access to future employment lands in Holland Landing. It would also serve as an alternative to Doane Road and Mount Albert Road for local trips.

It is recommended that the Thompson Drive Extension design be altered such that the segment between 2nd Concession Road and Murrell Boulevard is not carried forward for the horizon year of 2041. This segment should be a protected road allowance and can instead serve as an active transportation connection. There are several indications why this segment should only be a protected road allowance:

- Does not serve any traffic as it is located outside of the urban boundary;
- Significantly impacts the Whitebelt lands; and

- Doane Road and Mount Albert do not experience congestion in this area.

However, by having this segment serve as an active transportation connection only, it will minimize the impact to the Whitebelt lands and improve connectivity to the community areas within the Town.

The other segments of the Thompson Drive Extension improve connectivity within the area as it connects to Murrell Boulevard and the Sharon East Employment Collector.

2.1.5.1.3 Murrell Boulevard Extension

The Murrell Boulevard Extension would continue from its existing terminus at Mount Albert Road and continue north to Doane Road, connecting the West Sharon and Queensville communities. It also provides a north-south alternative to Leslie Street.

The proposed Murrell Boulevard Extension is recommended as the analysis shows that the extension carries over 500 vehicles in the AM peak hour. It would provide connectivity between community areas within the Town and adds needed capacity to the road network.

2.1.5.1.4 Sharon East Employment Collector

The Sharon East Employment Collector was designed to provide access to the Highway 404 residential and employment lands in Queensville and Sharon. The road also provides north-south capacity to the Town's collector network.

The proposed employment collector is recommended as it improves connectivity within the Town and connects employment to residential areas. It also helps alleviate congestion on Leslie Street.

2.1.5.1.5 Highway 404 Midblock Crossing

The Highway 404 midblock crossing was designed as an extension of the committed East-West Collector from the Green Lane Secondary Plan. It is meant to act as an alternative to Green Lane and was designed to improve connectivity to the employment lands east of Highway 404.

The Highway 404 midblock crossing is recommended as it helps alleviate congestion from Green Lane and Woodbine Avenue and provides access to the employment lands.

2.2 Cycling Network

The cycling network for the planning strategies is detailed in this section. In order to promote cycling, there is a need to provide cycling infrastructure throughout the Town.

The cycling network for the 2041 scenarios is shown in **Figure 2**.

2.2.1 Scenario 1: Base Case

The proposed 2041 cycling network for the Town builds upon the existing cycling network and York Region's 2016 TMP, which includes proposed cycling facilities on Regional Roads.

The Region's 2016 TMP includes cycling facilities along:

- a. Doane Road from Yonge Street to Woodbine Avenue;
- b. Mount Albert Road from Yonge Street to Leslie Street and from Woodbine Avenue to King Street;
- c. 2nd Concession Road from Queensville Sideroad to Doane Road;
- d. Leslie Street from Mount Albert Road to Green Lane East;
- e. Yonge Street from Olive Street / Beckett Avenue to Highway 11;
- f. Green Lane from Woodspring Avenue to Woodbine Avenue;
- g. Davis Drive from Warden Avenue to York Durham Line; and
- h. Holland Landing Road from Bathurst Street to Oriole Drive.

The Region's TMP also recommends cycling facilities throughout the Town along:

- i. Ravenshoe Road;
- j. Bathurst Street;
- k. Highway 11;
- l. Warden Avenue;
- m. Kenney Road;
- n. McCowan Road; and
- o. York Durham Line.

Cycling facilities are also proposed on the following Town roads:

- p. Murrell Boulevard from Mount Albert Road to Green Lane; and
- q. East-west collector, identified in the Green Lane Secondary Plan, from Bathurst Street to Leslie Street.

2.2.2 Scenario 2: Currently Planned Town Network

Scenario 2 builds on the cycling infrastructure in Scenario 1 by including cycling infrastructure on the future collector roads in approved subdivisions. This includes:

Through approved subdivision plans, several collector roads are planned throughout the communities of the Town. This includes:

- r. Planned collectors roads in the approved subdivision in Queensville;
- s. Planned collector roads in the approved subdivision in the Green Lane Secondary Plan; and
- t. The Highway 404 midblock crossing between Mount Albert Road and Green lane.

2.2.3 Scenario 3: Revised Town Network

With the recommended reconstruction of several roads in Scenario 3, it is also recommended that these roads include cycling facilities. This includes:

- u. Queensville Sideroad from Woodbine Avenue to Centre Street;
- v. Doane Road from Woodbine Avenue to McCowan Road;
- w. Herald Road from Woodbine Avenue to York Durham Line; and
- x. Centre Street from Queensville Sideroad to Davis Drive.

2.2.4 Scenario 4: Enhanced Town Network

Scenario 4 builds upon Scenario 3 and aims to reduce the vehicular demand and increase the cycling demand. For the cycling network, this scenario aims to:

- **Complete the on-street cycling network** by incorporating safe cycling facilities on all new collector or arterial roads and retrofitting existing collector or arterial roads.

LEGEND

- 2 Lanes
- 4 Lanes
- 6 Lanes
- Community Area
- Employment Area
- Existing Collector Road
- Existing Trails
- Proposed Trails
- Existing Cycling Facility
- Local Centre
- Major Local Centre
- Scenario 1
- Scenario 2
- Scenario 3
- Scenario 4
- Future Cycling Facility
- Proposed Cycling Facility
- Proposed Cycling Facility
- Proposed Cycling Facility

The map displays the Greater Toronto Area with various roads and cycling facilities. Key roads include Hwy 404, Hwy 48, Hwy 30, Hwy 19, Hwy 12, Hwy 8, Hwy 3, Hwy 65, Hwy 67, Hwy 31, Hwy 32, Hwy 34, Hwy 38, Hwy 77, Hwy 83, Hwy 85, Hwy 86, Hwy 87, Hwy 88, Hwy 89, Hwy 90, Hwy 91, Hwy 92, Hwy 93, Hwy 94, Hwy 95, Hwy 96, Hwy 97, Hwy 98, Hwy 99, Hwy 100, Hwy 101, Hwy 102, Hwy 103, Hwy 104, Hwy 105, Hwy 106, Hwy 107, Hwy 108, Hwy 109, Hwy 110, Hwy 111, Hwy 112, Hwy 113, Hwy 114, Hwy 115, Hwy 116, Hwy 117, Hwy 118, Hwy 119, Hwy 120, Hwy 121, Hwy 122, Hwy 123, Hwy 124, Hwy 125, Hwy 126, Hwy 127, Hwy 128, Hwy 129, Hwy 130, Hwy 131, Hwy 132, Hwy 133, Hwy 134, Hwy 135, Hwy 136, Hwy 137, Hwy 138, Hwy 139, Hwy 140, Hwy 141, Hwy 142, Hwy 143, Hwy 144, Hwy 145, Hwy 146, Hwy 147, Hwy 148, Hwy 149, Hwy 150, Hwy 151, Hwy 152, Hwy 153, Hwy 154, Hwy 155, Hwy 156, Hwy 157, Hwy 158, Hwy 159, Hwy 160, Hwy 161, Hwy 162, Hwy 163, Hwy 164, Hwy 165, Hwy 166, Hwy 167, Hwy 168, Hwy 169, Hwy 170, Hwy 171, Hwy 172, Hwy 173, Hwy 174, Hwy 175, Hwy 176, Hwy 177, Hwy 178, Hwy 179, Hwy 180, Hwy 181, Hwy 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2.3 Transit Network, Planning Strategies, and Policy Development

The transit network, planning strategies, and policy development are specific features identified in Scenario 4. It is detailed in this section and illustrated in **Figure 3**.

2.3.1 Scenario 1: Base Case

The 2016 York TMP identifies future Frequent Transit Network, or FTN service (15 minute frequencies or less, 7 days per week from 6am to 10pm) within East Gwillimbury along 2nd Concession, Leslie Street, Queensville Sideroad and Green Lane. Dedicated Rapidways are also envisioned along Green Lane between Yonge Street and the East Gwillimbury GO Station.

2.3.2 Scenario 2: Currently Planned Town Network

There are no specific components for this scenario.

2.3.3 Scenario 3: Revised Town Network

There are no specific components for this scenario.

2.3.4 Scenario 4: Enhanced Town Network

Scenario 4 aims to reduce the dependency on vehicles and increase the modal share of transit, cycling, and walking. This can be achieved by the following actions:

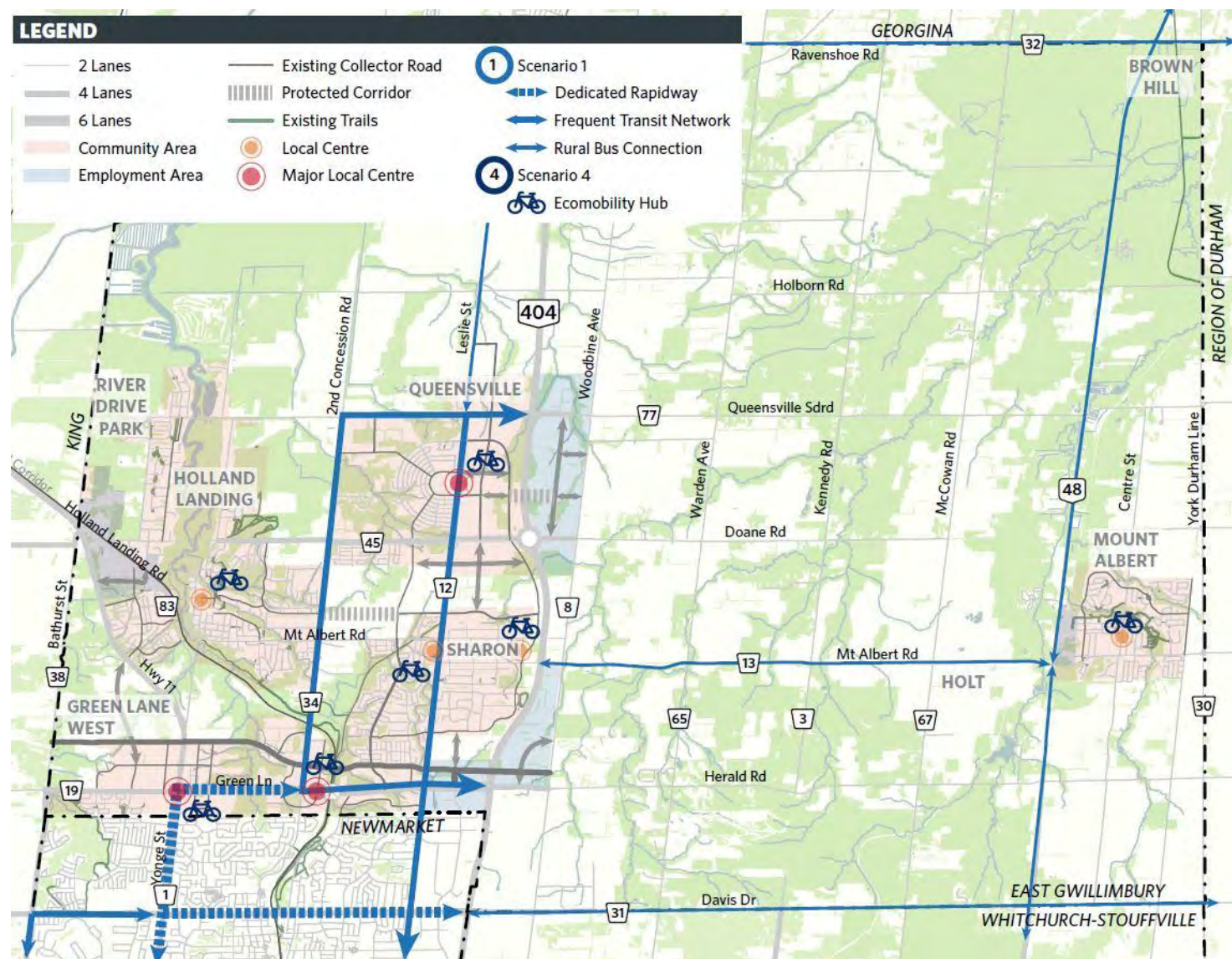
- **Complete the sidewalk network** within the urban areas of the Town where there are gaps, and implement a policy to implement more pedestrian crossings;
- **Complete the bicycle network**, building on the 2012 Active Transportation and Trails Master Plan, incorporate network of dedicated and separated cycling facilities into roadway improvements where feasible, including along collector roadways within new development areas.
- **Leverage shared mobility through EcoMobility hubs¹** which provide designated, safe, and comfortable waiting areas to find a car-share vehicle, bike-share rack, or wait for a ride-share. With several mobility models located in a designated area, the infrastructure has the potential to

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

address the “first and last mile” problem. The implementation of these hubs at major and local centres can facilitate demand responsive transit and bike share programs which are addressed in the following bullet points.

- **Bike-share programs** (traditional or “drop bike”) enable users to access and rent bicycles for short trips within a designated service area. These services rely on a series of fixed stations located across the designated service area for users to rent and return their bicycles. Users are able to retrieve a bicycle from one location and drop it off at any other available location in the network within a limited timeframe.
- **Sustainable Updates to the Town’s Zoning By-law** – updates to the by-law could include reducing the minimum parking standards, requiring Electric Vehicle (EV) charging stations, requiring bicycle parking areas, and carpool parking lots.
- **Improve Traffic Safety** – Develop policies for implementing complete street design philosophy (i.e. reduced travel lane width, curb radii, etc.), traffic calming and roundabouts to provide a consistent and rational approach to improving overall transportation safety across the Town
- **Advocate for and Support York Region’s Transit Plans.** YRT is also implementing on-demand transit service as a “first and last mile” solution between communities in the Town and the FTN.

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



3 Vehicular Level of Service (LOS)

The TMP planning strategies were modelled in the York Region EMME model to determine the impacts of the proposed TMP components of each scenario. This section details the vehicular level of service for each scenario.

3.1 Scenario 1: Base Case

The 2041 AM projected peak hour traffic conditions with the improvements from Scenario 1 are shown in **Figure 4**. Even with the improvements, the Town experiences significant congestion southbound on Bathurst Street, Yonge Street, 2nd Concession Road, Murrell Boulevard, and Leslie Street. There is also eastbound congestion on arterial roads that have an interchange with Highway 404, including Queensville Sideroad, Doane Road, and Green Lane.

Congestion within the Town is measured by the amount of vehicle-kilometers travelled (VKT) spent in congestion. VKT is calculated by multiplying the number of vehicle using a road segment by the length of the segment. Any road segment with a volume-to-capacity (v/c) ratio of over 1.0 is considered as congested. Scenario 1 has a total of 21,490 congested vehicle-kilometers travelled (VKT), which means that 16% of all VKT is spent in congestion².

² VKT is calculated for all roads based on the area bounded by Queensville Sideroad to the north, Woodbine Avenue to the east, Davis Drive to the south and east of Highway 404, Green Lane to the south and west of Highway 404, and Bathurst Street to the west. It does not include Highway 404.

Figure 4. 2041 Scenario 1 Base Case Model Output - Peak Hour Traffic Conditions



Source: York Region EMME Model

3.2 Scenario 2: Currently Planned Town Network

Figure 5 shows the 2041 traffic conditions for Scenario 2. When compared to Scenario 1, Scenario 2 results in a lower congested VKT of 17,850 kilometers. This translates to 13% of all roads being travelling in congestion. With the proposed improvements from the 2010 TMP which increases connectivity within the Town, the congested VKT decreases by 3%.

Figure 5. 2041 Scenario 2 Currently Planned Town Network Model Output - Peak Hour Traffic Conditions



Source: York Region EMME Model

3.3 Scenario 3: Revised Town Network

The proposed connections in the Town's collector network minimize the amount of congestion within the Town when compared to the previous scenarios. Scenario 3 results in 17,890 congested vehicle-kilometers travelled (VKT), which means that 13% of all VKT travelled is spent in congestion. This is similar to Scenario 2, however it is noted that Scenario 2 included infrastructure outside of growth areas which would not be well utilized. The proposed connections in Scenario 3 respond better to the location of anticipated growth and help improve travel between communities.

Figure 6 depicts the 2041 AM peak hour traffic conditions for Scenario 3.

Figure 6. 2041 Scenario 3 Enhanced Town Network Model Output - Peak Hour Traffic Conditions



Source: York Region EMME Model

4 Evaluation of the Planning Strategies

4.1 Evaluation Criteria

To determine the preferred scenario for the 2041 horizon, a detailed set of evaluation criteria and measurement were identified. This includes consideration for transportation services, social equity, policy environment, affordability, natural environment, and socio-economic environment (**Figure 7**).

Figure 7. Evaluation Criteria



Table 2 summarizes the detailed evaluation measures of each criterion that was used to assess each planning scenario.

Table 2. 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

4.2 Evaluation of the Scenarios

The four scenarios were evaluated based on the evaluation criteria and measures outlined in the above section. **Table 3** summarizes the evaluation of the scenarios.

Table 3. 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 1 is recommended to be screened out. Although it has the least impact on the natural environment, it has the largest impact on transportation service, social equity, and policy environment as it does not meet the objectives of this TMP. This scenario offers the least amount of connections within the Town, maximizing congestion on the road network and therefore does not support the planned growth or promote connectivity and multimodal opportunities within the network. While the scenario minimizes capital costs, it does not mitigate maintenance and operational costs due to high traffic volumes on poor road conditions.

Scenario 2 is recommended to be screened out. It provides additional capacity to the road network, however it does not significantly improve the

transportation service. Further improvements are also needed to support the growth objectives identified in the policy and the socio-economic environment.

Scenario 3 is recommended to be carried forward. This scenario provides strong transportation service due to additional connections in the network, promoting key connections to communities within the Town and minimizes congested VKT. It also provides increased access and opportunities for walking and cycling. While the financial implications are high, the benefits to this scenario are strong, meeting the objectives of this TMP.

Scenario 4 is also recommended to be carried forward. It further enhances the well connected network iwn Scenario 3 and provides increased access and opportunities for walking and cycling, while encouraging the use of transit. By building a multimodal network, this scenario aligns most closely with the policy environment and the objectives set out by this TMP. As Scenario 4 builds upon Scenario 3, it is recommended that Scenario 4 is the preferred scenario.

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.



Transportation Master Plan Update

Appendix B

Attachment 1 – Whitebelt Model Development and Network Recommendations Technical Memo

Town of East Gwillimbury
Final Report





Memo

Date: **Wednesday, January 04, 2023**

Project: East Gwillimbury 2051 TMP Update

To: Town of East Gwillimbury

From: HDR

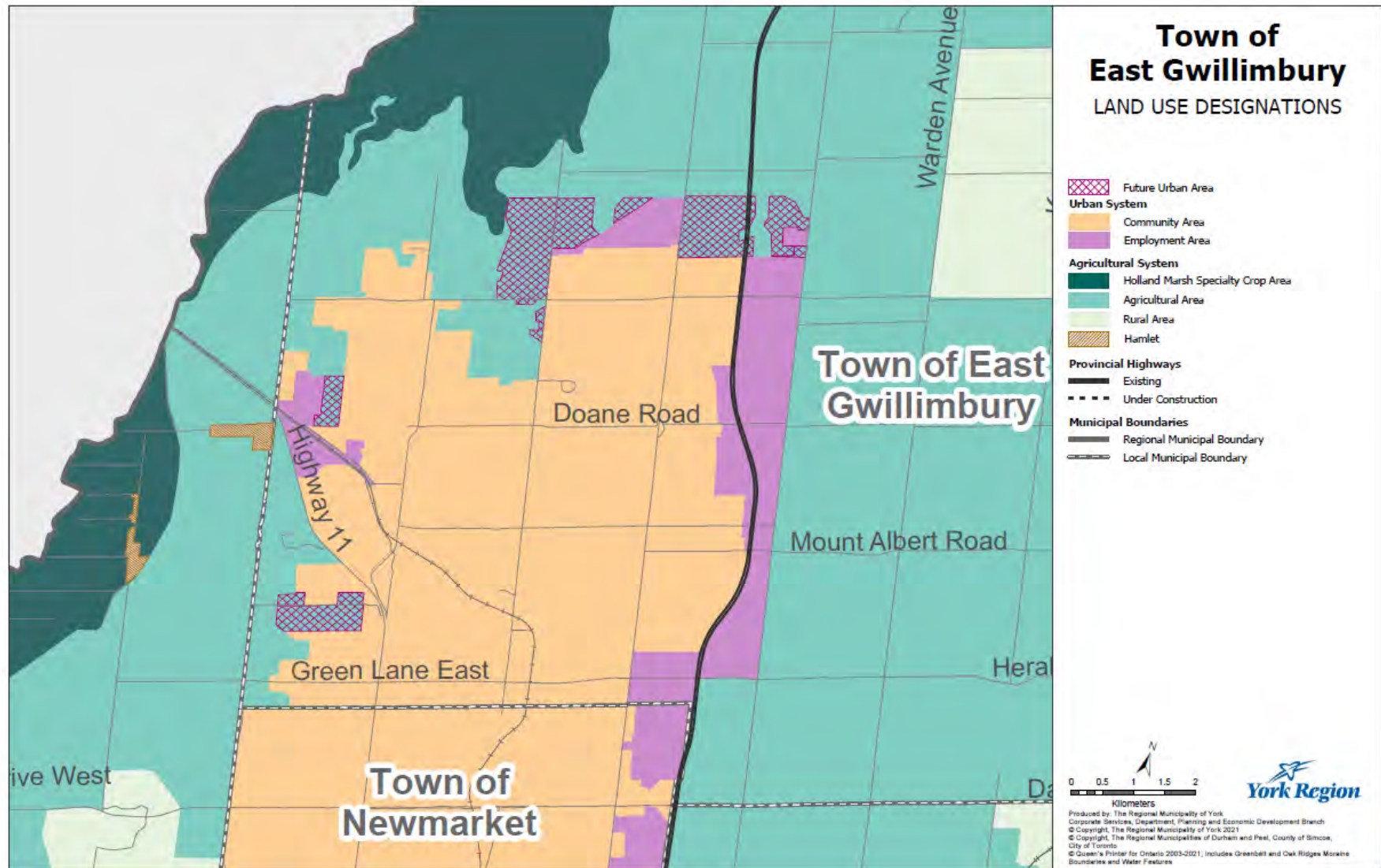
Subject: 2051 70% and 100% Whitebelt Scenario Subarea Model Development

1. Introduction

The Town of East Gwillimbury has initiated an Official Plan Review, which includes a land needs assessment to accommodate land use growth projections to the 2051 horizon year. HDR previously completed a Draft Transportation Master Plan for the Town in September 2019 (the “Draft 2041 TMP”) to identify transportation servicing and infrastructure needs to the 2041 horizon year. To address transportation needs to the 2051 horizon year, an update to the Draft 2041 TMP is required to update the preferred solution considering growth to the 2051 horizon year.

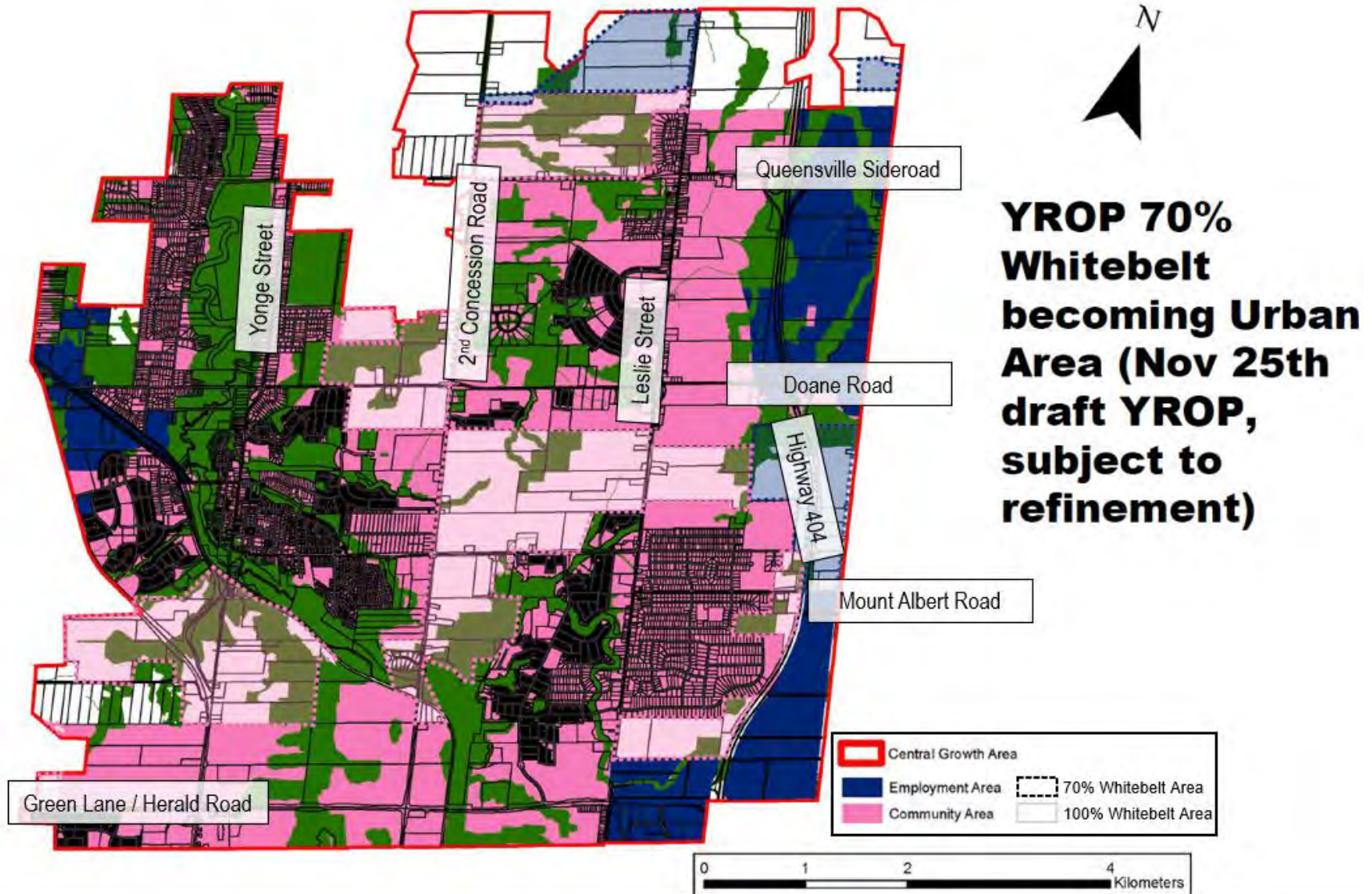
The expanded urban area proposed for 2051 development is shown in **Figure 1**, and is anticipated to be phased in two stages (‘70%’ and ‘100%’ development) as shown in **Figure 2**. This memo documents the model development process and transportation network recommendations for the 2051 70% and 100% development scenarios.

Figure 1. 2051 Future Land Use Designation



Note: Future Urban areas represent the 100% “Whitebelt Lands” referred to throughout this memo

Figure 2. 70% and 100% Whitebelt Land Development

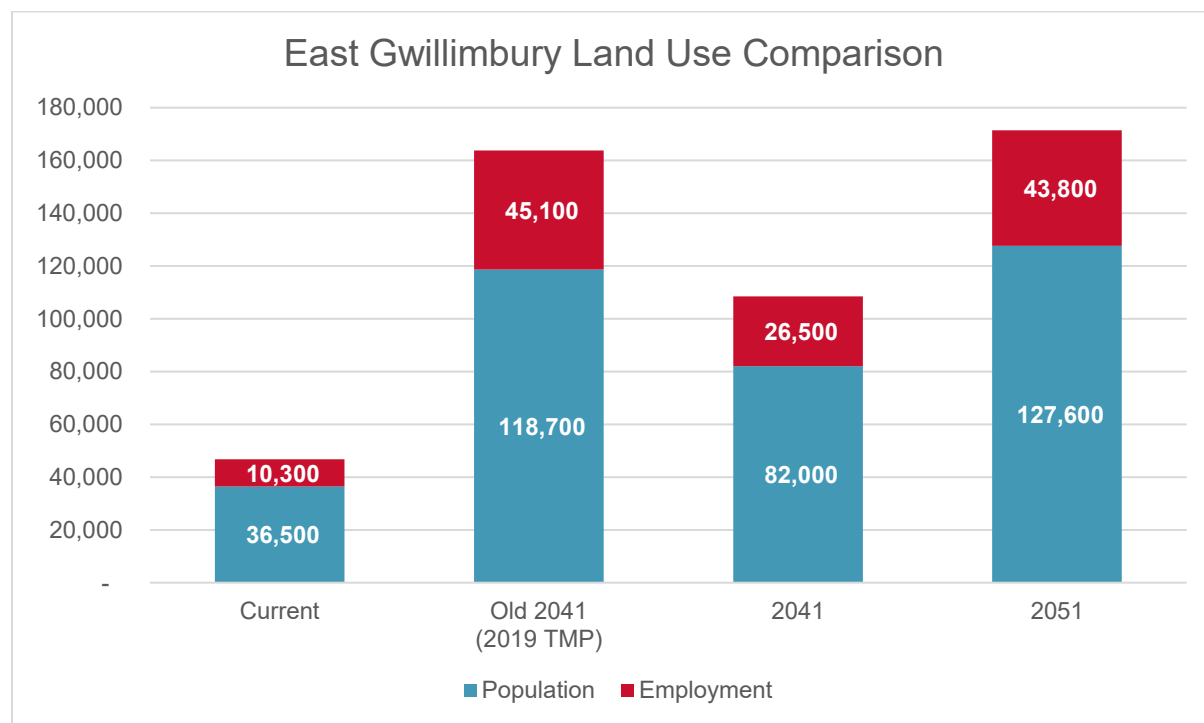


2. Land Use Forecasts

York Region Land Use Forecast

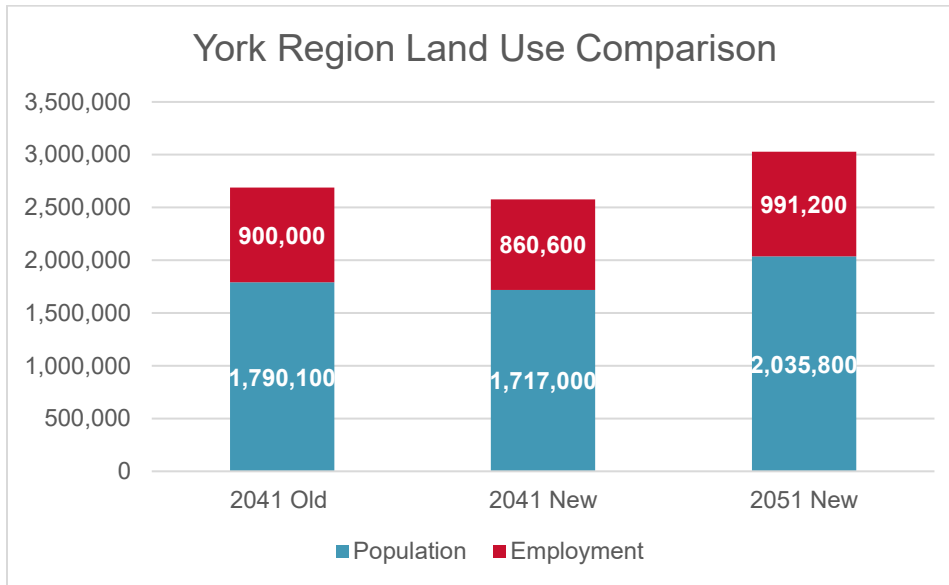
Land use forecasts (dated December 2021) for all lower-tier municipalities within York Region were provided and include updates to the 2041 horizon as well as new projections to the 2051 horizon¹. A comparison of old and new population and employment for East Gwillimbury and York Region (total) is shown in **Figure 3** and **Figure 4**, respectively. A comparison for all York Region municipalities old and new population, employment, and total population and employment forecasts are shown in **Table 1** to **Table 3**, respectively. It is noted 'old' forecasts refer to land use numbers used in the Draft 2041 TMP.

Figure 3. East Gwillimbury Land Use Comparison



¹ Provided by the Town. Council approved numbers from the Official Plan dated October 21, 2022

Figure 4. York Region Land Use Comparison



The new total forecast for all of York Region is approximately 4% lower than the forecasts previously considered in the Draft 2041 TMP; including a 33% reduction to East Gwillimbury . The new 2051 total forecasts for all of York Region project 13% growth from 2041 Old and 5% growth for East Gwillimbury, indicating that more of East Gwillimbury’s projected growth is now anticipated to occur between 2041 and 2051 which may have an impact on the recommended 2041 transportation network relative to the Draft 2041 TMP.

It is noted however that York Region’s forecasts are consistent with the 70% development scenario.

Table 1. Population Forecasts for York Region

Municipality	Population				
	2041 Old	2041 New*	2041 New* Comparison to 2041 Old	2051 New*	2051 New* Comparison to 2041 Old
Aurora	79,000	79,000	0%	84,700	7%
East Gwillimbury	118,700	83,500	-30%	127,600	7%
Georgina	71,300	65,000	-9%	70,100	-2%
King	37,900	42,300	12%	50,100	32%
Markham	535,100	498,100	-7%	608,800	14%
Newmarket	108,200	104,600	-3%	115,900	7%
Richmond Hill	277,900	284,600	2%	319,800	15%
Vaughan	497,400	487,500	-2%	570,600	15%
Whitchurch Stouffville	64,600	72,400	12%	88,200	37%
York Region (Total)	1,790,100	1,717,000	-4%	2,035,800	14%

*Note: New forecasts are based on York Region December 2021 numbers. Old forecasts refer to numbers used for the original September 2019 assessment for the 2041 horizon and TMP

Table 2. Employment Forecasts and Comparison for York Region

Municipality	Employment				
	2041 Old	2041 New*	2041 New* Comparison to 2041 Old	2051 New*	2051 New* Comparison to 2041 Old
Aurora	38,500	37,900	-2%	41,300	7%
East Gwillimbury	45,100	26,600	-41%	43,700	-3%
Georgina	24,500	17,100	-30%	20,700	-16%
King	16,000	14,000	-13%	16,400	2%
Markham	269,200	260,700	-3%	301,700	12%
Newmarket	52,400	54,600	4%	58,500	12%
Richmond Hill	109,800	109,400	0%	122,800	12%
Vaughan	321,500	314,600	-2%	351,600	9%
Whitchurch Stouffville	23,000	25,700	12%	34,500	50%
York Region (Total)	900,000	860,600	-4%	991,200	10%

*Note: New forecasts are based on York Region December 2021 numbers. Old forecasts refer to numbers used for the original September 2019 assessment for the 2041 horizon and TMP

Table 3. Total Population and Employment Forecast and Comparison for York Region

Municipality	Population + Employment				
	2041 Old	2041 New*	2041 New* Comparison to 2041 Old	2051 New*	2051 New* Comparison to 2041 Old
Aurora	117,500	116,900	-1%	126,000	7%
East Gwillimbury	163,800	110,100	-33%	171,300	5%
Georgina	95,800	82,100	-14%	90,800	-5%
King	54,000	56,300	4%	66,500	23%
Markham	804,300	758,800	-6%	910,500	13%
Newmarket	160,500	159,200	-1%	174,400	9%
Richmond Hill	387,800	394,000	2%	442,600	14%
Vaughan	818,900	802,100	-2%	922,200	13%
Whitchurch Stouffville	87,600	98,100	12%	122,700	40%
York Region (Total)	2,690,200	2,577,600	-4%	3,027,000	13%

*Note: New forecasts are based on York Region December 2021 numbers. Old forecasts refer to numbers used for the original September 2019 assessment for the 2041 horizon and TMP

East Gwillimbury Land Use Forecast

The Town provided 2051 land use forecasts in January 2022 for all traffic zones within East Gwillimbury for both 70% and 100% Whitebelt scenarios. A comparison of the land use numbers provided by York Region and East Gwillimbury is shown in **Table 4**.

The detailed land use forecasts provided by the Town are noted to be higher than York Region's, with total population and employment being 5% and 19% higher for 70% and 100% Whitebelt scenarios, respectively. Employment in the 100% Whitebelt scenario has the highest increase at 44%. The modelling exercise will consider the higher forecasts at the traffic zone level provided by the Town for within East Gwillimbury. Other York Region municipalities will consider the forecasts provided by the Region.

Table 4. Comparison of 2051 Land Use Forecasts

Source	Population (% increase)*	Employment (% increase)*	Total Population and Employment (% increase)*
York Region (December 2021)	127,600 (-)	43,700 (-)	171,300 (-)
East Gwillimbury – 70% Whitebelt (January 2022)	132,900 (+4%)	46,800 (+7%)	179,700 (+5%)
East Gwillimbury – 100% Whitebelt (January 2022)	140,700 (+10%)	63,100 (+44%)	203,800 (+19%)

*% increase compared to York Region

3. Conceptual Network Development

2041 TMP Network (2019)

The draft 2041 TMP completed in September 2019 recommended a multimodal transportation solution for the Town that provides a safe, accessible, and connected road network for all users. The network features committed road improvements and other new connections in response to policy changes, while increasing access and opportunities for walking and cycling, and encouraging the use of transit. The recommended road improvements from the 2041 TMP are shown in **Figure 5** and serve as a starting network to explore road network options for Whitebelt development in the 2051 horizon.

Figure 5. 2041 TMP Recommended Road Improvements (September 2019)



2051 Conceptual Network

The 2051 collector network was conceptualized by expanding the draft 2041 TMP recommendations and providing connections to new Whitebelt areas. Changes were also made to the 2041 TMP network based on Town's inputs for the 2051 TMP update and includes the following:

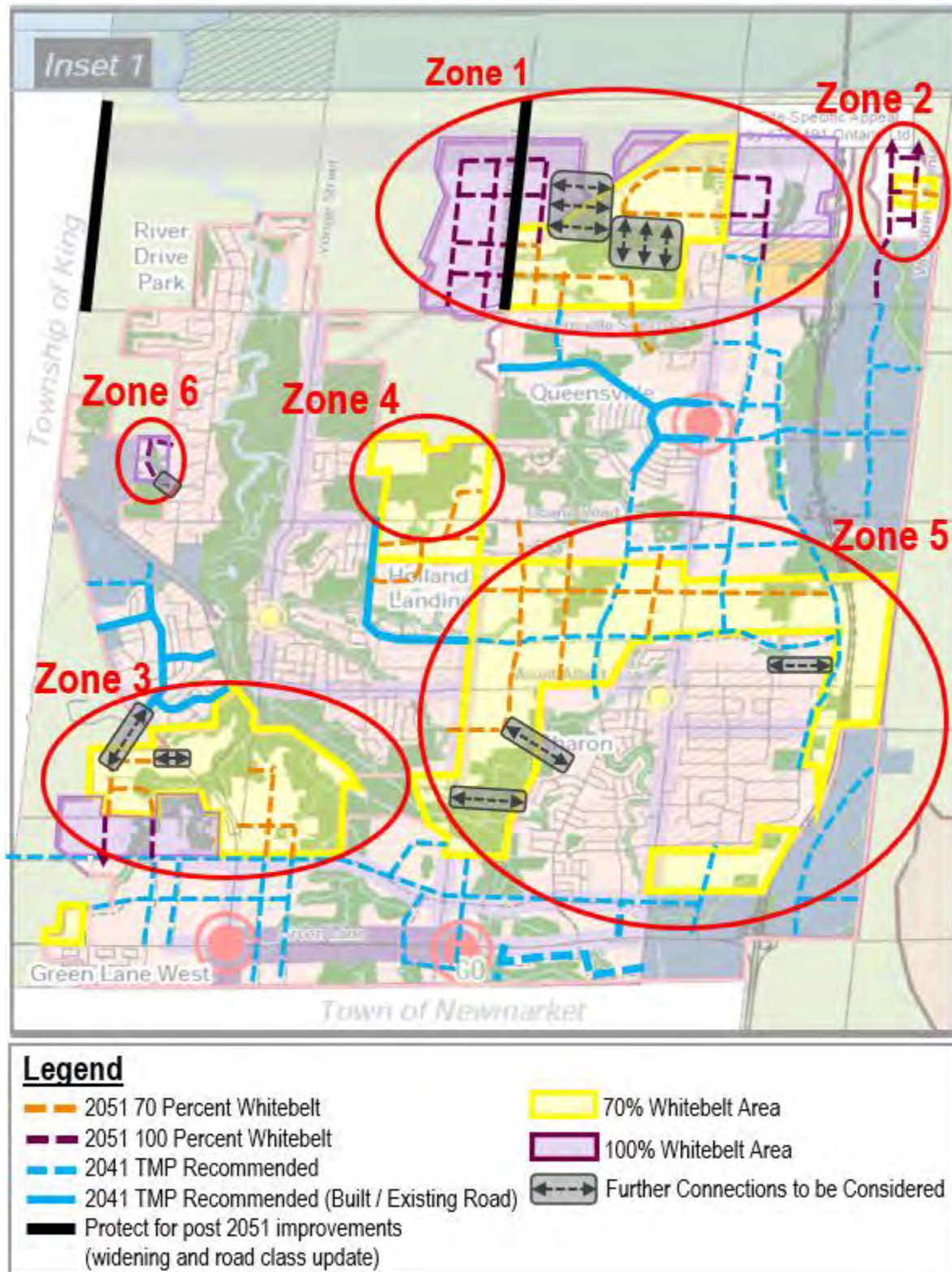
- Addition of Bradford Bypass
 - o Protection for potential interchange at 2nd Concession Road and Bathurst Street
 - o Protection for improvements on 2nd Concession Road and Bathurst Street between north of Queensville Sideroad and Holborn Road past the 2051 horizon. Improvements may include 2 to 4 lane widening and road class update
- Addition of Highway 404 midblock crossing north of Doane Road
- Removal of Highway 404 midblock crossing north of Green Lane
- Updated collector road networks per most recent studies
 - o Employment lands northeast of Highway 404 and Green Lane
 - o North of Holland Landing

The 2051 conceptual network considered for initial testing purposes is shown in **Figure 6**.

Whitebelt development areas are identified within six zones that will be referenced in following sections of the memo. These zones include:

- Zone 1: Northwest of Queensville Sideroad and Highway 404
- Zone 2: Northeast of Queensville Sideroad and Highway 404
- Zone 3: Surrounding the intersection of Highway 11 and Yonge Street
- Zone 4: North of Holland Landing
- Zone 5: Surrounding Sharon Community Area
- Zone 6: Northeast of Holland Landing Road and Oriole Drive

Figure 6. Conceptual 2051 Collector Network with Whitebelt Lands



4. Model Development

The York Region EMME model was used as a base to develop a 2051 travel demand model for East Gwillimbury. As described in **Section 1**, land use forecasts were updated for surrounding York Region municipalities and at the traffic zone level within East Gwillimbury. The subarea model was created for East Gwillimbury to further disaggregate several traffic zones to distinguish between existing, future 70% Whitebelt, and 100% Whitebelt development phases. Similar to the York Region's EMME model, the East Gwillimbury subarea model was developed for the weekday AM peak hour only.

Subarea Model Zone System and Existing Network

The model uses a modified zone system, covering a study area of the entire Town bounded by Ravenshoe Road, York Durham Line, Green Lane / Herald Road, Davis Road and Bathurst Street. However, the land use changes are centered within the urban area west of Highway 404 with approximate boundaries of Holborn Road, Woodbine Avenue, Green Lane / Herald Road, and Bathurst Street. The subarea zone boundary is shown in **Figure 7**, with the urban area shown in **Figure 8**. The road network for both the full subarea and urban area is shown in **Figure 9** and **Figure 10**, respectively.

The road network in the subarea model includes all arterial and collectors. Traffic zones and centroid connectors were specifically modified to reflect the proposed land uses in the Town of Gwillimbury's 70% and 100% Whitebelt development scenarios. Network assumptions such as free-flow speed and lane capacity were consistent with the York Region Model standards.

Figure 7. Subarea Model Zone Boundary (Full Town)

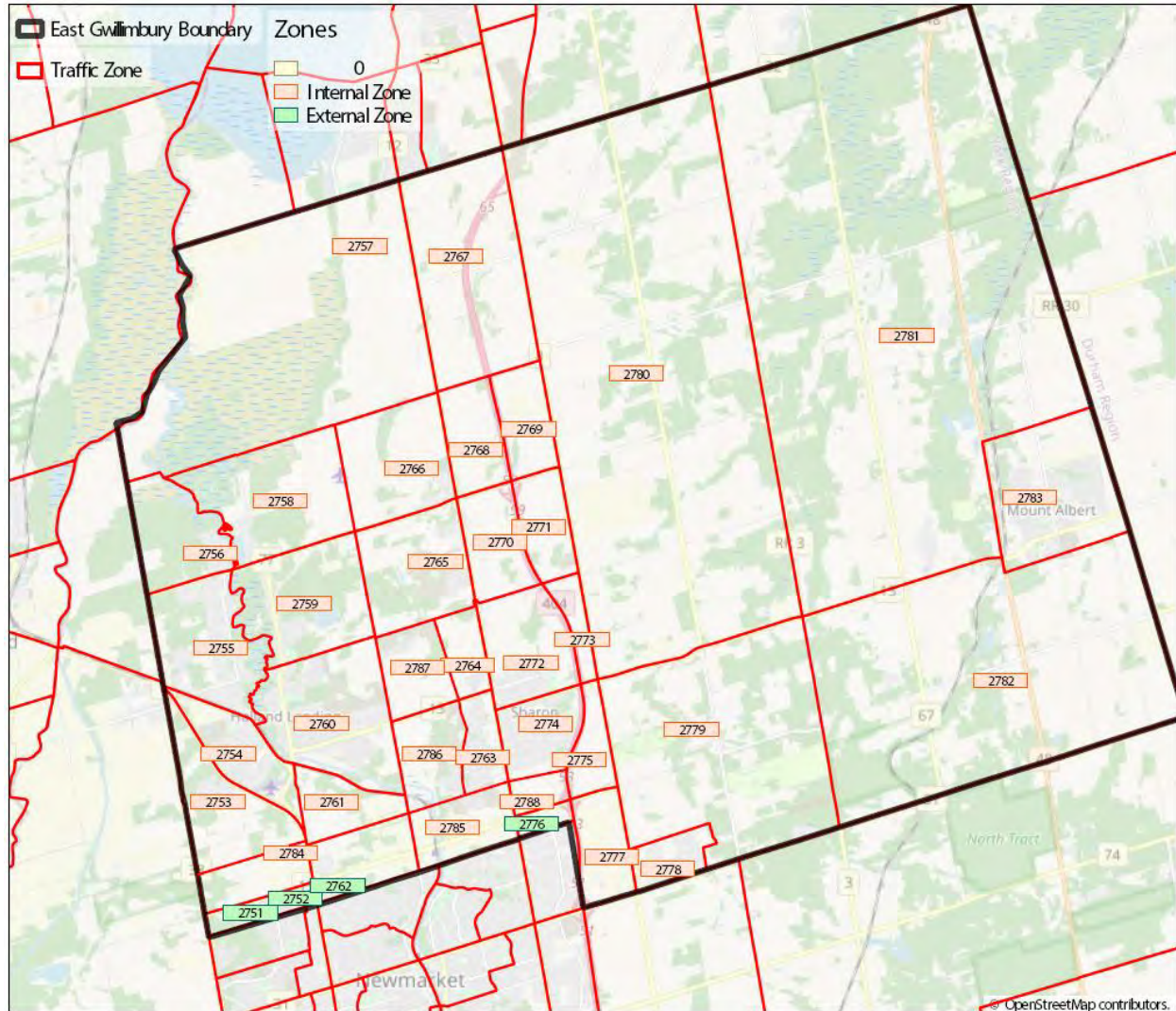


Figure 8. Subarea Model Zone Boundary (Urban area, west of Highway 404)

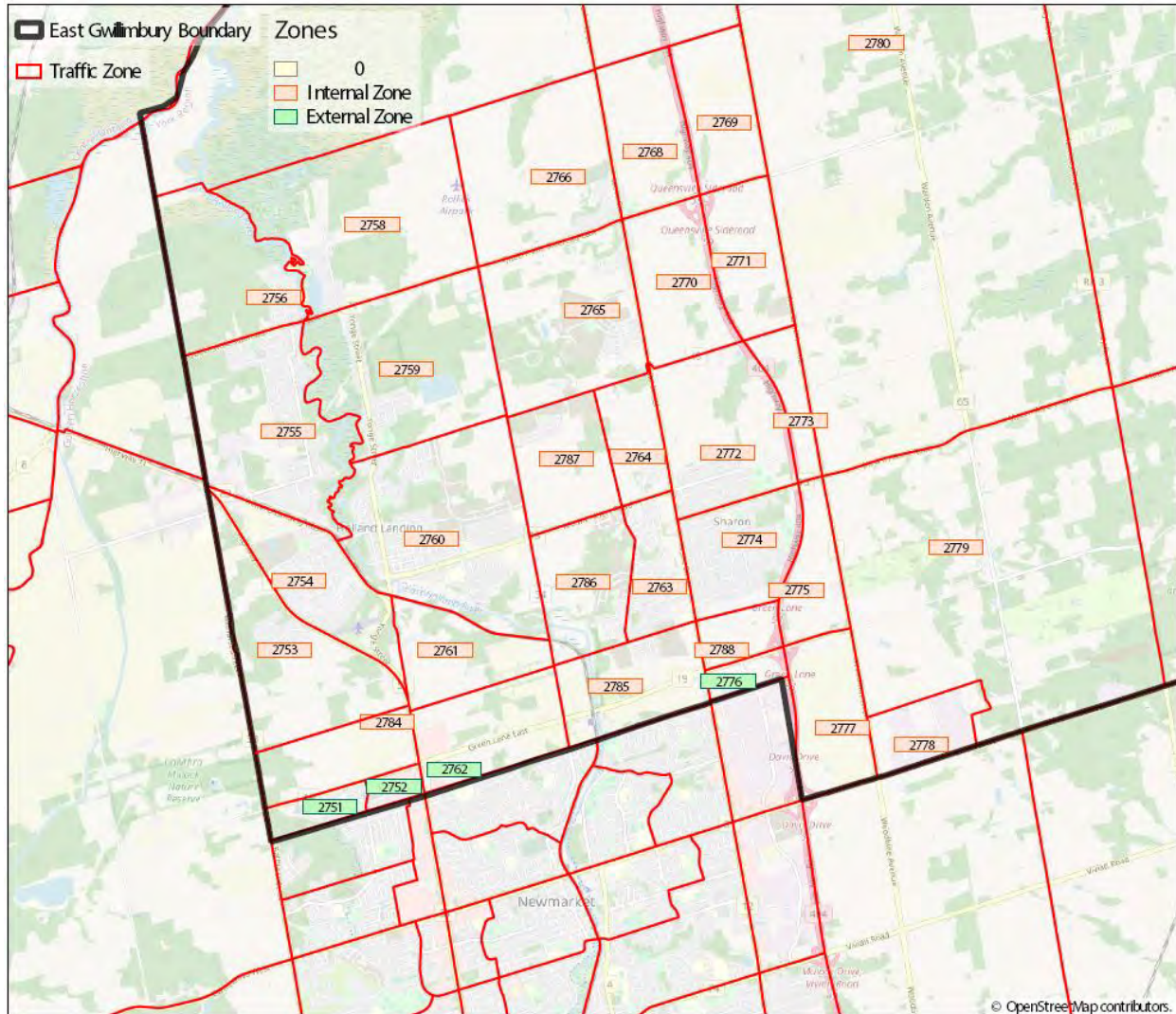


Figure 9. Subarea Model Road Network (Full Town)

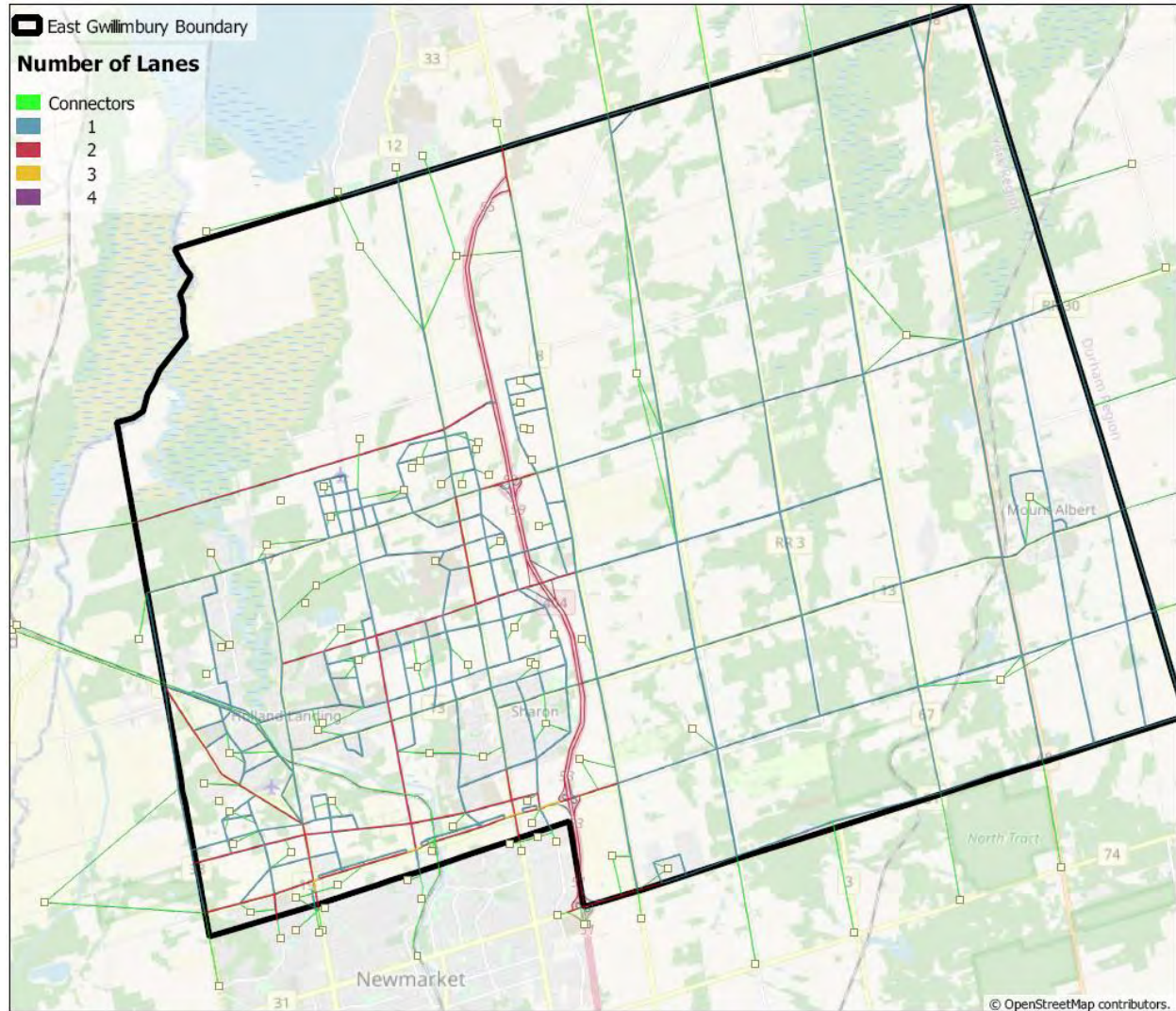
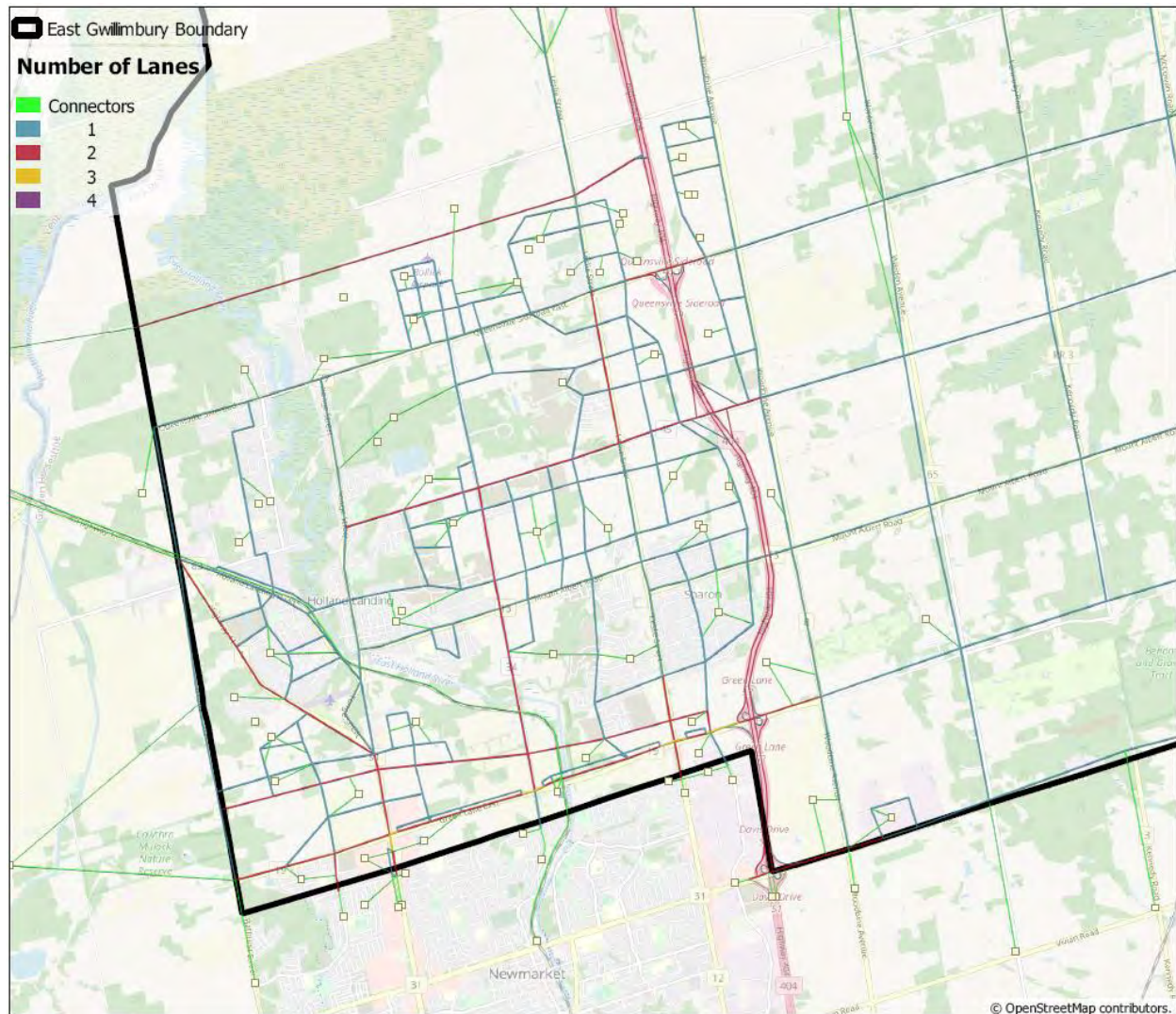


Figure 10. Subarea Model Road Network (Urban Area west of Highway 404)



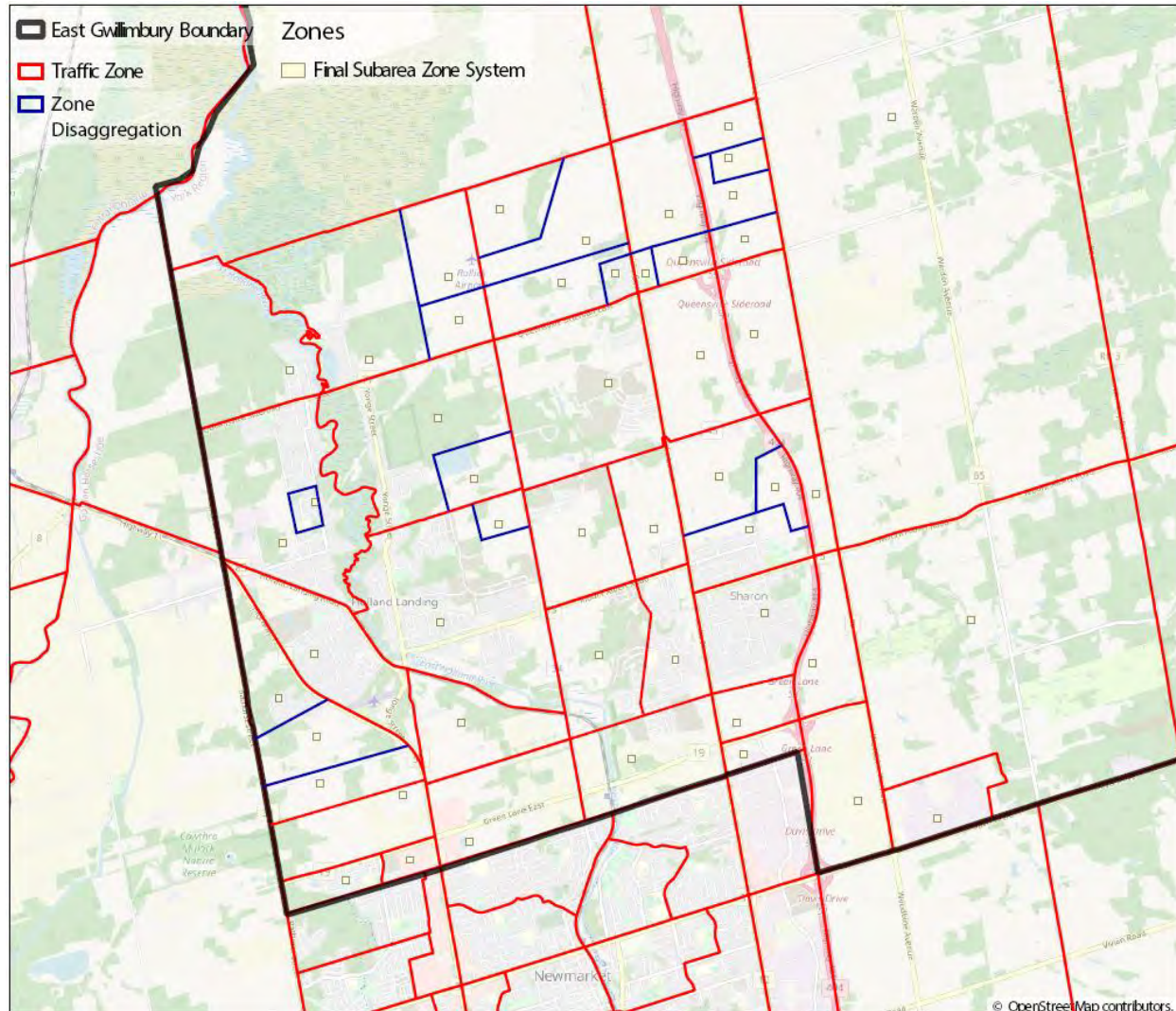
Traffic Zone and Land Use Modifications

Traffic Zone Disaggregation

Several zones within East Gwillimbury required disaggregation due to changes and/or additions of various land uses from existing conditions to 2051 70% and 100% Whitebelt development scenarios. Zone disaggregation allows for increased model flexibility to better capture expected travel patterns and behaviours of different land purposes within the original zone. For example, more trips are expected to originate from proposed residential (community) areas while more trips would be destined to proposed employment areas during the AM peak period.

The final model system with disaggregated traffic zones for the East Gwillimbury is shown in **Figure 11** and considers residential and employment within the Whitebelt areas specified in **Figure 2**. Whitebelt areas with unspecified land for the 100% phase were assumed to be similar to land uses in adjacent zones.

Figure 11: Disaggregated Zone System



Land Use Disaggregation

The 2011 model was used to separate out existing demand to represent existing land use at each zone. The remaining trips from the 2051 model (total 2051 demand less 2011 model demand, per zone) were assumed to represent new development and would be distributed among the other newly made disaggregated zones.

For Whitebelt lands with both proposed residential and employment land use, the remaining demand (both origin and destination) was distributed to respective zones based on both the in/out splits from the Institute for Transportation Engineers (ITE) Trip Generation Manual (11th Edition) and approximate area sizes from **Figure 2**. Land Use Codes from the ITE manual assumed include 710 (General Office Building) and 221 (Multifamily Housing – Midrise); however, it is noted other employment (such as industrial) and housing types yield similar results. Interzonal trips for newly created disaggregated zones were based on trip distribution from existing community zones from the original 2041 York Region EMME model.

5. Detailing Development of Preferred Scenario

The preferred scenario is developed building from the network recommendations originally proposed for the Draft 2041 TMP. Additional planned 2051 road and transit network improvements identified in the 2022 York Region TMP were tested as sensitivities within the area-specific analysis. This section documents firstly the broader network needs at a screenline level and any improvements which may need to be considered, and secondly area-specific needs for the “zones” identified previously in **Section 3**.

Town-wide Screenline Analysis

Network results for 70% and 100% Whitebelt scenarios are shown in **Figure 12** and **Figure 13**, respectively. It is noted the screenlines shown do not include Highway 404. As described in **Section 5**, 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 scenario (0.97 under the 70% Whitebelt scenario), followed by west of Highway 404. All other screenlines operate below capacity (<0.85).

Figure 12. 70% Whitebelt Preferred Network Screenline

2051 70% Whitebelt
Preferred Network

AM Peak Directions
= EB / SB

Screenlines outside urban
areas operate v/c < 0.85

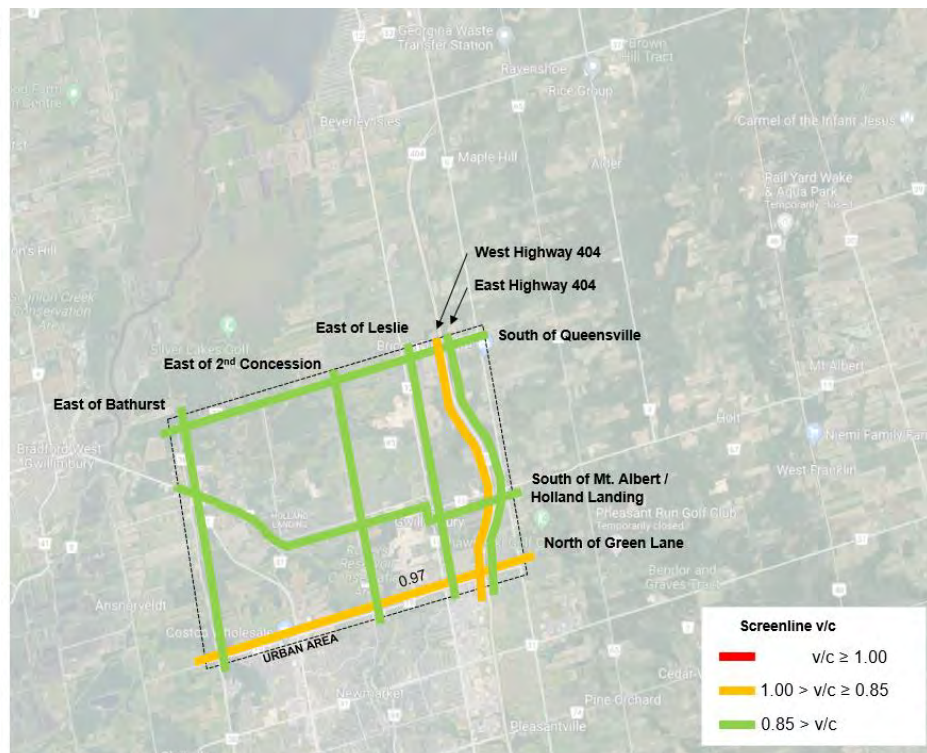


Figure 13. 100% Whitebelt Preferred Network Screenline



As indicated in the screenline analysis, the need for road network capacity improvements to the arterial road network across the screenlines identified is limited. Only the west of Highway 404 and north of Green Lane screenlines are approaching a v/c ratio of 1.00. On this basis further arterial road capacity to accommodate peak hour vehicle demand is not recommended beyond the improvements already identified in the Town's Draft 2041 TMP and 2022 York Region TMP. This includes Bathurst and 2nd Concession north of Queensville Sideroad connecting to the planned Bradford Bypass. Based on this analysis, no further capacity improvements are recommended by 2051 for those arterial roads, but the Town and Region should continue to protect for four lanes in the longer-term future.

Area-Specific Analysis

Additional collector roads were introduced for new Whitebelt lands and categorized into six zones (as mentioned in **Section 3**) within the expanded Urban Growth boundary where development is expected.

Each section will discuss the recommended network and description of collector roads by 70% and 100% Whitebelt. The final network will be described, which accounts for iterations completed to account for sensitivities, consistency with existing plans, input from required water infrastructure, and model results.

Zone 1 (Northwest of Queensville Sideroad and Highway 404)

The preferred network for full build out of Zone 1 (Northwest of Queensville Sideroad and Highway 404) is shown in **Figure 14**, and builds from the 2041 TMP recommendations. Other network considerations include the following (numbering referenced in **Figure 14**):

1. Natural Heritage System (NHS) crossing to provide network connectivity, 100% Whitebelt development, water infrastructure, and indicated active transportation desire line (per January 2022 Draft East Gwillimbury AT Plan);
2. Preferred intersection alignment of 100% Whitebelt collector road at hydro corridor to accommodate proposed off-road multi-use path;
3. Adjustment of 100% Whitebelt network to reflect proposed WRC development;
4. Protection for potential Bradford Bypass interchange at 2nd Concession Road; and
5. Alignment of the collector network with the proposed Kennedy Park Boulevard per Queensville Secondary Plan.

The AM peak hour assignment results for the preferred network for 2051 70% and 100% Whitebelt scenarios are shown in **Figure 15** and **Figure 16**, respectively. The 70% Whitebelt scenario performs well, while the 100% Whitebelt scenario has some deficiencies northbound near and east of Leslie Street. It is noted Zone 1 considers an NHS crossing that provides critical connection to the northeast of the area and relieves congestion along Leslie Street. Without the NHS crossing, demand is projected to further divert onto Leslie Street and easterly north-south collector as shown in **Figure 17**.

It is noted the alignments of the north-south collectors north of Queensville Sideroad are subject to further study to minimize impact to the NHS.

Figure 14. 2051 Zone 1 Conceptual Network (Full Build-out)

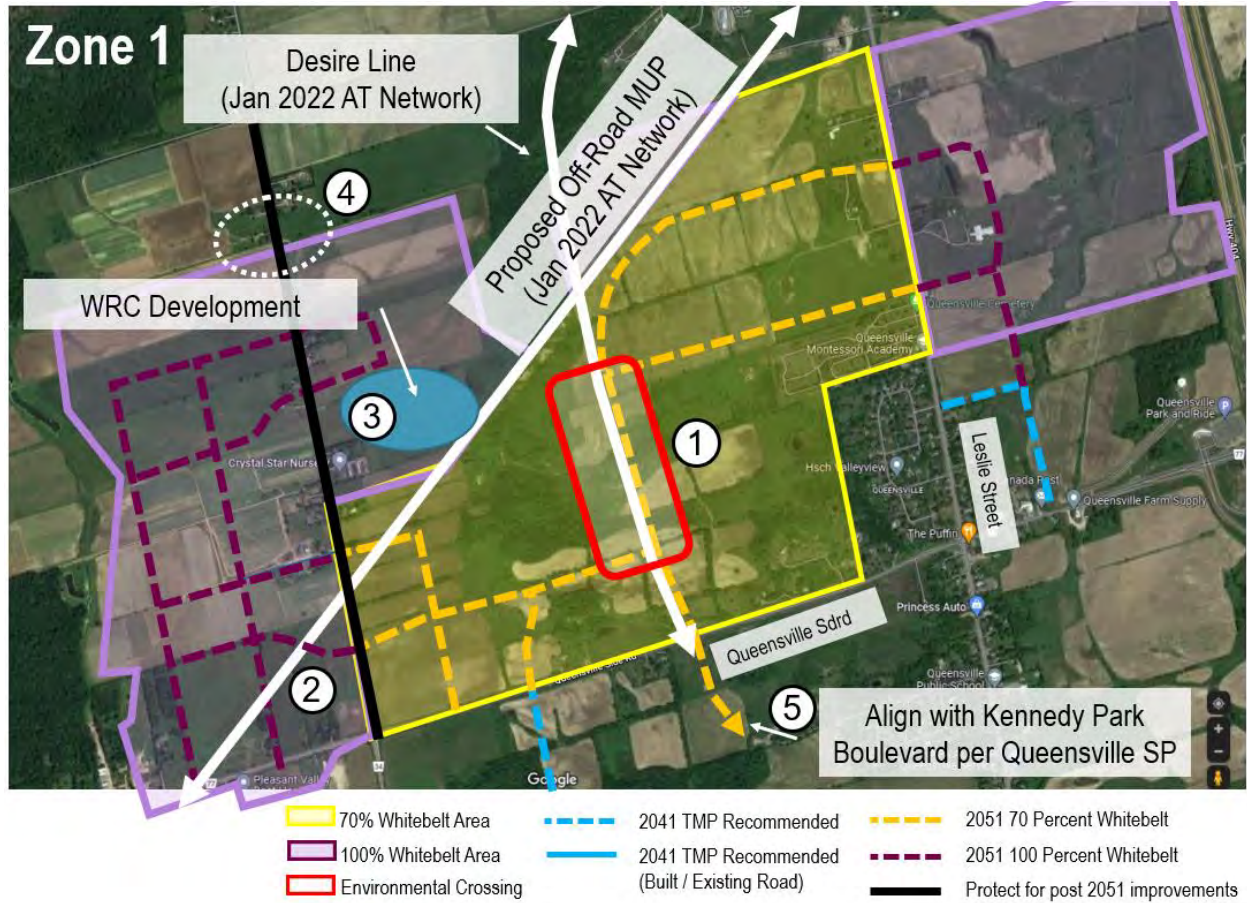


Figure 15. 2051 Zone 1 70% Whitebelt AM Peak Hour Traffic Demand



Figure 16. 2051 Zone 1 100% Whitebelt AM Peak Hour Traffic Demand

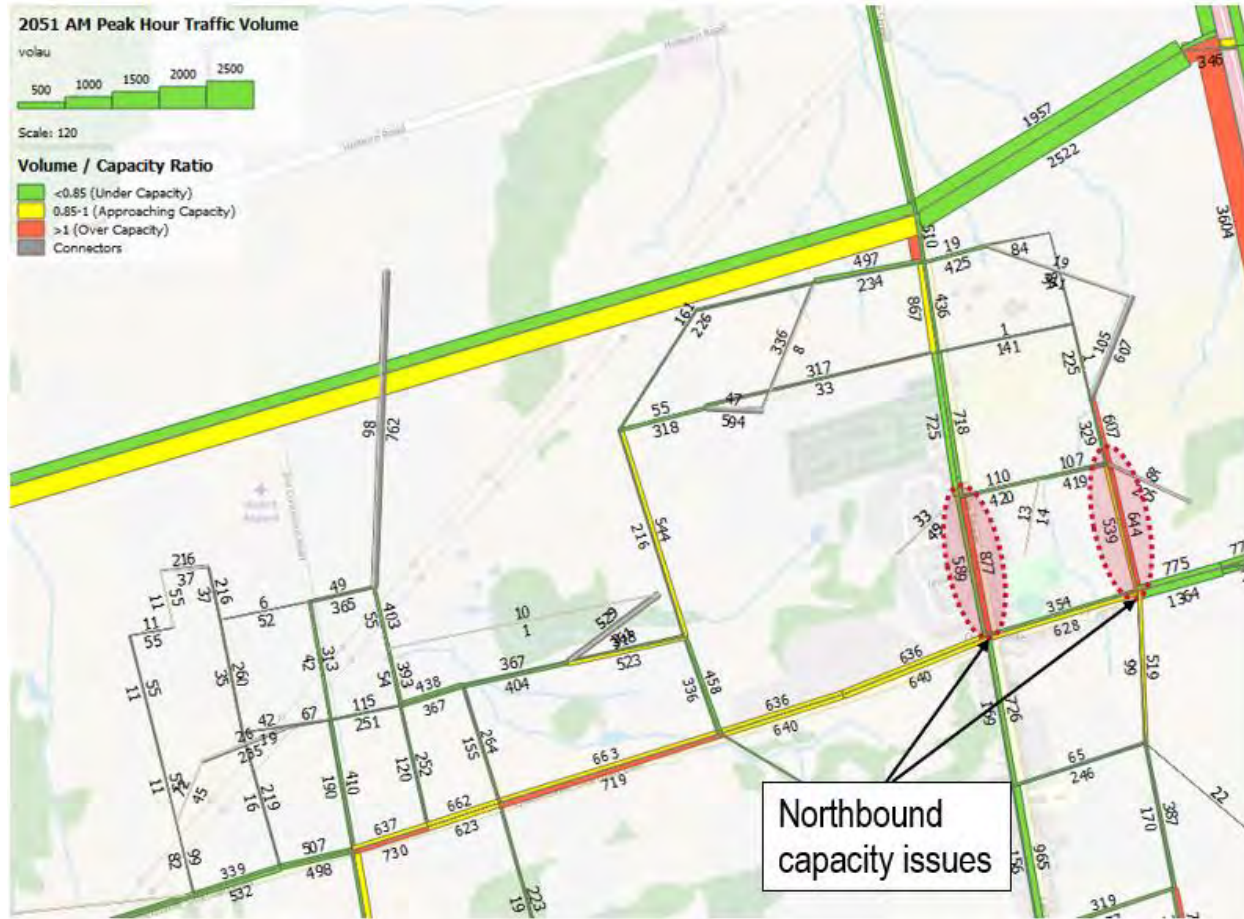
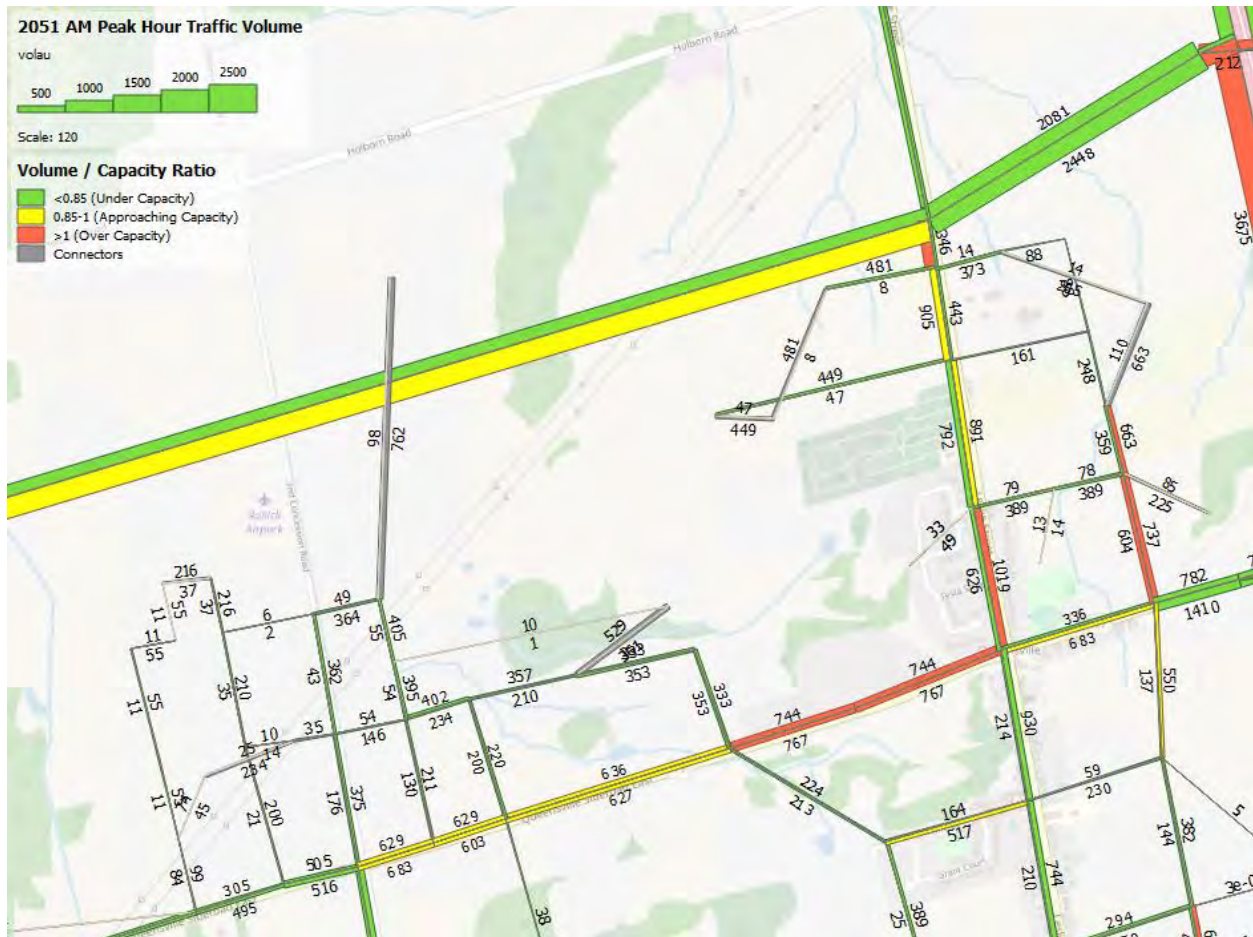


Figure 17. 2051 Zone 1 100% Whitebelt without NHS Crossing AM Peak Hour Traffic Demand



Zone 2 (Northeast of Queensville Sideroad and Highway 404)

The preferred network for full build out of Zone 2 (Northwest of Queensville Sideroad and Highway 404) is shown in **Figure 18**, and builds from the 2041 TMP recommendations. Other network considerations include the following (numbering referenced in **Figure 18**):

1. Established “loop” in 70% Whitebelt development to support water infrastructure and phasing between 70% and 100% development

The AM peak hour assignment results the preferred network for 2051 70% and 100% Whitebelt scenarios are shown in **Figure 19** and **Figure 20**, respectively. Generally, the municipal arterial and collector road network in the area operates well with no deficiencies.

Figure 18. 2051 Zone 2 Conceptual Network (Full Build-out)

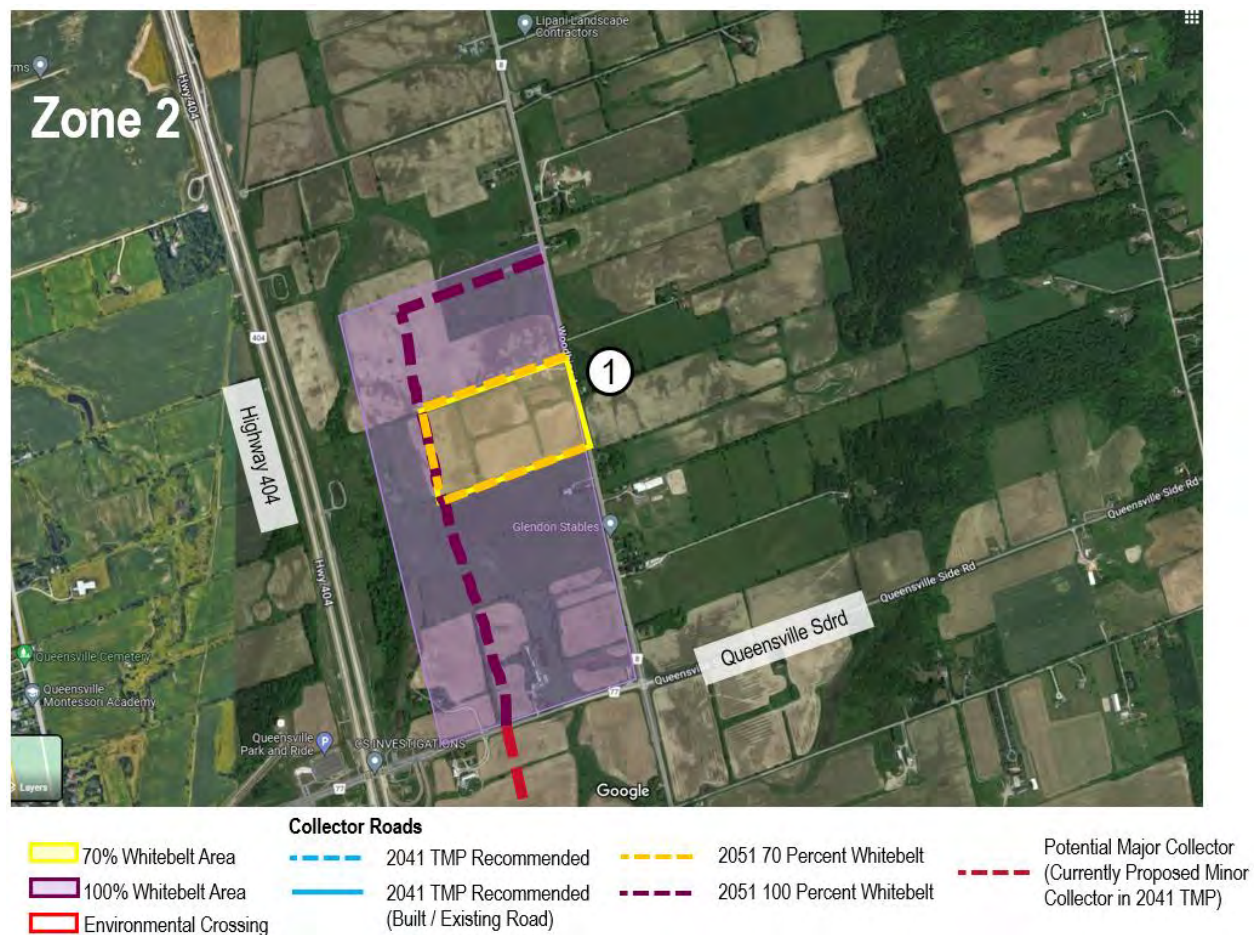
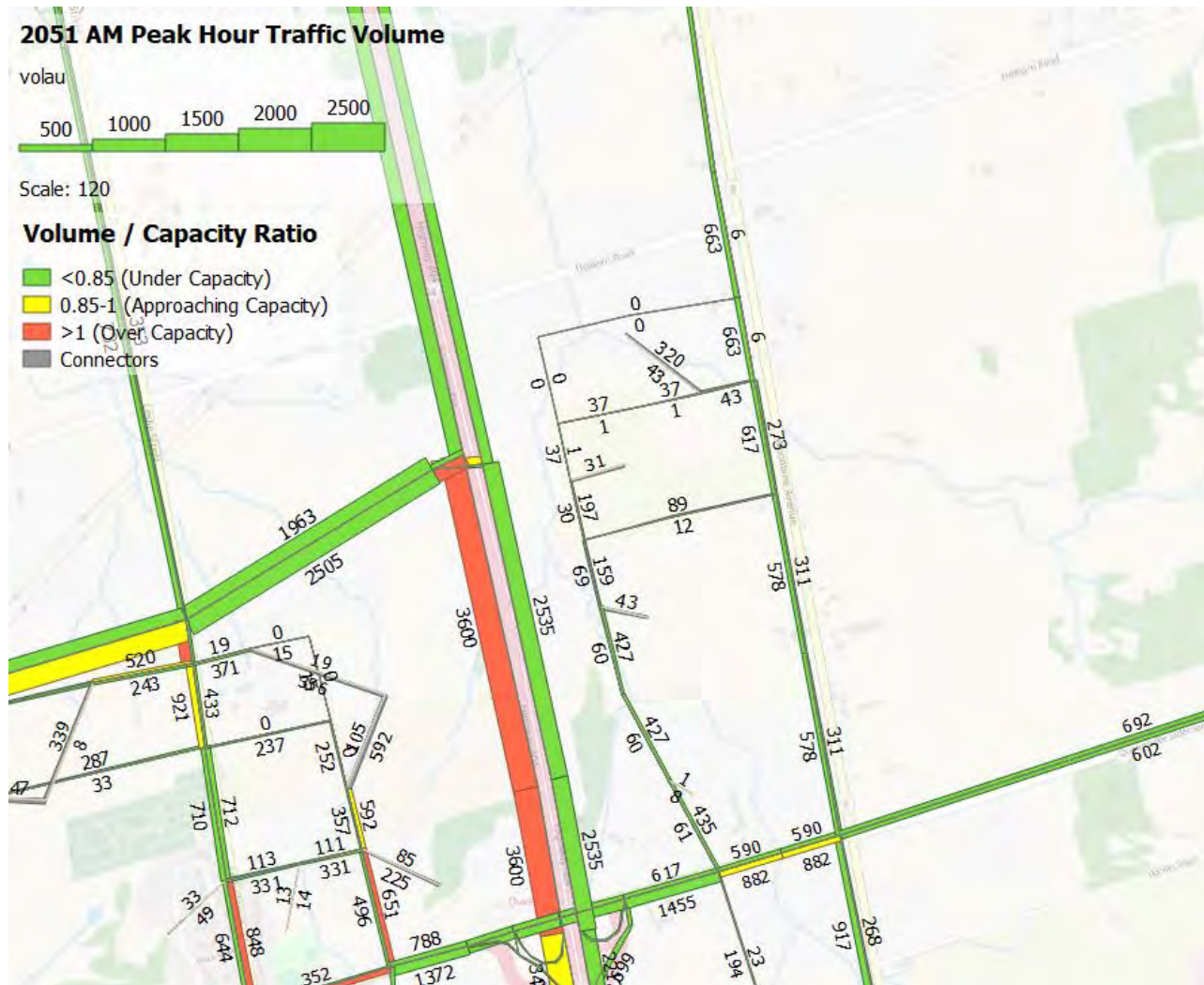


Figure 19. 2051 Zone 2 70% Whitebelt AM Peak Hour Traffic Demand



Figure 20. 2051 Zone 2 100% Whitebelt AM Peak Hour Traffic Demand



Zone 3 (Surrounding the intersection of Highway 11 and Yonge Street)

The preferred network for full build out of Zone 3 (Surrounding the intersection of Highway 11 and Yonge Street) is shown in **Figure 21**, and builds from the 2041 TMP recommendations. Other network considerations include the following (numbering referenced in **Figure 21**):

1. NHS crossing to provide network connectivity, 100% Whitebelt development, water infrastructure, and proposed bike lane (per January 2022 Draft East Gwillimbury AT Plan);
2. A sensitivity was conducted to upgrade the current rural Morning Sideroad to a collector road to support the 70% Whitebelt development northwest of Highway 11 and future east-west collector. The results (shown in **Figure 22**) indicate Morning Sideroad will be well used to provide access to the 70% Whitebelt development; however, the east-west collector (spanning between Bathurst Street and Leslie Street) immediately south will be underused. As a result, **the upgrade of Morning Sideroad is not recommended**. Instead, **north-south collectors within the 100% Whitebelt are recommended to be delivered as part of the 70% Whitebelt phasing** to provide access to the east-west collector.

The AM peak hour assignment results for the preferred network for 2051 70% and 100% Whitebelt scenarios are shown in **Figure 23** and **Figure 24**, respectively. Capacity issues are projected southbound along both Bathurst Street and Yonge Street for both 70% and 100% Whitebelt scenarios. Despite these issues, no further road widenings or new roads are recommended. With York Region planning to implement Rapid Transit on Green Lane in the future, which will serve excess north-south demand, we recommend focusing on improving active transportation connections and other first-last mile mobility solutions to connect the new growth areas in East Gwillimbury to the Yonge Street and Green Lane transit hub or East Gwillimbury GO station to encourage a shift towards non-auto modes.

It is noted Zone 3 considers an NHS crossing that diverts demand away from Highway 11 and helps to relieve congestion. Without the crossing, southbound Highway 11 is projected to approach capacity as shown in **Figure 25**.

Figure 21. 2051 Zone 3 Conceptual Network (Full Build-out)

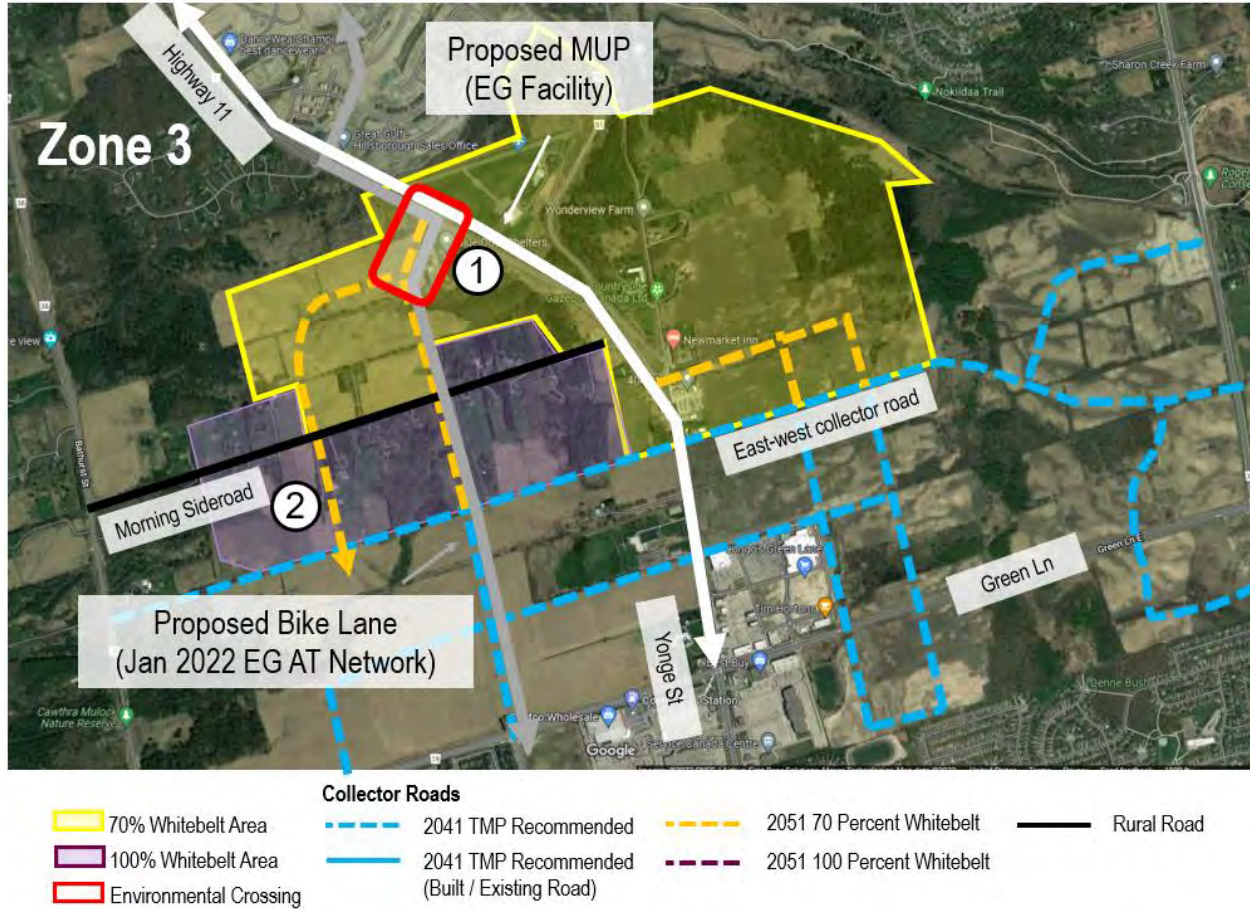


Figure 22. Zone 3 70% Whitebelt AM Peak Hour Traffic Demand (Morning Sideroad Collector Upgrade Sensitivity)

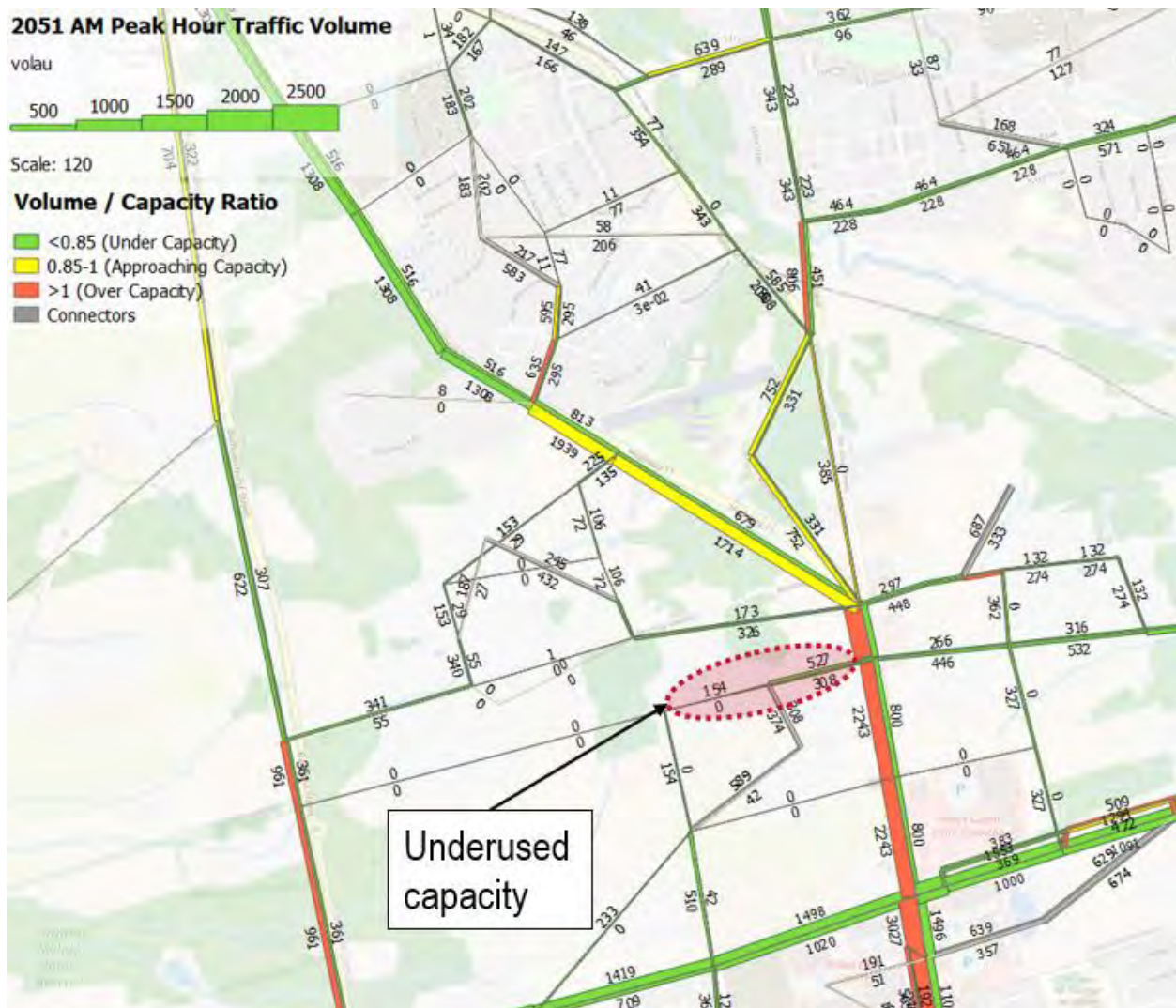


Figure 23. Zone 3 70% Whitebelt AM Peak Hour Traffic Demand

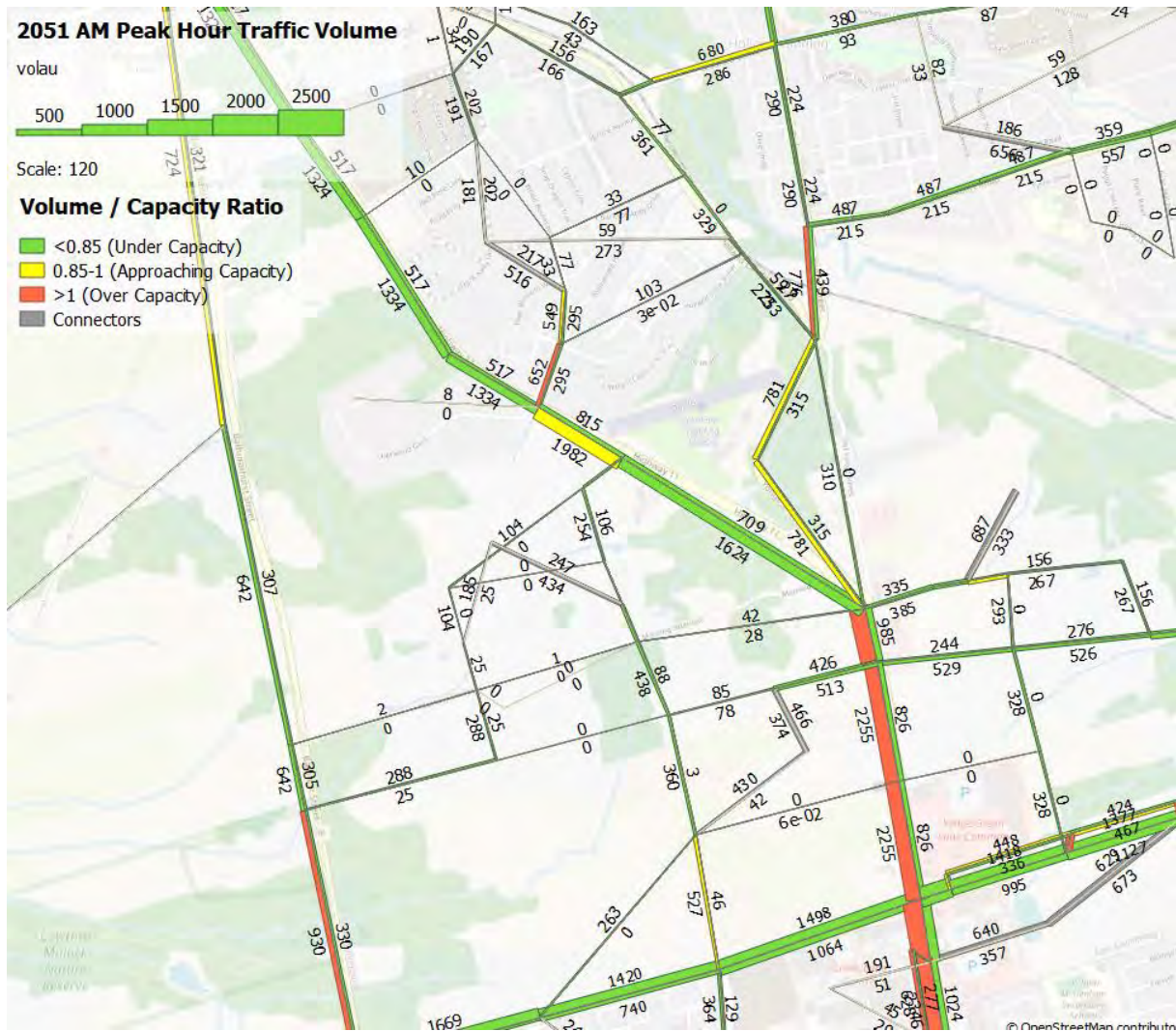
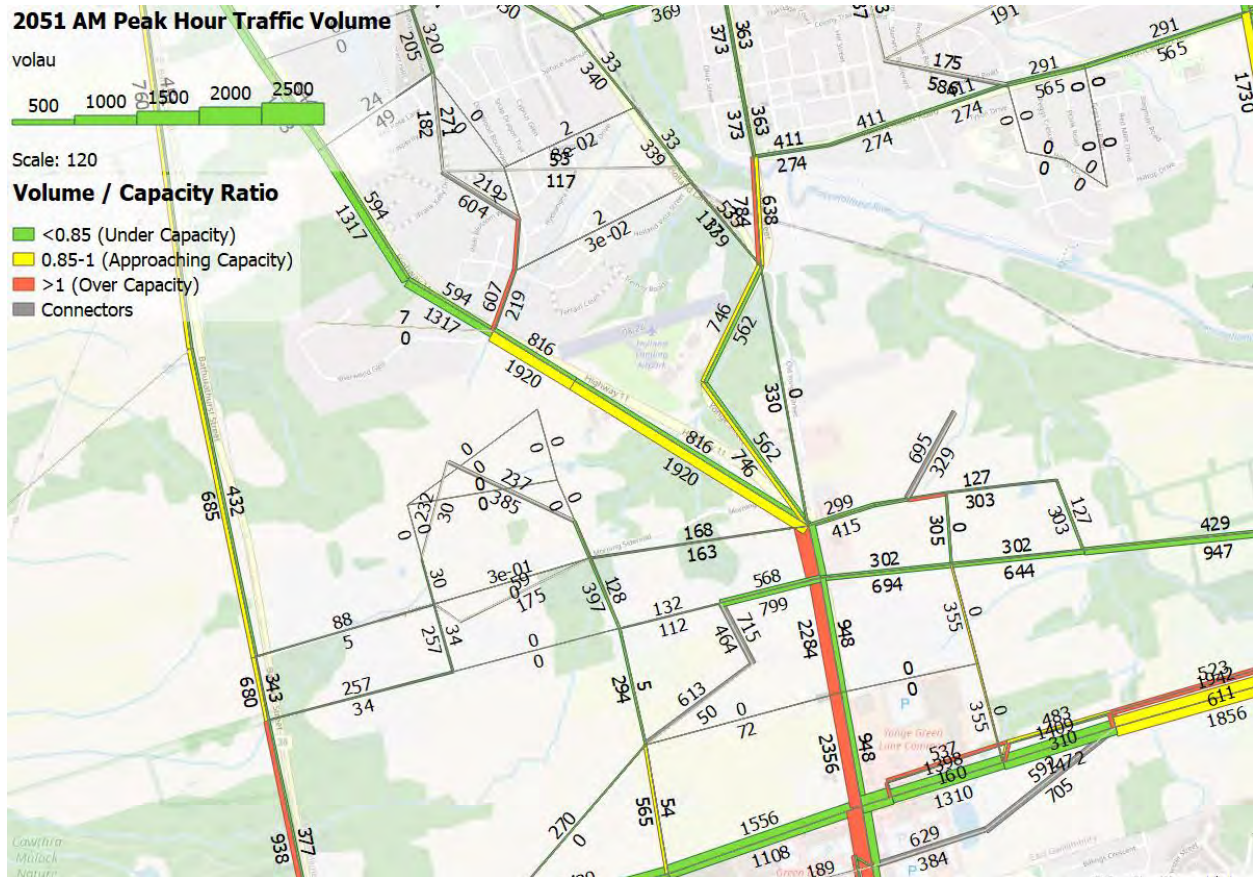


Figure 24. Zone 3 100% Whitebelt AM Peak Hour Traffic Demand



Figure 25. Zone 3 100% Whitebelt without NHS Crossing AM Peak Hour Traffic Demand



Zone 4 (North of Holland Landing)

The preferred network for full build out of Zone 4 (North of Holland Landing) is shown in **Figure 26** and builds from the 2041 TMP recommendations. Other network considerations include the following (numbering referenced in **Figure 26**):

1. Connecting the network to the Holland Crossing Secondary Plan network; and
2. Connecting to the proposed off-road multi-use path (per January 2022 Draft East Gwillimbury AT Plan)

The AM peak hour assignment results for 2051 70% and 100% Whitebelt scenarios are shown in **Figure 27** and **Figure 28**, respectively. Generally, the network operates well with no deficiencies.

Figure 26. 2051 Zone 4 Conceptual Network (Full Build-out)

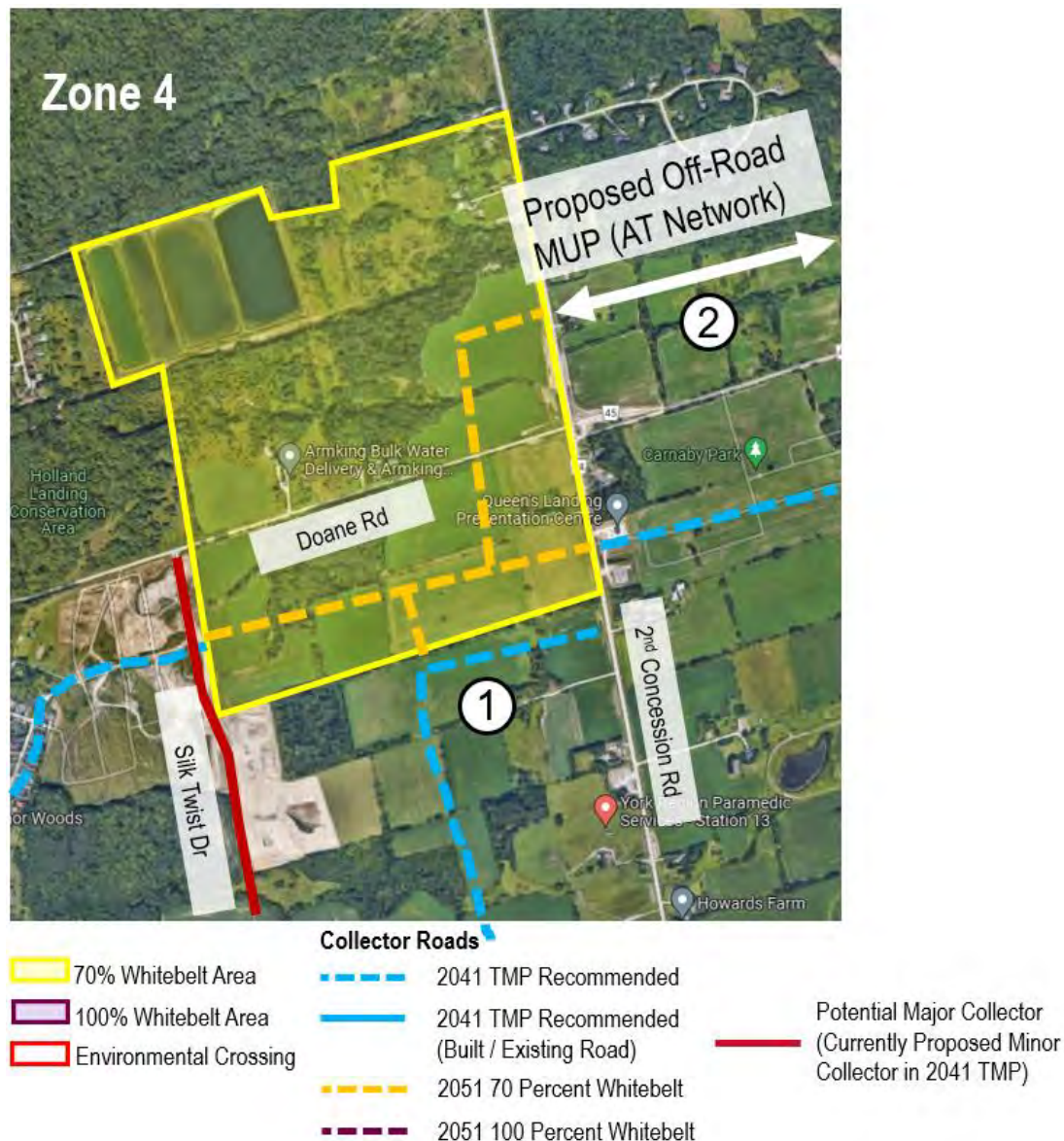


Figure 27. Zone 4 70% Whitebelt AM Peak Hour Traffic Demand

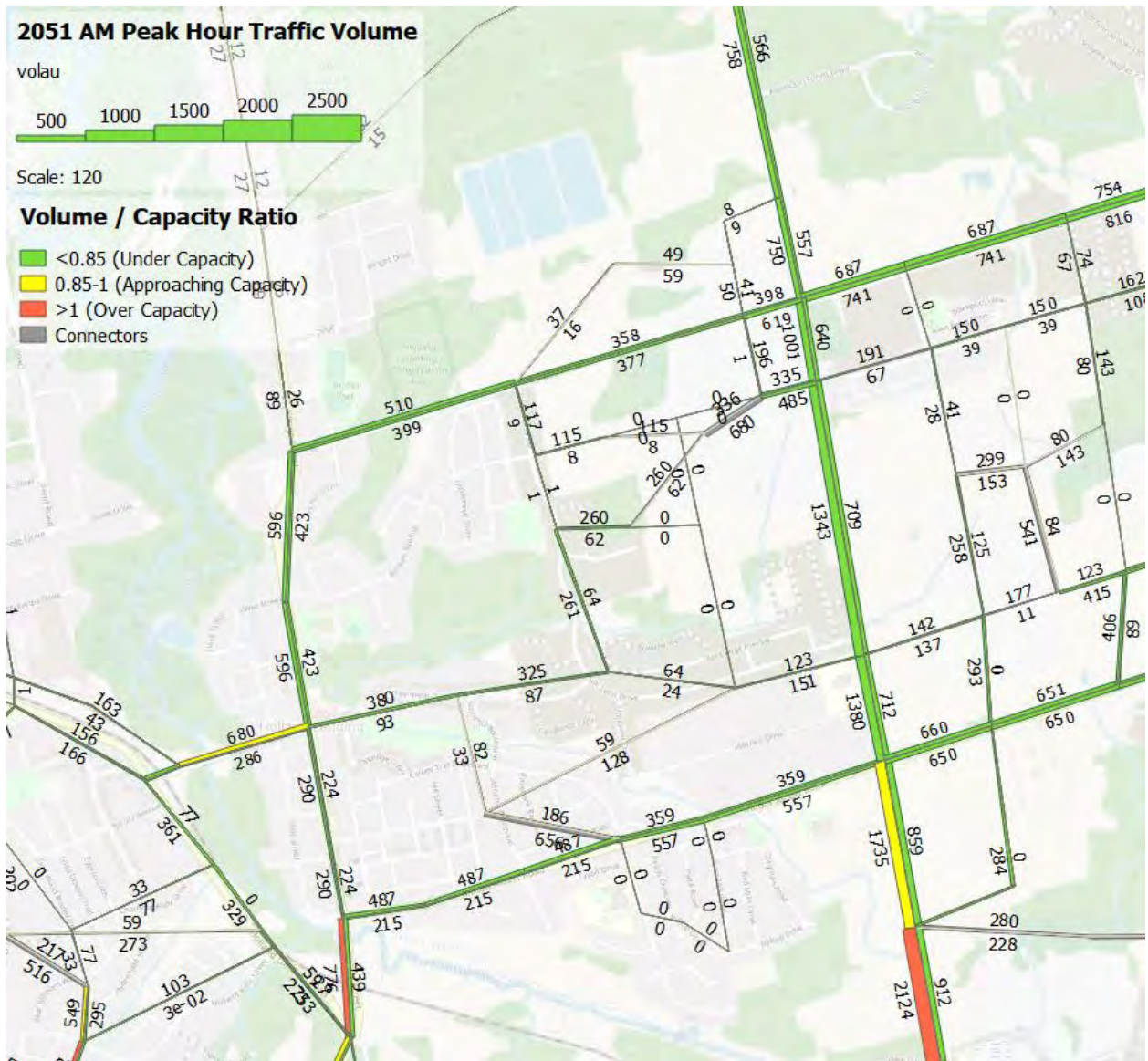
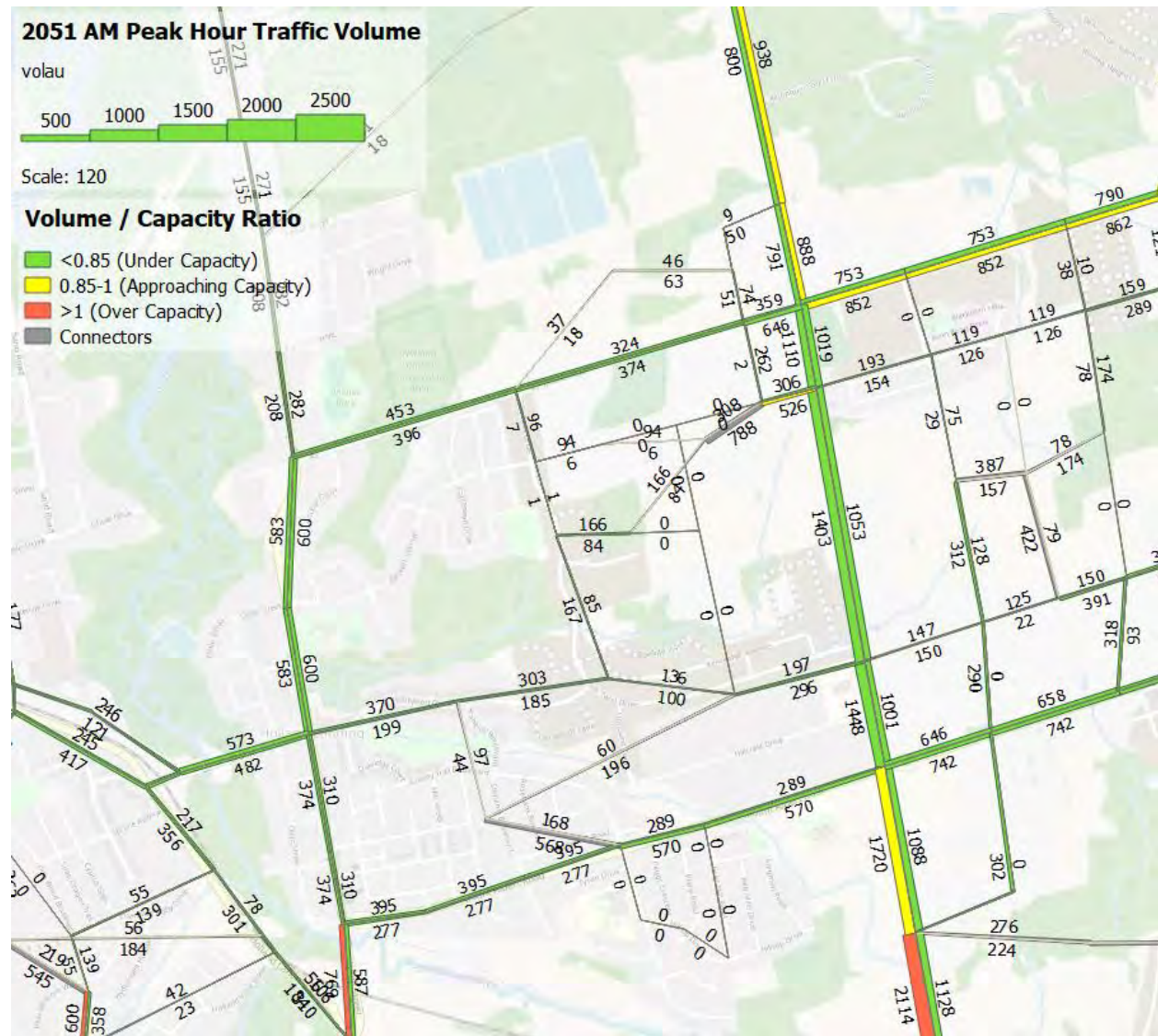


Figure 28. Zone 4 100% Whitebelt AM Peak Hour Traffic Demand



Zone 5 (Surrounding Sharon Community Area)

The preferred network for full build out of Zone 5 (Surrounding Sharon Community Area) is shown in **Figure 29** and builds from the 2041 TMP recommendations. Other network considerations include the following (numbering referenced in **Figure 29**):

1. Removal of northerly Harry Walker Parkway extension to Sharon; and
2. Consideration of alternative alignments for the Sharon East Collector (further described below).

The AM peak hour assignment results for the preferred network for 2051 70% and 100% Whitebelt scenarios are shown in **Figure 30** and **Figure 31**, respectively. Capacity issues are projected southbound along 2nd Concession Road and Leslie Street for both 70% and 100% Whitebelt scenarios. Despite these issues, no further road widenings or new roads are recommended. Similar to the issues in the Zone 3 Green Lane area, we recommend focusing on improving active transportation and transit connectivity to transit and the East Gwillimbury GO station to address the projected future travel demand.

Figure 29. 2051 Zone 5 Conceptual Network (Full Build-out)

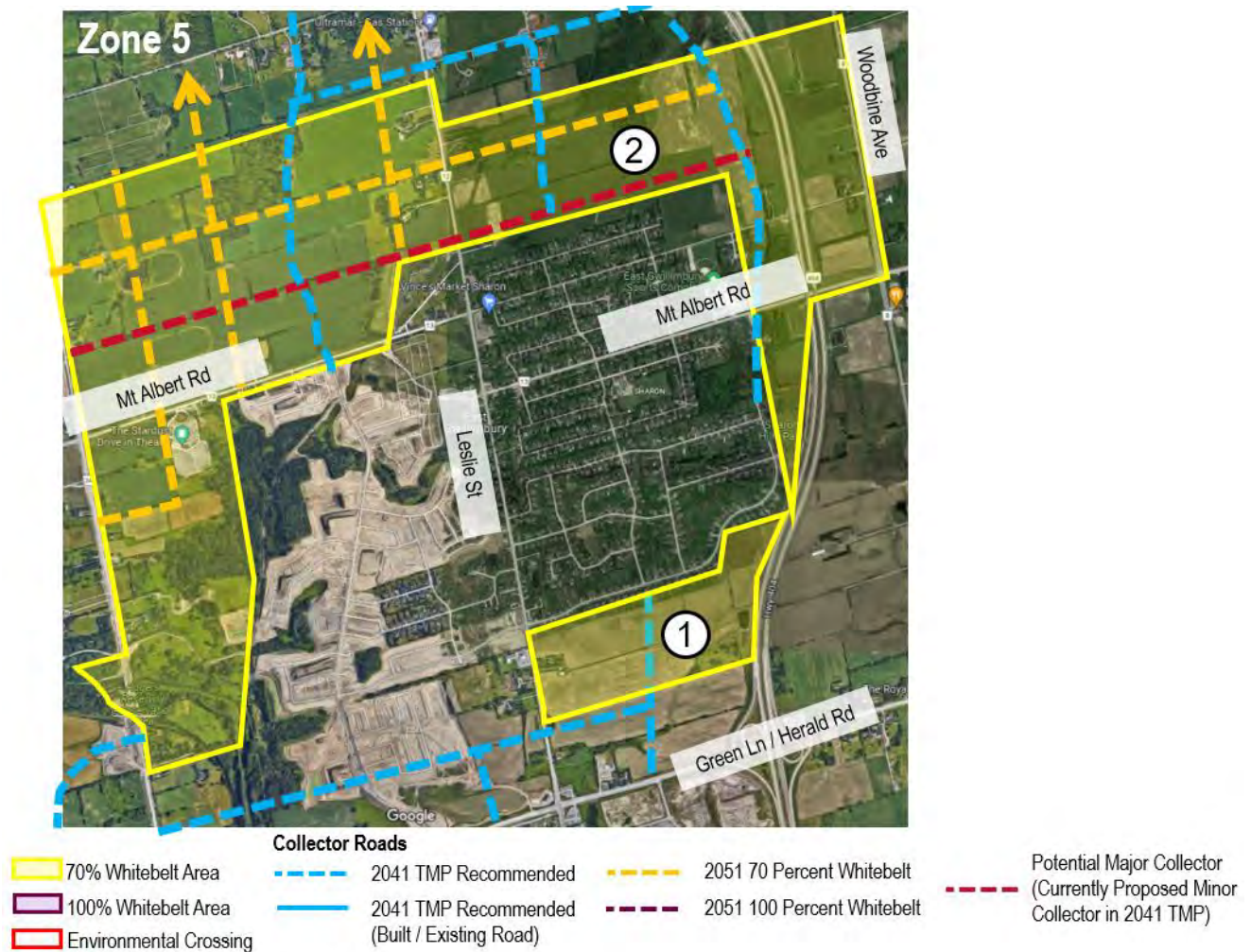


Figure 30. Zone 5 70% Whitebelt AM Peak Hour Traffic Demand

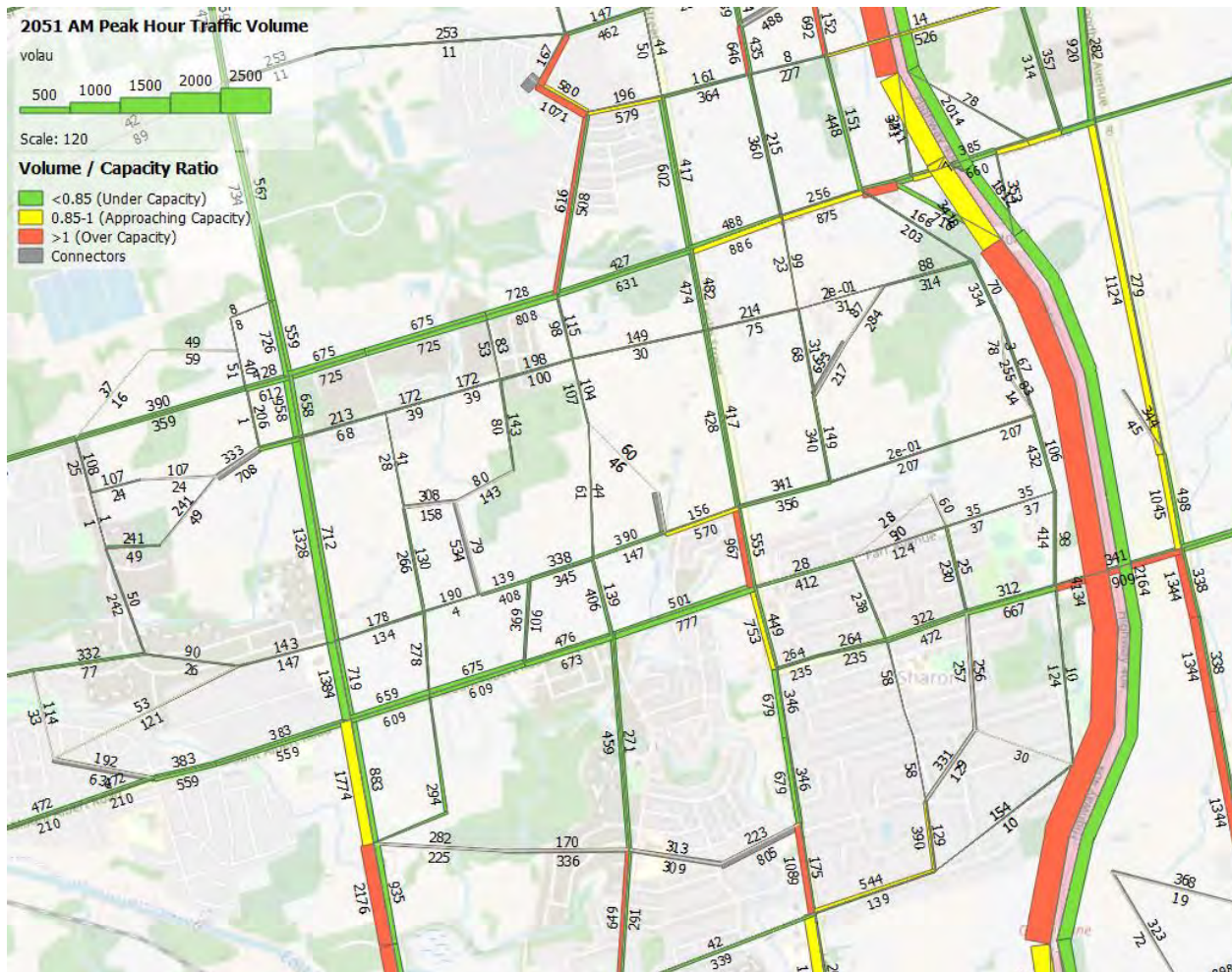
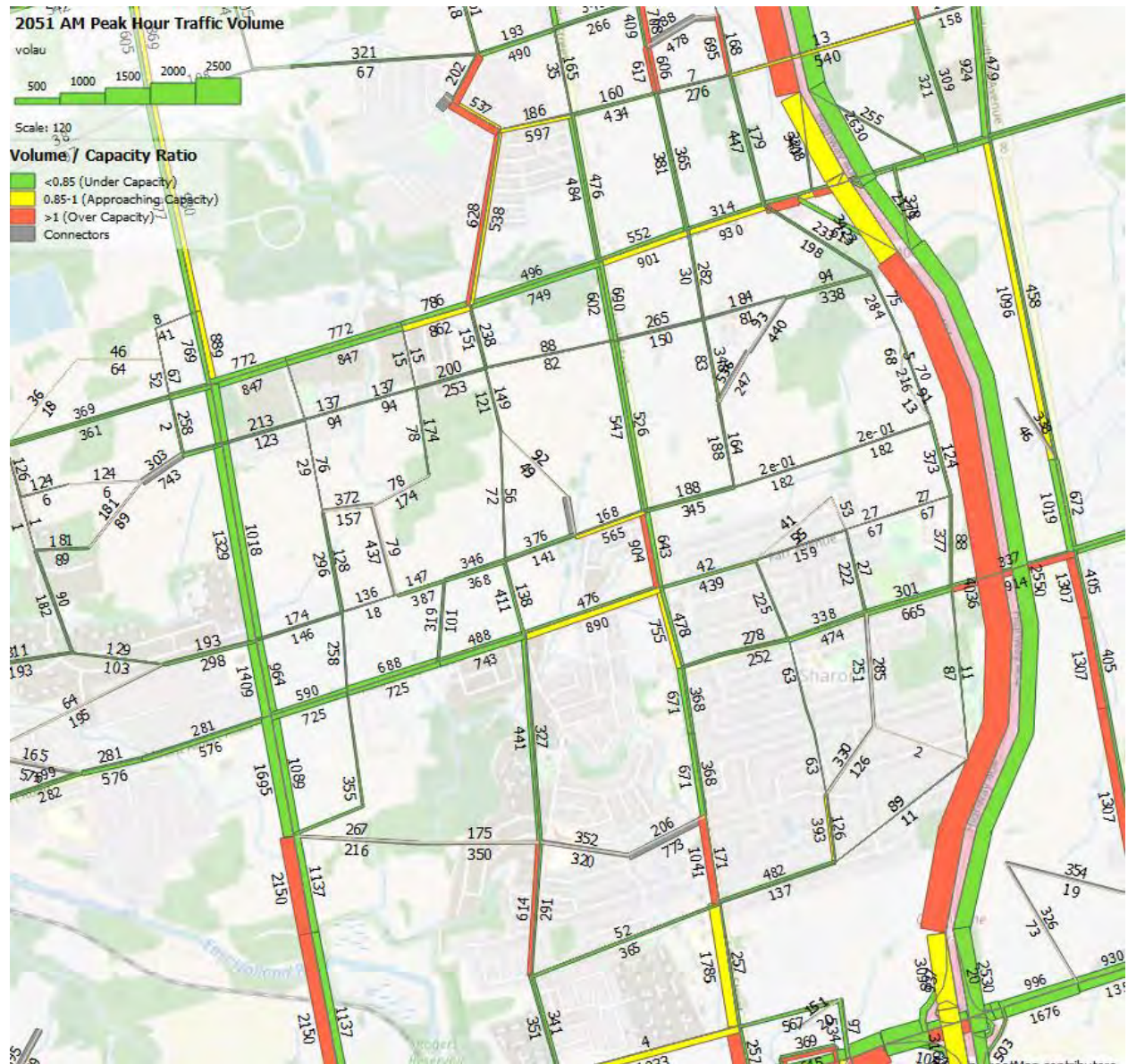


Figure 31. Zone 5 100% Whitebelt AM Peak Hour Traffic Demand



SHARON EAST COLLECTOR SENSITIVITY

HDR was asked by the Town to investigate the need of the Sharon East Collector to connect to the future Silk Twist Drive extension. The property required for the 2041 TMP alignment conflicts with the proposed expansion of the East Gwillimbury Sports Complex northwest of Mount Albert Road and Highway 404. A sensitivity was conducted under the 100% Whitebelt scenario due to the high demand observed between Silk Twist Drive extension and southerly Mount Albert Road, considering the only existing link is Leslie Street. Alternative alignment options considered for testing are shown in **Figure 32** and include the following (option 1 and 2 numbering referenced in **Figure 32**):

- **Option 1:** Current Sharon East collector alignment per 2041 TMP recommendations;
- **Option 2:** Extension of Donlands Avenue; and
- **Option 3:** Neither Sharon East collector (Option 1) or extension of Donlands Avenue (Option 2)
- **Option 4:** Current Sharon East collector alignment per 2041 TMP with sensitivity test for new 2 to 4 lane widening of Leslie Street between Doane Road and Mount Albert Road South (per York Region 2051 TMP)

The results of the sensitivity are shown in **Figure 33** to **Figure 36** for Options 1 to 4, respectively. Under Option 1, approximately 400 southbound vehicles are expected to use the Sharon East Collector. Option 2 forecasts approximately 300 southbound vehicles using the Donlands Avenue extension. It is noted Donlands Avenue directly serves driveways and the increased traffic may not be well received by residents. The segment along Leslie Street between Silk Twist Drive extension and Mount Albert Road will operate poorly in Options 1 to 3. Upwards of 100 southbound vehicles are forecasted to divert to Leslie Street if there is no link alternative along from the Sharon East Collector or Donlands Avenue. Under Option 4, the Sharon East collector remains well utilized with over 300 peak direction southbound vehicles north of Mount Albert Road, while York Region's proposed widening of Leslie Street is also well utilized (approaching capacity).

Overall, **the Sharon East Collector is recommended to be carried forward as the preferred alternative.** The Sharon East Collector will provide improved network connectivity for all modes between the existing Sharon community and future developments north of Mount Albert Road. In addition, the connection also relieves some of the forecasted congestion on Leslie Street both with and without York Region's planned widening.

Figure 32. Alignment Options 1 and 2 considered for Sharon East Collector Sensitivity*



*NOTE: All proposed road alignments are conceptual and subject to further study.

Figure 33. Sharon East Collector Sensitivity – Option 1 (Current 2041 TMP Alignment)

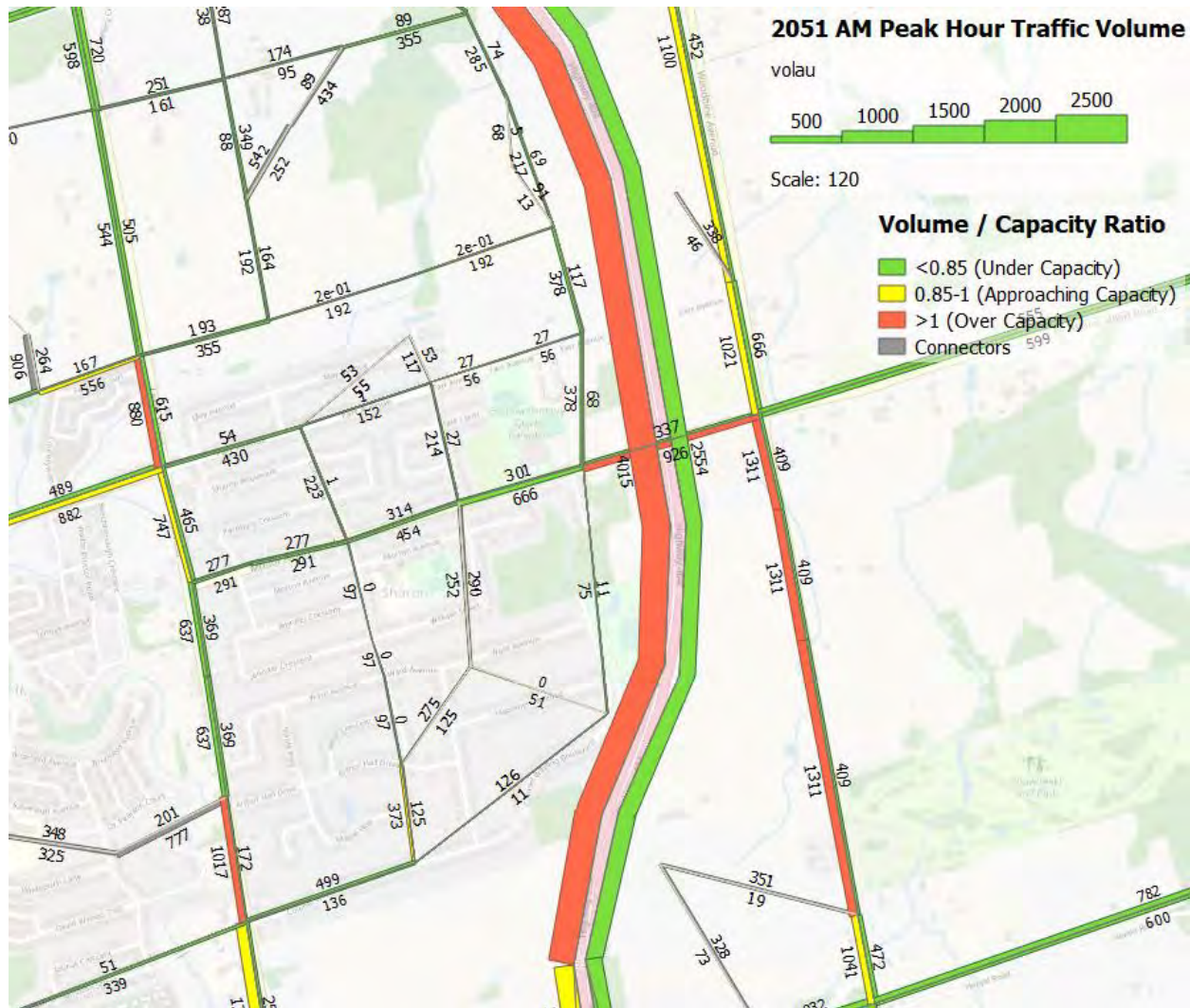


Figure 34. Sharon East Collector Sensitivity – Option 2 (Donlands Avenue Extension)

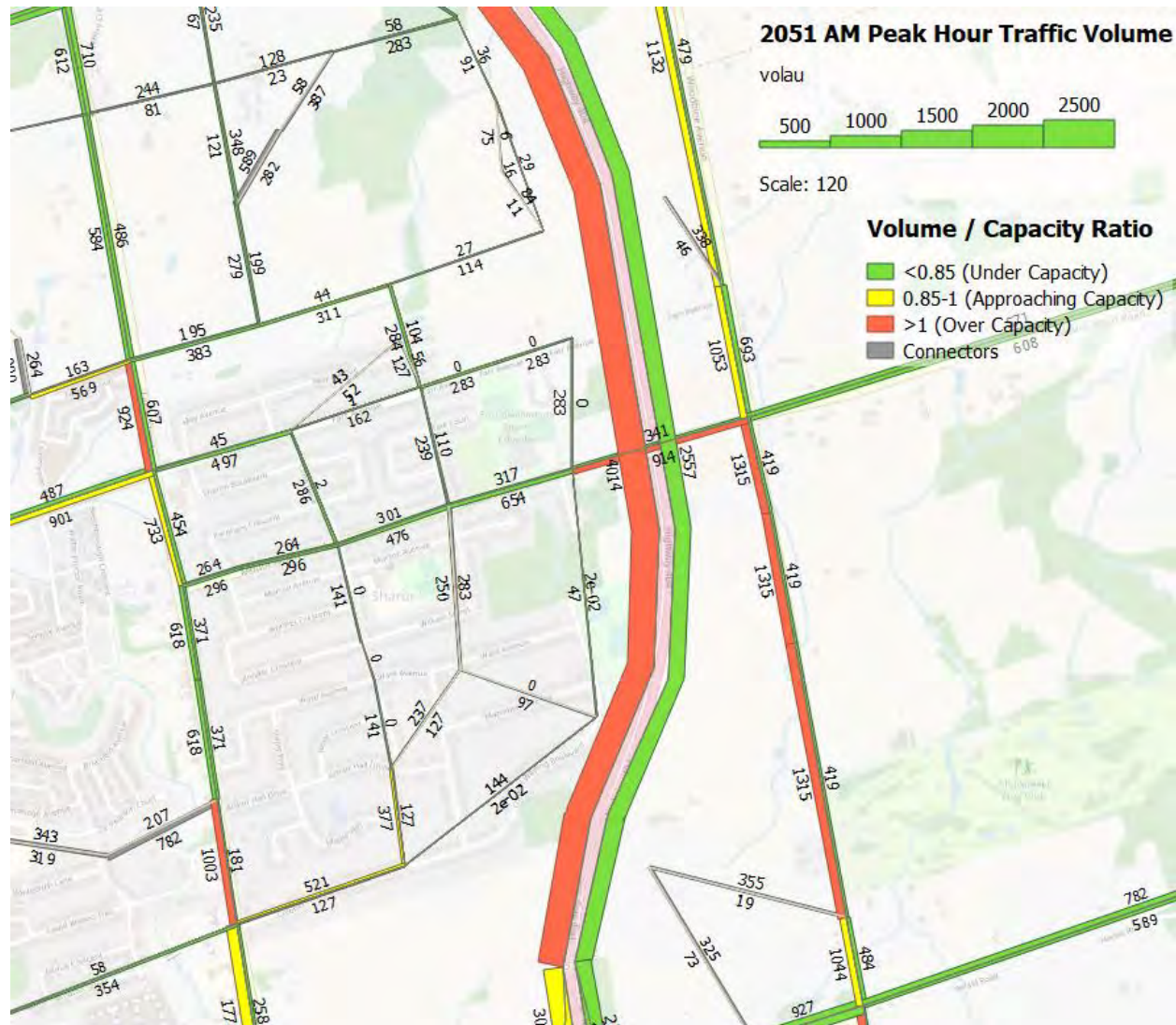


Figure 35. Sharon East Collector Sensitivity – Option 3 (Neither Sharon East Collector or Donlands Avenue Extension)

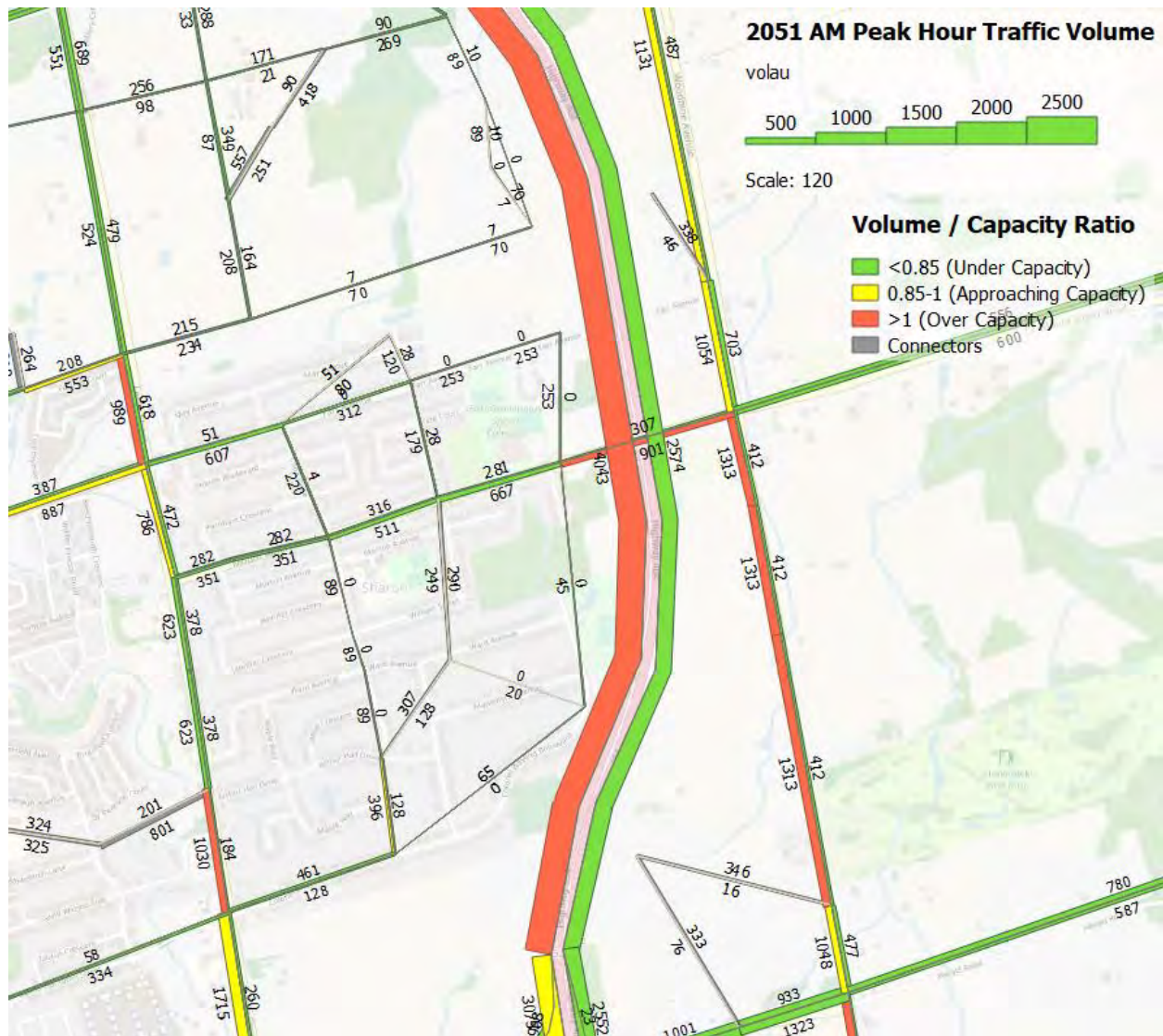
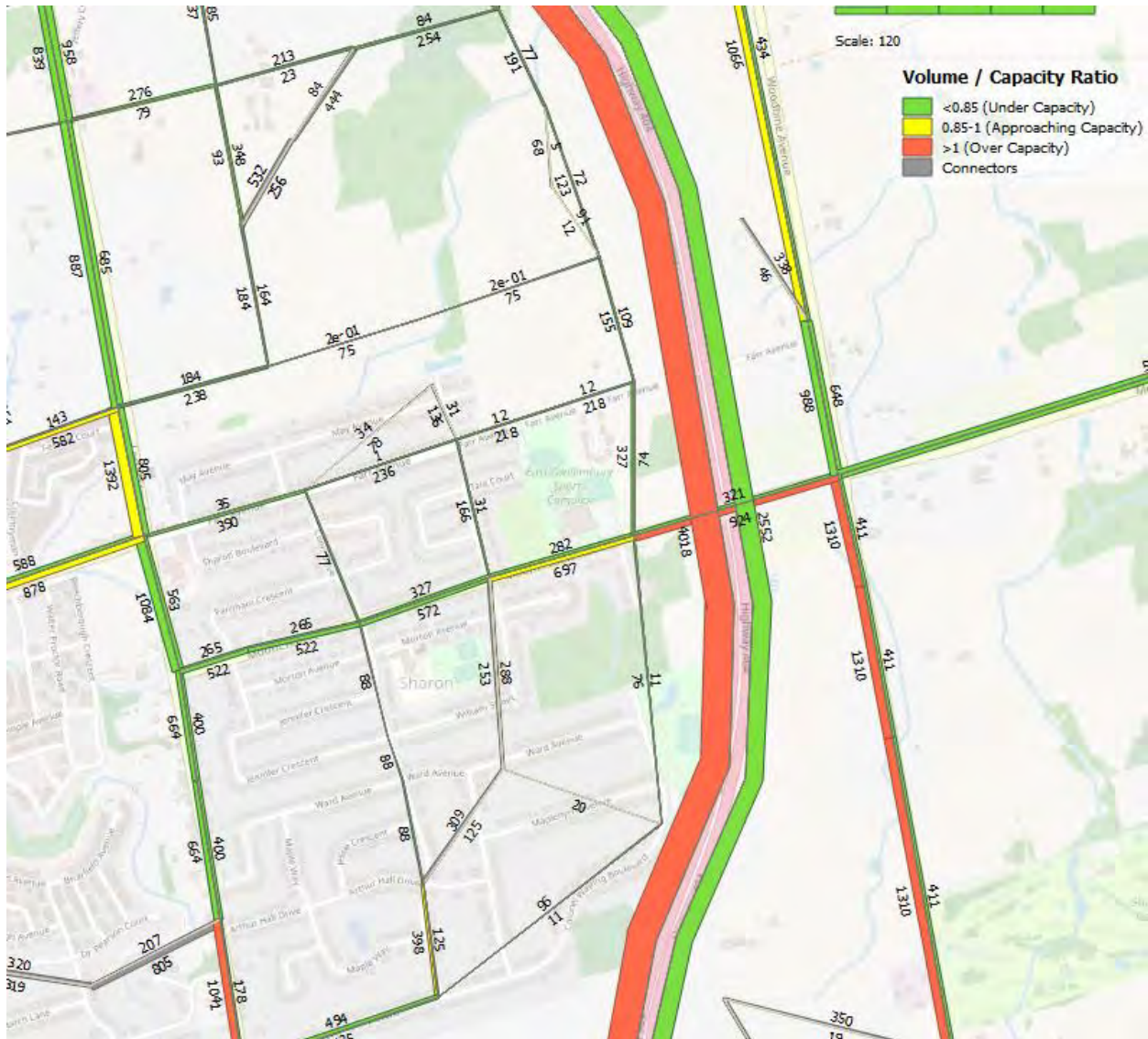


Figure 36. Sharon East Collector Sensitivity – Option 4 (Current 2041 TMP alignment with 2 to 4 lane widening of Leslie Street between Doane Rd and Mount Albert Rd)



Zone 6 (Northeast of Holland Landing Road and Oriole Drive)

The preferred network for full build out of Zone 6 (Surrounding Sharon Community Area) is shown in **Figure 37**. It is noted collector roads are not required as local streets can sufficiently serve future development.

Figure 37. Zone 6 Conceptual Network (Full Build-out)



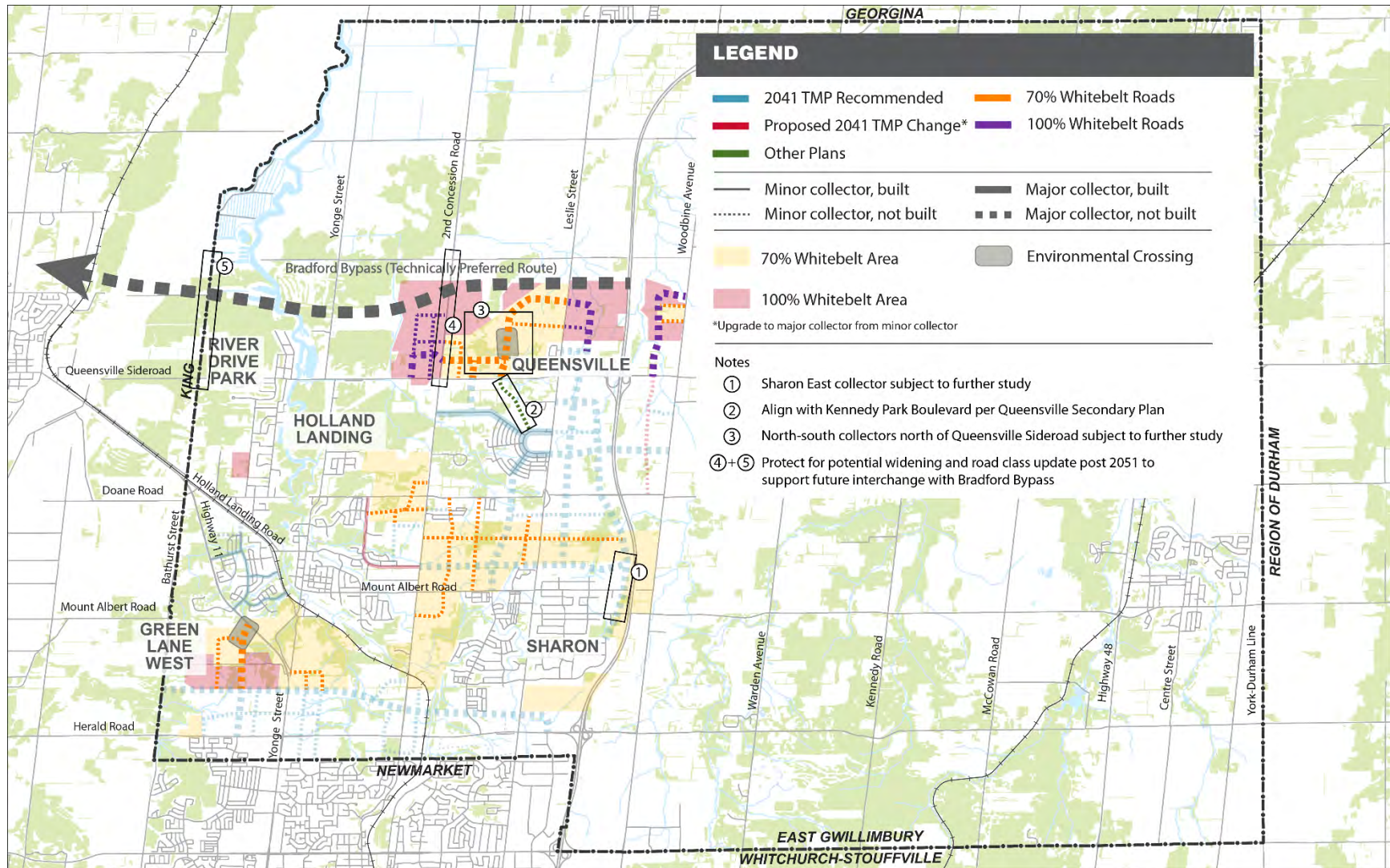
	70% Whitebelt Area		2041 TMP Recommended		2051 70 Percent Whitebelt
	100% Whitebelt Area		2041 TMP Recommended (Built / Existing Road)		2051 100 Percent Whitebelt
	Environmental Crossing				2051 100 Percent (Local Road)

6. Proposed 2051 TMP Road Network

The proposed draft road network is shown in **Figure 38** for the 2051 horizon consists of all recommended roads discussed for the various zones described in **Section 5**. The collector network is further refined to major and minor collectors to differentiate collector roads intended to carry higher volumes of people traffic and are thus longer and more continuous. Major collectors are assumed to have a 26 m right-of-way (14 m pavement) and accommodate an upgrade to multi-use path on one side (sidewalk on the other) while minor collectors are assumed to have a 23 m right-of-way (9.8 m pavement) and accommodate sidewalks on both sides. Major collectors were determined based on network opportunities to provide longer, continuous connections between both future Whitebelt lands and existing areas of East Gwillimbury.

Additional active transportation, transit, and travel demand management initiatives will be later assessed in coordination with the Town's Active Transportation and Trails Master Plan as part of the TMP process to supplement the draft 2051 TMP road network and provide a multimodal solution for East Gwillimbury.

Figure 38. Draft Preferred 2051 Road Network





Transportation Master Plan Update

Appendix C – Detailing of the Preferred Scenario

Town of East Gwillimbury
Final Report



Contents

Detailing of the Preferred Scenario	1
1 New Road Projects	2
1.1.1 Road Improvements in Holland Landing	4
1.1.2 Road Improvements in Green Lane Corridor	7
1.1.3 Road Improvements in Sharon	11
1.1.4 Road Improvements in Queensville	15
1.1.5 Road Improvements north of Queensville Sideroad	17
1.1.6 Road Improvements near Highway 11 and Yonge Street	20
1.1.7 Road Improvements in Other Areas	22
2 Road Jurisdiction Review	25
3 Active Transportation	27
3.1 Pedestrian Infrastructure	27
3.2 Cycling Infrastructure	40
3.2.1 Existing Collector Roads	41
3.2.2 Rural Roads	42
3.2.3 Proposed Cycling Network	43
4 Transit	54
5 EcoMobility Hubs	54
5.1 Potential Costs	58
5.2 Bike Share	58
6 Improving Connectivity to the GO Station	58
6.1 Transportation and Built Environment Context	59
6.2 Transit Connectivity	60
6.3 Improvements	61
6.3.1 Goals	61
6.3.2 Strategy	61
6.3.3 Potential Improvements	61
7 Roundabouts	62
7.1 Existing Guidelines	62
7.2 Roundabout Use and Policies in Other Jurisdictions	62
7.3 Types of Roundabouts	63
7.3.1 Single-Lane Roundabout	63
7.3.2 Multilane Roundabout	64
7.3.3 Mini Roundabout	64
7.4 Advantages and Disadvantages of Roundabouts	64
7.5 Roundabout Implementation Policies	66
7.6 Potential Roundabout Locations	67

Tables

Table 1-1: Recommended Collector Road Improvements in Holland Landing	4
Table 1-2: Recommended Collector Road Projects in Green Lane West	9
Table 1-3: Recommended Collector Road Projects in Sharon	12
Table 1-4: Recommended Collector Road Projects in Queensville	15
Table 1-5: Recommended Collector Road Projects North of Queensville Sideroad	17
Table 1-6: Recommended Collector Road Projects near Highway 11 and Yonge Street	21
Table 1-7: Road Improvements in Other Areas	22
Table 2-1. York Region Road Jurisdiction Review for Queensville Sideroad	26
Table 3-1. Proposed Pedestrian Infrastructure	28
Table 3-2. Types of Cycling Facilities	40
Table 3-3. Proposed Cycling Improvements	44
Table 7-1. Roundabout Policies in Other Jurisdictions	63
Table 7-2: Recommended Intersection Improvements	69

Figures

Figure 1: Proposed 2051 Road Network.....	3
Figure 2: New Collector Road Improvements in Holland Landing	5
Figure 3: New Collector Road Improvements in North of Holland Landing (70% Whitebelt Area).....	6
Figure 4: Green Lane Secondary Plan Road Network	8
Figure 5: Collector Road Improvements in the Green Lane Corridor	10
Figure 6: Collector Road Improvements in Sharon.....	13
Figure 7: New Collector Road Improvements Surrounding Sharon (70% Whitebelt Area)	14
Figure 8: Road Collector Improvements in Queensville	16
Figure 9: New Collector Road Improvements Northwest of Queensville Sideroad (70% and 100% Whitebelt Area)	19
Figure 10: New Collector Road Improvements Northeast of Queensville Sideroad (70% and 100% Whitebelt Area)	20
Figure 11: New Collector Road Improvements near Highway 11 and Yonge Street (70% and 100% Whitebelt Area)	21
Figure 12: Rural Improvements Locations	24
Figure 13: New Road Improvements Northeast of Holland Landing and Oriole Drive	25
Figure 14: Proposed 2051 Sidewalk Network.....	39
Figure 15: Retrofit of Existing Collector with Sharrows (7m Pavement Width).....	41
Figure 16: Retrofit of Existing Collector with Painted Bike Lanes (9m Pavement Width).....	42
Figure 17: Heat Map of Active Transportation Activity.....	43
Figure 18: Proposed 2051 Cycling Network	53
Figure 19: Large Scale EcoMobility Hub.....	55
Figure 20: Proposed 2051 Transit Strategy	57
Figure 21: Access and Connectivity to East Gwillimbury GO Station.....	60
Figure 22: Potential Roundabout Locations.....	68

Detailing of the Preferred Scenario

The multimodal transportation vision for the 2051 horizon includes a detailed strategy and justification for all improvements. The key opportunities of Scenario 4 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 Active Transportation and Trails Master Plan;
- 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
- Encourage York Region Transit (YRT) maintain On-Demand Service within East Gwillimbury.

Additional network considerations for the 2051 horizon not considered when identifying the preferred scenario for the 2041 horizon include the following:

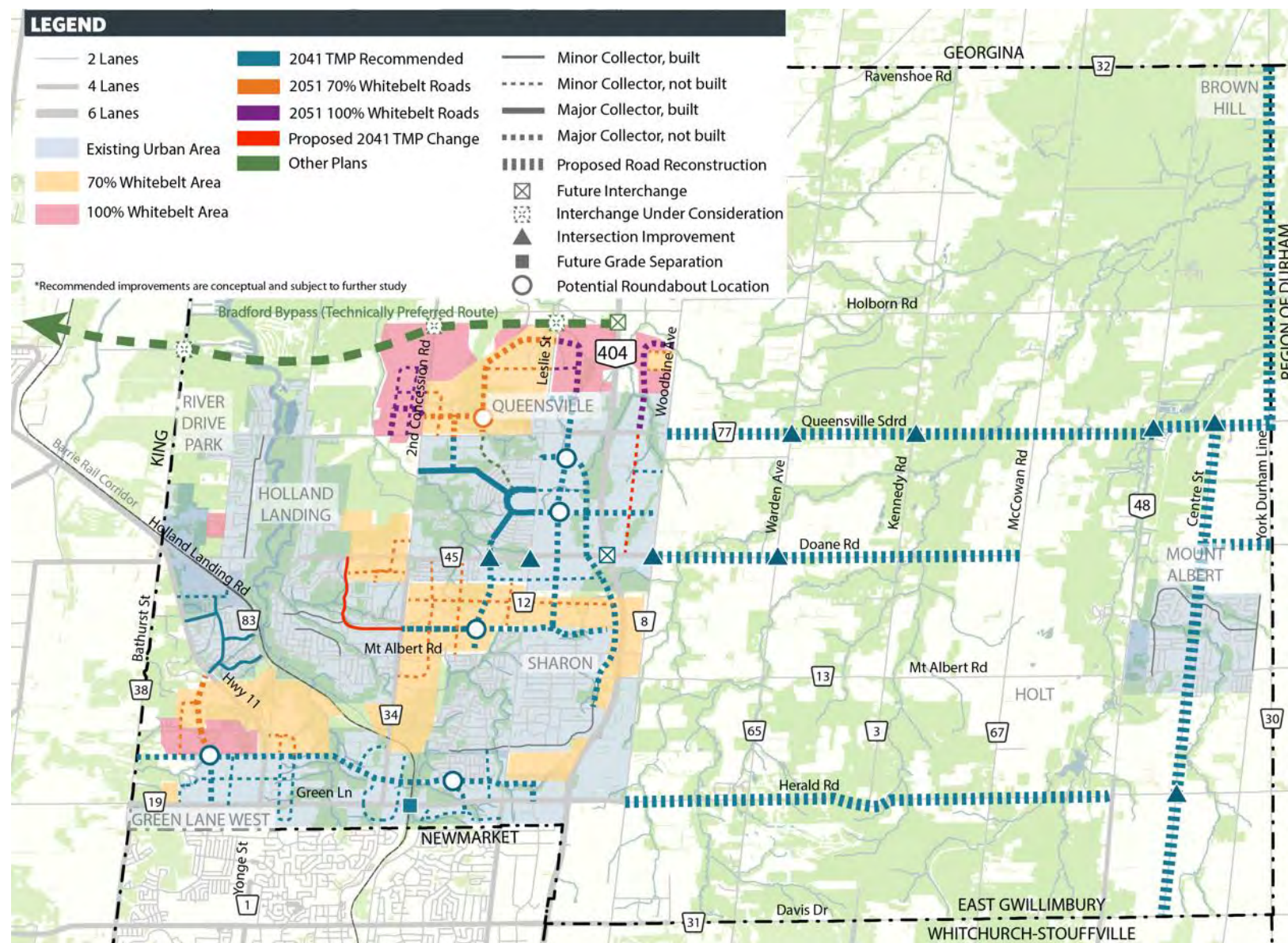
- New urban areas (70% and 100% Whitebelt lands);
- New regional and inter-regional projects identified in the 2022 York Region TMP (such as the Bradford Bypass); and
- Network changes to align with findings from completed studies, such as:
 - Holland Landing Secondary Plan;
 - Removal of Highway 404 midblock crossing north of Green Lane
 - Removal of collector network northeast of Highway 404 and Green Lane; and
 - Other completed projects.

These changes are incorporated based on the 2041 preferred scenario to reflect the forecast of 2051 horizon considering the connection to existing and planned roads as well as mitigation of crossing.

1 New Road Projects

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. Proposed road projects required for the 2051 horizon are shown in **Figure 1**.

Figure 1. Proposed 2051 Road Network



1.1.1 Road Improvements in Holland Landing

A total of five (5) new road projects have been identified in **Table 1-1** for the Holland Landing community and its surrounding Whitebelt area to improve transportation connections within the community and to support growth.

Table 1-1: Recommended Collector Road Improvements in Holland Landing

ID	Area	Road	From	To	Improvement Type
R-A1	HL	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	New Construction
R-A2	HL	Centennial Avenue Extension	Highway 11	Holland Landing Road	New Construction
R-B21	NHL	E-W Collector 8	Silk Twist Drive	2nd Concession Road	New Construction
R-B22	NHL	Collector 7	2nd Concession Road	E-W Collector 8	New Construction
R-B23	NHL	N-S Collector 10	E-W Collector 8	Holland Landing Collector	New Construction

HL denotes 'Hollands Landing'

NHL denotes 'North of Hollands Landing'

The Silk Twist Drive Extension is already under construction as of the writing of this report. The improvements in Holland Landing and the 70% Whitebelt Area north of Holland Landing are illustrated in **Figure 2** and **Figure 3** respectively. It is noted that these community wide figures are for location references only with the final recommendations presented in **Figure 1**. Same statement applies to the rest sections.

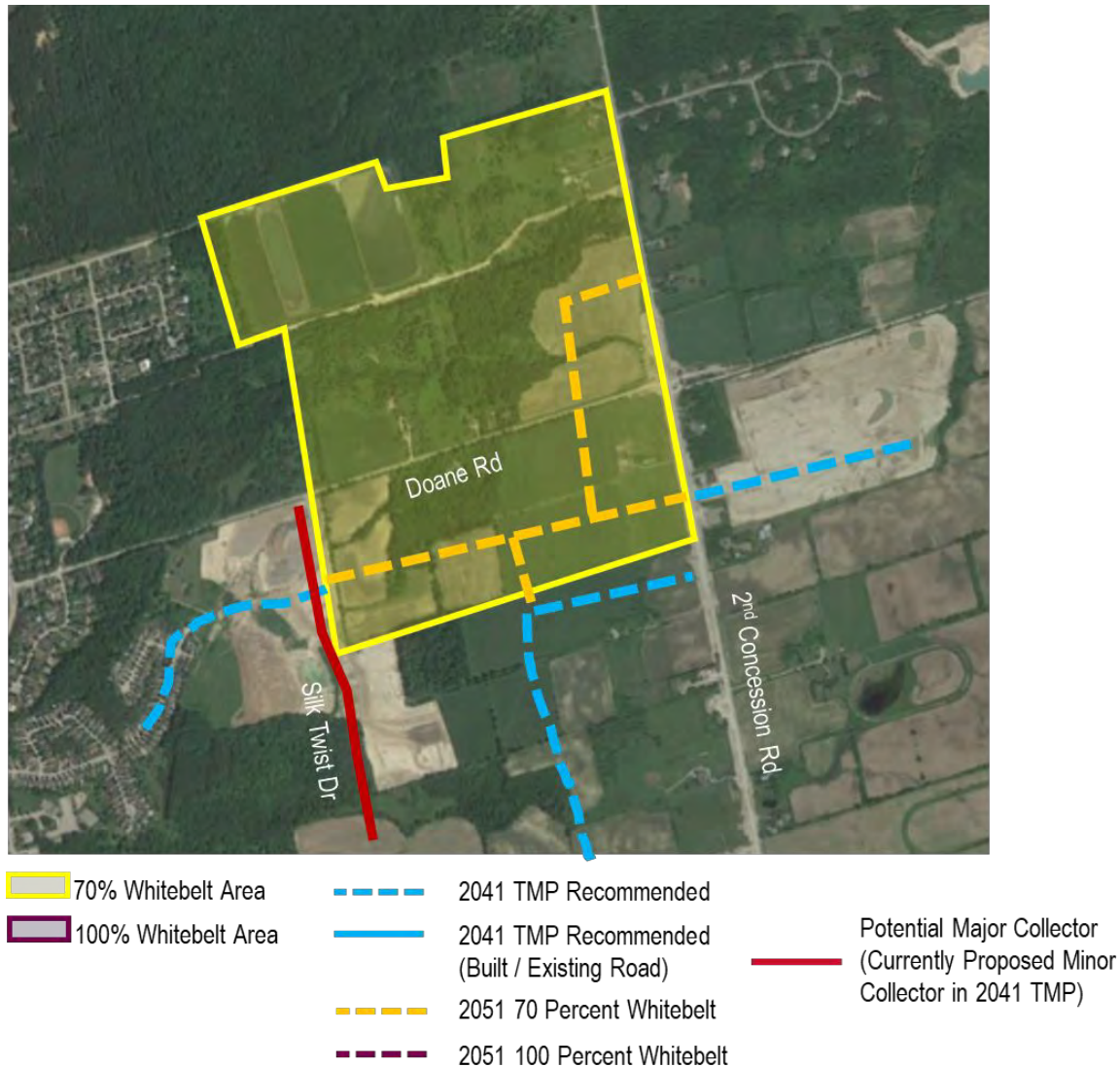
Figure 2: New Collector Road Improvements in Holland Landing



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

Figure 3: New Collector Road Improvements in North of Holland Landing (70% Whitebelt Area)



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

The extension of the aforementioned roads is recommended to improve the connectivity of the Holland Landing community area. They will also improve the active transportation network as these road projects will include pedestrian and cycling infrastructure.

1.1.1.1 CENTENNIAL AVENUE AT GRADE CROSSING

As part of the road improvements in Holland Landing, the Centennial Avenue extension across the Barrie GO Rail Corridor was further analyzed to determine if grade separation is required for the crossing. With the planned Metrolinx Regional Express Rail (RER) service, the Barrie GO Rail Corridor

will experience all day, two-way GO Rail service to Barrie and Toronto every 30 minutes in the peak direction during peak periods and every 60 minutes during off-peak periods.

The Exposure Index (EI) is a measure typically used to assess the merit of grade separating an at level road crossing. The index is calculated as:

Exposure Index

$$= (Total\ number\ of\ train\ crossings\ per\ day) \\ * Annual\ Average\ Daily\ Traffic$$

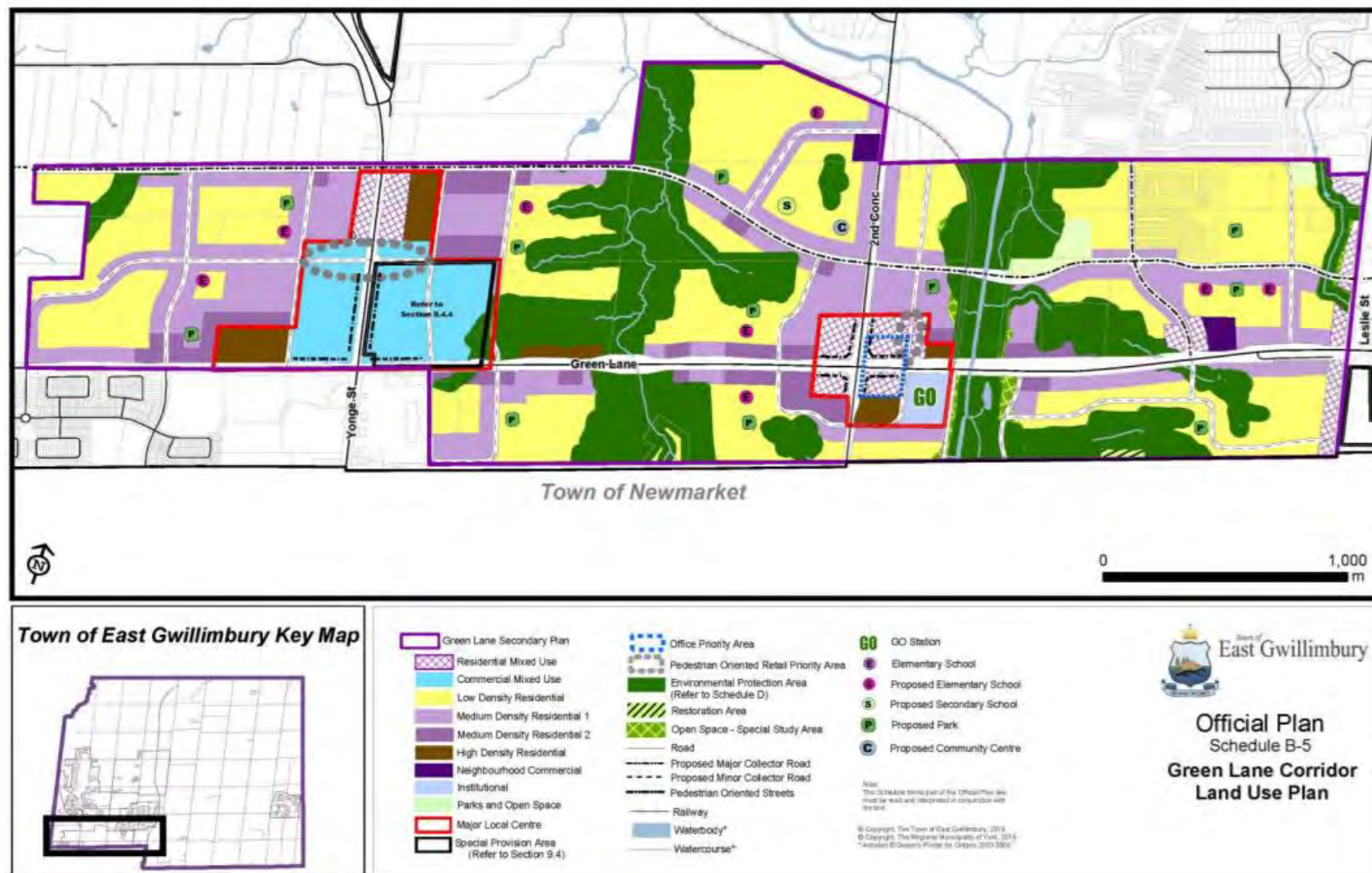
Most municipalities and agencies agree that an EI which exceeds 200,000 warrants grade separation. By 2041, the expected Average Annual Daily Traffic (AADT) for the Centennial Avenue extension is estimated to be 2,790 vehicles. With RER service, the Barrie GO Rail Corridor in East Gwillimbury will experience 18 trains per day. This results in an EI of 50,220, therefore grade separation is not warranted at the Centennial Avenue extension.

1.1.2 Road Improvements in Green Lane Corridor

The Green Lane Corridor is expected to experience significant growth over the next 30 years. To accommodate this growth and to satisfy policies from the Town's OP, several road projects have been identified with consultation of the ***Green Lane Secondary Plan*** (2018), as shown in **Figure 4**.

The recommended projects are displayed in **Table 1-2** and illustrated in **Figure 5**.

Figure 4: Green Lane Secondary Plan Road Network



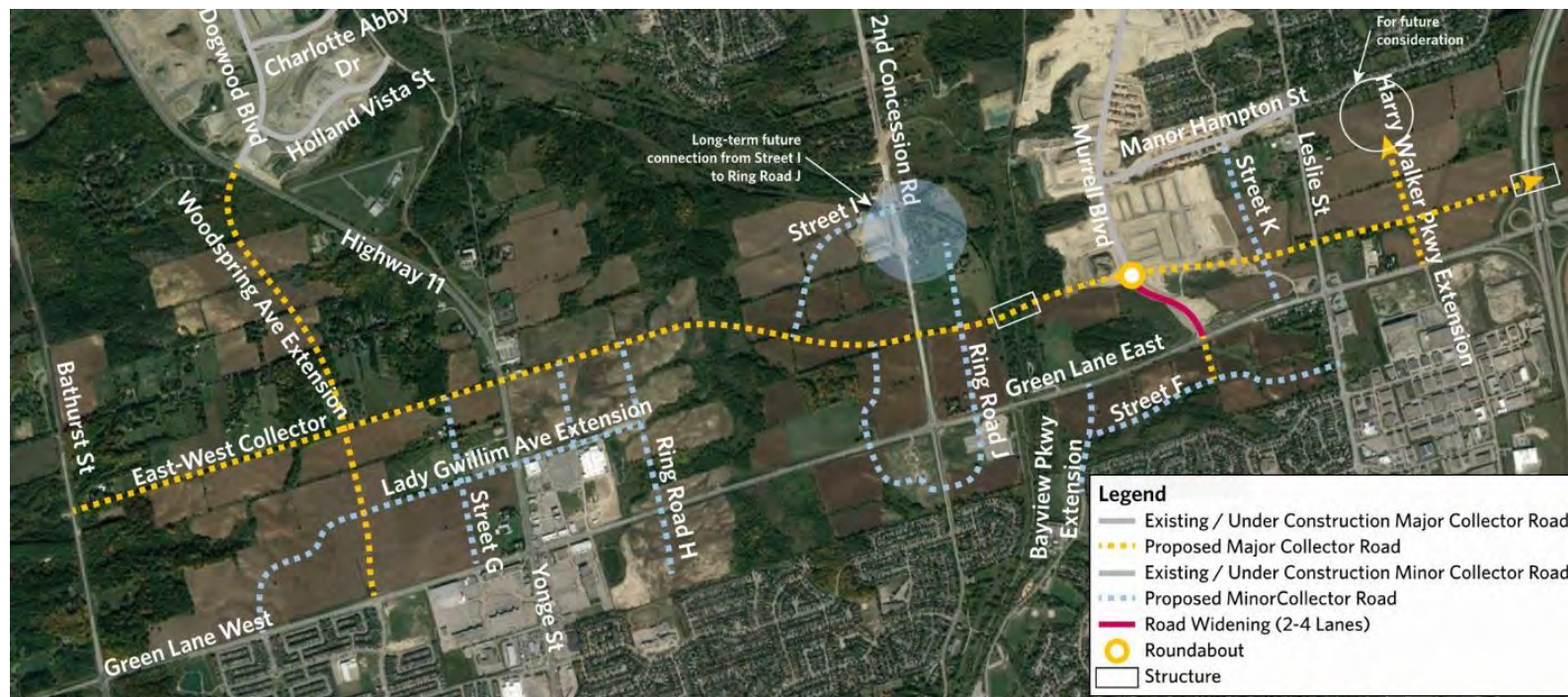
For location references only, see **Figure 1** for final recommendations.

Source: Green Lane Secondary Plan (April 2018)

Table 1-2: Recommended Collector Road Projects in Green Lane West

ID	Road	From	To	Improvement Type
R-A3	Murell Boulevard Widening	East-West Collector	Green Lane	Widening
R-A4	Bayview Parkway Extension	Green Lane	Current Northern Terminus	New Construction
R-A5	Connector Road / Street I	2nd Concession	East-West Collector	New Construction
R-A7	East-West Collector + Structure	Bathurst Street	Harry Walker Parkway	New Construction
R-A8	Harry Walker Parkway Extension	East-West Collector	Green Lane	New Construction
R-A10	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (East of Yonge)	New Construction
R-A11	New East-West Road (South of Green Lane) / Street F	Bayview Parkway	Leslie Street	New Construction
R-A11b	Murrell Blvd South Extension	Green Lane	Street F	New Construction
R-A12	North-South Connector (West of Yonge Street) / Street G	East-West Collector	Green Lane	New Construction
R-A13	Ring Road (East of Yonge Street) / Ring Road H	East-West Collector (west side)	East-West Collector (east side)	New Construction
R-A14	2nd Concession Ring Road / Ring Road J	Rogers Road	East-West Collector	New Construction
R-A15	Street K	Manor Hampton Street	Green Lane	New Construction
R-A16	Woodspring Avenue Extension	East-West Collector	Green Lane	New Construction
R-A59	Barrie GO Grade Separation	Green Lane	east of Second Concession	New Structure

Figure 5: Collector Road Improvements in the Green Lane Corridor



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

These road projects are necessary to support growth, in addition to connecting the communities within the Town: the Woodspring Avenue extension would connect Holland Landing to Green Lane West and the Harry Walker Parkway Extension would connect Sharon to Green Lane East. These connections help facilitate trips within the Town, which is expected to significantly increase. They will also support walking and cycling trips between the communities with active transportation infrastructure included within the road ROW. It must be noted that property acquisition may be necessary for certain parcels (namely Ring Road H and J) in order to implement the recommended road improvements.

1.1.3 Road Improvements in Sharon

To support development within and around Sharon, fourteen (14) new road projects located in Sharon community and its surrounding Whitebelt area have been identified. **Table 1-3** lists the recommended improvements while **Figure 6** and **Figure 7** illustrate them visually.

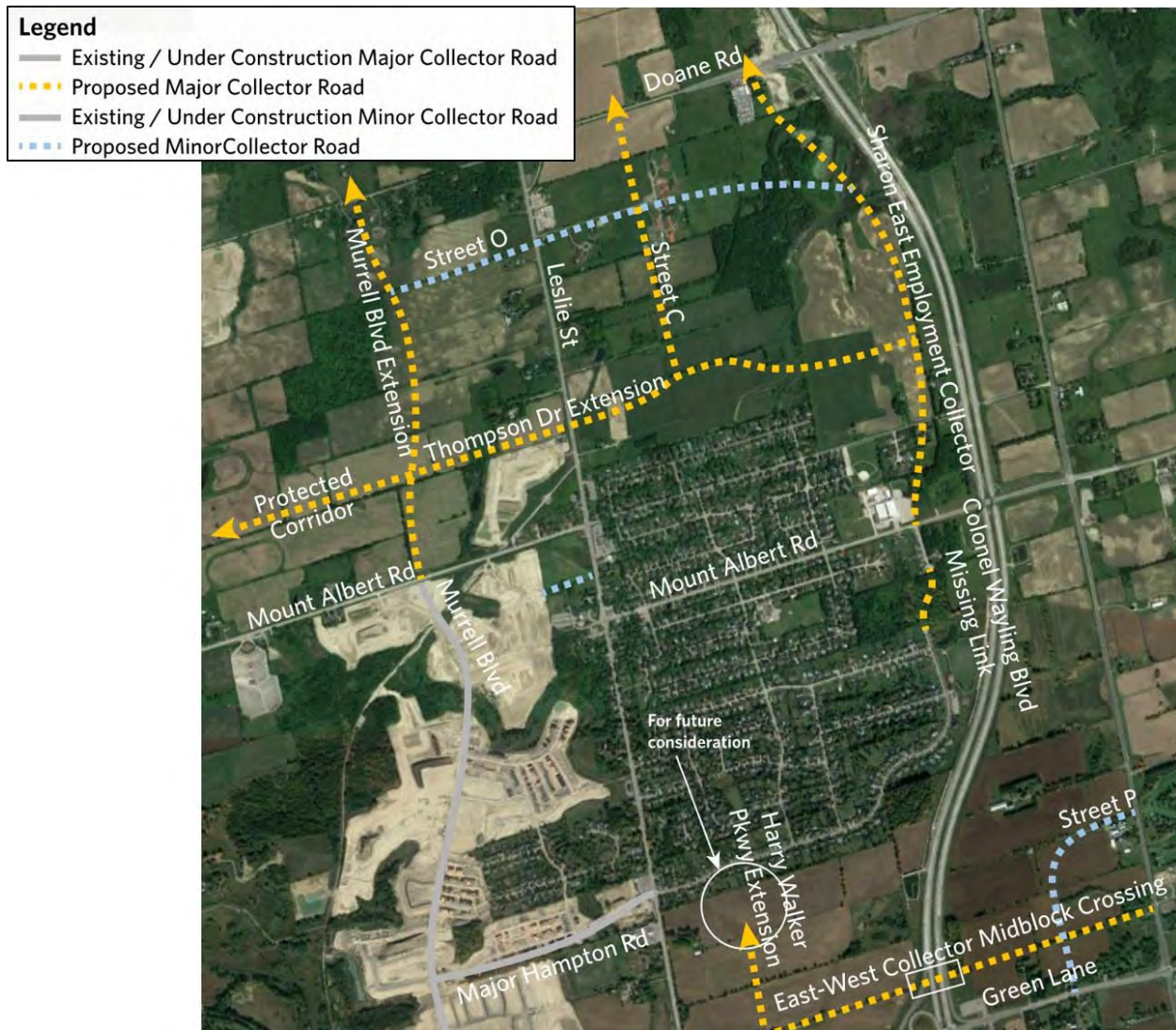
Table 1-3: Recommended Collector Road Projects in Sharon

ID	Area	Road	From	To	Improvement Type
R-A21	SR	New North Queensville Ring Road / Street C	Doane Road	Silk Twist Drive	New Construction
R-A22	SR	Murrell Boulevard Extension	Doane Road	Mount Albert Road	New Construction
R-A23	SR	Sharon East Employment Collector	Doane Road	Ward Avenue	New Construction
R-A24	SR	Street O	Murell Boulevard Extension	Sharon East Employment Collector	New Construction
R-A25	SR	Silk Twist Drive East	Murell Boulevard Extension	Sharon East Employment Collector	New Construction
R-A26	SR	Silk Twist Drive West	2nd Concession	Murell Boulevard	New Construction
R-A60	SR	Highway 404 Interchange at Doane Road			New Structure
R-B24	SSR	Collector 8	2nd Concession Road	Doane Road	New Construction
R-B25	SSR	N-S Collector 11	Mount Albert Road	Doane Road	New Construction
R-B26	SSR	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	New Construction
R-B27	SSR	E-W Collector 9	2nd Concession Road	Sharon East Collector	New Construction

SR denotes 'Sharon'

SSR denotes 'Surrounding Sharon'

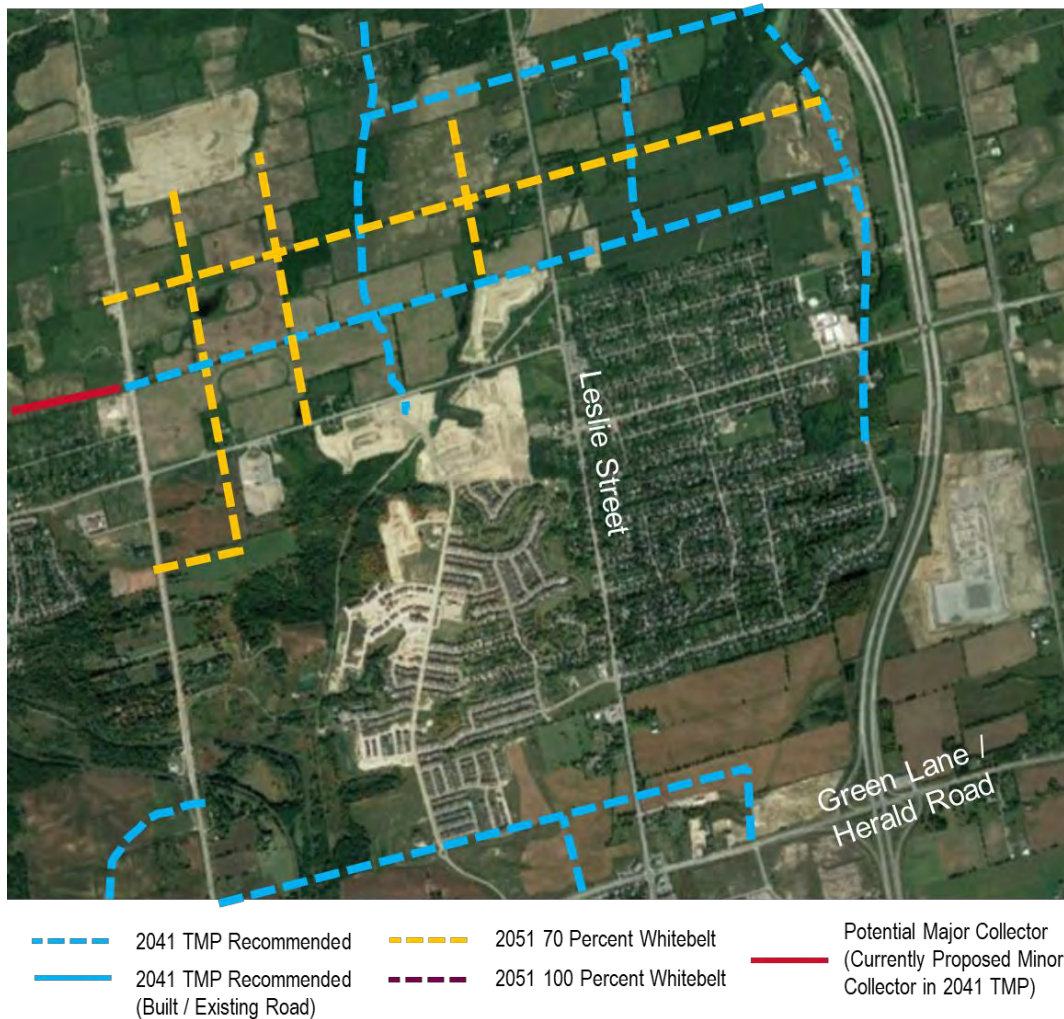
Figure 6: Collector Road Improvements in Sharon



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

Figure 7: New Collector Road Improvements Surrounding Sharon (70% Whitebelt Area)



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

These road projects will facilitate travel between Queensville and Sharon, support the Sharon Employment lands, and will provide continuous connections to support multimodal trips within the Town. Given that the recommended road network represents the long-term vision for Sharon, improvements such as the extension of Silk Twist Drive westwards from Murrell Boulevard to 2nd Concession should be assessed depending on potential impacts on the protected corridor it crosses.

1.1.4 Road Improvements in Queensville

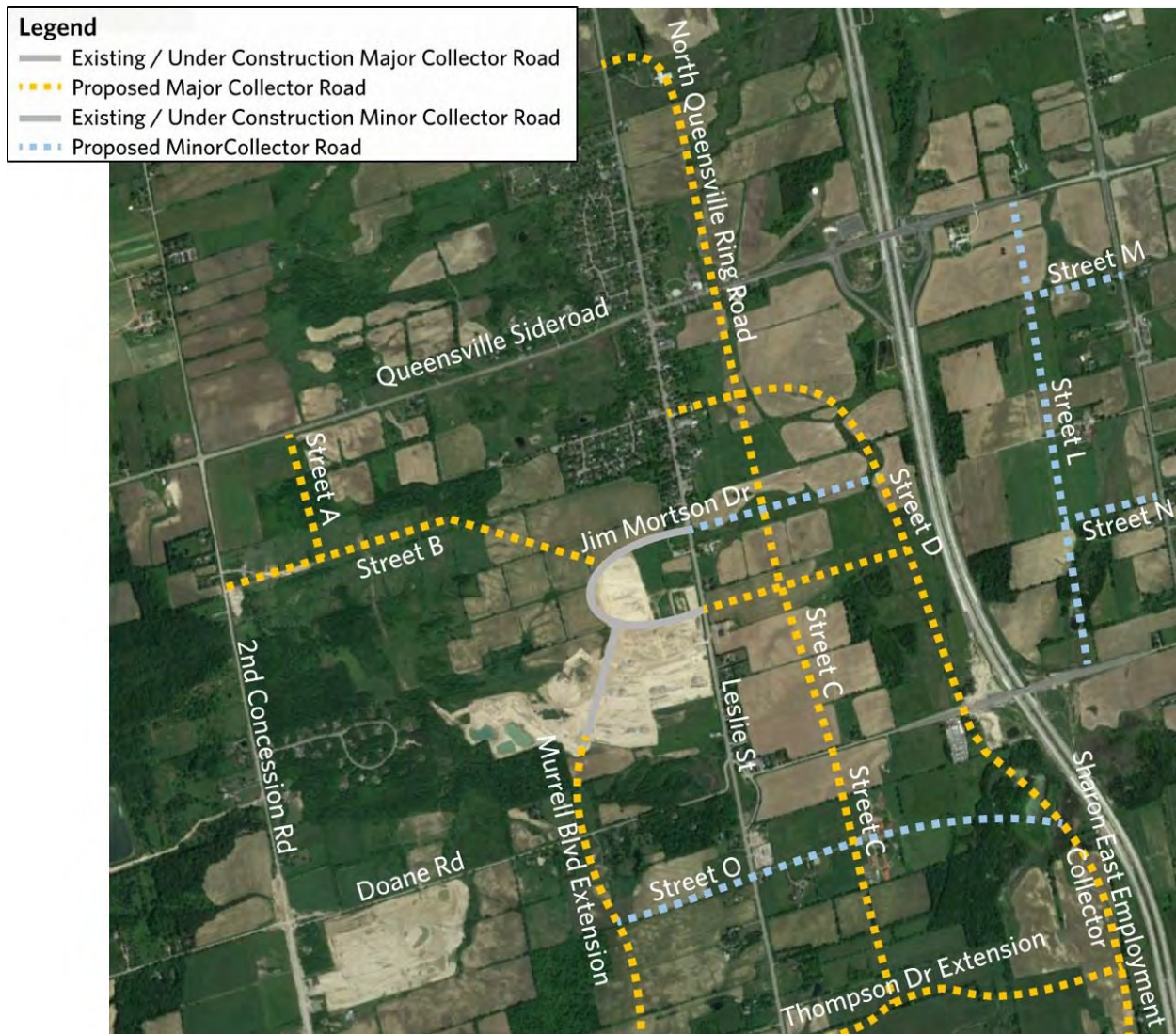
The Queensville community area will experience significant growth and is therefore has a significant number of new road projects as outlined in **Table 1-4**. The road projects are illustrated in **Figure 8**.

Table 1-4: Recommended Collector Road Projects in Queensville

ID	Road	From	To	Improvement Type
R-A27	Jim Mortson Drive Extension (Southern Extension 1)	Leslie Street	New North Queensville Ring Road / Street C	New Construction
R-A28	Jim Mortson Drive Extension (Southern Extension 2)	New North Queensville Ring Road / Street C	New North-South Frontage Road (East of Hwy 404) / Street L	New Construction
R-A29	Jim Mortson Drive Extension (Northern Extension)	Leslie Street	Sharon East Employment Collector Extension / Street D	New Construction
R-A30	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	New Construction
R-A31	New North-South Road / Street A	Queensville Sideroad	Evans Farm Boulevard	New Construction
R-A32	North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	New Construction
R-A33	New North-South Frontage Road (East of Hwy 404) / Street L	Queensville Sideroad	Doane Road	New Construction
R-A34	New East-West Road / Street M	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	New Construction
R-A35	New East-West Road / Street N	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	New Construction

ID	Road	From	To	Improvement Type
R-A36	Murrell Boulevard Extension / John Candy Drive	Ben Sinclair Avenue	Doane Road	New Construction
R-A37	Sharon East Employment Collector Extension / Street D	Leslie Street	Doane Road	New Construction

Figure 8: Road Collector Improvements in Queensville



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

The proposed road projects will support growth in the Queensville community area to the west of Highway 404 and the Queensville employment area to the

east of Highway 404. The projects will also improve multimodal connectivity between Queensville and Sharon, allow for shorter and more direct trips.

1.1.5 Road Improvements north of Queensville Sideroad

Due to the identified 70% and 100% Whitebelt area in the north of Queensville Sideroad, several new road projects are recommended, listed in **Table 1-5** and illustrated visually in **Figure 9** and **Figure 10**

Table 1-5: Recommended Collector Road Projects North of Queensville Sideroad

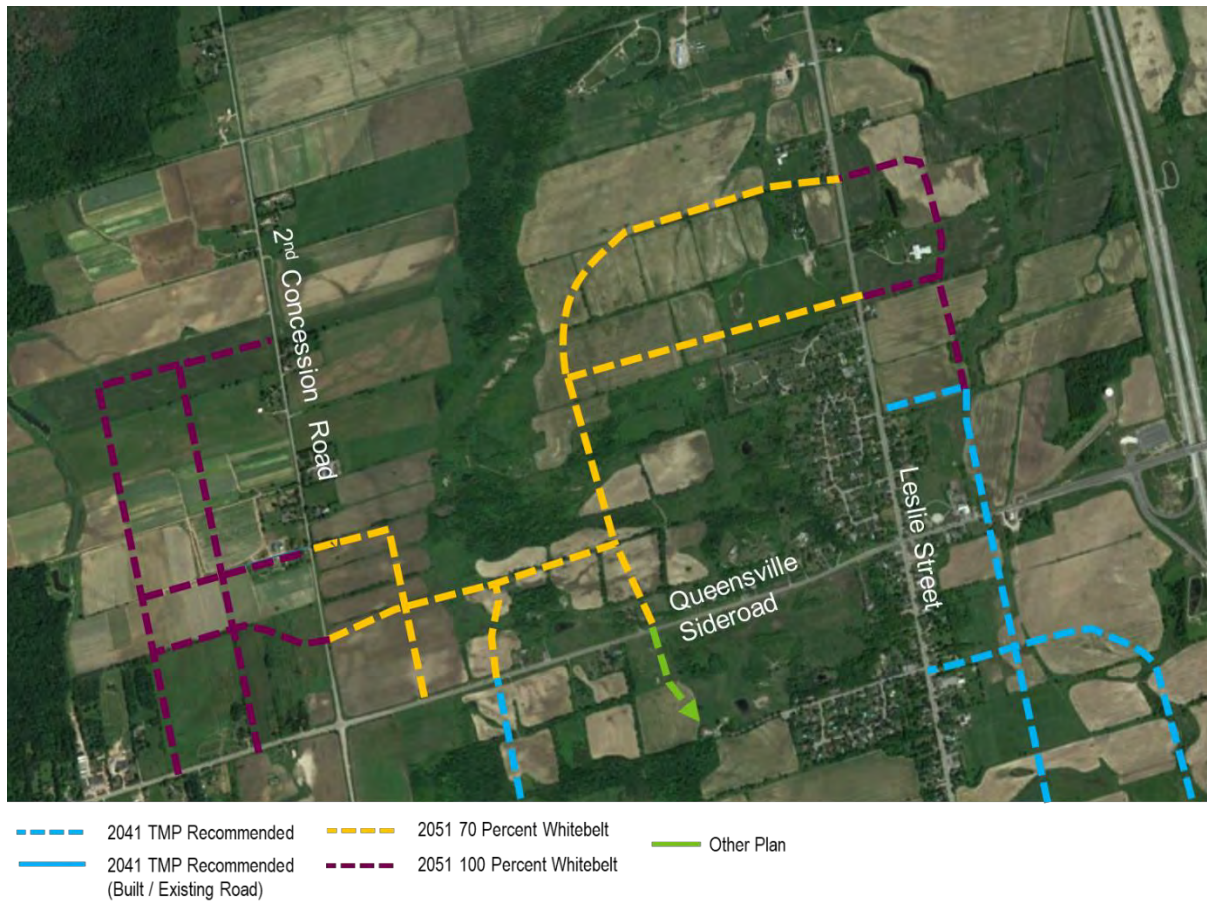
ID	Area	Road	From	To	Improvement Type
R-B1	NWQ	N-S Collector 1	Queensville Sideroad	E-W Collector 4	New Construction
R-B2	NWQ	N-S Collector 2	Queensville Sideroad	E-W Collector 4	New Construction
R-B3	NWQ	N-S Collector 3	E-W Collector 1	E-W Collector 2	New Construction
R-B4	NWQ	E-W Collector 1	N-S Collector 1	2nd Concession Road	New Construction
R-B5	NWQ	E-W Collector 3	N-S Collector 1	2nd Concession Road	New Construction
R-B6	NWQ	E-W Collector 4	N-S Collector 1	2nd Concession Road	New Construction
R-B7	NWQ	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	New Construction
R-B8	NWQ	E-W Collector 5	Leslie Street	Collector 1	New Construction
R-B9	NWQ	Collector 2	2nd Concession Road	Queensville Sideroad	New Construction
R-B10	NWQ	N-S Collector 4	E-W Collector 5	Queensville Sideroad	New Construction

ID	Area	Road	From	To	Improvement Type
R-B11	NWQ	Collector 3	Leslie Street	South of Queensville Sideroad	New Construction
R-B12	NWQ	E-W Collector 5	2nd Concession Road	Collector 2	New Construction
R-B13	NWQ	E-W Collector 6	Collector 2	Leslie Street	New Construction
R-B14	NEQ	70% Collectors (2 total in parallel)			New Construction
R-B15	NEQ	Collector 4	NEQ, 70% Collectors	Woodbine Avenue	New Construction
R-B16	NEQ	N-S Collector 6	Queensville Sideroad	NEQ, 70% Collectors	New Construction

NWQ denotes 'Northwest of Queensville Sideroad and Highway 404'

NEQ denotes 'Northeast of Queensville Sideroad and Highway 404'

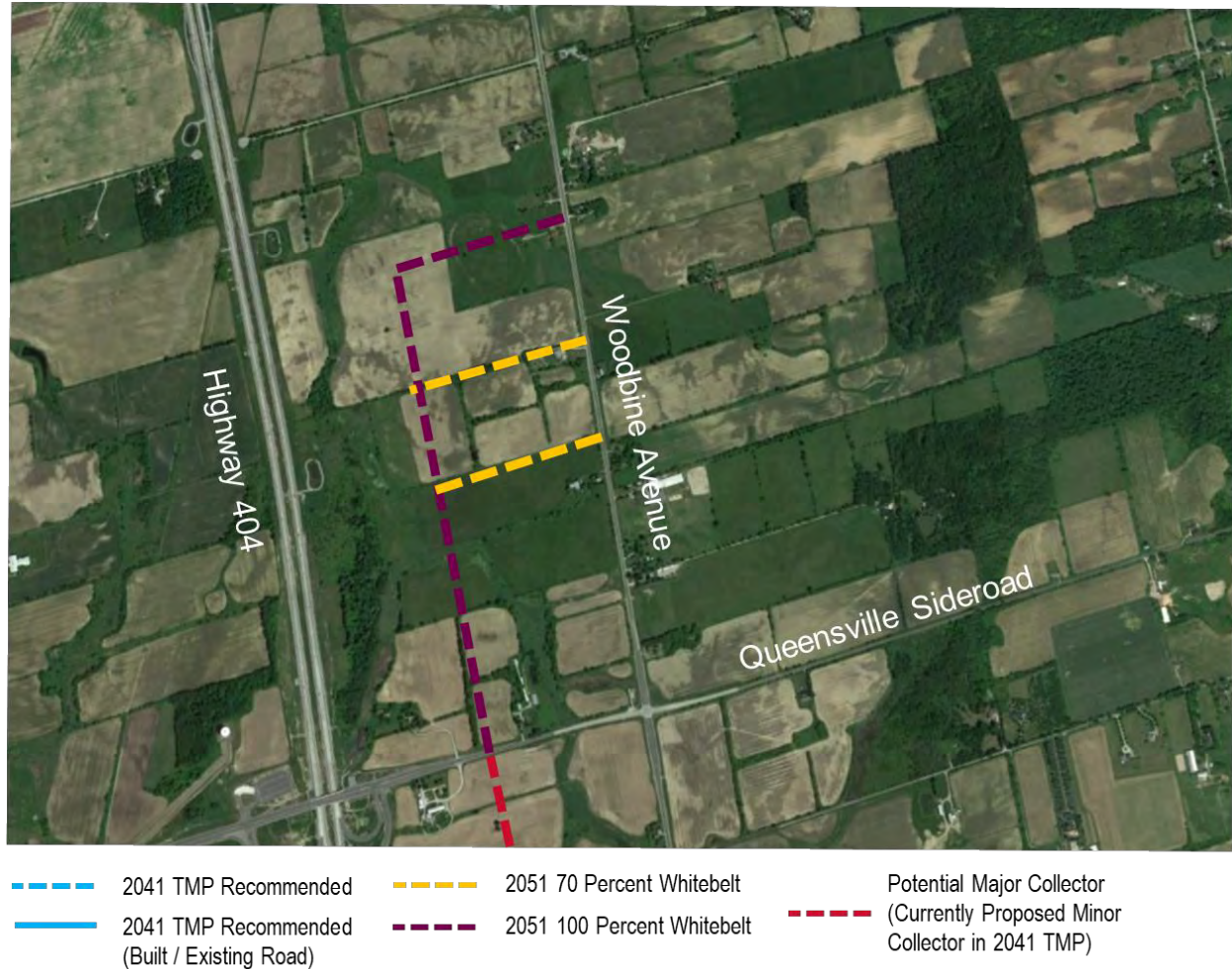
Figure 9: New Collector Road Improvements Northwest of Queensville Sideroad (70% and 100% Whitebelt Area)



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

Figure 10: New Collector Road Improvements Northeast of Queensville Sideroad (70% and 100% Whitebelt Area)



For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

1.1.6 Road Improvements near Highway 11 and Yonge Street

To support the development of the 70% and 100% Whitebelt area near Highway 11 and Yonge Street, several new road projects are recommended shown in **Table 1-6** and **Figure 11**. These new roads would improve the connectivity across communities including Holland Landing, Green Lane West, and the Whitebelt area in between. Additionally, as shown in **Figure 11**, the current rural road Morning Sideroad may be considered for urbanization to serve the community due to developments on either side of the road.

Table 1-6: Recommended Collector Road Projects near Highway 11 and Yonge Street

ID	Road	From	To	Improvement Type
R-B17	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	New Construction
R-B18	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	New Construction
R-B19	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	New Construction
R-B20	Collector 6	Highway 11	E-W Collector north of Green Lane	New Construction

Figure 11: New Collector Road Improvements near Highway 11 and Yonge Street (70% and 100% Whitebelt Area)



- 2041 TMP Recommended
- 2051 70 Percent Whitebelt
- Rural Road
- 2041 TMP Recommended (Built / Existing Road)
- 2051 100 Percent Whitebelt

For location references only, see **Figure 1** for final recommendations.

Source: Google Earth

1.1.7 Road Improvements in Other Areas

The preferred scenario includes recommendations for the reconstruction of several rural roads within the Town’s boundaries. As shown in **Figure 6-1** under **Section 6** in the main report, this includes Queensville Sideroad, Doane Road, Herald Road, Centre Street, and York Durham Line.

Although these roads do not experience capacity issues, they carry significant volumes for 2 lane rural roads that have several constraints. These constraints include steep hills, blind intersections, narrow areas with deep ditches, winding areas, and little/no shoulders, all of which are safety issues.

In order to safely accommodate growth and to facilitate safe travel between communities within the Town, it is recommended that these roads be reconstructed and should include paved shoulders. Based on projected 2041 traffic volumes (shown in **Figure 12**), Herald Road is recommended as the first priority for reconstruction, followed by Queensville Sideroad, Doane Road, Centre Street, and York Durham Line. The road segments identified for reconstruction with the Town of East Gwillimbury are outlined in **Table 1-7**.

Reconstruction of these roads refers to pavement rehabilitation and the widening of pavement width to the necessary standards within the road ROW. These roads will maintain their rural cross section and will include shoulders (paved or unpaved) and ditches. For these specific roads, paved shoulders are recommended and are detailed further in **Section 3 Active Transportation**.

In addition, one new local street (not shown in **Table 1-7**) is proposed for the 100% Whitebelt area located in the northeast of Holland Landing Road and Oriole Drive as shown in **Figure 13**. It is noted that collector roads are not required as local streets can sufficiently serve future development.

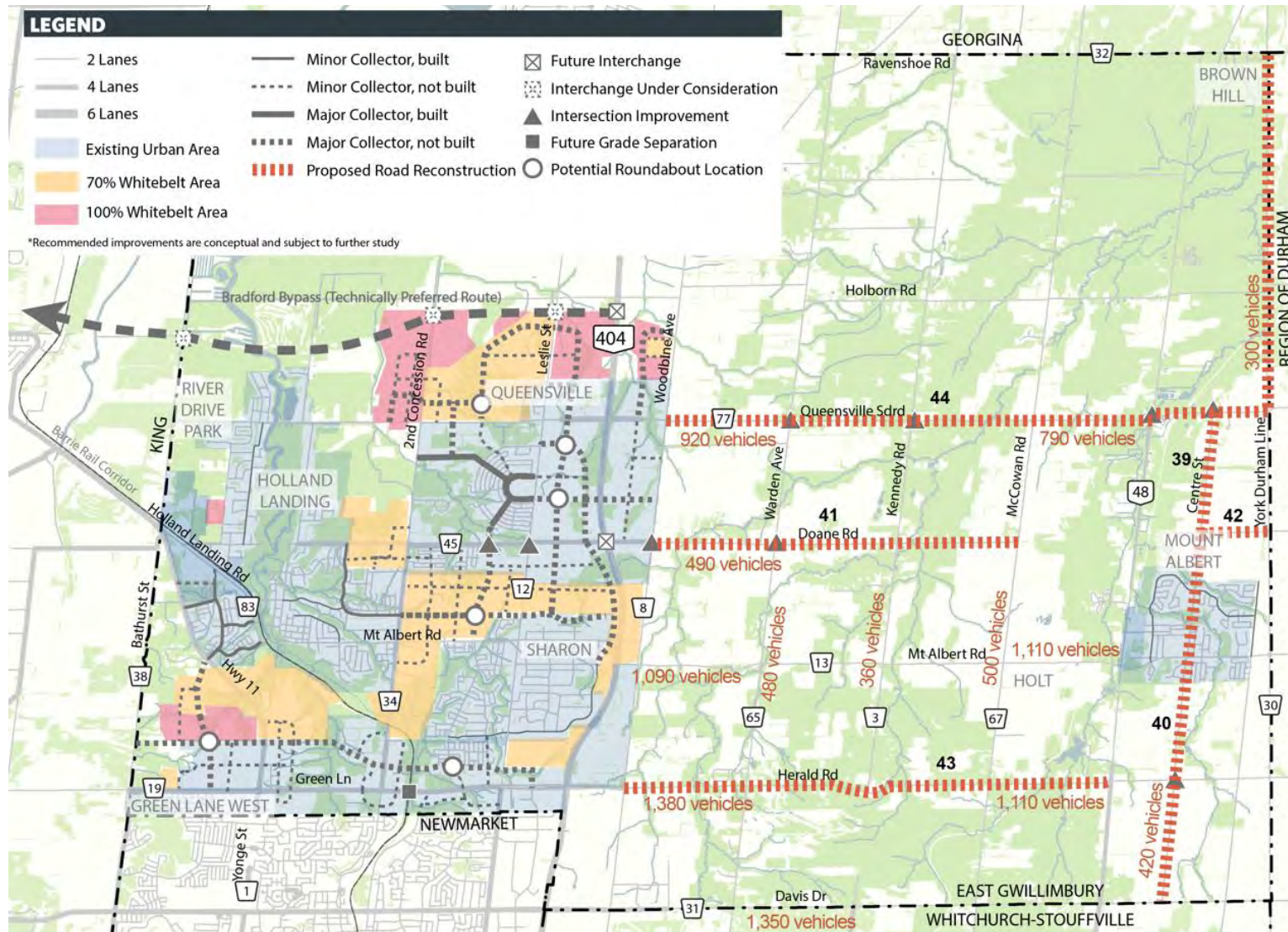
Table 1-7: Road Improvements in Other Areas

ID	Road	From	To	Improvement Type
R-A39	Centre Street	Queensville Sideroad	King Street and King Street East	Reconstruction
R-A40	Centre Street	Mount Albert Road	Davis Drive	Reconstruction
R-A41	Doane Road	Woodbine Avenue	McCowan Road	Reconstruction

ID	Road	From	To	Improvement Type
R-A42*	Doane Road	Centre Street	York Durham Line	Reconstruction
R-A43	Herald Road	Woodbine Avenue	Hwy 48	Reconstruction
R-A44	Queensville Sideroad	Woodbine Avenue	York Durham Line	Reconstruction
R-A61	York Durham Line	Ravenshoe Road	Queensville Sideroad	Reconstruction

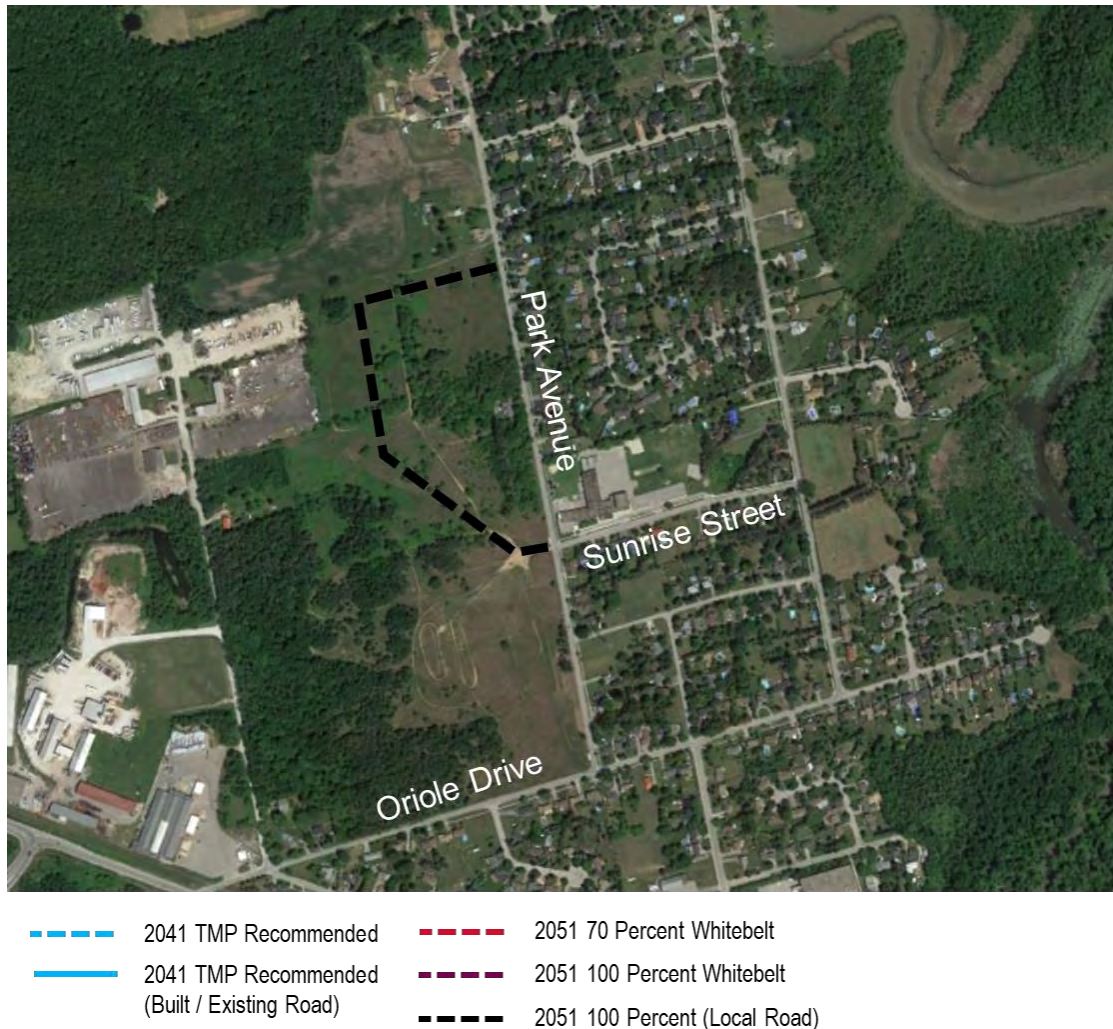
*Funded projects that are recommended in the TMP but not included in total cost

Figure 12: Rural Improvements Locations



Source: York Region EMME Model (2041 forecast volumes)

Figure 13: New Road Improvements Northeast of Holland Landing and Oriole Drive



For location references only, see **Figure 1** for final recommendations.
Source: Google Earth

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, a review of Queensville Sideroad from Woodbine Avenue to York Durham Line was conducted.

Queensville Sideroad is currently a rural east-west arterial. However, the role of this road will change as the Town grows and as internal travel demand increases. By 2041, Queensville Sideroad will carry over 900 vehicles in the peak hour, east of Woodbine Avenue (**Figure 12**).

Based on the policy criteria set forth by the Region, as illustrated in **Table 2-1**, it is **recommended that Queensville Sideroad from Woodbine Avenue to York Durham Line be transferred to the Region's jurisdiction.**

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.

Table 2-1. York Region Road Jurisdiction Review for Queensville Sideroad

Criteria No.	Rural Criteria	Description of Queensville Sideroad
1	Connects designated rural settlements having existing major commercial / industrial development of more than 150 persons to each other and a Regional Road or Provincial Highway	No. The area surrounding the road traverses the Greenbelt (Protected Countryside) and the Oak Ridges Moraine according to the EG-OP 2010.
2	Connects a Provincial Highway or Regional Road to: - Provincial Highway - Major commercial or industrial areas - Major institutional complexes such as colleges and hospital	Yes. It connects Highway 404 to Highway 48.
3	Provides service close to consistent major attractors or generators of heavy vehicles	Yes. Queensville Sideroad provides service to a Secondary Goods Movement Corridor (Queensville Sideroad west of Woodbine Avenue)
4	Provides service parallel to and, where justified, crossing major barriers to free traffic movement	Yes. The road crosses VIA Rail Passenger Line (The Canadian)
5	Provides service on those roads which are extensions of roads designated as Regional roads in urban areas and to a Regional road or Provincial Highway	Yes. Queensville Sideroad east of Woodbine would be an extension of RR77- Queensville Sideroad west
6	Provides service on those roads which are extensions of roads designated as Regional or County Roads in neighbouring jurisdictions and to a Regional road or a Provincial Highway	Yes. Queensville Sideroad extends into a neighbouring jurisdiction, the Region of Durham, as a Regional Road (Durham RR39)
7	Roads should have a current traffic volume greater than 4,000 AADT	No. Current traffic volume is 1,000 to 2,000 approximately
8	Roads should be part of the original concession road grid	Yes.

3 Active Transportation

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. **Table 3-1** lists the proposed sidewalk improvements and **Figure 14** illustrates the future sidewalk network.

Table 3-1. Proposed Pedestrian Infrastructure

ID	Area	Road	From	To	Improvement Type
W-A1a	RR	2nd Concession Road	Queensville Sideroad	Green Lane	Sidewalk on Both Sides
	RR	2nd Concession Road	Doane Road	Queensville Sideroad	MUP on One Side
	RR	Doane Road	Yonge Street	Woodbine Avenue	MUP on One Side
	RR	Green Lane	Yonge Street	Woodbine Avenue	MUP on One Side
W-A4	RR	Holland Landing Road	Bathurst Street	Yonge Street	Sidewalk on One Side
	RR	Leslie Street	Colonel Wayling Boulevard	Green Lane	MUP on One Side
W-A5c	RR	Leslie Street	E-W Collector	Green Lane	Sidewalk on One Side
	RR	Mount Albert Road	2nd Concession Road	Leslie Street	MUP on One Side
W-A6b*	RR	Mount Albert Road	220m west of Colony Trail Boulevard	Colony Trail Boulevard	Sidewalk on One Side
W-A6c	RR	Mount Albert Road (north side)	Yonge Street	2nd Concession Road	Sidewalk on One Side
W-A6d	RR	Mount Albert Road (south side)	335m west of 2nd Concession Road	2nd Concession Road	Sidewalk on One Side
W-A6e	RR	Mount Albert Road (south side)	Charles Street	Sports Complex	Sidewalk on One Side

Notes:

Shaded IDs indicate MUP projects with project IDs noted in **Section 3.2.3 Proposed Cycling Network**.

RR = Regional Roads

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1. Any corridors designated as “Dedicated/Separated Cycling Facilities” are assumed as MUPs so that corridors can accommodate pedestrians and cyclists.

*Funded projects that are recommended in the TMP but not included in total cost

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-A6f*	RR	Mount Albert Road (north side)	Conn Drive / Howard Avenue	Sports Complex	Sidewalk on One Side
W-A6g	RR	Mount Albert Road (south side)	Highway 48	Royal Oak Road	Sidewalk on One Side
W-A6h	RR	Mount Albert Road (north side)	Royal Oak Road	York Durham Line	Sidewalk on One Side
W-A7a	RR	Queensville Sideroad (south side)	Sand Road	River Drive	Sidewalk on One Side
	RR	Queensville Sideroad	Holland's Landing Depot Driveway	Leslie Street	MUP on One Side
W-A7c	RR	Queensville Sideroad	North Queensville Ring Road	Woodbine Avenue	Sidewalk on Both Sides
W-A7d	RR	Queensville Sideroad (north side)	115m West of Karissa Lane	River Drive	Sidewalk on One Side
W-A8a	RR	Yonge Street	Queensville Sideroad	Maple Street	Sidewalk on One Side
W-A8b	RR	Yonge Street (west side)	Mount Albert Road	Holland Landing Road	Sidewalk on One Side
W-A8c	RR	Yonge Street	East-West Collector	Lady Gwillim Avenue Extension	Sidewalk on Both Sides
W-A9	RR	Woodbine Avenue (west side)	Queensville Sideroad	Davis Drive	Sidewalk on One Side
W-A10	RR	Highway 11 / Yonge Street (east side)	Bathurst Street	East-West Collector	Sidewalk on One Side

Notes:

RR = Regional Roads

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1. Any corridors designated as “Dedicated/Separated Cycling Facilities” are assumed as MUPs so that corridors can accommodate pedestrians and cyclists.

*Funded projects that are recommended in the TMP but not included in total cost

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
	RR	Leslie Street	Mount Albert Road (North Leg)	Colonel Wayling Boulevard	MUP on One Side
W-A11*	RR	Highway 48 (east side)	0.4km North of Princess Street	Mount Albert Road	Sidewalk on One Side
W-A11b	RR	Leslie Street	Jim Mortson Drive (North Leg)	E-W Collector 9	Sidewalk on Both Sides
W-A11c	RR	Leslie Street	Silk Twist Drive	Mount Albert Road (North Leg)	Sidewalk on Both Sides
W-B401	RR	Queensville Sideroad	Zone 1 100% Whitebelt west boundary	2nd Concession Road	Sidewalk on One Side
W-B402	RR	Queensville Sideroad	2nd Concession Road	Zone 1 70% Whitebelt east boundary	Sidewalk on One Side
W-B403	RR	Leslie Street (Northern Section)	Zone 1 70% Whitebelt north boundary	Zone 1 70% Whitebelt south boundary	Sidewalk on One Side
W-B404	RR	Leslie Street (Northern Section)	Zone 1 100% Whitebelt north boundary	Zone 1 100% Whitebelt south boundary	Sidewalk on One Side
W-B405	RR	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Sidewalk on One Side
W-B406	RR	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Sidewalk on One Side

Notes:

Shaded IDs indicate MUP projects with project IDs noted in **Section 3.2.3 Proposed Cycling Network**.

RR = Regional Roads

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1. Any corridors designated as “Dedicated/Separated Cycling Facilities” are assumed as MUPs so that corridors can accommodate pedestrians and cyclists.

*Funded projects that are recommended in the TMP but not included in total cost

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-B407	RR	2nd Concession (Northern Section)	E-W Collector 3	Zone 1 100% Whitebelt north boundary	Sidewalk on Both Sides
W-B408	RR	Woodbine Avenue (Northern Section)	Queensville Sideroad	Zone 2 100% Whitebelt north boundary	Sidewalk on One Side
W-B409	RR	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 70% Whitebelt north boundary	Sidewalk on Both Sides
W-B410	RR	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 70% Whitebelt south boundary	Sidewalk on One Side
W-B411	RR	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 100% Whitebelt south boundary	Sidewalk on One Side
W-B415	RR	Mount Albert Road	Allangrove Avenue	2nd Concession Road	Sidewalk on Both Sides
W-B416	RR	Mount Albert Road	West of Countryman Road	Allangrove Avenue	Sidewalk on One Side
W-B417	RR	Leslie Street (Southern Section)	Silk Twist Drive extension	Zone 5 70% Whitebelt north boundary	Sidewalk on Both Sides
W-B418	RR	Leslie Street (Southern Section)	E-W Collector (north of Green Lane)	Colonel Wayling Boulevard	Sidewalk on One Side
W-B419	RR	Woodbine Avenue (Southern Section)	Zone 5 70% Whitebelt north boundary	Zone 5 70% Whitebelt south boundary	Sidewalk on One Side
W-B420	RR	Doane Road	Yonge Street	Woodbine Avenue	Sidewalk on One Side

Notes:

Shaded IDs indicate MUP projects with project IDs noted in **Section 3.2.3 Proposed Cycling Network**.

RR = Regional Roads

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1. Any corridors designated as “Dedicated/Separated Cycling Facilities” are assumed as MUPs so that corridors can accommodate pedestrians and cyclists.

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
	RR	Yonge Street	400m north of Green Lane	East-West Collector	MUP on One Side
	RR	Highway 11	Sherwood Glen/Dogwood Blvd	Crimson King Way	MUP on One Side
	RR	Highway 11	Crimson King Way	Bathurst St	MUP on One Side
	RR	Highway 11	Morning Sideroad	Sherwood Glen/Dogwood Blvd	MUP on One Side
	RR	Yonge Street	East West Collector	Morning Sideroad	MUP on One Side

Notes:

Shaded IDs indicate MUP projects with project IDs noted in **Section 3.2.3 Proposed Cycling Network**.

RR = Regional Roads

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1. Any corridors designated as “Dedicated/Separated Cycling Facilities” are assumed as MUPs so that corridors can accommodate pedestrians and cyclists.

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-A12b	HL	Centennial Avenue Extension	Highway 11	Holland Landing Road	Sidewalk on Both Sides
W-A13	HL	Oriole Drive	Toll Road	250m east of Toll Road	Sidewalk on One Side
W-A15	HL	Toll Road	Oriole Drive	350m south of Oriole Drive	Sidewalk on One Side
W-A51	HL	Mount Albert Road	Sand Road	Yonge Street	Sidewalk on Both Sides
W-A16a	GLW	Murrell Boulevard Widening	East-West Collector	Green Lane	Sidewalk on Both Sides
W-A16b	GLW	Murrell Blvd South Extension	Green Lane	Street F	Sidewalk on Both Sides
W-A17	GLW	Street G	East-West Collector	Green Lane	Sidewalk on Both Sides
W-A18	GLW	Bayview Parkway Extension	Green Lane	Current Northern Terminus	Sidewalk on Both Sides
W-A19	GLW	Connector Road / Street I	2nd Concession	East-West Collector	Sidewalk on Both Sides
W-A20b	GLW	Woodspring Avenue Extension	East-West Collector	Green Lane	Sidewalk on Both Sides
W-A21	GLW	East West Collector	Bathurst Street	Harry Walker Parkway	Sidewalk on Both Sides
W-A22a	GLW	Harry Walker Parkway Extension	East-West Collector	Green Lane	Sidewalk on Both Sides
W-A23	GLW	Lady Gwillimbury Avenue Extension	Green Lane	Ring Road H (east of Yonge)	Sidewalk on Both Sides
W-A24	GLW	Street F	Bayview Parkway	Leslie Street	Sidewalk on Both Sides
W-A25	GLW	Ring Road H	East-West Collector (west leg)	East-West Collector (east leg)	Sidewalk on Both Sides

Notes:

RR = Regional Roads, GLW = Green Lane West

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-A26	GLW	Ring Road J	Rogers Road	East-West Collector	Sidewalk on Both Sides
W-A27	GLW	Street K	Manor Hampton Street	Green Lane	Sidewalk on Both Sides
W-A29	SR	Farr Avenue	Oxford Court	Sharon East Employment Collector	Sidewalk on One Side
W-A16c	SR	Murrell Boulevard Extension	Doane Road	Mount Albert Road	Sidewalk on Both Sides
W-A31	SR	Sharon East Employment Collector	Doane Road	Mount Albert Road	Sidewalk on Both Sides
W-A32	SR	Street C	Doane Road	Silk Twist Drive	Sidewalk on Both Sides
W-A33	SR	Street O	Murrell Boulevard Extension	Sharon East Employment Collector	Sidewalk on Both Sides
W-A34a	SR	Silk Twist Drive East	Murrell Boulevard Extension	Sharon East Employment Collector	Sidewalk on Both Sides
W-A34b	SR	Silk Twist Drive West	2nd Concession	Murrell Boulevard	Sidewalk on Both Sides
W-A37a	QV	Jim Mortson Drive Extension (Southern Extension)	Leslie Street	Street C	Sidewalk on Both Sides
W-A37b	QV	Jim Mortson Drive Extension (Southern Extension 2)	Street C	Street L	Sidewalk on Both Sides
W-A37c	QV	Jim Mortson Drive Extension (Northern Extension)	Leslie Street	Street D	Sidewalk on Both Sides

Notes:

GLW = Green Lane West, SR = Sharon, QV = Queensville

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-A38	QV	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	Sidewalk on Both Sides
W-A39	QV	Street A	Queensville Sideroad	Evans Farm Boulevard / Street B	Sidewalk on One Side
W-A40a	QV	Evans Farm Boulevard / Street B	2nd Concession	Milne Lane	Sidewalk on One Side
W-A41	QV	New North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	Sidewalk on Both Sides
W-A42	QV	Sharon East Employment Collector Extension / Street D	Leslie Street	Doane Road	Sidewalk on Both Sides
W-A43	QV	Street L	Queensville Sideroad	Doane Road	Sidewalk on Both Sides
W-A44	QV	Street M	Street L	Woodbine Avenue	Sidewalk on Both Sides
W-A45	QV	Street N	Street L	Woodbine Avenue	Sidewalk on Both Sides
W-A16d	QV	Murell Boulevard Extension / John Candy Drive	Ben Sinclair Avenue	Doane Road	Sidewalk on Both Sides

Notes:

QV = Queensville

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-A46	MA	Centre Street	King Street and King Street East	Mount Albert Road	Sidewalk on Both Sides
W-A47	MA	Samuel Harper Court (west side)	Northern Terminus	Mount Albert Road	Sidewalk on One Side
W-A48	MA	King Street (east side)	340m north of Mount Albert Road	Mount Albert Road	Sidewalk on One Side
W-A49*	MA	Ninth Line (west side)	30m south of Donald Stewart Crescent	Mount Albert Road	Sidewalk on One Side
W-A50	MA	Ninth Line (west side)	Vivian Creek Road	North Terminus	Sidewalk on One Side
W-B1	NWQ	N-S Collector 1	Queensville Sideroad	E-W Collector 4	Sidewalk on One Side
W-B2	NWQ	N-S Collector 2	Queensville Sideroad	E-W Collector 4	Sidewalk on Both Sides
W-B3	NWQ	N-S Collector 3	E-W Collector 1	E-W Collector 2	Sidewalk on Both Sides
W-B4	NWQ	E-W Collector 1	N-S Collector 1	2nd Concession Road	Sidewalk on One Side
W-B5	NWQ	E-W Collector 3	N-S Collector 1	2nd Concession Road	Sidewalk on Both Sides
W-B6	NWQ	E-W Collector 4	N-S Collector 1	2nd Concession Road	Sidewalk on One Side
W-B7	NWQ	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	Sidewalk on One Side
W-B8	NWQ	E-W Collector 5	Leslie Street	Collector 1	Sidewalk on Both Sides
W-B9	NWQ	Collector 2	2nd Concession Road	Queensville Sideroad	Sidewalk on Both Sides
W-B10	NWQ	N-S Collector 4	E-W Collector 5	Queensville Sideroad	Sidewalk on One Side
W-B11	NWQ	Collector 3	Leslie Street	South of Queensville Sideroad	Sidewalk on One Side
W-B12	NWQ	E-W Collector 5	2nd Concession Road	Collector 2	Sidewalk on One Side
W-B13	NWQ	E-W Collector 6	Collector 2	Leslie Street	Sidewalk on Both Sides

Notes:

MA = Mount Albert, NWQ = Northwest of Queensville Sideroad and Highway 404

*Funded projects that are recommended in the TMP but not included in total cost

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
W-B14	NEQ	70% Collectors (2 total in parallel)			Sidewalk on Both Sides
W-B15	NEQ	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	Sidewalk on One Side
W-B16	NEQ	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	Sidewalk on One Side
W-B17	Hwy11	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	Sidewalk on Both Sides
W-B18	Hwy11	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	Sidewalk on One Side
W-B19	Hwy11	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	Sidewalk on Both Sides
W-B20	Hwy11	Collector 6	Highway 11	E-W Collector north of Green Lane	Sidewalk on Both Sides
W-B21	NHL	E-W Collector 8	Silk Twist Drive	2nd Concession Road	Sidewalk on Both Sides
W-B22	NHL	Collector 7	2nd Concession Road	E-W Collector 8	Sidewalk on Both Sides
W-B23	NHL	N-S Collector 10	E-W Collector 8	Holland Landing Collector	Sidewalk on Both Sides
W-B24	SSR	Collector 8	2nd Concession Road	Doane Road	Sidewalk on One Side
W-B25	SSR	N-S Collector 11	Mount Albert Road	Doane Road	Sidewalk on Both Sides
W-B26	SSR	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	Sidewalk on Both Sides
W-B27	SSR	E-W Collector 9	2nd Concession Road	Sharon East Collector	Sidewalk on Both Sides

Notes:

NEQ = Northeast of Queensville Sideroad and Highway 404, Hwy11 = Near Highway 11 and Yonge Street,

NHL = North of Holland Landing, SSR = Surrounding Sharon

Table 9. Proposed Pedestrian Infrastructure (continued)

ID	Area	Road	From	To	Improvement Type
	NWQ	N-S Collector 1	Queensville Sideroad	E-W Collector 4	MUP on One Side
	NWQ	E-W Collector 1	N-S Collector 1	2nd Concession Road	MUP on One Side
	NWQ	E-W Collector 4	N-S Collector 1	2nd Concession Road	MUP on One Side
	NWQ	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	MUP on One Side
	NWQ	N-S Collector 4	E-W Collector 5	Queensville Sideroad	MUP on One Side
	NWQ	Collector 3	Leslie Street	South of Queensville Sideroad	MUP on One Side
	NWQ	E-W Collector 5	2nd Concession Road	Collector 2	MUP on One Side
	NEQ	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	MUP on One Side
	NEQ	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	MUP on One Side
	Hwy11	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	MUP on One Side
	SSR	Collector 8	2nd Concession Road	Doane Road	MUP on One Side

Notes:

Shaded IDs indicate MUP projects with project IDs noted in **Section 3.2.3 Proposed Cycling Network**.

SSR = Surrounding Sharon, Hwy11 = Near Highway 11 and Yonge Street

NWQ = Northwest of Queensville Sideroad and Highway 404

NEQ = Northeast of Queensville Sideroad and Highway 404

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 3-2** summarizes the cycling facilities.

Table 3-2. Types of Cycling Facilities

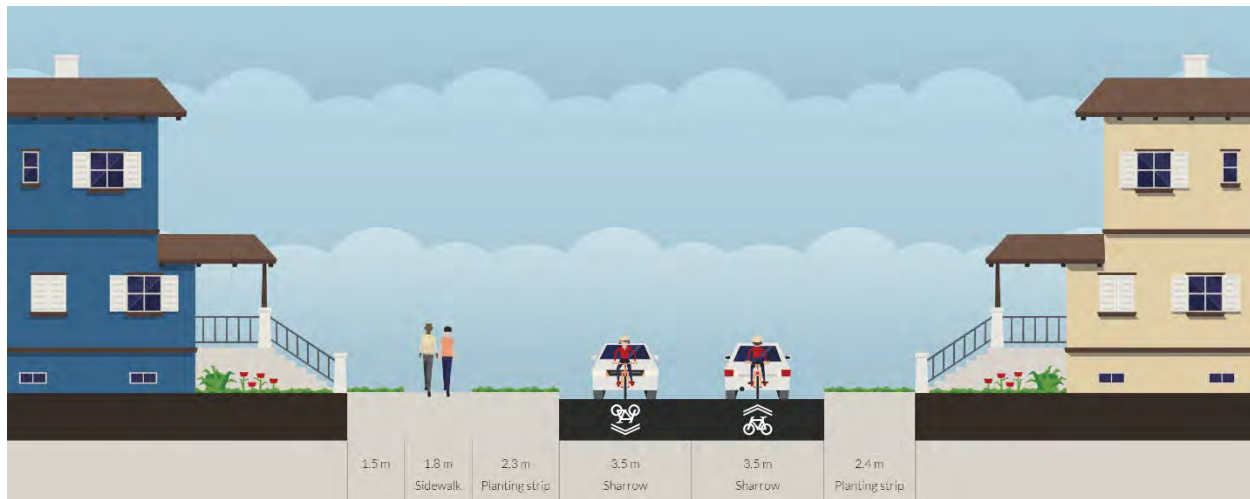
Cycling Facility	Description	Example
Sharrows	- Not necessarily a facility, but are directional signs painted on the road - Lane is shared with vehicles and cyclists - Requires no additional street space - Does not require narrowing of travel lanes - Provides a wayfinding element along bike routes - No separation from traffic	
Paved Shoulders	- Can be shared with pedestrians and cyclists - Generally recommended for rural areas - Requires road signs and pavement markings to ensure visibility of the facility - Minimum width of 2.0m to be considered as an active transportation facility	
Painted Bike Lane	- Dedicated on-road cycling facility - Some separation from traffic - Can accommodate cyclists on both sides of streets - May require narrowing of travel lanes to accommodate - Minimum width of 1.5m, but recommended to be 1.8m	

Cycling Facility	Description	Example
Multi-Use Path	- Off-road facility - Shared facility between pedestrians and cyclists - Accommodates cyclists on one side of the street only - Offers routes with minimal vehicular conflict - Road right of way requirements are larger than other facilities	

3.2.1 Existing Collector Roads

To create a complete and connected cycling network, existing collector roads may be retrofitted to accommodate cycling infrastructure within the existing pavement width. The recommended cycling infrastructure is dependent on several factors, including pavement width, 2051 projected peak auto volume, vehicular speed, and the existing cross section. **Figure 15** and **Figure 16** illustrate the potential cross sections for sharrows and painted bike lanes within existing pavement widths.

Figure 15: Retrofit of Existing Collector with Sharrows (7m Pavement Width)



Source: Streetmix.net

Figure 16: Retrofit of Existing Collector with Painted Bike Lanes (9m Pavement Width)



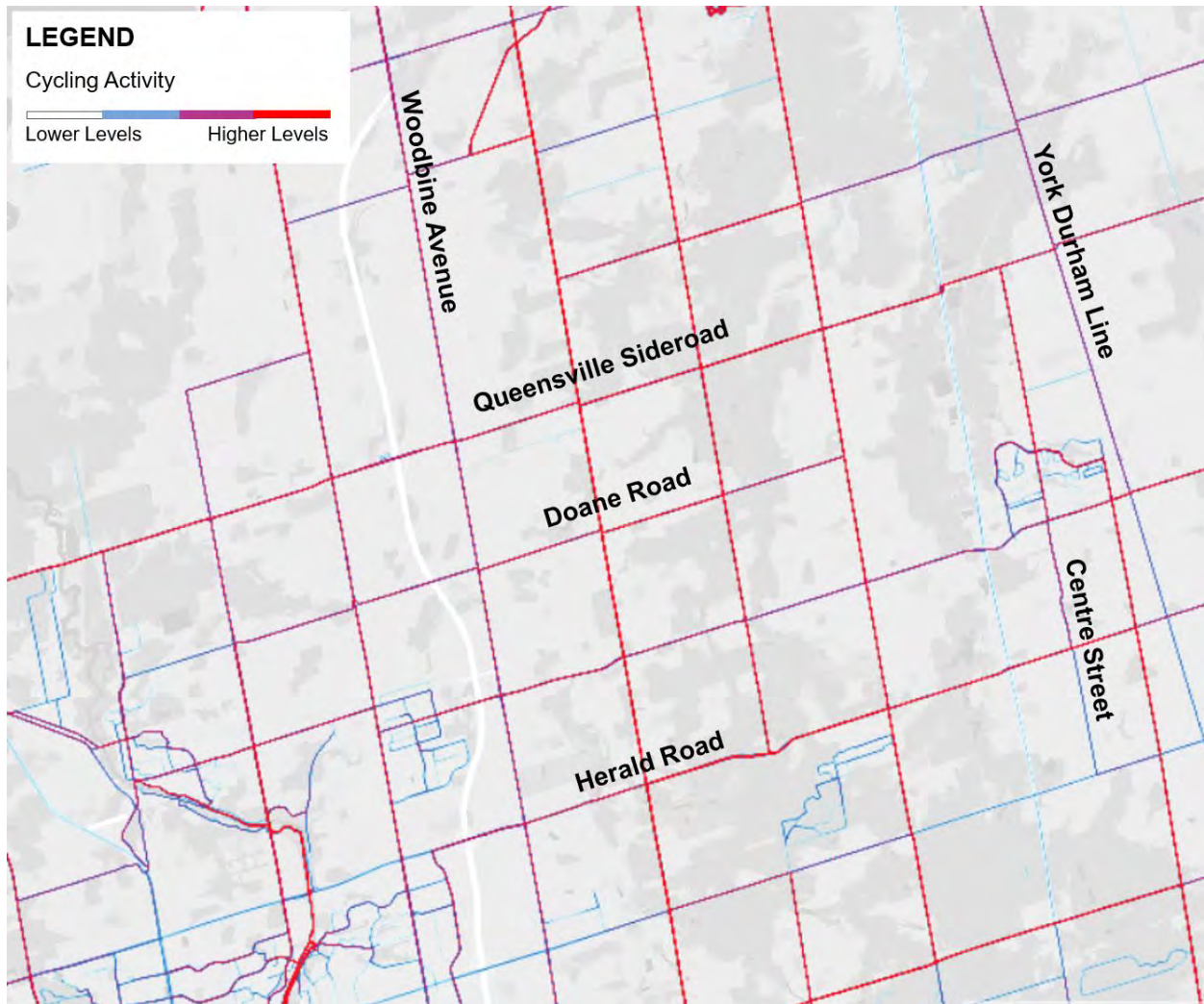
Source: Streetmix.net

3.2.2 Rural Roads

With the proposed reconstruction of Queensville Sideroad, Doane Road, Centre Street, and Herald Road, cycling infrastructure has also been considered for these arterial roads. Although rural roads tend to have lower volumes of cyclists, it has been proven that these roads are quite popular with cyclists, as illustrated in **Figure 17**. The map illustrates the amount of cycling activity on the road network for the past two years, with red lines indicating high level of activity and blue lines indicating low levels of activity. Between Woodbine Avenue and York Durham Line, Queensville Sideroad, Doane Road, and Herald Road experience high level of active transportation activity. Centre Street experiences high level of active transportation activity between Queensville Sideroad and Herald Road.

To account for high levels of cycling activity, the proposed reconstruction will include paved shoulders so that all users can safely use these corridors.

Figure 17: Heat Map of Active Transportation Activity



Source: Strava

3.2.3 Proposed Cycling Network

The proposed 2051 cycling network includes recommendations to Regional Roads, the existing collector network, and the proposed collector network.

Table 3-3 summarizes the proposed infrastructure based on area. The projects are illustrated in **Figure 18**. It is noted that the proposed cycling projects originally recommended for 2041 are under Category A in the table, while the proposed cycling projects added for 2051 development are under Category B in the table.

In areas where there is pedestrian infrastructure and an MUP identified, it is assumed that the cross section will include a sidewalk on one side and a MUP on the other.

Table 3-3. Proposed Cycling Improvements

ID	Area	Road	From	To	Improvement Type
C-A1	RR	2nd Concession Road	Doane Road	Queensville Sideroad	MUP on One Side
C-A2	RR	Bathurst Street	Highway 11	Southern Town Boundary	Paved Shoulders
C-A3	RR	Davis Drive	Warden Avenue	York Durham Line	Paved Shoulders
C-A4	RR	Green Lane	Yonge Street	Woodbine Avenue	MUP on One Side
C-A7	RR	Kennedy Road	Ravenshoe Road	Herald Road	Paved Shoulders
C-A8	RR	Kennedy Road	550m North of Davis Drive	Davis Drive	Paved Shoulders
C-A9	RR	Leslie Street	Testa Street	Milne Lane	Painted Bike Lanes
C-A9b	RR	Leslie Street	Mount Albert Road (North Leg)	Colonel Wayling Boulevard	MUP on One Side
C-A9c	RR	Leslie Street	Colonel Wayling Boulevard	Green Lane	MUP on One Side
C-A10	RR	McCowan Road	Ravenshoe Road	Davis Drive	Paved Shoulders
C-A11a	RR	Mount Albert Road	Yonge Street	2nd Concession Road	Painted Bike Lanes
C-A11b	RR	Mount Albert Road	2nd Concession Road	Leslie Street	MUP on One Side
C-A11c	RR	Mount Albert Road	Woodbine Avenue	King Street	Paved Shoulders
C-A12	RR	Ravenshoe Road	Western Town Boundary	York Durham Line	Paved Shoulders
C-A13	RR	Warden Avenue	Ravenshoe Road	Davis Drive	Paved Shoulders
C-A14a	RR	Yonge Street	Olive Street / Beckett Avenue	Holland Landing Road / Old Yonge Street	Painted Bike Lanes
C-A14b*	RR	Yonge Street	East-West Collector	Green Lane	Painted Bike Lanes
C-A14c	RR	Yonge Street	400m north of Green Lane	East-West Collector	MUP on One Side

Notes:

RR = Regional Road

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1.

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

*Funded projects that are recommended in the TMP but not included in total cost

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A14d	RR	Highway 11	Sherwood Glen/Dogwood Blvd	Crimson King Way	MUP on One Side
C-A14e	RR	Highway 11	Crimson King Way	Bathurst St	MUP on One Side
C-A15	RR	York Durham Line	Ravenshoe Road	Davis Drive	Paved Shoulders
C-A15a	RR	Doane Road	Yonge Street	Woodbine Avenue	MUP on One Side
C-A46*	RR	Queensville Sideroad	Holland's Landing Depot Driveway	Leslie Street	MUP on One Side
C-B201a	RR	Highway 11	Morning Sideroad	Sherwood Glen/Dogwood Blvd	MUP on One Side
C-B201b	RR	Yonge Street	East West Collector	Morning Sideroad	MUP on One Side
C-B202	RR	2nd Concession (Northern Section)	E-W Collector 3	Zone 1 70% Whitebelt north boundary	Paved Shoulders
C-B203	RR	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Paved Shoulders
C-B204	RR	Queensville Sideroad	Zone 1 100% Whitebelt west boundary	2nd Concession Road	Paved Shoulders
C-B205	RR	Queensville Sideroad	2nd Concession Road	Zone 1 70% Whitebelt east boundary	Paved Shoulders
C-B208	RR	Leslie Street (Southern Section)	E-W Collector (north of Green Lane)	Colonel Weyling Boulevard	Painted Bike Lanes

Notes:

RR = Regional Road

Regional Road recommendations build from the 2022 York Region Transportation Master Plan (YRTMP), including the cycling facilities from YRTMP Map 1.

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

*Funded projects that are recommended in the TMP but not included in total cost

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
	Rural	Centre Street	Queensville Sideroad	King Street and King Street East	Paved Shoulders
	Rural	Centre Street	Mount Albert Road	Davis Drive	Paved Shoulders
	Rural	Doane Road	Woodbine Avenue	McCowan	Paved Shoulders
	Rural	Herald Street	Woodbine Avenue	York Durham Line	Paved Shoulders
	Rural	Queensville Sideroad	Woodbine Avenue	York Durham Line	Paved Shoulders
C-A20a	HL	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	Painted Bike Lanes
C-A20b	HL	Centennial Avenue Extension	Highway 11	Holland Landing Road	Painted Bike Lanes
C-A21	HL	Colony Trail Boulevard	Western Terminus	Mount Albert Road	Painted Bike Lanes / Sharrows
C-A22	HL	Oriole Drive	Holland Landing Road	Eastern Terminus	Painted Bike Lanes / Sharrows
C-A23	HL	Sand Road	Queensville Sideroad	Oriole Drive	Sharrows
C-A24a	HL	Thompson Drive	Yonge Street	Silk Twist Drive	Painted Bike Lanes / Sharrows
C-A24b	HL	Bradford Street	Yonge Street	Holland Landing Road	Painted Bike Lanes
C-A25	HL	Oriole Drive	Holland Landing Road	Sand Road	Sharrows
C-A62	HL	Silk Twist Drive	Doane Road	2nd Concession Road	Painted Bike Lanes

Notes:

Shaded IDs indicate paved shoulder projects with that are included in corresponding road projects.

RR = Rural = Rural Area, HL = Holland Landing

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A63a	HL	Dog Wood Boulevard	Northern Terminus	Highway 11	Painted Bike Lanes
C-A63b	HL	Crimson King Way	Highway 11	Dog Wood Boulevard	Painted Bike Lanes
C-A63c	HL	Charlotte Abby Drive	Dog Wood Boulevard	Holland Landing Road	Painted Bike Lanes
C-A63d	HL	Holland Vista Street	Dog Wood Boulevard	Holland Landing Road	Painted Bike Lanes
C-B21	NHL	E-W Collector 8	Silk Twist Drive	2nd Concession Road	Painted Bike Lanes
C-B22	NHL	Collector 7	2nd Concession Road	E-W Collector 8	Painted Bike Lanes
C-B23	NHL	N-S Collector 10	E-W Collector 8	Holland Landing Collector	Painted Bike Lanes
C-A26	GLW	Murrell Boulevard Widening	East-West Collector	Green Lane	Painted Bike Lanes
C-A27	GLW	Bayview Parkway Extension	Green Lane	Current Northern Terminus	Painted Bike Lanes
C-A28	GLW	Connector Road / Street I	2nd Concession	East-West Collector	Painted Bike Lanes
C-A29b	GLW	Woodspring Avenue Extension	East-West Collector	Green Lane	Painted Bike Lanes
C-A30	GLW	East West Collector	Bathurst	Harry Walker Parkway	Painted Bike Lanes
C-A31a	GLW	Harry Walker Parkway Extension	East-West Collector	Green Lane	Painted Bike Lanes

Notes:

HL = Holland Landing, NHL = North of Holland Landing, GLW = Green Lane West

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A32	GLW	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (East of Yonge)	Painted Bike Lanes
C-A33	GLW	Street F	Bayview Parkway Extension	Leslie Street	Painted Bike Lanes
C-A34	GLW	Murrell Blvd South Extension	Green Lane	Street F	Painted Bike Lanes
C-A35	GLW	Street G	Green Lane	East-West Collector	Painted Bike Lanes
C-A36	GLW	Ring Road H	East-West Collector (west leg)	East-West Collector (East leg)	Painted Bike Lanes
C-A37	GLW	Ring Road J	Rogers Road	East-West Collector	Painted Bike Lanes
C-A38	GLW	Street K	Manor Hampton St	Green Lane	Painted Bike Lanes
C-A39	GLW	Harvest Hills (19T-04001)	Nature Way Crescent	Woodspring Avenue	Painted Bike Lanes / Sharrows
C-A40a	SR	Colonel Wayling Boulevard	Northern Terminus	Leslie Street	Painted Bike Lanes
C-A42	SR	Manor Hampton Street	Murrell Boulevard	Leslie Street	Painted Bike Lanes / Sharrows
C-A43*	SR	Murrell Boulevard Extension	Doane Road	Mount Albert Road	Painted Bike Lanes
C-A44	SR	Sharon East Employment Collector	Doane Road	Mount Albert Road	Painted Bike Lanes
C-A45	SR	Street C	Doane Road	Silk Twist Drive	Painted Bike Lanes / Sharrows
C-A46	SR	Street O	Murrell Boulevard Extension	Sharon East Employment Collector	Painted Bike Lanes / Sharrows

Notes:

GLW = Green Lane West, SR = Sharon

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

*Funded projects that are recommended in the TMP but not included in total cost

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A47	SR	Silk Twist Drive East	Murrell Boulevard Extension	Sharon East Employment Collector	Painted Bike Lanes / Sharrows
C-A48	SR	Silk Twist Drive West	2nd Concession	Murrell Boulevard	Painted Bike Lanes / Sharrows
C-B24	SSR	Collector 8	2nd Concession Road	Doane Road	MUP on one side
C-B25	SSR	N-S Collector 11	Mount Albert Road	Doane Road	Painted Bike Lanes
C-B26	SSR	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	Painted Bike Lanes
C-B27	SSR	E-W Collector 9	2nd Concession Road	Sharon East Collector	Painted Bike Lanes
C-A50	QV	Jim Mortson Drive	Leslie Street (north leg)	Leslie Street (south leg)	Painted Bike Lanes / Sharrows
C-A50a	QV	Jim Mortson Drive Extension (Southern Extension)	Leslie Street	Street C	Painted Bike Lanes / Sharrows
C-A50b	QV	Jim Mortson Drive Extension (Southern Extension 2)	Street C	Street L	Sharrows
C-A50c	QV	Jim Mortson Drive Extension (Northern Extension)	Leslie Street	Street D	Sharrows

Notes:

SR = Sharon, SSR = Surrounding Sharon, QV = Queensville

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A51	QV	Murrell Boulevard Extension / John Candy Drive	Blazing Star Street	Doane Road	Sharrows
C-A52	QV	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	Painted Bike Lanes / Sharrows
C-A53	QV	Street A	Queensville Sideroad	Evans Farm Boulevard	Painted Bike Lanes / Sharrows
C-A54	QV	Evans Farm Boulevard /	2nd Concession	Jim Mortson Drive Ring	Painted Bike Lanes
C-A55	QV	North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	Painted Bike Lanes / Sharrows
C-A56	QV	Sharon East Employment Collector Extension / Street D	Leslie Street	Doane Road	Painted Bike Lanes
C-A57	QV	Street L	Queensville Sideroad	Doane Road	Painted Bike Lanes / Sharrows
C-A58	QV	Street M	Street L	Woodbine Avenue	Painted Bike Lanes / Sharrows
C-A59	QV	Street N	Street L	Woodbine Avenue	Painted Bike Lanes / Sharrows
C-A60	MA	Centre Street	King Street and King Street East	Mount Albert Road	Sharrows

Notes:

QV = Queensville, MA = Mount Albert

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Table 3-3. Proposed Cycling Improvements (continued)

ID	Area	Road	From	To	Improvement Type
C-A61	MA	King Street and King Street East	Mount Albert Road	Ninth Line	Painted Bike Lanes / Sharrows
C-B1	NWQ	N-S Collector 1	Queensville Sideroad	E-W Collector 4	MUP on one side
C-B2	NWQ	N-S Collector 2	Queensville Sideroad	E-W Collector 4	Painted Bike Lanes
C-B3	NWQ	N-S Collector 3	E-W Collector 1	E-W Collector 2	Painted Bike Lanes
C-B4	NWQ	E-W Collector 1	N-S Collector 1	2nd Concession Road	MUP on one side
C-B5	NWQ	E-W Collector 3	N-S Collector 1	2nd Concession Road	Painted Bike Lanes
C-B6	NWQ	E-W Collector 4	N-S Collector 1	2nd Concession Road	MUP on one side
C-B7	NWQ	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	MUP on one side
C-B8	NWQ	E-W Collector 5	Leslie Street	Collector 1	Painted Bike Lanes
C-B9	NWQ	Collector 2	2nd Concession Road	Queensville Sideroad	Painted Bike Lanes
C-B10	NWQ	N-S Collector 4	E-W Collector 5	Queensville Sideroad	MUP on one side
C-B11	NWQ	Collector 3	Leslie Street	South of Queensville Sideroad	MUP on one side
C-B12	NWQ	E-W Collector 5	2nd Concession Road	Collector 2	MUP on one side
C-B13	NWQ	E-W Collector 6	Collector 2	Leslie Street	Painted Bike Lanes

Notes:

MA = Mount Albert, NWQ = Northwest of Queensville Sideroad and Highway 404

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Table 3-3. Proposed Cycling Improvements (continued)

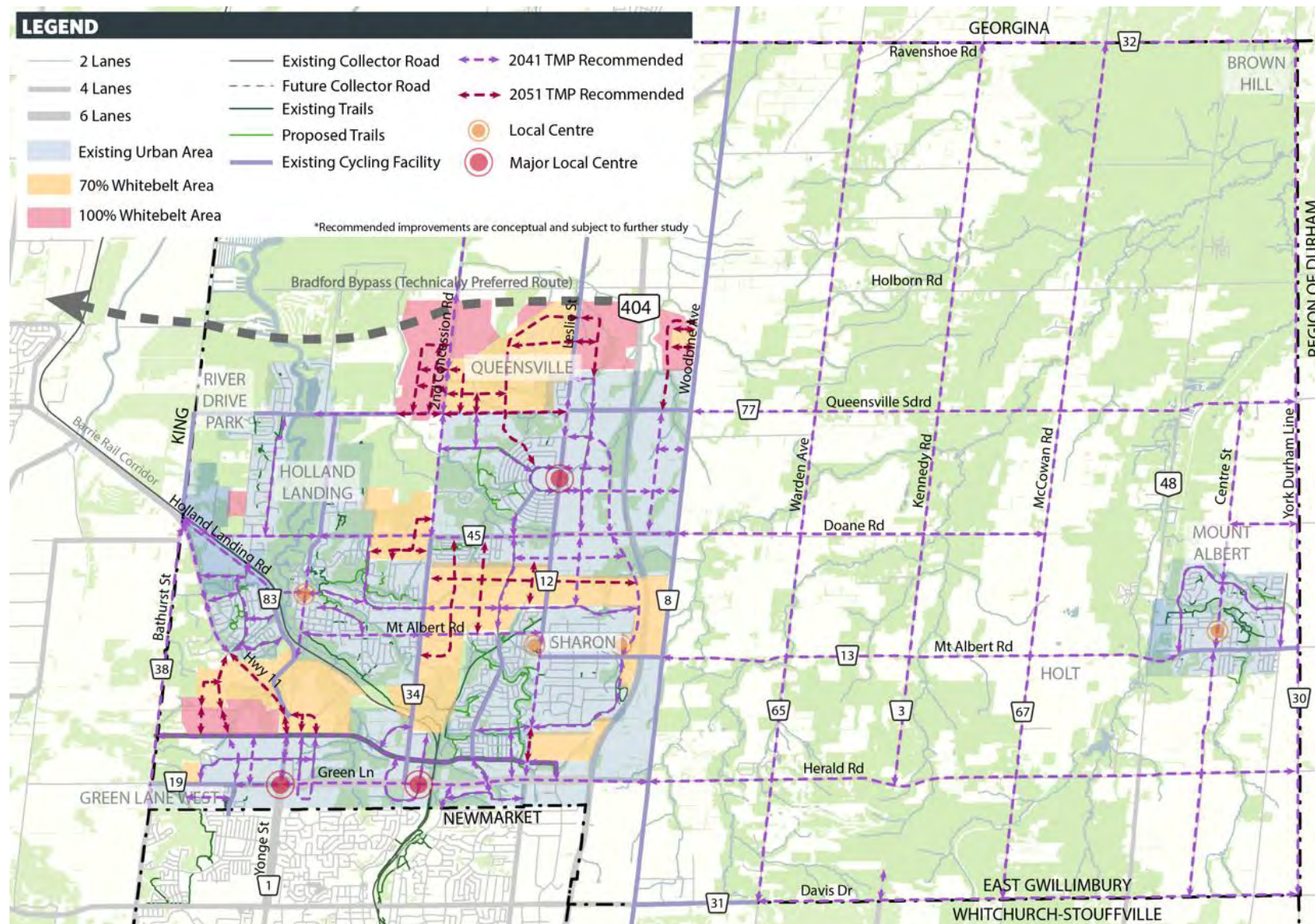
ID	Area	Road	From	To	Improvement Type
C-B14	NEQ	70% Collectors (2 total in parallel)			Painted Bike Lanes
C-B15	NEQ	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	MUP on one side
C-B16	NEQ	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	MUP on one side
C-B17	Hwy11	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	Painted Bike Lanes
C-B18	Hwy11	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	MUP on one side
C-B19	Hwy11	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	Painted Bike Lanes
C-B20	Hwy11	Collector 6	Highway 11	E-W Collector north of Green Lane	Painted Bike Lanes

Notes:

NEQ = Northeast of Queensville Sideroad and Highway 404, Hwy 11 = Near Highway 11 and Yonge Street

It is assumed that all new development areas do not include cycling infrastructure on collector roads in their subdivision plan (excluding Murrell Boulevard from Mount Albert Road to Green Lane). Therefore, recommendations were made to the collector roads in the proposed subdivisions.

Figure 18: Proposed 2051 Cycling Network



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, there are still mentions for 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.

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 services¹². 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

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.

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 is illustrated in **Figure 19**.

Figure 19: Large Scale EcoMobility Hub



Source: Multi Mobility, Sophia von Berg, 2014

EcoMobility hubs can:

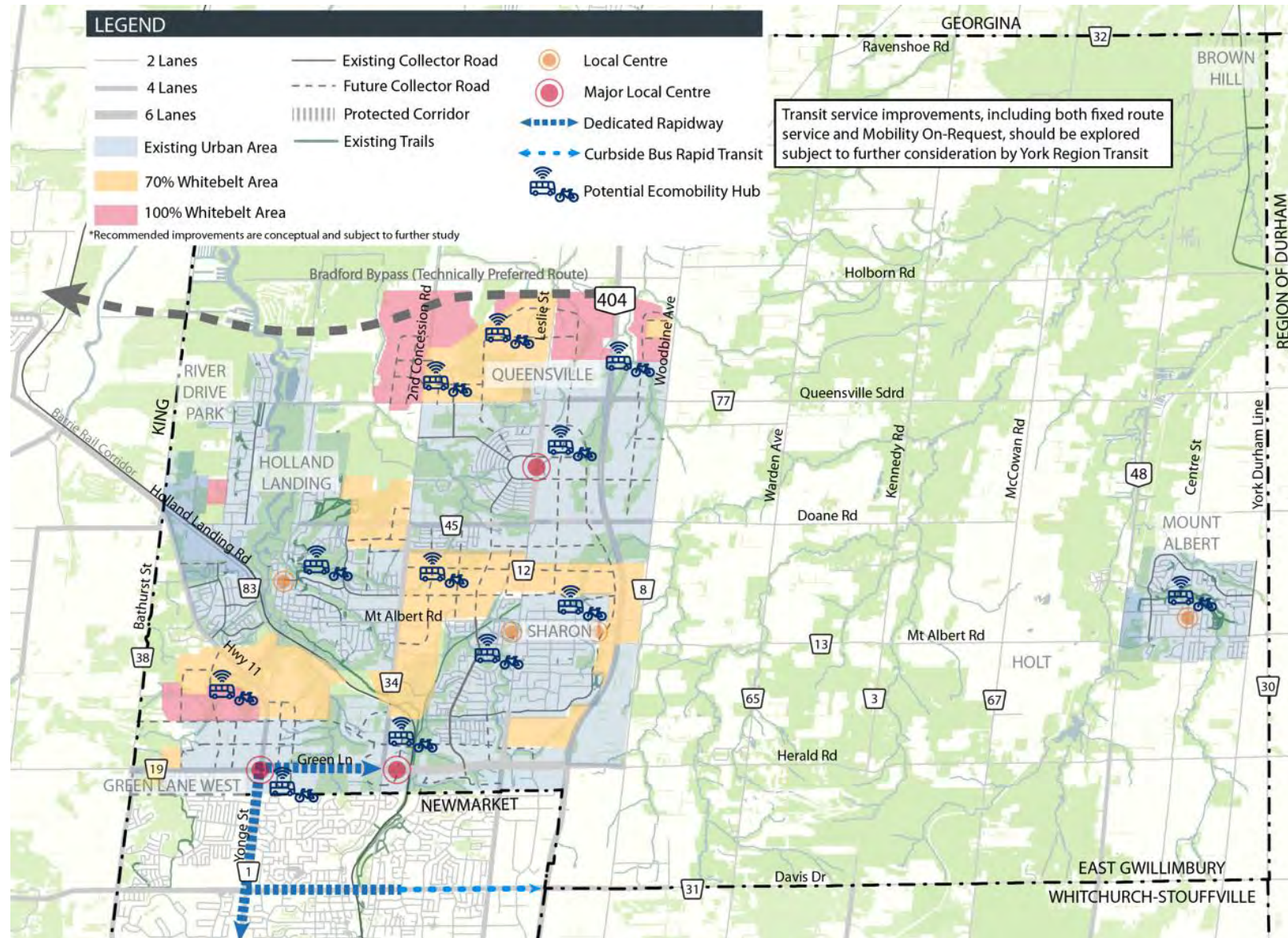
- Provide increased transportation choices for residents and visitors;
- Decrease dependence on the private automobile; and
- Reduce congestion.

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;
- East Gwillimbury Sports Complex;
- East Gwillimbury Public Library;
- Designated major local centres; and
- Designated 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 20**.

Figure 20: Proposed 2051 Transit Strategy



5.1 Potential Costs

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.

5.2 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.

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.

As described in detail in **Section 5.5 Transit Demand and Opportunities** under the main report, the primary mode of access for this GO Station is driving (89%). Only 1% of GO users accessed the station by local transit, and none walked or cycled.

Passengers originate primarily from Newmarket and East Gwillimbury. Within East Gwillimbury the highest density of trip origins is 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.

6.1 Transportation and Built Environment Context

East Gwillimbury GO is well connected to the road network with access from Green Lane.

The negligible active mode share for passengers accessing East Gwillimbury GO is likely primarily due to two factors – the station's disconnect from urbanized areas of the town, and poor to non-existent pedestrian and cycling connections between the station and those areas – particularly Sharon and Holland Landing. With the exception of a connection to the Nokiidaa Trail, shown in **Figure 21**, there are no continuous pedestrian or cycling links to the station. Pedestrian and cycling connections through the site to the station building are also generally poor.

Specific issues include:

- No walking and cycling connections along Green Lane;
- No sidewalks on 2nd Concession Road north of Green Lane; and
- Poor pedestrian LOS at intersection of 2nd Concession Road and Green Lane.

Figure 21: Access and Connectivity to East Gwillimbury GO Station



6.2 Transit Connectivity

Two YRT routes connect East Gwillimbury GO to the rest of East Gwillimbury:

- 52 Holland Landing:** (Newmarket GO Bus Terminal and Holland Landing). 5 weekday SB trips from Holland Landing from 05:17 to 09:22 in the morning and 02:28 pm to 06:28 in the afternoon, respectively. 3 weekday NB trips from 07:00 to 9:00 in the morning and 5 weekday NB trips from 02:00 to 06:00 in the afternoon, respectively. No weekend service.
- 58 Mount Albert:** (404 Town Centre, Sharon and Mount Albert). Route 59 is currently suspended and operates as Mobility On-Request service which allows passenger to travel within the service area to one of the six fixed locations. Service is available from 5:30 am to 10:45 pm on weekdays and 8 am to 7:45 pm on Saturdays. No Sunday service.

Current YRT service to East Gwillimbury GO means that commuters who wish to use transit for their entire trip have substantially fewer options than those who have access to a car. For example, there are currently only 5 morning bus trips from Holland Landing to East Gwillimbury GO, whereas there are 7 GO Train departures in the morning to Union Station. This likely contributes to the low public transit mode share for station access.

6.3 Improvements

6.3.1 Goals

In line with Metrolinx's GO Rail Station Access Plan, access to the East Gwillimbury GO Station should facilitate increased ridership, enhance users' experience and safety, and reduce dependency on single-occupancy vehicles.

The below strategies and interventions are informed by the GO Rail Station Access Plan for East Gwillimbury, and consider initiatives included in the York Region TMP. They focus on connections to the GO site over improvements to the site itself. The Town should work with Metrolinx where practical to facilitate improvements on the Station site as outlined in the GO Rail Station Access Plan.

6.3.2 Strategy

Trips that originate within 5 km of the station are good candidates for a shift to active modes. Efforts should be prioritized to improve pedestrian and cycling connections to Sharon and Holland Landing and ensure that new development within 5k of the station is designed to facilitate walking and cycling.

Efforts should also be made to shift trips from areas over 5km from the station from single-occupancy vehicles to other modes. The town should consider working with YRT to better align schedules to GO train departures and arrivals, and to increase the number of peak period trips to the station from Holland Landing and Mount Albert. Carpooling and demand-responsive transit should be considered for low-density rural areas over 5km from the station that are difficult to serve with traditional transit.

6.3.3 Potential Improvements

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.

7 Roundabouts

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, should road geometry and available property allow for it. The following subsections provide additional information on the benefits of roundabouts and an overview of implementation considerations for the development of a full roundabout policy.

7.1 Existing Guidelines

The Canadian Roundabout Design Guide (Transportation Association of Canada, TAC 2017) and Roundabouts: An Informational Guide (U.S. National Cooperative Highway Research Program, NCHRP 2017) are recognized as the leading sources of information on roundabouts and provide guidance on their planning, design, and implementation. Much of the information presented in this section refers to these guiding documents.

7.2 Roundabout Use and Policies in Other Jurisdictions

A number of jurisdictions in Ontario have implemented roundabouts and developed implementation policies including the Ministry of Transportation, Region of York and other upper tier municipalities, and a number of lower tier municipalities. A summary of the roundabout policies in some of these other jurisdictions is provided in **Table 7-1**.

Table 7-1. Roundabout Policies in Other Jurisdictions

Jurisdiction	Roundabout Use / Policies
Town of Innisfil	The Town's Roundabout Implementation Policy recommends single-lane roundabouts to be considered for all new intersections or intersection improvements on collector roads.
Town of Whitchurch-Stouffville	The Town has implemented a number of roundabouts on its collector roads with plans for more. The Town's TMP recommends considering roundabouts whenever new intersections are being built or intersection improvements are needed.
City of St. Thomas	St. Thomas has nine roundabouts with the first implemented about ten years ago. The City implements roundabouts based on the policy guidance of the Region of Waterloo.
City of Markham	Roundabouts are implemented on collector roads within some of its residential subdivisions and are generally permitted subject to suitability on a case by case basis. Implementation policies follow the Region of York.
County of Simcoe	Roundabout Feasibility Guidelines: identifies the criteria that should be used when assessing roundabouts as an alternative intersection control.
Regional Municipality of Peel	Roundabout Screening Tools: a streamlined approach to determine where a roundabout might be a suitable alternative to address intersection improvement needs
Regional Municipality of York	Roundabout Screening Tools: a streamlined approach to determine where a roundabout might be a suitable alternative to address intersection improvement needs
Regional Municipality of Waterloo	Consider a roundabout as an alternative whenever a new intersection is proposed, signals are warranted, or improvements are planned for an existing intersection
Ontario Ministry of Transportation (MTO)	Uses signal warrants as a trigger to consider roundabouts at provincial intersections.

7.3 Types of Roundabouts

The TAC Canadian Roundabout Design Guide describes three basic types of roundabouts recommended for use in Canada: single-lane roundabouts, multi-lane roundabouts, and mini roundabouts.

7.3.1 Single-Lane Roundabout

Single-lane roundabouts feature raised central and splitter islands, one lane entries on all approaches, and one circulatory lane. The central island is non-traversable, although it may include a mountable truck apron to accommodate heavy vehicles. This roundabout design can typically accommodate volumes

of up to 25,000 vehicles daily and have an inscribed circle diameter (ICD) ranging from 28 to 60 m.

7.3.2 Multilane Roundabout

Multilane roundabouts are characterized by at least one entry with two or more lanes. The circulatory roadway is wider to accommodate the higher volumes (AADT more than 25,000) and is designed so that no lane changes are required for any movement throughout the roundabout. Multilane roundabouts typically have an ICD of 46 to 100 m and have a capacity of up to 45,000 vehicles daily. Multilane roundabouts present challenges for active transportation users. This roundabout design has longer crossing distances for pedestrians, and it is more difficult and costly to implement cycling facilities.

7.3.3 Mini Roundabout

Mini-roundabouts are the smaller cousin of single-lane and multi-lane roundabouts. The ICD typically ranges from 14 to 27 m, and the roundabout can accommodate up to approximately 15,000 vehicles per day. This roundabout design features a fully traversable centre island and mountable splitter islands, thus could allow heavy vehicles to maneuver through the intersection with ease in spite of the smaller ICD. However, the mountable island design also reduces safety benefits.

7.4 Advantages and Disadvantages of Roundabouts

Roundabouts provide many benefits in comparison to other traffic control types. According to the Canadian Roundabout Design Guide, roundabouts offer the following advantages:

Safety - Safety is often the primary reason for selecting this form of intersection control. Roundabouts are proven to reduce frequency and severity of collisions compared to both stop controlled and signalized intersections. Roundabout design features contributing to this benefit include fewer conflict points, lower entering and circulating speed, and a reduced angle of impact, reducing or eliminating right-angle and head-on collisions.

Operations / Access Management - Stop and signal controlled intersections require vehicles to stop even when no other vehicles are present. Roundabouts use yield at-entry control to eliminate unnecessary stopping and therefore tend to operate with lower delays and shorter queues, particularly in lower volume situations. Roundabouts also provide safe U-turn opportunities and may reduce midblock left-turns.

Traffic Management / Calming – A roundabout’s geometric design influences drivers to reduce speed compared to abrupt stopping and starting at stop and signal controlled intersections. Roundabouts can also be used as effective gateway treatments between rural and urban areas to slow traffic.

Environment and Sustainability - The operational benefits from reduced delays and stopping also results in reduced fuel consumption and vehicle emissions. Forced stops also result in more noise from vehicles braking and accelerating. Finally, roundabouts also consume less energy than traffic signals and require little maintenance. Overall these factors minimize carbon footprint, enhance sustainability, and reduce life-cycle costs of operations and maintenance.

Economics - Roundabouts offer reduced maintenance costs compared to traffic signals along with time and fuel savings for users and societal costs savings from less severe and fewer collisions.

Aesthetics - Particularly within the central island, roundabouts offer landscaping opportunities to and can as a gateway feature.

Potential disadvantages include:

Spatial requirements - Generally the shape of a roundabout requires more property beyond the limits of a typical road allowance compared to stop or signal controlled intersections. However, reduced auxiliary lane requirements may actually reduce the overall intersection footprint. Furthermore, a “mini-roundabout” can potentially fit within a typical roadway allowance.

Constructability / Costs - Roundabouts typically have higher construction costs and a longer construction period, particularly in retrofit applications.

Operational limitations - Roundabouts operate most efficiently when traffic volumes are roughly equal between the two intersecting streets. Once main street traffic volumes reach approximately 70% of total intersection volumes, the operational benefits of roundabouts compared to signalized intersections decreases.

Active transportation impacts – Roundabouts do not provide protected crossing opportunities for pedestrians and cyclists, an issue particularly in higher volume applications with limited gaps in traffic. Larger roundabouts also force pedestrians to divert from their natural path. The US and Canadian guidelines recommend incorporating zebra striping and splitter islands such that pedestrians only cross one direction of traffic at a time. With respect to cyclists, the best practice for on-street bike lanes is to for either the cyclist to

share the roundabout with vehicular traffic or to provide a ramp off of the street prior to entering the roundabout to minimize potential conflicts.

Public education requirements - In communities where roundabouts are not a common form of intersection control, new installations may require public education prior to implementation.

7.5 Roundabout Implementation Policies

It is recommended that the Town update its Official Plan to recognize roundabouts as a potential traffic control at new intersections as well as a means of traffic calming or safety improvement at existing intersections where warranted. Secondly, the Town should develop its own roundabout screening tool to help guide decisions on where best to implement roundabouts for both existing and future intersections. Finally, a network screening study can be completed using the tool to identify priority locations for roundabout implementation.

Given the above-noted benefits, it is recommended that single lane roundabouts be the first consideration for intersection controls for all new intersections or intersection improvements on rural roads, minor collector roads and major collector roads in the Town. Further, it should be demonstrated to the Town's satisfaction that a single-lane roundabout is not desired if a signal or stop controlled intersection is proposed.

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 collisions, 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
- Traffic calming is required

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.

Multilane roundabouts may be considered, but the challenges are important to consider including the lack of a protected crossing for active transportation

and increased potential for driver confusion. These challenges must be strongly considered and mitigated during the design stage.

Mini roundabouts are not recommended at this time due to the limited enhancements to safety relative to implementation costs, and high potential for driver confusion if not designed appropriately. Mini roundabouts may be considered in the longer term future once the public becomes increasingly comfortable roundabouts.

7.6 Potential Roundabout Locations

A preliminary review was conducted to determine where roundabouts should be considered as the intersection control to support the transportation network detailed for the 2051 horizon.

Figure 22 illustrates potential roundabout locations where the Town should consider roundabouts as the intersection control. Additional recommended intersection improvements to support the recommended transportation network are listed in **Table 7-2** (including potential roundabout opportunities).

Table 7-2: 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



Transportation Master Plan Update

Appendix D – Project List and Costs

Town of East Gwillimbury
Final Report



Project List and Costs

This appendix provides the TMP recommended project list including detailed timings and cost estimates. The projects are categorized as Project List A for non-Whitebelt lands and Project List B for Whitebelt lands. The methodology used for the cost estimates is provided in **Attachment 1** for non-Whitebelt Lands and **Attachment 2** for the Whitebelt Lands. All costs are provided in 2022 dollars.

Attachment 1 provides costing methodology from 2041 network development completed in the draft 2019 TMP for reference purpose. The base year was 2018 at the time the work was completed, but costs have been updated to 2022 dollars.

Attachment 2 outlines the costing methodology for the overall network recommendations in the 2051 horizon and builds off the methodology from the 2041 horizon. The base year was 2022 at the time the work was completed.

Project List A - Non-Whitebelt Lands (\$2022)

Driving

Walking

Cycling

Streetlighting

MUP -> 1 side unless stated otherwise

* Funded projects that are recommended in the TMP but not included in total cost

Cost of MUPs and paved shoulders on rural roads are included in cycling and road project sections respectively

Standalone sidewalk (walking), cycling, and streetlighting projects are projects limited in scale / minimal adverse environmental impacts and are not subject to MCEA.

ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
ROAD PROJECTS									
Holland Landing									
R-A1	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	New Construction	Minor Collector	0.1	2025-2029	-	\$354,395
R-A2	Centennial Avenue Extension	Highway 11	Holland Landing Road	New Construction	Minor Collector	0.8	2025-2029	C	\$3,192,657
Green Lane West									
R-A3	Murell Boulevard Widening	East-West Collector	Green Lane	Widening	Major Collector	0.5	2025-2029	B	\$2,662,364
R-A4	Bayview Parkway Extension	Green Lane	Current Northern Terminus	New Construction	Minor Collector	0.5	2030-2034	C	\$4,245,019
R-A5	Connector Road / Street I	2nd Concession	East-West Collector	New Construction	Minor Collector	0.9	2025-2029	C	\$3,189,552
R-A7	East-West Collector + Structure	Bathurst Street	Harry Walker Parkway	New Construction	Major Collector		2025-2029	EA Complete	\$92,477,797
R-A8	Harry Walker Parkway Extension	East-West Collector	Green Lane	New Construction	Major Collector	0.2	2025-2029	-	\$819,991
R-A10	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (East of Yonge)	New Construction	Minor Collector	2.33	2025-2029	C	\$5,705,754
R-A11	New East-West Road (South of Green Lane) / Street F	Bayview Parkway	Leslie Street	New Construction	Minor Collector	1.34	2030-2034	C	\$5,525,205
R-A11b	Murrell Blvd South Extension	Green Lane	Street F	New Construction	Major Collector	0.2	2030-2034	-	\$819,991
R-A12	North-South Connector (West of Yonge Street) / Street G	East-West Collector	Green Lane	New Construction	Minor Collector	0.8	2025-2029	B	\$2,835,157
R-A13	Ring Road (East of Yonge Street) / Ring Road H	East-West Collector (west side)	East-West Collector (east side)	New Construction	Minor Collector	2.3	2025-2029	C	\$9,703,710
R-A14	2nd Concession Ring Road / Ring Road J	Rogers Road	East-West Collector	New Construction	Minor Collector	2.35	2025-2029	C	\$8,328,275
R-A15	Street K	Manor Hampton Street	Green Lane	New Construction	Minor Collector	0.9	2025-2029	C	\$3,189,552
R-A16	Woodspring Avenue Extension	East-West Collector	Green Lane	New Construction	Major Collector	0.8	2025-2029	C	\$3,643,712
R-A59	Barrie GO Grade Separation	Green Lane	east of Second Concession	New Structure	Regional Road		Post 2031	C	\$52,758,326

Project List A - Non-Whitebelt Lands (\$2022)

Driving

Walking

Cycling

Streetlighting

MUP -> 1 side unless stated otherwise

* Funded projects that are recommended in the TMP but not included in total cost

Cost of MUPs and paved shoulders on rural roads are included in cycling and road project sections respectively

Standalone sidewalk (walking), cycling, and streetlighting projects are projects limited in scale / minimal adverse environmental impacts and are not subject to MCEA.

ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
Sharon									
R-A21	New North Queensville Ring Road / Street C	Doane Road	Silk Twist Drive	New Construction	Major Collector	1.15	2035-2039	C	\$4,714,946
R-A22	Murrell Boulevard Extension	Doane Road	Mount Albert Road	New Construction	Major Collector	1.65	2025-2029	EA Complete	\$7,382,423
R-A23	Sharon East Employment Collector	Doane Road	Ward Avenue	New Construction	Major Collector	2.7	2030-2034	C	\$18,193,464
R-A24	Street O	Murell Boulevard Extension	Sharon East Employment Collector	New Construction	Minor Collector	2.08	2030-2034	C	\$7,371,409
R-A25	Silk Twist Drive East	Murell Boulevard Extension	Sharon East Employment Collector	New Construction	Major Collector	2.32	2025-2029	C	\$10,329,391
R-A26	Silk Twist Drive West	2nd Concession	Murell Boulevard	New Construction	Major Collector	1.2	2035-2039	C	\$5,403,694
R-A60	Highway 404 Interchange at Doane Road			New Structure	Regional Road		Post 2031	C	\$6,282,000
Queensville									
R-A27	Jim Mortson Drive Extension (Southern Extension)	Leslie Street	New North Queensville Ring Road / Street C	New Construction	Major Collector	0.3	2030-2034	B	\$1,229,986
R-A28	Jim Mortson Drive Extension (Southern Extension 2)	New North Queensville Ring Road / Street C	New North-South Frontage Road (East of Hwy 404) / Street L	New Construction	Major Collector	1.24	2035-2039	C	\$37,665,510
R-A29	Jim Mortson Drive Extension (Northern Extension)	Leslie Street	Sharon East Employment Collector Extension / Street D	New Construction	Minor Collector	0.8	2030-2034	C	\$3,611,473
R-A30	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	New Construction	Major Collector	1.25	Post 2040	C	\$7,841,737
R-A31	New North-South Road / Street A	Queensville Sideroad	Evans Farm Boulevard / Street B	New Construction	Minor Collector	0.6	2025-2029	B	\$2,126,368
R-A32	North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	New Construction	Major Collector	2.05	2030-2034	C	\$9,142,404
R-A33	New North-South Frontage Road (East of Hwy 404) / Street L	Queensville Sideroad	Doane Road	New Construction	Minor Collector	2.06	2025-2029	C	\$8,733,096
R-A34	New East-West Road / Street M	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	New Construction	Minor Collector	0.5	2035-2039	B	\$1,771,973
R-A35	New East-West Road / Street N	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	New Construction	Minor Collector	0.5	2025-2029	B	\$1,771,973
R-A36	Murell Boulevard Extension / John Candy Drive	Ben Sinclair Avenue	Doane Road	New Construction	Major Collector	0.5	2025-2029	C	\$5,825,053
R-A37	Sharon East Employment Collector Extension / Street D	Leslie Street	Doane Road	New Construction	Major Collector	2.3	2030-2034	C	\$10,001,210

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ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
Mount Albert									
R-A38	Centre Street	King Street and King Street East	Mount Albert Road	Reconstruction	Local Road	1.1	2025-2029	B	\$5,353,972
RURAL ROADS									
R-A39	Centre Street	Queensville Sideroad	King Street and King Street East	Reconstruction	Major Collector	3.0	By 2041	B	\$7,366,961
R-A40	Centre Street	Mount Albert Road	Davis Drive	Reconstruction	Major Collector	4.1	By 2041	B	\$7,946,249
R-A41	Doane Road	Woodbine Avenue	McCowan Road	Reconstruction	Major Collector	6.2	By 2041	B	\$15,786,957
R-A42*	Doane Road	Centre Street	York Durham Line	Reconstruction	Major Collector			-	
R-A43	Herald Road	Woodbine Avenue	Hwy 48	Reconstruction	Major Collector	8.2	By 2041	B	\$24,321,073
R-A44	Queensville Sideroad	Woodbine Avenue	York Durham Line	Reconstruction	Major Collector	10.5	By 2041	B	\$26,338,874
R-A61	York Durham Line	Ravenshoe Road	Queensville Sideroad	Reconstruction	Regional Road	6.0	By 2041	B	\$20,520,222
INTERSECTION IMPROVEMENTS									
R-A45	Queensville Side Road / Centre Street			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A46	Queensville Side Road / Kennedy Road			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A47	Queensville Side Road / Warden Avenue			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A48	Doane Road / Warden Avenue			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A49	Roundabout at East-West Collector and Murrell			Roundabout			2025-2029	B	\$556,250
R-A50	Herald Road / Centre Street			Intersection Improvement / Jog Elimination			2030-2034	B	\$506,276
R-A51	Queensville Sideroad / Highway 48 (Provincial Int.)			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A52	Doane Road / Woodbine Avenue			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A53	Doane Road / Leslie Street			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A54	Doane Road / Murrell Boulevard			Intersection Improvement / Jog Elimination			By 2041	B	\$506,276
R-A55	North Queensville Ring Road / Street D			Roundabout			2030-2034	B	\$556,250
R-A56	North Queensville Ring Road / Jim Morton Drive Extension (Southern Extension 1)			Roundabout			2030-2034	B	\$556,250
R-A57	East-West Collector north of Green Lane / N-S Collector 8 (Woodspring Avenue Extension)			Roundabout			2035-2039	B	\$556,250
R-A58	Silk Twist Drive East / Murrell Boulevard Extension			Roundabout			2035-2039	B	\$556,250

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ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
WALKING									
REGIONAL ROADS									
W-A1a	2nd Concession Road	Queensville Sideroad	Green Lane	Sidewalk on Both Sides		2.5	2030-2034	-	\$905,070
	2nd Concession Road	Doane Road	Queensville Sideroad	MUP		3.7	2030-2034	-	
	Doane Road	Yonge Street	Woodbine Avenue	MUP		6.1	2025-2029	-	
	Green Lane	Yonge Street	Woodbine Avenue	MUP		6.1	2040-2044	-	
W-A4	Holland Landing Road	Bathurst Street	Yonge Street	Sidewalk on One Side		2.9	2030-2034	-	\$524,941
	Leslie Street	Colonel Wayling Boulevard	Green Lane	MUP		0.95	2030-2034	-	
W-A5c	Leslie Street	E-W Collector	Green Lane	Sidewalk on One Side		0.28	2030-2034	-	\$50,684
	Mount Albert Road	2nd Concession Road	Leslie Street	MUP		2	2025-2029	-	
W-A6b*	Mount Albert Road	220m west of Colony Trail Boulevard	Colony Trail Boulevard	Sidewalk on One Side		0.22		-	
W-A6c	Mount Albert Road (north side)	Yonge Street	2nd Concession Road	Sidewalk on One Side		2	2030-2034	-	\$362,028
W-A6d	Mount Albert Road (south side)	335m west of 2nd Concession Road	2nd Concession Road	Sidewalk on One Side		0.335	2030-2034	-	\$60,640
W-A6e	Mount Albert Road (south side)	Charles Street	Sports Complex	Sidewalk on One Side		1.1	2030-2034	-	\$199,115
W-A6f*	Mount Albert Road (north side)	Conn Drive / Howard Avenue	Sports Complex	Sidewalk on One Side		0.7		-	
W-A6g	Mount Albert Road (south side)	Highway 48	Royal Oak Road	Sidewalk on One Side		1.4	2025-2029	-	\$253,420
W-A6h	Mount Albert Road (north side)	Royal Oak Road	York Durham Line	Sidewalk on One Side		0.85	2025-2029	-	\$153,862
W-A7a	Queensville Sideroad (south side)	Sand Road	River Drive	Sidewalk on One Side		0.75	2030-2034	-	\$135,761
	Queensville Sideroad	Holland's Landing Depot Driveway	Leslie Street	MUP		4.3		-	
W-A7c	Queensville Sideroad	North Queensville Ring Road	Woodbine Avenue	Sidewalk on Both Sides		1.7	2030-2034	-	\$615,448
W-A7d	Queensville Sideroad (north side)	115m West of Karissa Lane	River Drive	Sidewalk on One Side		0.92	2030-2034	-	\$166,533
W-A8a	Yonge Street	Queensville Sideroad	Maple Street	Sidewalk on One Side		0.9	2030-2034	-	\$162,913
W-A8b	Yonge Street (west side)	Mount Albert Road	Holland Landing Road	Sidewalk on One Side		0.5	2025-2029	-	\$90,507
W-A8c	Yonge Street	East-West Collector	Lady Gwillim Avenue Extension	Sidewalk on Both Sides		0.4	2040-2044	-	\$144,811
	Yonge Street	400m north of Green Lane	East-West Collector	MUP		0.45	2040-2044	-	
	Highway 11	Sherwood Glen/Dogwood Blvd	Crimson King Way	MUP		0.94	2030-2034	-	
	Highway 11	Crimson King Way	Bathurst St	MUP		1.17	2030-2034	-	
W-A9	Woodbine Avenue (west side)	Queensville Sideroad	Davis Drive	Sidewalk on One Side		8.3	2030-2034	-	\$1,502,417
W-A10	Highway 11 / Yonge Street (east side)	Bathurst Street	East-West Collector	Sidewalk on One Side		2.8	2030-2034	-	\$506,839
	Leslie Street	Mount Albert Road (North Leg)	Colonel Wayling Boulevard	MUP		1.6	2030-2034	-	
W-A11*	Highway 48 (east side)	0.4km North of Princess Street	Mount Albert Road	Sidewalk on One Side		0.9		-	
W-A11b	Leslie Street	Jim Mortson Drive (North Leg)	E-W Collector 9	Sidewalk on Both Sides		1.79	2025-2029	-	\$648,030
W-A11c	Leslie Street	Silk Twist Drive	Mount Alber Road (North	Sidewalk on Both Sides		0.39	2025-2029	-	\$141,191

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Holland Landing									
W-A12a	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	Sidewalk on Both Sides		0.1	2025-2029	-	\$36,203
W-A12b	Centennial Avenue Extension	Highway 11	Holland Landing Road	Sidewalk on Both Sides		0.8	2025-2029	-	\$289,622
W-A13	Oriole Drive	Toll Road	250m east of Toll Road	Sidewalk on One Side		0.25	2030-2034	-	\$45,254
W-A15	Toll Road	Oriole Drive	350m south of Oriole Drive	Sidewalk on One Side		0.35	2030-2034	-	\$63,355
W-A51	Mount Albert Road	Sand Road	Yonge Street	Sidewalk on Both Sides		0.89	2030-2034	-	\$322,205
Green Lane West									
W-A16a	Murrell Boulevard Widening	East-West Collector	Green Lane	Sidewalk on Both Sides		0.8	2025-2029	-	\$289,622
W-A16b	Murrell Blvd South Extension	Green Lane	Street F	Sidewalk on Both Sides		0.2	2030-2034	-	\$72,406
W-A17	Street G	East-West Collector	Green Lane	Sidewalk on Both Sides		0.8	2025-2029	-	\$289,622
W-A18	Bayview Parkway Extension	Green Lane	Current Northern Terminus	Sidewalk on Both Sides		0.5	2030-2034	-	\$181,014
W-A19	Connector Road / Street I	2nd Concession	East-West Collector	Sidewalk on Both Sides		0.9	2025-2029	-	\$325,825
W-A20b	Woodspring Avenue Extension	East-West Collector	Green Lane	Sidewalk on Both Sides		0.8	2025-2029	-	\$289,622
W-A21	East West Collector	Bathurst Street	Harry Walker Parkway	Sidewalk on Both Sides		6.75	2025-2029	-	
W-A22a	Harry Walker Parkway Extension	East-West Collector	Green Lane	Sidewalk on Both Sides		0.2	2025-2029	-	\$72,406
W-A23	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (east of Yonge)	Sidewalk on Both Sides		2.33	2025-2029	-	\$843,525
W-A24	Street F	Bayview Parkway	Leslie Street	Sidewalk on Both Sides		1.34	2025-2029	-	\$485,118
W-A25	Ring Road H	East-West Collector (west leg)	East-West Collector (east leg)	Sidewalk on Both Sides		2.3	2025-2029	-	\$832,665
W-A26	Ring Road J	Rogers Road	East-West Collector	Sidewalk on Both Sides		2.35	2025-2029	-	\$850,766
W-A27	Street K	Manor Hampton Street	Green Lane	Sidewalk on Both Sides		0.9	2025-2029	-	\$325,825
Sharon									
W-A29	Farr Avenue	Oxford Court	Sharon East Employment Collector	Sidewalk on One Side		0.1	2030-2034	-	\$18,101
W-A16c	Murrell Boulevard Extension	Doane Road	Mount Albert Road	Sidewalk on Both Sides		1.65	2025-2029	-	\$597,346
W-A31	Sharon East Employment Collector	Doane Road	Mount Albert Road	Sidewalk on Both Sides		2.2	2030-2034	-	\$796,462
W-A32	Street C	Doane Road	Silk Twist Drive	Sidewalk on Both Sides		1.15	2035-2039	-	\$416,332
W-A33	Street O	Murell Boulevard Extension	Sharon East Employment Collector	Sidewalk on Both Sides		2.08	2030-2034	-	\$753,018
W-A34a	Silk Twist Drive East	Murell Boulevard Extension	Sharon East Employment Collector	Sidewalk on Both Sides		2.32	2025-2029	-	\$839,905
W-A34b	Silk Twist Drive West	2nd Concession	Murell Boulevard	Sidewalk on Both Sides		1.2	2035-2039	-	\$434,434

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Queensville									
W-A37a	Jim Mortson Drive Extension (Southern	Leslie Street	Street C	Sidewalk on Both Sides		0.3	2030-2034	-	\$108,608
W-A37b	Jim Mortson Drive Extension (Southern Extension 2)	Street C	Street L	Sidewalk on Both Sides		1.24	2035-2039	-	\$448,915
W-A37c	Jim Mortson Drive Extension (Northern Extension)	Leslie Street	Street D	Sidewalk on Both Sides		0.88	2030-2034	-	\$318,585
W-A38	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	Sidewalk on Both Sides		1.25	Post 2040	-	\$452,535
W-A39	Street A	Queensville Sideroad	Evans Farm Boulevard / Street B	Sidewalk on One Side		0.6	2025-2029	-	\$108,608
W-A40a	Evans Farm Boulevard / Street B	2nd Concession	Milne Lane	Sidewalk on One Side		1.25	2025-2029	-	\$226,268
W-A41	New North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	Sidewalk on Both Sides		2.05	2030-2034	-	\$742,158
W-A42	Sharon East Employment Collector Extension /	Leslie Street	Doane Road	Sidewalk on Both Sides		2.25	2030-2034	-	\$814,563
W-A43	Street L	Queensville Sideroad	Doane Road	Sidewalk on Both Sides		2.06	2025-2029	-	\$745,778
W-A44	Street M	Street L	Woodbine Avenue	Sidewalk on Both Sides		0.5	2035-2039	-	\$181,014
W-A45	Street N	Street L	Woodbine Avenue	Sidewalk on Both Sides		0.5	2025-2029	-	\$181,014
W-A16d	Murell Boulevard Extension / John Candy Drive	Ben Sinclair Avenue	Doane Road	Sidewalk on Both Sides		0.5	2025-2029	-	\$181,014
Mount Albert									
W-A46	Centre Street	King Street and King Street East	120m south of Vivian Creek	Sidewalk on Both Sides		0.52	2025-2029	-	\$188,255
W-A47	Samuel Harper Court (west side)	Vivian Creek Trail / Haig Crescent	Mount Albert Road	Sidewalk on One Side		0.21	2025-2029	-	\$38,013
W-A48	King Street (east side)	280m north of Albert Street	Mount Albert Road	Sidewalk on One Side		0.35	2025-2029	-	\$63,355
W-A49*	Ninth Line (west side)	30m south of Donald Stewart Crescent	Mount Albert Road	Sidewalk on One Side		0.43		-	
W-A50	Ninth Line (west side)	Vivian Creek Road	North Terminus	Sidewalk on One Side		0.27	2025-2029	-	\$48,856

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CYCLING									
REGIONAL ROADS									
C-A1	2nd Concession Road	Doane Road	Queensville Sideroad	MUP		2.03	2030-2034	-	\$520,504
C-A2	Bathurst Street	Highway 11	Southern Town Boundary	Paved Shoulders		4.8	2030-2034	-	\$1,378,211
C-A3	Davis Drive	Warden Avenue	York Durham Line	Paved Shoulders		9	By 2041	-	\$2,584,146
C-A4	Green Lane	Yonge Street	Woodbine Avenue	MUP		6	2040-2044	-	\$1,538,437
C-A6	Holland Landing Road	Bathurst Street	Oriole Drive	Painted Bike Lanes		0.3	2030-2034	-	\$15,384
C-A7	Kennedy Road	Ravenshoe Road	Herald Road	Paved Shoulders		12.4	By 2041	-	\$3,560,379
C-A8	Kennedy Road	550m North of Davis Drive	Davis Drive	Paved Shoulders		0.55	By 2041	-	\$157,920
C-A9	Leslie Street	Testa Street	Milne Lane	Painted Bike Lanes		0.65	2030-2034	-	\$33,333
C-A9b	Leslie Street	Mount Albert Road (North Leg)	Colonel Wayling Boulevard	MUP		1.6	2030-2034	-	\$410,250
C-A9c	Leslie Street	Colonel Wayling Boulevard	Green Lane	MUP		0.95	2030-2034	-	\$243,586
C-A10	McCowan Road	Ravenshoe Road	Davis Drive	Paved Shoulders		14.3	By 2041	-	\$4,105,921
C-A11a	Mount Albert Road	Yonge Street	2nd Concession Road	Painted Bike Lanes		2	2030-2034	-	\$102,562
C-A11b	Mount Albert Road	2nd Concession Road	Leslie Street	MUP		2	2025-2029	-	\$512,812
C-A11c	Mount Albert Road	Woodbine Avenue	King Street	Paved Shoulders		8.6	By 2041	-	\$2,469,295
C-A12	Ravenshoe Road	Western Town Boundary	York Durham Line	Paved Shoulders		15.75	By 2041	-	\$4,522,255
C-A13	Warden Avenue	Ravenshoe Road	Davis Drive	Paved Shoulders		14.4	By 2041	-	\$4,134,634
C-A14a	Yonge Street	Olive Street / Beckett Avenue	Holland Landing Road / Old Yonge Street	Painted Bike Lanes		1.6	2025-2029	-	\$82,050
C-A14b*	Yonge Street	East-West Collector	Green Lane	Painted Bike Lanes		0.85		-	
C-A14c	Yonge Street	400m north of Green Lane	East-West Collector	MUP		0.45	2040-2044	-	\$852,241
C-A14d	Highway 11	Sherwood Glen/Dogwood Blvd	Crimson King Way	MUP		0.94	2030-2034	-	\$178,199
C-A14e	Highway 11	Crimson King Way	Bathurst St	MUP		1.17	2030-2034	-	\$221,801
C-A15	York Durham Line	Ravenshoe Road	Davis Drive	Paved Shoulders		14.2	By 2041	-	\$4,077,208
C-A15a	Doane Road	Yonge Street	Woodbine Avenue	MUP		6.1	2025-2029	-	\$1,564,077
C-A64*	Queensville Sideroad	Holland's Landing Depot Driveway	Leslie Street	MUP		4.3		-	
RURAL ROADS									
	Centre Street	Queensville Sideroad	King Street and King Street East	Paved Shoulders			By 2041	-	
	Centre Street	Mount Albert Road	Davis Drive	Paved Shoulders			By 2041	-	
	Doane Road	Woodbine Avenue	McCowan	Paved Shoulders			By 2041	-	
	Herald Street	Woodbine Avenue	York Durham Line	Paved Shoulders			By 2041	-	
	Queensville Sideroad	Woodbine Avenue	York Durham Line	Paved Shoulders			By 2041	-	

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Holland Landing									
C-A20a	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	Painted Bike Lanes		0.1	2025-2029	-	\$5,128
C-A20b	Centennial Avenue Extension	Highway 11	Holland Landing Road	Painted Bike Lanes		0.8	2025-2029	-	\$41,025
C-A21	Colony Trail Boulevard	Western Terminus	Mount Albert Road	Painted Bike Lanes		1	2030-2034	-	\$51,281
C-A22	Oriole Drive	Holland Landing Road	Yonge Street	Painted Bike Lanes		1.9	2030-2034	-	\$97,434
C-A23	Sand Road	Queensville Sideroad	Oriole Drive	Sharrows		2.1	2030-2034	-	\$107,691
C-A24a	Thompson Drive	Yonge Street	Silk Twist Drive	Painted Bike Lanes		1	2025-2029	-	\$51,281
C-A24b	Bradford Street	Yonge Street	Holland Landing Road	Painted Bike Lanes		0.59	2025-2029	-	\$30,256
C-A25	Oriole Drive	Holland Landing Road	Sand Road	Sharrows		1	2030-2034	-	\$51,281
C-A62	Silk Twist Drive	Doane Road	2nd Concession Road	Painted Bike Lanes		2.07	2025-2029	-	\$106,152
C-A63a	Dog Wood Boulevard	Northern Terminus	Highway 11	Painted Bike Lanes		1.34	2025-2029	-	\$68,717
C-A63b	Crimson King Way	Highway 11	Dog Wood Boulevard	Painted Bike Lanes		0.53	2025-2029	-	\$27,179
C-A63c	Charlotte Abby Drive	Dog Wood Boulevard	Holland Landing Road	Painted Bike Lanes		0.53	2025-2029	-	\$27,179
C-A63d	Holland Vista Street	Dog Wood Boulevard	Holland Landing Road	Painted Bike Lanes		0.82	2025-2029	-	\$42,051
Green Lane West									
C-A26	Murell Boulevard Widening	East-West Collector	Green Lane	Painted Bike Lanes		0.8	2025-2029	-	\$41,025
C-A27	Bayview Parkway Extension	Green Lane	Current Northern Terminus	Painted Bike Lanes		0.5	2030-2034	-	\$25,641
C-A28	Connector Road / Street I	2nd Concession	East-West Collector	Painted Bike Lanes		0.9	2025-2029	-	\$46,153
C-A29b	Woodspring Avenue Extension	East-West Collector	Green Lane	Painted Bike Lanes		0.8	2025-2029	-	\$41,025
C-A30	East West Collector	Bathurst Street	Harry Walker Parkway	Painted Bike Lanes		6.75	2025-2029	-	\$346,148
C-A31a	Harry Walker Parkway Extension	East-West Collector	Green Lane	Painted Bike Lanes		0.2	2025-2029	-	\$10,256
C-A32	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (East lof Yonge)	Painted Bike Lanes		2.33	2025-2029	-	\$119,485
C-A33	Street F	Bayview Parkway	Leslie Street	Painted Bike Lanes		1.34	2025-2029	-	\$68,717
C-A34	Murrell Blvd South Extension	Green Lane	Street F	Painted Bike Lanes		0.2	2025-2029	-	\$10,256
C-A35	Street G	Green Lane	East-West Collector	Painted Bike Lanes		0.8	2025-2029	-	\$41,025
C-A36	Ring Road H	East-West Collector (west leg)	East-West Collector (East leg)	Painted Bike Lanes		2.3	2025-2029	-	\$117,947
C-A37	Ring Road J	Rogers Road	East-West Collector	Painted Bike Lanes		2.35	2025-2029	-	\$120,511
C-A38	Street K	Manor Hampton Street	Green Lane	Painted Bike Lanes		0.9	2025-2029	-	\$46,153
C-A39	Harvest Hills (19T-04001)	Nature Way Crescent	Woodspring Avenue	Painted Bike Lanes		0.8	2025-2029	-	\$41,025
Sharon									
C-A40a	Colonel Wayling Boulevard	Northern Terminus	Leslie Street	Painted Bike Lanes		2.4	2030-2034	-	\$123,075
C-A42	Manor Hampton Street	Murell Boulevard	Leslie Street	Painted Bike Lanes		1	2030-2034	-	\$51,281
C-A43*	Murrell Boulevard Extension	Doane Road	Mount Albert Road	Painted Bike Lanes		1.65		-	
C-A44	Sharon East Employment Collector	Doane Road	Mount Albert Road	Painted Bike Lanes		2.2	2030-2034	-	\$112,819
C-A45	Street C	Doane Road	Silk Twist Drive	Painted Bike Lanes		1.15	2035-2039	-	\$58,973
C-A46	Street O	Murell Boulevard Extension	Sharon East Employment Collector	Painted Bike Lanes		2.08	2030-2034	-	\$106,665
C-A47	Silk Twist Drive East	Murell Boulevard Extension	Sharon East Employment Collector	Painted Bike Lanes		2.32	2025-2029	-	\$118,972
C-A48	Silk Twist Drive West	2nd Concession	Murell Boulevard	Painted Bike Lanes		1.2	2035-2039	-	\$61,537

Project List A - Non-Whitebelt Lands (\$2022)

Driving

Walking

Cycling

Streetlighting

MUP -> 1 side unless stated otherwise

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ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
Queensville									
C-A50	Jim Morton Drive	Leslie Street (north leg)	Leslie Street (south leg)	Painted Bike Lanes		1.16	2030-2034	-	\$59,486
C-A50a	Jim Morton Drive Extension (Southern Extension)	Leslie Street	Street C	Painted Bike Lanes		0.3	2030-2034	-	\$15,384
C-A50b	Jim Morton Drive Extension (Southern Extension 2)	Street C	Street L	Painted Bike Lanes		1.24	2035-2039	-	\$63,589
C-A50c	Jim Morton Drive Extension (Northern Extension)	Leslie Street	Street D	Painted Bike Lanes		0.88	2030-2034	-	\$45,127
C-A51	Murrell Boulevard Extension / John Candy Drive	Blazing Star Street	Doane Road	Sharrows		0.78	2025-2029	-	\$39,999
C-A52	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	Painted Bike Lanes		1.25	Post 2040	-	\$64,102
C-A53	Street A	Queensville Sideroad	Evans Farm Boulevard / Street B	Painted Bike Lanes		0.6	2025-2029	-	\$30,769
C-A54	Evans Farm Boulevard / Street B	2nd Concession	Jim Morton Drive Ring	Painted Bike Lanes		1.7	2025-2029	-	\$87,178
C-A55	North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	Painted Bike Lanes		2.05	2030-2034	-	\$105,127
C-A56	Sharon East Employment Collector Extension /	Leslie Street	Doane Road	Painted Bike Lanes		2.25	2030-2034	-	\$115,383
C-A57	Street L	Queensville Sideroad	Doane Road	Painted Bike Lanes		2.06	2025-2029	-	\$105,639
C-A58	Street M	Street L	Woodbine Avenue	Painted Bike Lanes		0.5	2035-2039	-	\$25,641
C-A59	Street N	Street L	Woodbine Avenue	Painted Bike Lanes		0.5	2025-2029	-	\$25,641
Mount Albert									
C-A60	Centre Street	King Street and King Street East	Mount Albert Road	Sharrows		1.5	2025-2029	-	\$76,922
C-A61	King Street and King Street East	Mount Albert Road	Ninth Line	Painted Bike Lanes		3.4	2025-2029	-	\$174,356

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STREETLIGHTING									
S-A1	2nd Concession Road	Queensville Sideroad	0.3km North of Doane Road	Streetlights		1.7	2030-2034	-	\$366,246
S-A2	Doane Road	Anchor Court	Woodbine Avenue	Streetlights		5.8	2025-2029	-	\$1,247,875
S-A3a	Green Lane East	Yonge Street	Woodbine Avenue	Streetlights		6.1	2040-2044	-	\$1,306,740
S-A3b	Green Lane West	Bathurst Street	Yonge Street	Streetlights		2.2	2040-2044	-	\$463,937
S-A4*	Highway 11	Bathurst Street	Morning Sideroad	Streetlights		3.6		-	
S-A5	Highway 48	0.4km North of Princess Street	Mount Albert Road	Streetlights		1.0	2025-2029	-	\$208,294
S-A6	Holland Landing Road	Bathurst Street	Green Lane	Streetlights		2.9	2030-2034	-	\$617,109
S-A7a	Leslie Street	Jim Mortson Drive	Mount Albert Road	Streetlights		2.7	2025-2029	-	\$586,972
S-A7b	Leslie Street	Colonel Wayling Boulevard	Green Lane	Streetlights		0.9	2030-2034	-	\$193,382
S-A8a	Mount Albert Road	Stonehill Boulevard / Valleview Avenue	Leslie Street	Streetlights		2.9	2025-2029	-	\$628,734
S-A8b	Mount Albert Road	Colonel Wayling Boulevard	Woodbine Avenue	Streetlights		0.7	2025-2029	-	\$141,520
S-A8c	Mount Albert Road	Highway 48	Ninth Line	Streetlights		2.6	2025-2029	-	\$560,165
S-A10a	Queensville Sideroad	Yonge Street	Woodbine Avenue	Streetlights		2.6	2030-2034	-	\$560,165
S-A10b	Queensville Sideroad West	0.2km West of Yonge Street	Yonge Street	Streetlights		0.2	2030-2034	-	\$45,774
S-A11	Woodbine Avenue	Queensville Sideroad	Mount Albert Road	Streetlights		6.2	2030-2034	-	\$1,322,009
S-A12a	Yonge Street	400m north of Green Lane	East-West Collector	Streetlights		0.5	2040-2044	-	\$212,264
S-A12b	Highway 11	Sherwood Glen/Dogwood Blvd	Crimson King Way	Streetlights		0.9	2030-2034	-	\$178,199
S-A12c	Highway 11	Crimson King Way	Bathurst St	Streetlights		1.2	2030-2034	-	\$221,801
Holland Landing									
S-A13a	Centennial Avenue Extension (Level Crossing)	Toll Road	Holland Landing Road	Streetlights		0.1	2025-2029	-	\$21,367
S-A13b	Centennial Avenue Extension	Highway 11	Holland Landing Road	Streetlights		0.8	2025-2029	-	\$170,937

Project List A - Non-Whitebelt Lands (\$2022)

Driving

Walking

Cycling

Streetlighting

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ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
Green Lane West									
S-A14a	Murell Boulevard Widening	East-West Collector	Green Lane	Streetlights		0.5	2025-2029	-	\$106,836
S-A14b	Murrell Blvd South Extension	Green Lane	Street F	Streetlights		0.2	2030-2034	-	\$42,734
S-A15	Bayview Parkway Extension	Green Lane	Current Northern Terminus	Streetlights		0.5	2030-2034	-	\$106,836
S-A16	Connector Road / Street I	2nd Concession	East-West Collector	Streetlights		0.9	2025-2029	-	\$192,305
S-A17b	Woodspring Avenue Extension	East-West Collector	Green Lane	Streetlights		0.8	2025-2029	-	\$170,937
S-A18a	Harry Walker Parkway Extension	East-West Collector	Green Lane	Streetlights		0.2	2025-2029	-	\$42,734
S-A19	Lady Gwillim Avenue Extension	Green Lane	Ring Road H (East of Yonge)	Streetlights		2.3	2025-2029	-	\$497,855
S-A20	New East-West Road (South of Green Lane) / Street F	Bayview Parkway	Leslie Street	Streetlights		1.3	2030-2034	-	\$286,320
S-A21	North-South Connector (West of Yonge Street) / Street G	East-West Collector	Green Lane	Streetlights		0.8	2025-2029	-	\$170,937
S-A22	Ring Road (East of Yonge Street) / Ring Road H	East-West Collector (west side)	East-West Collector (east side)	Streetlights		2.3	2025-2029	-	\$491,445
S-A23	2nd Concession Ring Road / Ring Road J	Rogers Road	East-West Collector	Streetlights		2.4	2025-2029	-	\$502,129
S-A24	Street K	East-West Collector	Green Lane	Streetlights		0.9	2025-2029	-	\$192,305
Sharon									
S-A28	New North Queensville Ring Road / Street C	Doane Road	Silk Twist Drive	Streetlights		1.2	2035-2039	-	\$245,723
S-A14c	Murrell Boulevard Extension	Doane Road	Mount Albert Road	Streetlights		1.7	2025-2029	-	\$352,558
S-A29	Sharon East Employment Collector	Doane Road	Ward Avenue	Streetlights		2.7	2030-2034	-	\$576,914
S-A30	Street O	Murell Boulevard Extension	Sharon East Employment Collector	Streetlights		2.1	2030-2034	-	\$444,437
S-A31a	Silk Twist Drive East	Murell Boulevard Extension	Sharon East Employment Collector	Streetlights		2.3	2025-2029	-	\$495,719
S-A31b	Silk Twist Drive West	2nd Concession	Murell Boulevard	Streetlights		1.2	2035-2039	-	\$256,406

Project List A - Non-Whitebelt Lands (\$2022)

Driving

Walking

Cycling

Streetlighting

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ID	Road	From	To	Improvement Type	Road Class (if applicable)	Section length (km)	Timing	Recommended MCEA Schedule	Total cost (\$2022)
Queensville									
S-A32a	Jim Morton Drive Extension (Southern Extension)	Leslie Street	New North Queensville Ring Road / Street C	Streetlights		0.3	2030-2034	-	\$64,102
S-A32b	Jim Morton Drive Extension (Southern Extension 2)	New North Queensville Ring Road / Street C	New North-South Frontage Road (East of Hwy 404) / Street L	Streetlights		1.2	2035-2039	-	\$264,953
S-A32c	Jim Morton Drive Extension (Northern Extension)	Leslie Street	Sharon East Employment Collector Extension / Street D	Streetlights		2.0	2030-2034	-	\$435,890
S-A33	North Queensville Ring Road (East Portion)	Leslie Street	Queensville Sideroad	Streetlights		1.3	Post 2040	-	\$267,090
S-A34	New North-South Road / Street A	Queensville Sideroad	Evans Farm Boulevard / Street B	Streetlights		0.6	2025-2029	-	\$128,203
S-A35	North Queensville Ring Road Extension / Street C	Queensville Sideroad	Doane Road	Streetlights		2.1	2030-2034	-	\$438,027
S-A36	New North-South Frontage Road (East of Hwy 404) / Street L	Queensville Sideroad	Doane Road	Streetlights		2.1	2025-2029	-	\$440,164
S-A37	New East-West Road / Street M	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	Streetlights		0.5	2035-2039	-	\$106,836
S-A38	New East-West Road / Street N	New North-South Frontage Road (East of Hwy 404) / Street L	Woodbine Avenue	Streetlights		0.5	2025-2029	-	\$106,836
S-A39	Murell Boulevard Extension / John Candy Drive	Ben Sinclair Avenue	Doane Road	Streetlights		0.5	2025-2029	-	\$106,836
S-A40	Sharon East Employment Collector Extension / Street D	Leslie Street	Doane Road	Streetlights		2.3	2030-2034	-	\$480,761
Mount Albert									
S-A41	Centre Street	King Street and King Street East	Mount Albert Road	Streetlights		1.1	2025-2029	-	\$235,039
OTHER									
	Centre Street	Mill Street	North of MDA Lands	Reconstruction			2025-2029		
	Princess Street (19T-89060)	King Street	Highway 48	Resurfacing			2025-2029		
	Queensville Sideroad (19T-89091)	Park	Karissa Road				2030-2034		
OTHER PROJECTS									
O-A1	EcoMobility Hub			Other Improvements (bike share, EcoMobitliy					
O-A2	Bike-share program			Other Improvements (bike share, EcoMobitliy					
	Total					461.8			\$538,782,267

Project List B - Whitebelt Lands (\$2022)

Driving

Walking

Cycling

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Streetlighting

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ID	Whitebelt Lands	Road	From	To	Improvement Type	Road Class	Section length (km)	Timing	Recommended MCEA Schedule	Total Cost (\$2022)
ROAD PROJECTS										
Northwest of Queensville Sideroad and Highway 404										
R-B1	100%	N-S Collector 1	Queensville Sideroad	E-W Collector 4	New Construction	Major Collector	0.4	Post 2051	B	\$1,759,253
R-B2	100%	N-S Collector 2	Queensville Sideroad	E-W Collector 4	New Construction	Minor Collector	1.2	Post 2051	C	\$4,562,026
R-B3	100%	N-S Collector 3	E-W Collector 1	E-W Collector 2	New Construction	Minor Collector	0.8	Post 2051	B	\$3,041,351
R-B4	100%	E-W Collector 1	N-S Collector 1	2nd Concession Road	New Construction	Minor Collector	0.8	Post 2051	B	\$3,041,351
R-B5	100%	E-W Collector 3	N-S Collector 1	2nd Concession Road	New Construction	Minor Collector	0.6	Post 2051	B	\$2,281,013
R-B6	100%	E-W Collector 4	N-S Collector 1	2nd Concession Road	New Construction	Major Collector	0.6	Post 2051	B	\$2,638,879
R-B7	100%	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	New Construction	Major Collector	1.2	Post 2051	C	\$5,277,758
R-B8	100%	E-W Collector 5	Leslie Street	Collector 1	New Construction	Minor Collector	0.45	Post 2051	B	\$1,710,760
R-B9	70%	Collector 2	2nd Concession Road	Queensville Sideroad	New Construction	Minor Collector	1	2040-2044	C	\$3,801,688
R-B10	70%	N-S Collector 4	E-W Collector 5	Queensville Sideroad	New Construction	Major Collector	0.4	2025-2029	B	\$1,759,253
R-B11	70%	Collector 3	Leslie Street	South of Queensville Sideroad	New Construction	Major Collector	2.7	2045-2049	C	\$11,874,955
R-B12	70%	E-W Collector 5	2nd Concession Road	Collector 2	New Construction	Major Collector	1.1	2040-2044	C	\$4,837,945
R-B13	70%	E-W Collector 6	Collector 2	Leslie Street	New Construction	Minor Collector	1	2045-2049	C	\$3,801,688
Northeast of Queensville Sideroad and Highway 404										
R-B14	70%	70% Collectors (2 total in parallel)			New Construction	Minor Collector	1.1	Post 2051	C	\$4,181,857
R-B15	100%	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	New Construction	Major Collector	1	Post 2051	C	\$4,398,131
R-B16	100%	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	New Construction	Major Collector	1.2	2045-2049	C	\$5,277,758
Surrounding Highway 11 and Yonge Street										
R-B17	70%	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	New Construction	Minor Collector	1.3	2035-2039	C	\$4,942,195
R-B18	70%	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	New Construction	Major Collector	1.1	2035-2039	C	\$4,837,945
R-B19	70%	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	New Construction	Minor Collector	0.3	2035-2039	B	\$1,140,506
R-B20	70%	Collector 6	Highway 11	E-W Collector north of Green Lane	New Construction	Minor Collector	1.2	2035-2039	C	\$4,562,026
North of Holland Landing										
R-B21	70%	E-W Collector 8	Silk Twist Drive	2nd Concession Road	New Construction	Minor Collector	1	2040-2044	C	\$3,801,688
R-B22	70%	Collector 7	2nd Concession Road	E-W Collector 8	New Construction	Minor Collector	0.9	2040-2044	C	\$3,421,519
R-B23	70%	N-S Collector 10	E-W Collector 8	Holland Landing Collector	New Construction	Minor Collector	0.4	2040-2044	B	\$1,520,675
Near and Surrounding Sharon										
R-B24	70%	Collector 8	2nd Concession Road	Doane Road	New Construction	Minor Collector	2.6	2035-2039	C	\$9,884,390
R-B25	70%	N-S Collector 11	Mount Albert Road	Doane Road	New Construction	Minor Collector	1.7	2040-2044	C	\$6,462,870
R-B26	70%	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	New Construction	Minor Collector	1.2	2040-2044	C	\$4,562,026
R-B27	70%	E-W Collector 9	2nd Concession Road	Sharon East Collector*	New Construction	Minor Collector	3.3	2035-2039	C	\$12,545,571
										\$121,927,076

Project List B - Whitebelt Lands (\$2022)

Driving

Walking

Cycling

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Streetlighting

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Structures Cost										
B101	70%	N-S Collector 4	E-W Collector 5	Queensville Sideroad					C	\$2,395,490
B102	70%	Collector 3	Leslie Street	South of Queensville Sideroad					C	\$7,186,469
B103	70%	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad					C	\$4,790,979
B104	70%	Collector 2	2nd Concession Road	Queensville Sideroad					C	\$2,395,490
B105	100%	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue					C	\$2,395,490
B106	100%	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors					C	\$2,395,490
B107	70%	N-S Collector 8	Highway 11	E-W Collector north of Green Lane					C	\$4,790,979
B108	70%	Collector 6	Highway 11	E-W Collector north of Green Lane					C	\$2,395,490
B109	70%	Collector 8	2nd Concession Road	Doane Road					C	\$2,395,490
B110	70%	N-S Collector 11	Mount Albert Road	Doane Road					C	\$4,790,979
B111	70%	E-W Collector 9	2nd Concession Road	Sharon East Collector*					C	\$4,790,979
INTERSECTION IMPROVEMENTS										
R-B601	70%	E-W Collector 5 / Collector 3			Roundabout			2040-2044	B	\$556,250
										\$556,250

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WALKING										
REGIONAL ROADS										
W-B401	70%	Queensville Sideroad	Zone 1 100% Whitebelt west boundary	2nd Concession Road	Sidewalk on One Side			Post 2051	-	\$325,825
W-B402	100%	Queensville Sideroad	2nd Concession Road	Zone 1 70% Whitebelt east boundary	Sidewalk on One Side			2030-2034	-	\$126,710
W-B403	70%	Leslie Street (Northern Section)	Zone 1 70% Whitebelt north boundary	Zone 1 70% Whitebelt south boundary	Sidewalk on One Side			2045-2049	-	\$199,115
W-B404	100%	Leslie Street (Northern Section)	Zone 1 100% Whitebelt north boundary	Zone 1 100% Whitebelt south boundary	Sidewalk on One Side			2045-2049	-	\$199,115
W-B405	70%	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Sidewalk on One Side			Post 2051	-	\$126,710
W-B406	100%	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Sidewalk on One Side			Post 2051	-	\$126,710
W-B407	100%	2nd Concession (Northern Section)	E-W Collector 3	Zone 1 100% Whitebelt north boundary	Sidewalk on Both Sides			Post 2051	-	\$398,231
W-B408	100%	Woodbine Avenue (Northern Section)	Queensville Sideroad	Zone 2 100% Whitebelt north boundary	Sidewalk on One Side			2045-2049	-	\$199,115
W-B409	70%	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 70% Whitebelt north boundary	Sidewalk on Both Sides			2035-2039	-	\$398,231
W-B410	70%	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 70% Whitebelt south boundary	Sidewalk on One Side			2035-2039	-	\$72,406
W-B411	100%	Highway 11 / Yonge Street	Highway 11/Yonge Street	Zone 3 100% Whitebelt south boundary	Sidewalk on One Side			2035-2039	-	\$72,406
W-B415	70%	Mount Albert Road	Allangrove Avenue	2nd Concession Road	Sidewalk on Both Sides			2035-2039	-	\$253,420
W-B416	70%	Mount Albert Road	West of Countryman Road	Allangrove Avenue	Sidewalk on One Side			2035-2039	-	\$144,811
W-B417	70%	Leslie Street (Southern Section)	Silk Twist Drive extension	Zone 5 70% Whitebelt north boundary	Sidewalk on Both Sides			2035-2039	-	\$217,217
W-B418	70%	Leslie Street (Southern Section)	E-W Collector (north of Green Lane)	Colonel Wayling Boulevard	Sidewalk on One Side			2030-2034	-	\$90,507
W-B419	70%	Woodbine Avenue (Southern Section)	Zone 5 70% Whitebelt north boundary	Zone 5 70% Whitebelt south boundary	Sidewalk on One Side			2030-2034	-	\$271,521
W-B420	70%	Doane Road	Yonge Street	Woodbine Avenue	Sidewalk on One Side			2025-2029	-	\$1,104,186

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Driving

Walking

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Streetlighting

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COLLECTORS										
W-B1	100%	N-S Collector 1	Queensville Sideroad	E-W Collector 4	Sidewalk on One Side	Major Collector	0.4	Post 2051	-	\$72,406
W-B2	100%	N-S Collector 2	Queensville Sideroad	E-W Collector 4	Sidewalk on Both Sides	Minor Collector	1.2	Post 2051	-	\$434,434
W-B3	100%	N-S Collector 3	E-W Collector 1	E-W Collector 2	Sidewalk on Both Sides	Minor Collector	0.8	Post 2051	-	\$289,622
W-B4	100%	E-W Collector 1	N-S Collector 1	2nd Concession Road	Sidewalk on One Side	Minor Collector	0.8	Post 2051	-	\$144,811
W-B5	100%	E-W Collector 3	N-S Collector 1	2nd Concession Road	Sidewalk on Both Sides	Minor Collector	0.6	Post 2051	-	\$217,217
W-B6	100%	E-W Collector 4	N-S Collector 1	2nd Concession Road	Sidewalk on One Side	Major Collector	0.6	Post 2051	-	\$108,608
W-B7	100%	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	Sidewalk on One Side	Major Collector	1.2	Post 2051	-	\$217,217
W-B8	100%	E-W Collector 5	Leslie Street	Collector 1	Sidewalk on Both Sides	Minor Collector	0.45	Post 2051	-	\$162,913
W-B9	70%	Collector 2	2nd Concession Road	Queensville Sideroad	Sidewalk on Both Sides	Minor Collector	1	2040-2044	-	\$362,028
W-B10	70%	N-S Collector 4	E-W Collector 5	Queensville Sideroad	Sidewalk on One Side	Major Collector	0.4	2025-2029	-	\$72,406
W-B11	70%	Collector 3	Leslie Street	South of Queensville Sideroad	Sidewalk on One Side	Major Collector	2.7	2045-2049	-	\$488,738
W-B12	70%	E-W Collector 5	2nd Concession Road	Collector 2	Sidewalk on One Side	Major Collector	1.1	2040-2044	-	\$199,115
W-B13	70%	E-W Collector 6	Collector 2	Leslie Street	Sidewalk on Both Sides	Minor Collector	1	2045-2049	-	\$362,028
W-B14	70%	70% Collectors (2 total in parallel)			Sidewalk on Both Sides	Minor Collector	1.1	Post 2051	-	\$398,231
W-B15	100%	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	Sidewalk on One Side	Major Collector	1	Post 2051	-	\$181,014
W-B16	100%	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	Sidewalk on One Side	Major Collector	1.2	2045-2049	-	\$217,217
W-B17	70%	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	Sidewalk on Both Sides	Minor Collector	1.3	2035-2039	-	\$470,637
W-B18	70%	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	Sidewalk on One Side	Major Collector	1.1	2035-2039	-	\$199,115
W-B19	70%	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	Sidewalk on Both Sides	Minor Collector	0.3	2035-2039	-	\$108,608
W-B20	70%	Collector 6	Highway 11	E-W Collector north of Green Lane	Sidewalk on Both Sides	Minor Collector	1.2	2035-2039	-	\$434,434
W-B21	70%	E-W Collector 8	Silk Twist Drive	2nd Concession Road	Sidewalk on Both Sides	Minor Collector	1	2040-2044	-	\$362,028
W-B22	70%	Collector 7	2nd Concession Road	E-W Collector 8	Sidewalk on Both Sides	Minor Collector	0.9	2040-2044	-	\$325,825
W-B23	70%	N-S Collector 10	E-W Collector 8	Holland Landing Collector	Sidewalk on Both Sides	Minor Collector	0.4	2040-2044	-	\$144,811
W-B24	70%	Collector 8	2nd Concession Road	Doane Road	Sidewalk on One Side	Minor Collector	2.6	2035-2039	-	\$470,637
W-B25	70%	N-S Collector 11	Mount Albert Road	Doane Road	Sidewalk on Both Sides	Minor Collector	1.7	2040-2044	-	\$615,448
W-B26	70%	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	Sidewalk on Both Sides	Minor Collector	1.2	2040-2044	-	\$434,434
W-B27	70%	E-W Collector 9	2nd Concession Road	Sharon East Collector*	Sidewalk on Both Sides	Minor Collector	3.3	2035-2039	-	\$1,194,693
										\$13,014,911

Project List B - Whitebelt Lands (\$2022)

Driving

Walking

CyclingMUP -> 1 side unless stated otherwise

Streetlighting

* Funded projects that are recommended in the TMP but not included in total cost

Cost of MUPs and paved shoulders on rural roads are included in cycling and road project sections respectively

Standalone sidewalk (walking), cycling, and streetlighting projects are projects limited in scale / minimal adverse environmental impacts and are not subject to MCEA.

ID	Whitebelt Lands	Road	From	To	Improvement Type	Road Class	Section length (km)	Timing	Recommended MCEA Schedule	Total Cost (\$2022)
CYCLING										
REGIONAL ROADS										
C-B201a	70%	Highway 11	Morning Sideroad	Sherwood Glen/Dogwood Blvd	MUP			2035-2039	-	\$2,727,170
C-B201b	70%	Yonge Street	East West Collector	Morning Sideroad	MUP			2035-2039	-	\$435,590
C-B202	70%	2nd Concession (Northern Section)	E-W Collector 3	Zone 1 70% Whitebelt north boundary	Paved Shoulders			Post 2051	-	\$200,989
C-B203	100%	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Paved Shoulders			Post 2051	-	\$315,840
C-B204	70%	Queensville Sideroad	Whitebelt west boundary	2nd Concession Road	Paved Shoulders			Post 2051	-	\$516,829
C-B205	100%	Queensville Sideroad	2nd Concession Road	Zone 1 70% Whitebelt east boundary	Paved Shoulders			2030-2034	-	\$200,989
C-B208	70%	Leslie Street (Southern Section)	E-W Collector (north of Green Lane)	Colonel Wayling Boulevard	Painted Bike Lanes			2030-2034	-	\$25,641
COLLECTORS										
C-B1	100%	N-S Collector 1	Queensville Sideroad	E-W Collector 4	MUP	Major Collector		Post 2051	-	\$102,562
C-B2	100%	N-S Collector 2	Queensville Sideroad	E-W Collector 4	Painted Bike Lanes	Minor Collector		Post 2051	-	\$61,537
C-B3	100%	N-S Collector 3	E-W Collector 1	E-W Collector 2	Painted Bike Lanes	Minor Collector		Post 2051	-	\$41,025
C-B4	100%	E-W Collector 1	N-S Collector 1	2nd Concession Road	MUP	Minor Collector		Post 2051	-	\$205,125
C-B5	100%	E-W Collector 3	N-S Collector 1	2nd Concession Road	Painted Bike Lanes	Minor Collector		Post 2051	-	\$30,769
C-B6	100%	E-W Collector 4	N-S Collector 1	2nd Concession Road	MUP	Major Collector		Post 2051	-	\$153,844
C-B7	100%	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	MUP	Major Collector		Post 2051	-	\$307,687
C-B8	100%	E-W Collector 5	Leslie Street	Collector 1	Painted Bike Lanes	Minor Collector		Post 2051	-	\$23,077
C-B9	70%	Collector 2	2nd Concession Road	Queensville Sideroad	Painted Bike Lanes	Minor Collector		2040-2044	-	\$51,281
C-B10	70%	N-S Collector 4	E-W Collector 5	Queensville Sideroad	MUP	Major Collector		2025-2029	-	\$102,562
C-B11	70%	Collector 3	Leslie Street	South of Queensville Sideroad	MUP	Major Collector		2045-2049	-	\$692,297
C-B12	70%	E-W Collector 5	2nd Concession Road	Collector 2	MUP	Major Collector		2040-2044	-	\$282,047
C-B13	70%	E-W Collector 6	Collector 2	Leslie Street	Painted Bike Lanes	Minor Collector		2045-2049	-	\$51,281
C-B14	70%	70% Collectors (2 total in parallel)			Painted Bike Lanes	Minor Collector		Post 2051	-	\$56,409
C-B15	100%	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	MUP	Major Collector		Post 2051	-	\$256,406
C-B16	100%	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	MUP	Major Collector		2045-2049	-	\$307,687
C-B17	70%	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	Painted Bike Lanes	Minor Collector		2035-2039	-	\$66,666
C-B18	70%	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	MUP	Major Collector		2035-2039	-	\$282,047
C-B19	70%	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	Painted Bike Lanes	Minor Collector		2035-2039	-	\$15,384
C-B20	70%	Collector 6	Highway 11	E-W Collector north of Green Lane	Painted Bike Lanes	Minor Collector		2035-2039	-	\$61,537
C-B21	70%	E-W Collector 8	Silk Twist Drive	2nd Concession Road	Painted Bike Lanes	Minor Collector		2040-2044	-	\$51,281
C-B22	70%	Collector 7	2nd Concession Road	E-W Collector 8	Painted Bike Lanes	Minor Collector		2040-2044	-	\$46,153
C-B23	70%	N-S Collector 10	E-W Collector 8	Holland Landing Collector	Painted Bike Lanes	Minor Collector		2040-2044	-	\$20,512
C-B24	70%	Collector 8	2nd Concession Road	Doane Road	MUP	Minor Collector		2035-2039	-	\$666,656
C-B25	70%	N-S Collector 11	Mount Albert Road	Doane Road	Painted Bike Lanes	Minor Collector		2040-2044	-	\$87,178
C-B26	70%	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	Painted Bike Lanes	Minor Collector		2040-2044	-	\$61,537
C-B27	70%	E-W Collector 9	2nd Concession Road	Sharon East Collector*	Painted Bike Lanes	Minor Collector		2035-2039	-	\$169,228
										\$8,676,825

Project List B - Whitebelt Lands (\$2022)

Driving

Walking

Cycling MUP -> 1 side unless stated otherwise

Streetlighting

* Funded projects that are recommended in the TMP but not included in total cost

Cost of MUPs and paved shoulders on rural roads are included in cycling and road project sections respectively

Standalone sidewalk (walking), cycling, and streetlighting projects are projects limited in scale / minimal adverse environmental impacts and are not subject to MCEA.

ID	Whitebelt Lands	Road	From	To	Improvement Type	Road Class	Section length (km)	Timing	Recommended MCEA Schedule	Total Cost (\$2022)
Streetlighting										
REGIONAL ROADS										
S-B301	70%	Queensville Sideroad	Zone 1 100% Whitebelt west boundary	2nd Concession Road	Streetlights			Post 2051	-	\$384,609
S-B302	100%	Queensville Sideroad	2nd Concession Road	Zone 1 70% Whitebelt east boundary	Streetlights			2030-2034	-	\$149,570
S-B303	70%	Leslie Street (Northern Section)	Zone 1 70% Whitebelt north boundary	Zone 1 70% Whitebelt south boundary	Streetlights			2045-2049	-	\$235,039
S-B304	70%	2nd Concession (Northern Section)	E-W Collector 3	Zone 1 70% Whitebelt north boundary	Streetlights			Post 2051	-	\$149,570
S-B305	100%	2nd Concession (Northern Section)	Queensville Sideroad	E-W Collector 3	Streetlights			Post 2051	-	\$235,039
S-B306	100%	Woodbine Avenue (Northern Section)	Queensville Sideroad	Zone 2 100% Whitebelt north boundary	Streetlights			2045-2049	-	\$235,039
S-B307a	70%	Highway 11	Morning Sideroad	Sherwood Glen/Dogwood Blvd	Streetlights			2035-2039	-	\$679,245
S-B307b	70%	Yonge Street	East West Collector	Morning Sideroad	Streetlights			2035-2039	-	\$108,491
S-B308	70%	2nd Concession (Southern Section)	Zone 5 100% Whitebelt north boundary	Zone 5 100% Whitebelt south boundary	Streetlights			2035-2039	-	\$619,648
S-B309	70%	2nd Concession (Southern Section)	Zone 4 100% Whitebelt north boundary	Zone 4 100% Whitebelt south boundary	Streetlights			2040-2044	-	\$256,406
S-B310	70%	Mount Albert Road	Allangrove Avenue	2nd Concession Road	Streetlights			2035-2039	-	\$149,570
S-B311	70%	Mount Albert Road	West of Countryman Road	Allangrove Avenue	Streetlights			2035-2039	-	\$170,937
S-B312	70%	Leslie Street (Southern Section)	Silk Twist Drive extension	Zone 5 70% Whitebelt north boundary	Streetlights			2035-2039	-	\$128,203
S-B313	70%	Leslie Street (Southern Section)	E-W Collector (north of Green Lane)	Colonel Wayling Boulevard	Streetlights			2030-2034	-	\$106,836
S-B314	70%	Woodbine Avenue (Southern Section)	Zone 5 70% Whitebelt north boundary	Zone 5 70% Whitebelt south boundary	Streetlights			2030-2034	-	\$320,508

Project List B - Whitebelt Lands (\$2022)

Driving

Walking

Cycling

MUP -> 1 side unless stated otherwise

Streetlighting

* Funded projects that are recommended in the TMP but not included in total cost

Cost of MUPs and paved shoulders on rural roads are included in cycling and road project sections respectively

Standalone sidewalk (walking), cycling, and streetlighting projects are projects limited in scale / minimal adverse environmental impacts and are not subject to MCEA.

ID	Whitebelt Lands	Road	From	To	Improvement Type	Road Class	Section length (km)	Timing	Recommended MCEA Schedule	Total Cost (\$2022)
COLLECTORS										
S-B1	100%	N-S Collector 1	Queensville Sideroad	E-W Collector 4	Streetlights	Major Collector		Post 2051	-	\$85,469
S-B2	100%	N-S Collector 2	Queensville Sideroad	E-W Collector 4	Streetlights	Minor Collector		Post 2051	-	\$256,406
S-B3	100%	N-S Collector 3	E-W Collector 1	E-W Collector 2	Streetlights	Minor Collector		Post 2051	-	\$170,937
S-B4	100%	E-W Collector 1	N-S Collector 1	2nd Concession Road	Streetlights	Minor Collector		Post 2051	-	\$170,937
S-B5	100%	E-W Collector 3	N-S Collector 1	2nd Concession Road	Streetlights	Minor Collector		Post 2051	-	\$128,203
S-B6	100%	E-W Collector 4	N-S Collector 1	2nd Concession Road	Streetlights	Major Collector		Post 2051	-	\$128,203
S-B7	100%	Collector 1	Leslie Street	E-W Collector north of Queensville Sideroad	Streetlights	Major Collector		Post 2051	-	\$256,406
S-B8	100%	E-W Collector 5	Leslie Street	Collector 1	Streetlights	Minor Collector		Post 2051	-	\$96,152
S-B9	70%	Collector 2	2nd Concession Road	Queensville Sideroad	Streetlights	Minor Collector		2040-2044	-	\$213,672
S-B10	70%	N-S Collector 4	E-W Collector 5	Queensville Sideroad	Streetlights	Major Collector		2025-2029	-	\$85,469
S-B11	70%	Collector 3	Leslie Street	South of Queensville Sideroad	Streetlights	Major Collector		2045-2049	-	\$576,914
S-B12	70%	E-W Collector 5	2nd Concession Road	Collector 2	Streetlights	Major Collector		2040-2044	-	\$235,039
S-B13	70%	E-W Collector 6	Collector 2	Leslie Street	Streetlights	Minor Collector		2045-2049	-	\$213,672
S-B14	70%	70% Collectors (2 total in parallel)			Streetlights	Minor Collector		Post 2051	-	\$235,039
S-B15	100%	Collector 4	Zone 2, 70% Collectors	Woodbine Avenue	Streetlights	Major Collector		Post 2051	-	\$213,672
S-B16	100%	N-S Collector 6	Queensville Sideroad	Zone 2, 70% Collectors	Streetlights	Major Collector		2045-2049	-	\$256,406
S-B17	70%	Collector 5	N-S Collector 8	E-W Collector north of Green Lane	Streetlights	Minor Collector		2035-2039	-	\$277,773
S-B18	70%	N-S Collector 8	Highway 11	E-W Collector north of Green Lane	Streetlights	Major Collector		2035-2039	-	\$235,039
S-B19	70%	N-S Collector 9	Collector 6	E-W Collector north of Green Lane	Streetlights	Minor Collector		2035-2039	-	\$64,102
S-B20	70%	Collector 6	Highway 11	E-W Collector north of Green Lane	Streetlights	Minor Collector		2035-2039	-	\$256,406
S-B21	70%	E-W Collector 8	Silk Twist Drive	2nd Concession Road	Streetlights	Minor Collector		2040-2044	-	\$213,672
S-B22	70%	Collector 7	2nd Concession Road	E-W Collector 8	Streetlights	Minor Collector		2040-2044	-	\$192,305
S-B23	70%	N-S Collector 10	E-W Collector 8	Holland Landing Collector	Streetlights	Minor Collector		2040-2044	-	\$85,469
S-B24	70%	Collector 8	2nd Concession Road	Doane Road	Streetlights	Minor Collector		2035-2039	-	\$555,547
S-B25	70%	N-S Collector 11	Mount Albert Road	Doane Road	Streetlights	Minor Collector		2040-2044	-	\$363,242
S-B26	70%	N-S Collector 12	Silk Twist Drive Extension	E-W Collector south of Doane Road	Streetlights	Minor Collector		2040-2044	-	\$256,406
S-B27	70%	E-W Collector 9	2nd Concession Road	Sharon East Collector*	Streetlights	Minor Collector		2035-2039	-	\$705,117
										\$10,456,383
Other Items										
O-B501		Land Acquisition								\$ 37,421,305
Total										\$ 192,052,751



Transportation Master Plan Update

Appendix D

Attachment 1 – Costing Methodology for 2041 Horizon

Town of East Gwillimbury
Final Report



Memo

Date: Friday, July 12, 2019

Project: Transportation Master Plan

To: Town of East Gwillimbury

From: HDR

Subject: Infrastructure Cost Estimates

The following memorandum describes the methodology, standards, assumptions used to develop preliminary engineering costing estimates of the TMP recommendations. These estimates provided input to the Town's Development Charges update.

Methodology

To develop the pre-engineering cost estimates, project costs provided by the Town of East Gwillimbury as well as Environmental Study Report (ESR) cost estimates were relied on first and foremost. ESRs exhibit a more detailed cost analysis specific to individual study areas and are therefore the preferred approach when seeking to cost road improvement projects.

Where ESR cost estimates were unavailable, a high-level costing methodology was applied, as follows:

Design Standards: For construction of linear transportation infrastructure, the Town of East Gwillimbury Engineering Standards and Design Criteria (2012) as well as the Streetscape and Public Realm Design Guidelines (2015) were relied upon primarily. Where recommended projects do not follow those guidelines, the TAC Geometric Design Guide, the MTO Geometric Standard, and the MTO Parametric Estimating Guide for Structures were employed. The East Gwillimbury Official Plan was also examined for additional guidance on cross-sectional elements.

Construction Unit Costs: Unit costs for construction and materials were provided by the Town. Pertinent to the development and validation of unit costs include the following:

- a. **Inflation Rate:** inflation rates for prices were derived based on information from Statistics Canada. Based on the historical average of the construction price index for building and non-residential construction, the

consumer price index, and the producer price index for consulting engineering services.

- b. Comparison against Municipalities:** Unit costs received for the 2018 TMP Update were reviewed and compared with estimates used by other municipalities to validate them before following through with the costing process.

Benchmark Costs: the information collected from the previous steps will be used to determine the benchmark costs for the majority of infrastructure works.

Adjustment Factors: to account for additional fees for a project, the adjustment factors generally include basic construction, engineering design, and contingency. These were kept consistent with the previous East Gwillimbury TMP and were applied accordingly.

Projects were sorted into the following categories for unit costs and benchmarking:

- Road construction (Reconstruction, New Construction, Widening, etc.);
- Structures;
- Active Transportation Infrastructure (Sidewalks, Bike Lanes, Multi-Use Paths, etc.);
- Streetlighting;
- Intersection Improvements;
- Studies; and
- Other Improvements (Bike share, EcoMobility Hubs, etc.).

Utility relocation costs were included within the contingency adjustment.

Further details related to the steps outlined above are described in the following sections.

Design Standards

The road specifications for this TMP Update were determined through a review of the design standard drawings found in the Town of East Gwillimbury ***Engineering Standards and Design Criteria*** (2012). Because the document did not provide the required details, supporting information was extracted from the ***Streetscape and Public Realm Design Guidelines*** (2015) and the TAC ***Geometric Design Guide***.

Moreover, engineering judgment and industry best practices helped inform recommendations used in the road construction costing process. For example, because rural road cross-sections were unavailable for East Gwillimbury, a paved shoulder width of 1m and an unpaved shoulder width of 2m were assumed for Town roads. These dimensions are used by nearby local municipalities such as the Town of Innisfil and the Town of Whitchurch-Stouffville as well as by regional municipalities such as York and Peel Region.

As the Town of East Gwillimbury continues to grow, design standards are expected to continue to evolve and be updated.

Unit Costs

Unit costs are integral to properly price the road improvements and calculate total project costs. The unit costs that were provided by the Town of East Gwillimbury stemmed from 2016 and are summarized in **Table 1**.

Table 1: Town Provided Road Construction Costs

Item	Unit	Unit prices (2016\$)	Greenfield Unit prices (2016\$)
Road			
Excavation	\$/m ³	\$15.00	\$5.00
Granular Base	\$/t	\$20.00	\$20.00
Concrete Median	\$/m ²	\$150.00	\$150.00
Curb and Gutter	\$/m	\$80.00	\$80.00
Subdrain	\$/m	\$20.00	\$20.00
Base Asphalt - HL4 / HL8	\$/t	\$100.00	\$100.00
Top Asphalt - HL3	\$/t	\$110.00	\$110.00
Permanent Roadway Signing	\$/km	\$25,000.00	\$25,000.00
Line Painting	\$/km	\$5,000.00	\$5,000.00
Storm Sewer			
MH	ea.	\$8,000.00	\$8,000.00
CB	ea.	\$2,000.00	\$2,000.00
OGS	ea.	\$50,000.00	\$50,000.00
Electrical			
Streetlighting	\$/km	\$125,000.00	\$125,000.00

Item	Unit	Unit prices (2016\$)	Greenfield Unit prices (2016\$)
Traffic Signals - New	ea.	\$200,000.00	\$200,000.00
Traffic Signals - Mod	ea.	\$100,000.00	\$100,000.00
Streetscaping			
Concrete Sidewalk (total width)	\$/m ²	\$100.00	\$100.00
Asphalt Bike Path (total width)	\$/m ²	\$50.00	\$50.00
Topsoil and Sod (both sides)	\$/m ²	\$15.00	\$15.00
Landscaping	\$/km	\$100,000.00	\$100,000.00
Structures / Bridges			
Bridge Structure	\$/m	\$100,000.00	\$100,000.00
Pedestrian Bridge	\$/m	\$10,000.00	\$10,000.00

The recommended unit costs used in the 2018 costing exercise are discussed in the following sections.

Inflation Rate

Unit costs must be updated to reflect inflation. The inflation rate was calculated based on Statistics Canada and includes the historical average of the construction price index for building and non-residential construction, the consumer price index, and the producer price index for consulting engineering services. The averages of these were calculated to determine a total average inflation rate of 1.9% (see **Table 2**). As a result, an inflation rate of **2%** was used for this TMP Update.

Table 2: Inflation Rate Calculation

Greater Toronto Area	Description	Change by Year (%)					Historical Average Change (%)
Construction price Index- Building construction	Measures changes in contractors' selling prices of a representative apartment building.	2012	2013	2014	2015	2016	1.6%
		1.9%	0.6%	1.4%	2.0%	2.3%	
Construction Price Index- Non Residential Construction	Measures the changes in contractors' selling prices of non-residential building construction (i.e. commercial, industrial and institutional).	2012	2013	2014	2015	2016	1.4%
		2.8%	0.9%	1.4%	0.9%	1.0%	

Greater Toronto Area	Description	Change by Year (%)					Historical Average Change (%)
Consumer Price Index	Measures the increase of the cost of basic products and services that Canadians consume on a daily basis, such as: food, shelter, clothing, healthcare, transportation, alcoholic beverages and tobacco products.	2012	2013	2014	2015	2016	1.8%
			1.2%	2.5%	1.5%	2.1%	
Producer Price Index - Consulting Engineering Services	Measures the average changes in prices received by domestic producers for their output. It is one of several price indices.	2008	2009	2010	2011	2012	2.8%
		2.4%	1.7%	4.7%	2.1%	3.0%	
Total Average Change (%)							1.9%

Source: Statistics Canada

Recommended Unit Costs

An adjustment of 2% per year was applied to the unit costs provided by the Town to account for inflation. The recommended unit costs are shown in **Table 3**.

Table 3: Recommended Construction Unit Costs

Item	Unit	Recommended Unit Prices (2018)	Source
Road Construction			
Excavation	\$/m3	\$15.61	Town of EG (inflated)
Granular Base	\$/t	\$20.81	Town of EG (inflated)
Concrete Median	\$/m2	\$156.06	Town of EG (inflated)
Curb and Gutter	\$/m	\$83.23	Town of EG (inflated)
Subdrain	\$/m	\$20.81	Town of EG (inflated)
Base Asphalt - HL4 / HL8	\$/t	\$104.04	Town of EG (inflated)
Top Asphalt - HL3	\$/t	\$114.44	Town of EG (inflated)
Permanent Roadway Signing	\$/km	\$26,010.00	Town of EG (inflated)

Item	Unit	Recommended Unit Prices (2018)	Source
Line Painting	\$/km	\$5,202.00	Town of EG (inflated)
Stormwater Management			
STM Sewer	\$/m	\$608.87	
MH	Each	\$8,323.20	Town of EG (inflated)
Catchbasin	Each	\$2,446.01	Review of costs used in neighbouring municipalities (Peel, Brampton, Innisfil and Vaughan)
Oil Grit Separator (OGS)	Each	\$52,020.00	Town of EG (inflated)
Electrical			
Streetlighting	\$/km	\$130,050.00	Town of EG (inflated)
Traffic Signals - New	Each	\$208,080.00	Town of EG (inflated)
Traffic Signals - Mod	Each	\$104,040.00	Town of EG (inflated)
Streetscaping			
Concrete Sidewalk (total width)	\$/m2	\$104.04	Town of EG (inflated)
Asphalt Bike Path (total width)	\$/m2	\$52.02	Town of EG (inflated)
Topsoil and Sod (both sides)	\$/m2	\$15.61	Town of EG (inflated)
Landscaping	\$/km	\$104,040.00	Town of EG (inflated)
Structures			
Bridge Structure (25m x-section)	\$/m	\$104,040.00	MTO Parametric Estimating Guide for Structures (2016)

Item	Unit	Recommended Unit Prices (2018)	Source
Bridge Structure (10m x-section)	\$/m	\$67,500.00	MTO Parametric Estimating Guide for Structures (2016)
Bridge Structure (10m x-section), 20m span	Each	\$1,350,000.00	MTO Parametric Estimating Guide for Structures (2016)
Bridge Structure (10m x-section), 7m span	\$/m	\$472,500.00	MTO Parametric Estimating Guide for Structures (2016)
Pedestrian Bridge	\$/m	\$10,404.00	MTO Parametric Estimating Guide for Structures (2016)
Two-lane Level Crossing	Each	\$694,709.24	HDR cost estimate

Unit Cost Validation

The unit costs provided by the Town of East Gwillimbury were compared to those used by neighbouring municipalities. For this task, costs from the Town of Innisfil TMP and from the Town of Whitchurch-Stouffville TMP were selected due to their proximity and comparable size. A weighted average cost comparison was completed as part of the costing exercise to determine if the recommended unit prices are representative of the market price or whether they need to be refined.

The main drivers of road construction costs are shown in **Table 4** and include asphalt hot mix, excavation and subsurface granulars (crushed limestone) as well as the stormwater infrastructure. As the determinants, these items exert a significant influence on the overall road construction cost.

To better understand the cost variations, percentage changes were developed between the recommended unit costs for this update and the other studies. An overall weighted average change was then obtained to help compare the costs on a macroscopic level.

The analysis showed that, compared to the Town of Innisfil, the recommended unit costs for the Town of East Gwillimbury are on average 16% lower. Conversely, when compared to the Town of Whitchurch-Stouffville costs, the recommended unit costs are 31% higher.



These findings indicate that the recommended unit costs are within a reasonable margin of variability relative to comparable municipalities and are therefore acceptable for this high-level costing exercise.

Table 4: Unit Cost Comparison with Other Sources

Construction Item	Unit	Current EG TMP Update	Innisfil TMP (2017)	East Gwillimbury vs. Innisfil			Whitchurch Stouffville TMP (2016)	East Gwillimbury vs. Whitchurch-Stouffville		
		Unit Cost (2018\$)	Unit Cost (2018\$)	Absolute Change	Average (EG-IN)	Weight	Unit Cost (2018\$)	Absolute Change	Average (EG-WS)	Weight
Excavation	m ³	\$15.61	\$20.17	-23%	\$17.89	0.03%	\$18.53	-16%	\$17.07	0.17%
Hot Mix HL3	tonne	\$114.44	\$66.31	73%	\$90.38	0.14%	\$88.65	29%	\$101.54	1.02%
Hot Mix HL4	tonne	\$104.04	\$90.67	15%	\$97.35	0.15%	\$80.92	29%	\$92.48	0.93%
Granular A	tonne	\$20.81	\$20.92	-1%	\$20.87	0.03%	\$38.06	-45%	\$29.43	0.30%
Granular B	tonne	\$20.81	\$14.12	47%	\$17.46	0.03%	\$30.73	-32%	\$25.77	0.26%
Concrete Curb & Gutter	m	\$83.23	\$77.84	7%	\$80.53	0.13%	\$50.52	65%	\$66.88	0.67%
Manhole & Maintenance Holes	each	\$8,323.20	\$7,808.43	7%	\$8,065.81	12.75%	\$6,089.61	37%	\$7,206.41	72.70%
Catchbasins	each	\$2,446.01	\$2,819.52	-13%	\$2,632.77	4.16%	\$2,136.08	15%	\$2,291.05	23.11%
Stormceptors	each	\$52,020.00	\$63,177.78	-18%	\$57,598.89	91.07%	n/a	n/a	n/a	n/a
Concrete Sidewalk	m ²	\$102.00	\$81.64	25%	\$91.82	0.15%	\$61.40	66%	\$81.70	0.82%
				Weighted average change		-15.62%		Weighted average change		31.32%

Adjustment Factors

In the early stages of the planning process, the required construction activity cannot be defined to a high level of accuracy. Challenges in accurately predicting costs arise as a result of variable data, intangible construction costs, unforeseen site-specific factors and project management ineffectiveness. For this reason, it is common practice to protect for additional costs by applying adjustment factors to the basic per meter cost of a road improvement.

For the current update, the adjustment factors were based on the 2010 East Gwillimbury TMP. Basic construction and general contingency adjustments are applied to account for miscellaneous items and for risk, respectively. The engineering adjustment is then used to estimate costs associated with detailed design and the construction supervision. **Table 5** presents the adjustment factors recommended for the 2018 TMP update.

Table 5: Adjustment Factors

Adjustment	Urban Roads	Rural Roads
Traffic Control	2%	0%
Utility Relocation	10%	0%
Construction Adjustment	10%	10%
Contingency Adjustment	10%	10%
Engineering Adjustment	15%	15%
<i>EA / Predesign</i>	5%	5%
<i>Design</i>	5%	5%
<i>CA + Inspection</i>	5%	5%

It must be noted that compared to rural roads, urban roads have added costs associated with utility relocation and traffic control. Moreover, the standard practice is to apply the construction adjustment cost in the derivation of benchmark (per unit length) costs while other adjustment factors such as Engineering and Contingency are be applied on a project's total cost.

Road Construction

Benchmark costs for road construction projects were developed for the project types listed in **Table 6** were developed. Costs for structures, cycling

facilities, sidewalks, streetlighting and land acquisition are allocated on an individual project level.

Table 6: Preliminary Road Benchmark Costs

Improvement Type	Road Class	Cross-section	# of lanes	Code ¹	Roadwork cost ² (\$2018/km)
Roads					
New Construction	Collector	Rural ³	2	NC-RColl2	\$1,156,919
New Construction	Major Collector	Urban	2	NC-UMajC	\$2,633,554
New Construction	Minor Collector	Urban	2	NC-UMinC	\$2,308,466
Widening	Arterial	Urban	4	W2-4-UMajC	\$2,832,135
Reconstruction	Collector	Rural	2	R-RColl2	\$1,156,919
Reconstruction	Minor Collector	Urban	2	R-UMinC	\$2,098,606
Reconstruction	Local	Urban	2	R-ULocal	\$1,932,647

Notes

¹ Each code is associated with a road improvement tab in the costing Excel spreadsheet.

² Roadworks costs only include the basic construction adjustment (10%). The rest of the adjustment factors are applied on a project-by-project basis.

³ Rural road costs incorporate the cost of the paved and unpaved shoulders.

⁴ Urban road costs are derived from curb –to-curb, with an allowance for landscaping included. Costs for sidewalks and streetlighting were added on a project-by-project basis.

Active Transportation

The unit cost for sidewalks, bike lanes and MUPs was provided directly by the Town and are shown in **Table 7**. The values in the table have been manipulated from their original values to display the cost in dollars per kilometer.

Table 7: Active Transportation Unit Costs

Improvement Type	Cross-section	Code	Roadwork cost (\$2018/km)
Active Transportation			
Sidewalk on One Side	Urban	SW	\$156,060
Sidewalk on Both Sides	Urban	SW(2)	\$312,120
Multi-use Path on One Side	Urban	MUP (1)	\$156,060
Multi-use Path on Both Sides	Urban	MUP (2)	\$312,120
Painted Bike Lane	Urban	BL	\$31,212
Paved Shoulders	Rural	PS	\$171,395
Sharrows	Urban	SHW	\$31,212

Paved shoulders are acknowledged to provide a benefit for cyclists in rural areas and can, in the context of East Gwillimbury, be considered as active transportation facilities. Paved shoulders account for approximately 15% of the rural road construction. It must be noted that for the few rural road reconstruction projects, the cost of shoulders was rolled into the overall project cost, instead of appearing as a standalone item. For more information about the costs, please see attached Excel Spreadsheet for Rural Roads.

A standard width of 1.5m was assumed for sidewalks and bike lanes. 3m was considered appropriate for MUPs.

For dedicated cycling space on the roads, bike lane costs were developed. According to the East Gwillimbury design standards, bike lanes do not have any specific subsurface soil requirements and therefore can be implemented simply through paint and signage application. A cost of \$31,212 per km is recommended and accounts for bike lane markings and signage as well as sharrows.

Land Acquisition

The cost of property required to achieve the ultimate right-of-way (ROW) was provided by the Town from the year 2016 and were indexed to 2018 value. The property prices per hectare are listed in **Table 8**. Land use types were comprised of official plan designated commercial, agricultural, urban serviced and unserviced.

Table 8: Property Costing Assumptions (per acre)

Land	Unit	Unit Cost (2018\$)
Rural Agriculture	\$/hectare	\$25,709
Urban Serviced	\$/hectare	\$2,570,884
Urban Non-serviced	\$/hectare	\$385,633
Commercial	\$/hectare	\$1,542,531

Structures

The recommended unit costs for structures are displayed in **Table 9**. The linear costs were applied according to high level approximates of the structures' future lengths on a project-by-project basis.

Table 9: Structure Unit Costs

Item	Unit	Unit Prices (2018\$)	Source
Bridge Structure (25m cross-section)	\$/m	\$132,500.00	2016 Parametric Estimating Guide
Bridge Structure (10m x-section)	\$/m	\$67,500.00	2016 Parametric Estimating Guide

The Parametric Estimating Guide was used to estimate a linear cost for the Highway 404 Flyover, to which the Town must contribute a third of the overall project cost. Where projects have moved passed the EA process, structure costs were based on estimates from the ESR or the detailed design process as was the case for the Structure along the East-West Collector (between Bathurst Street and Harry Walker Parkway).



Transportation Master Plan Update

Appendix D

Attachment 2 – Costing Methodology for 2051 Horizon

Town of East Gwillimbury
Final Report





1. Introduction

The Town of East Gwillimbury has initiated an Official Plan Review, which includes a land needs assessment to accommodate land use growth projections to the 2051 horizon year. HDR previously completed a Draft Transportation Master Plan for the Town in September 2019 (the “Draft 2041 TMP”) to identify transportation servicing and infrastructure needs to the 2041 horizon year. To address transportation needs to the 2051 horizon year, an update to the Draft 2041 TMP is required to update the preferred solution considering growth to the 2051 horizon year.

This memo will discuss preliminary engineering cost estimates to inform a future Development Charges by-law update. Benchmark and unit costs developed will be used to cost all projects proposed in the 2051 TMP update.

2. Road and Related Benchmark Costs

The main components of road project costs included in the benchmarking are “curb-to-curb” which represent items such as excavation, granular, asphalt, curb and gutter, manholes, catch basins. In addition, landscaping costs are also included. Other road items such as structures (bridges and culverts), active transportation infrastructure (cycling and walking), and streetlights are costed separately as add-ons.

All costs are reported in 2022 dollars. As cost data is gathered from various sources from different years, a price index was applied to escalate costs to a common year, in this case 2022, for analysis.

Construction Price Index

Non-residential construction prices, based on Statistics Canada data for the Toronto Census Metropolitan Area (CMA), indicate an average annual increase of 7.6% in construction costs over the past 3 years (2018 Q1 to 2021 Q1).

Unit Costs

Unit costs were developed by indexing values used in the 2041 TMP (completed in 2019) to 2022 dollars. All unit costs were also compared to HDR’s internal unit cost database to validate the reasonability of the indexed cost to those of other municipalities within the GTA. HDR’s database incorporate construction price information for specific construction unit prices obtained through construction tenders of multiple GTA municipalities between 2019 and 2021. A summary of the unit costs proposed for the 2022 TMP (in 2022 dollars) and the 2019 TMP (in 2018 dollars) is provided in **Table 2-1**.

Most items have had a total cost increase of 31% (consistent with annual 7.6% increase); however, the total cost increase ranges from 2% to 31%. Excavation costs have increased the most at 76% due to higher observed costs than the 2019 TMP when compared to the average of other municipalities. Several items also have either no cost changes or have cost decreases since the 2019 TMP to correct for significant costing differences observed when compared to average costs of other municipalities. Items without cost changes include base asphalt and top asphalt, while items with cost decreases include manhole/maintenance hole installation (-20%), sidewalks (-23%), and storm sewer installation (-24%).

Table 2-1. Unit Costs Comparison

Item	Unit	2022 TMP (\$2022)	2019 TMP (\$2018)	% change
Base Road Items				
Excavation	m3	\$27.40	\$15.61	76%
Granular Base	t	\$27.29	\$20.81	31%
Curb and Gutter	m	\$84.71	\$83.23	2%
Subdrain	m	\$27.29	\$20.81	31%
Base Asphalt - HL4 / HL8	t	\$104.04	\$104.04	0%
Top Asphalt - HL3	t	\$114.44	\$114.44	0%
Pavement Markings and Symbols (all types)	m	\$6.82	\$5.20	31%
Permanent Road Signing	km	\$34,111	\$26,010	31%
Stormwater Items				
Supply and Install Storm, Sewer Pipes (all sizes and type)	m	\$462.80	\$608.87	-24%
Supply and Install Manhole, Maintenance Holes (all sizes)	ea	\$6,639.83	\$8,323.20	-20%
Supply and Install Catchbasins (all types and sizes)	ea	\$3,207.85	\$2,446.01	31%
Stormceptors (all sizes)	ea	\$68,222	\$52,020	31%
Streetscaping Items				
Landscaping	km	\$136,444	\$104,040	31%
Topsoil and Sod	m2	\$20.47	\$15.61	31%

Road Benchmark Costs

Based on the recommendations from the **Model Development and Network**

Recommendations Memo and discussions with the Town, benchmark costing for linear road projects is only required for new construction of major and minor collector road. A breakdown of the major and minor collector benchmark is estimated to be approximately \$3 million and \$2.6 million as shown in **Table 2-2**, respectively. The costing reflects a continuous mid-block road cross-section and does not account for additional costs required with tying in existing side approaches at intersections.



Table 2-2. Major and Minor Collector Benchmark Costs

Item	Unit	Unit Price	Major Collector		Minor Collector	
			Quantity	Total	Quantity	Total
Excavation	m3	\$27.40	18,720	\$512,953	15,840	\$434,037
Hot Mix HL3	tonne	\$114.44	1,277	\$146,122	894	\$102,285
Hot Mix HL4	tonne	\$104.04	2,744	\$285,486	1,921	\$199,840
Granular A Base (all depths)	tonne	\$27.29	5,328	\$145,395	3,816	\$104,134
Granular B Subbase (all depths)	tonne	\$27.29	13,320	\$363,487	9,540	\$260,336
Install Concrete Curb & Gutter (all types)	m	\$84.71	2,000	\$169,426	2,000	\$169,426
Supply and Install Storm, Sewer Pipes (all sizes and type)	m	\$462.80	1,000	\$462,799	1,000	\$462,799
Supply and Install Manhole, Maintenance Holes (all sizes)	each	\$6,639.83	10	\$66,398	10	\$66,398
Supply and Install Catchbasins (all types and sizes)	each	\$3,207.85	31	\$98,703	25	\$80,196
Stormceptors (all sizes)	km	\$68,222.12	1	\$68,222	1	\$68,222
Pavement Markings and Symbols (all types)	m	\$6.82	1,000	\$6,822	1,000	\$6,822
Permanent Road Signing	km	\$34,111.06	1	\$34,111	1	\$34,111
Landscaping	\$/km	\$136,444.23	1.00	\$136,444	1.00	\$136,444
Topsoil and Sod	\$/m2	\$20.47	9,000	\$184,200	9,200	\$188,293
Subdrain	\$/m	\$27.29	1,000	\$27,289	1,000	\$27,289
			Subtotal:	\$2,707,857	Subtotal:	\$2,340,633
			Misc (10%)	\$270,786	Misc (10%)	\$234,063
			Total:	\$2,978,643/km	Total:	\$2,574,696/km

Other Road Network Items

Table 2-3 documents additional road-related construction items not included in the “curb-to-curb” road benchmark costs.

Table 2-3. Other Road-Related Construction Unit Prices

Item	Unit	2022 TMP (\$2022)	2019 TMP (\$2018)	% change
Concrete Sidewalk	m2	\$80.42	\$104.04	-23%
Streetlighting	km	\$170,555	\$130,050	31%
Sidewalk on one side	km	\$144,758	\$156,060	-7%
Sidewalk on both sides	km	\$144,758	\$156,060	-7%
Multi-use path (standalone)	km	\$204,666	\$156,060	31%
Multi-use path (with sidewalk on other side)	km	\$349,425	\$312,120	12%
Paved shoulder	km	\$229,441	\$171,395	34%
Bike lanes	km	\$40,933	\$31,212	31%
Bridge (20m span, 10m cross-section)	ea	\$1,770,470	\$1,350,000	31%
Culvert (7m span, 10m cross section)	ea	\$619,665	\$472,500	31%
Land Acquisition	m2	\$47	n/a	n/a

Adjustment Factors

Adjustment factors are applied to the project cost estimates to account for potential planning, design and/or construction challenges that are unforeseen in the early stages of the planning process. An Environmental Assessment (EA) study factor is applied for both road benchmark costs and structures. A utilities adjustment factor is applied for road benchmark costs only. Both an engineering/construction administration and a contingency adjustment factor is applied to all road project related items, including the road benchmark costs, boulevard infrastructure items, and structures.

All adjustment factors are shown in **Table 2-4** and are consistent with HDR’s recent experience in pre-engineering cost estimates for costing programs.

Table 2-4. Adjustment Factors

Adjustment Factor	%
Utilities	10%
Environmental Assessment Study	8%
Engineering + Construction Administration	15%
Contingency	10%

3. Costing Assumptions

Projects costed for the 2051 horizon include major collector roads, minor collector roads, and associated waterbody crossings identified from a desktop review. Along Regional arterial roads, in-boulevard right-of-way elements such as sidewalks, cycling facilities, landscaping and streetlights adjacent to proposed Whitebelt development lands are also included as they are required to support Whitebelt development. Whitebelt development are new areas for the 2051 horizon.

Other costing assumptions for new Town roads include the following:

- **Active Transportation Facilities:** Per Town discussions, major collector roads assumed a multi-use path (MUP) on one side of the road and a sidewalk on the other side of the road. Minor collector roads assumed a painted bike lanes and sidewalks on both sides of the road.
- **Land acquisition:** Land is assumed to be required to achieve a 26m right-of-way (ROW).
- **Structures:** All waterbody crossing structures assumed bridges for conservative costing purposes.

4. Growth / Non-Growth Cost Sharing

Deductions are applied to the projects in the DC program for benefit to existing (non-growth share), post-planning period benefit, and any grants, subsidies or other contributions from developers or other levels of government.

All projects included in the road program are required to serve growth. Where a proposed road project provides a significant benefit to existing (non-growth) development, a benefit to existing deduction is applied to share the cost of the project. The remaining growth component represents the amount fundable through development charges.

The benefit to existing (BTE) and benefit to growth (BTG) ratios used for the 2051 transportation network costing program is summarized in **Table 4-1**.

Table 4-1. Summary of Improvement Types and BTE / BTG Ratio

Improvement Type	Improvement Code	Description	Benefit to Existing (BTE)	Benefit to Growth (BTG)
New construction	NC	No deduction understanding that the need for new construction is entirely driven by the need to accommodate new growth.	0%	100%
Active Transportation (Paved Shoulders, Sidewalks, Bike Lanes, Sharrows...)	AT- Out of Settlement	Where shoulders are in, close to or leading to areas that are expecting significant growth, BTG should take same percentage of the projected new population. Locations with minimal growth will be attributed 40% BTE while locations with significant growth will be allocated 20% BTE.	10%	90%
Streetlighting	SL	Urbanization and growth are related in that the infrastructure standards are higher in locations with increasing population. The addition of streetlights in this instance is acknowledged to serve a growing community.	10%	90%



Transportation Master Plan Update

Appendix E – Transportation Policies

Town of East Gwillimbury
Final Report



Traffic Policy Resolution Process

PURPOSE:

The purpose of traffic policies is to provide guidelines for the resolution of various traffic complaints or requests received by the Town of East Gwillimbury.

CRITERIA:

- All requests received from residents or any party will be considered.
- All requests will be accepted by email.
- Phone requests will be required to be sent via email or mail

LOG INTO SYSTEM:

- A service request will be created on CityWide for all requests by Town staff (Customer Service and/or Engineering and Public Works staff)
- A work order will be created on CityWide for requests that are required investigation and technical work i.e. traffic studies, pedestrian counts etc.
- A correspondence (email or mail) will be sent to the complainant/requestor with the number of the service request and/or work order for reference and follow up.

TECHNICAL STUDIES:

- Staff conduct studies as outlined in the traffic policies
 - o If study warrants change:
 - Report to Council created
 - Upon approval, by-law created and GIS updated
 - Work/installation is carried pending budget approval
 - o If study doesn't warrant change:
 - Request denied



Engineering and Public Works

Policy #:	60-2800-CP-001
Branch:	Traffic and Transportation
Effective Date:	
MINIMUM WARRANTS FOR INSTALLATION OF ALL-WAY STOP SIGNS	

PURPOSE:

Procedures to be followed when considering the installation of all-way stop sign control.

POLICY:

All way stop sign control will be considered upon a request from Council, resident(s), or staff.

The following basic steps will be followed upon receiving said request:

- Respond to the requestor outlining the steps and expected timetable to completing the evaluation and reporting;
- Complete the required data collection and technical assessment;
- Prepare a report to Council with staff recommendations;
- Follow-up with requestor regarding the outcome and Council report timetable.

Field Investigation

The main items in the field study are:

- Records of recent (36 months) accidents;
- Vehicular and pedestrian volumes entering the intersection (8-hour counts);
- Sightline review considering horizontal and vertical curvature of the roads, trees, parked cars, and any other obstructions;
- Interim measures – traffic signals are warranted but not yet available.



The above criteria are detailed in **Attachment 1** for collector and local roads. The warrant is met under the following compliance conditions:

- Warrant 1, Warrant 2, or Warrant 5 may be met independently without requiring the need for Warrants 3 or 4 to be met; and,
- Warrant 3 and Warrant 4 must both be met simultaneously. If Warrant 3 and Warrant 4 are both met, Warrants 1, 2 and 5 are not required.

Attachment 2 indicates situations in which all-way stop sign control should not be installed.

Attachment 1 (Collector Roads)

DATE: _____

LOCATION: _____

<u>WARRANT</u>	<u>DESCRIPTION</u>	<u>MINIMUM REQUIREMENT</u> <u>(a)</u>	<u>COMPLIANCE MEASURED %</u> <u>(b)</u>	<u>[b/a (%)]</u>
1. Sightlines	Under some circumstances, sufficient sight distance is not available for traffic exiting the stop-controlled approaches of a two-way stop intersection, based on geometric design requirements. If all efforts to improve the sight distance have been exhausted and the sight distance cannot be brought up to the guidelines, conversion of the intersection to all-way stop control may be considered. Special advance warning or overhead flashing lights may be necessary to augment the control if vertical or horizontal alignment is a factor. Note: This warrant is met if the sightline is insufficient (i.e. the compliance % is less than 100%).	As per TAC Guidelines _____ metres	_____ metres	
2. Accident Hazard	Minimum of total reported accidents of types susceptible to correction by all-way stop installation, per year, over a three year period. Only those collisions susceptible to improvement through multi-way stop control must be considered (i.e., right angle and turning type collisions).	3 per year (9 over a 3 year period)	Collisions per year _____	
3. Vehicular and Pedestrian Volume	a) The total vehicle volume on all intersection approaches exceeds 375 vehicles per hour for each of the highest <u>eight</u> hours of the day.	375	Vehicles per hour _____	



<u>WARRANT</u>	<u>DESCRIPTION</u>	<u>MINIMUM REQUIREMENT</u> (a)	<u>COMPLIANCE MEASURED %</u> (b) [b/a (%)]	
	AND b) The combined vehicle and pedestrian volume on the minor street exceeds 150 units per hour (all vehicles plus pedestrians wishing to enter the intersection) for each of <u>the same eight hours</u> as the total volume; OR the combined vehicle and pedestrian volume on the minor street exceeds 120 units per hour (all vehicles plus pedestrians wishing to enter the intersection) for each of <u>the same eight hours</u> as the total volume, with an average delay to all minor street traffic (vehicles and pedestrians) of greater than 30 seconds for the entire eight hour period.	150 (or 120, with delay criteria met)	Vehicles and Pedestrians Combined	
4. Volume Split	a) Minor Approach 8-hr Volume / b) Major Road 8-hr Volume Where: a) Minor Approach Volume includes vehicles and pedestrians wishing to cross the major roadway; and, b) Major Approach Volume includes vehicles entering the intersection. Note: The minor approach volume must not be less than 30% or 25% of the total volume entering the intersection. based on the same eight hour volume	30/70 (4-leg intersections) 25/75 (3-leg intersections)	a) _____ / b) _____	
5. Interim Measure	Are traffic signals warranted but not yet available?	Traffic Signal Warrant Compliance		N/A
<u>COMMENTS</u>				
Study Carried Out By: _____ Analysis Carried Out By: _____				

Attachment 1 (Local Roads)

DATE: _____

LOCATION: _____

<u>WARRANT</u>	<u>DESCRIPTION</u>	<u>MINIMUM REQUIREMENT</u> (a)	<u>COMPLIANCE MEASURED %</u> (b)	[b/a (%)]
1. Sightlines	Under some circumstances, sufficient sight distance is not available for traffic exiting the stop-controlled approaches of a two-way stop intersection, based on geometric design requirements. If all efforts to improve the sight distance have been exhausted and the sight distance cannot be brought up to the guidelines, conversion of the intersection to all-way stop control may be considered. Special advance warning or overhead flashing lights may be necessary to augment the control if vertical or horizontal alignment is a factor. Note: This warrant is met if the sightline is insufficient (i.e. the compliance % is less than 100%).	As per TAC Guidelines _____ metres	_____ metres	
2. Accident Hazard	Minimum of total reported accidents of types susceptible to correction by all-way stop installation, per year, over a three year period. Only those collisions susceptible to improvement through multi-way stop control must be considered (i.e., right angle and turning type collisions).	3 per year (9 over a 3 year period)	Collisions per year _____	
3. Vehicular and Pedestrian Volume	a) The total vehicle volume on all intersection approaches exceeds 200 vehicles per hour for each of the highest <u>four</u> hours of the day.	200	Vehicles per hour _____	



<u>WARRANT</u>	<u>DESCRIPTION</u>	<u>MINIMUM REQUIREMENT</u>	<u>COMPLIANCE MEASURED %</u>	
		(a)	(b)	[b/a (%)]
	AND b) The combined vehicle and pedestrian volume on the minor street exceeds 75 units per hour (all vehicles plus pedestrians wishing to enter the intersection) for each of <u>the same four hours</u> as the total volume.	75	Vehicles and Pedestrians Combined	
4. Volume Split	a) Minor Approach 4-hr Volume / b) Major Road 4-hr Volume Where: a) Minor Approach Volume includes vehicles and pedestrians wishing to cross the major roadway; and, b) Major Approach Volume includes vehicles entering the intersection. Note: The minor approach volume must not be less than 30% or 25% of the total volume entering the intersection, based on the same four hour volume.	30/70 (4-leg intersections) 25/75 (3-leg intersections)	a) _____ / b) _____	
5. Interim Measure	Are traffic signals warranted but not yet available?	Traffic Signal Warrant Compliance		N/A
<u>COMMENTS</u> Study Carried Out By: _____ Analysis Carried Out By: _____				



Attachment 2

Multi-way stop sign controls should not be used under the following conditions:

1. Where the protection of pedestrians, school children in particular, is a prime concern. This concern can usually be addressed by other means;
2. As a speed control device;
3. On roads where progressive signal timing exists;
4. On roads within urban areas having a posted speed limit in excess of 60 km/h;
5. At intersections that are not roundabouts having less than three, or more than four, approaches;
6. At intersections that are offset, poorly defined or geometrically substandard;
7. On truck or bus routes, except in an industrial area or where two such routes cross;
8. On multi-lane approaches where a parked or stopped vehicle on the right will obscure the STOP sign;
9. Where traffic would be required to stop on grades;
10. As a means of deterring the movement of through traffic in a residential area;
11. Where visibility of the sign is hampered by curves or grades, and insufficient safe stopping distance exists even with the implementation of advance warning; or
12. Where any other traffic device controlling right-of-way is permanently in place within 250 metres, with the exception of a YIELD sign.

<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-001		
MINIMUM WARRANTS FOR INSTALLATION OF ALL-WAY STOP SIGNS			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			
	Signature		



Engineering and Public Works

Policy #:	60-2800-CP-002
Branch:	Traffic and Transportation
Effective Date:	
CROSSING GUARD SERVICE	

PURPOSE:

To set guidelines for the implementation of school crossing guard(s) at a specified road crossing in the Town of East Gwillimbury.

POLICY:

1. **Attachment 1** outlines procedures that are based on a warrant analysis in accordance with the School Crossing Guard Guide (SSGG) published by the Ontario Traffic Council in 2023.
2. The time periods for gap studies shall be during AM drop off and PM pick up times and between 12:00 noon – 1:00 p.m. These times are subject to change and consideration of local conditions (i.e. time shifting of school start times).
3. Gap studies and exposure index studies are not to be completed on days having “inclement” weather, on days directly before or after holidays, on days near the beginning or end of the school year, or on any other atypical days with higher or lower crossing volumes, including special event days, due to the obvious opportunity for criticism of the data contained in the report.
4. School crossing guard locations will be identified through proactive review of pedestrian safety on school walking routes and through community and school board (benefitting school) engagement.
5. Staff will identify and recommend the number and location of crossing guards based on the most appropriate engineering analysis in accordance with the SCGG published by the Ontario Traffic Council and in compliance with the Highway Traffic Act.
6. Where a request for a crossing guard is received from the public and the engineering analysis indicates that the specified warrants are not met, Council may implement a school crossing guard on an interim or permanent basis in consideration of other factors deemed reasonable by Council.

Attachment 1

Requests for School Crossing Guards

Existing Schools

- Request(s) for a new school crossing guard location or for the placement of an additional guard at a previously approved location may be submitted to the Town from any member of the public. The written requests may be supported by resolutions or meeting minutes from the School Council or other community organization.
- A warrant study shall be conducted in accordance with the School Crossing Guard Guide and the findings of the study shall be reported to Council with recommendations.
- Staff will report to Council within a reasonable time of receiving the initial request and provide recommendation(s) based on the warrant analysis and other considerations.
- Relocation of an existing crossing guard location to a new location in the same area due to changes in operations and traffic/pedestrian flow, can be undertaken by staff and does not require further Council Approval. A written memorandum to Mayor and Council advising of the proposed school crossing relocation must be provided prior to the relocation taking effect. Relocation should ideally be implemented during the summer break and not during the school year.

New Schools

- Prior to a new school opening, staff shall inspect the school site and vicinity; consult with the school board and the principal of the new school; and review input from residents. Staff will present information with recommendations to Council to either implements or not implement a temporary school crossing guard(s) for the new school.
- If a temporary crossing guard is implemented, then a school crossing warrant study in accordance with the School Crossing Guard Guide shall be conducted within two (2) months following the school opening.
- Results of the school crossing warrant study shall be reported to Council with recommendations to implement a permanent school crossing at the temporary location or relocate the school crossing or remove the school crossing and temporary crossing guard.



Selection of Locations Proximity to a School

In general, school crossing guards should be deployed at crossing facilities where the subject school to be served is visible or in close proximity. In addition, the site inspection process should verify which route students prefer to take.

Minimum Student Crossing Volume

The minimum number of students crossing during the school peak periods is set at a threshold of 20 students.

Traffic Safety Analysis and Warrants

The recommended practice for determining a school crossing guard warrant combines traffic engineering principles and site inspection (observations).

Based on a best practice review of several municipalities within Ontario, the SCGG recommends two methods to determine if a crossing guard is warranted at any location:

1. Exposure Index Method: a warrant methodology suitable for controlled crossing facilities (signalized intersection, all-way stop controlled, pedestrian crossovers, and minor street with stop controls) that have conflicting movements between vehicular and student volumes; or
2. Gap Study Method: warrant methodology suitable for minor street stop controlled intersections or mid-block uncontrolled crossing locations. The Gap Study method may also be used to evaluate some controlled crossing facilities.

Site Inspection

The purpose of the inspection is to study and observe hazards at a potential school crossing location. The inspection would capture the overall operation and road geometrics at the potential school crossing such as number of students crossing, sign visibility, road grade, presence of sidewalks, on-street parking, proximity to school, posted speed limit, presence of traffic control devices, road conditions, etc.

Exposure Index Method

The Exposure Index establishes the 85th percentile threshold of student crossings and conflicting vehicular movement volumes at existing crossing locations. The 85th percentile threshold is then used as the existing service level to evaluate the level of conflicting vehicular and student volumes at potential school crossing guard locations.



The Exposure Index Method can also be used as a prioritization tool because it allows for an easy comparison of the level of conflicting movements between different school crossing guard locations.

The OTC provides a spreadsheet analysis tool to collect and plot the Exposure Index Information. This spreadsheet tool will be utilized for the analysis by staff of engineering consultants. The Exposure Index must be established for each type of crossing using onsite data.

Exposure Index Study Warrants

Staff will input the conflicting vehicular volume and student crossing volume to the appropriate table of the Exposure Index template. If the resulting point on the graph that corresponds to the location being evaluated is located above the 85th percentile line, then the Exposure Index warrant is met. If the resulting point is plotted below the 85th percentile line, then the signalized intersection being evaluated does not meet the Exposure Index threshold for requiring school crossing guards.

GAP Study

The GAP Study is a measure of the number of safe gaps in the traffic recorded in five minute intervals. In addition, the volume of traffic passing through the crossing in five minute intervals and number of students crossing are recorded and any observed pedestrian/vehicular conflicts documented.

GAP Study Warrants

In accordance with the SCGG a location subject to a GAP Study analysis meets the warrant for a school crossing guard if:

1. There are less than four (4) safe gaps in traffic in fifty percent of the five minute timed intervals on a road having a posted speed limit of not more than 60 km/h; and,
2. The number of students crossing meets or exceeds the minimum number previously established in the Policy (20).

OR

3. Student/vehicle conflict is observed or documented, or the potential for conflict is high due to poor crossing sight lines because of the road geometrics, high volume of traffic or the lack of a logical crossing point resulting in students crossing at various locations.



Note that safe gaps should be calculated as per the SCGG using default values presented in Appendix D, unless adjustments to the default values are appropriate, according to engineering judgement.

Warrants at Roundabouts

The SCGG recommends that the Exposure Index Method and the GAP Study Method be used to evaluate the need for school crossing guards at a roundabout. It is recommended that additional studies be done to monitor the need for school crossing guards at roundabouts. The following aspects should be considered when completing a warrant:

Exposure Method: Determine conflicting vehicular volume to the student crossing volume, the initial phase is to develop an Exposure Index for roundabouts. The second phase is to use the Exposure Index Method to evaluate candidate roundabouts as to the need for school crossing guards. The conflicting movements on a leg of a roundabout would be those that travel through the crosswalk.

GAP Study Method: Calculate the safe gap time for the leg that is being evaluated for a school crossing guard then the frequency and length of gaps present for pedestrians to cross the leg would have to be surveyed. Any time a vehicle enters or exits the roundabout past the leg that is being evaluated, the measurement for a gap would be reset.

Where possible, school crossings should not be established at roundabouts with high traffic volumes. Staff will review the desired travel lines within the community and will recommend the most appropriate location for a school crossing relative to the location of the roundabout.

Where required, fully signed Pedestrian Crossovers as described in the Ontario Traffic Manual Book 15 (Level 2 Type B) may be required at roundabouts. Staff will assess these types of pedestrian cross-over treatments and make recommendations to Council.

Warrants for Lunch Time Crossing Guards

Lunch time crossings should be considered based on the proximity to the school, school policies for allowing students to leave the premises during school hours and the above warrants. If a lunch time guard is requested, a warrant study shall be conducted in accordance with the School Crossing Guard Guide and the findings of the study brought back to Council with recommendations.



<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-002		
CROSSING GUARD SERVICE			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			
	Signature		



Engineering and Public Works

Policy #:	60-2800-CP-003
Branch:	Traffic and Transportation
Effective Date:	
INSTALLATION OF PEDESTRIAN CROSSEVERS	

PURPOSE:

To establish a consistent approach in determining if pedestrian crossovers are warranted at specific intersections or mid-block locations on the Town of East Gwillimbury public right-of-way.

POLICY:

Pedestrian crossover installation requests will be investigated upon a request from Council, resident or staff.

The following basic steps will be followed upon receiving said request:

- Respond to the requestor outlining the steps and expected timetable to completing the evaluation and reporting;
- Complete the required data collection and technical assessment;
- Prepare a report to Council with staff recommendations;
- Follow-up with requestor regarding the outcome and Council report timetable.

The pedestrian crossover assessment will follow the steps outlined in the Ontario Traffic Manual (OTM) Book 15 – Pedestrian Crossing Treatments, as summarized below.

Field Investigation

1. Before considering any form of pedestrian crossing, a field investigation must be performed to assess whether or not there is adequate stopping sight distance at the location according to the Transportation Association of Canada Geometric Design Guidelines for Canadian Roads; and,
2. Confirmation that the distance from other traffic control devices is at least 200 metres.



Desktop Review

1. If it is found that there is adequate sight distance and the distance to the nearest traffic control device is at least 200 metres, vehicle and pedestrian counts should be performed along with pedestrian delay documented for the peak 8 hours during the day. The data should be collected and used in accordance with the Ontario Traffic Manual Book 12 – Justification 6. The Justification 6 charts are provided in **Attachment 1**. Note that pedestrian volumes should be adjusted to account for assisted users as per OTM Book 15.
2. If traffic signals are not warranted for pedestrians, the OTM Book 15 Decision Support Tool shall be used. The Decision Support Tool is shown in **Attachment 2**. If the site is a candidate for pedestrian crossovers, continue to step 3 below.
3. In accordance with Ontario Traffic Manual (MTO) Book 15, pedestrian crossover warrants are based on **Attachment 3** – Pedestrian Crossover Selection Matrix.

Other Considerations

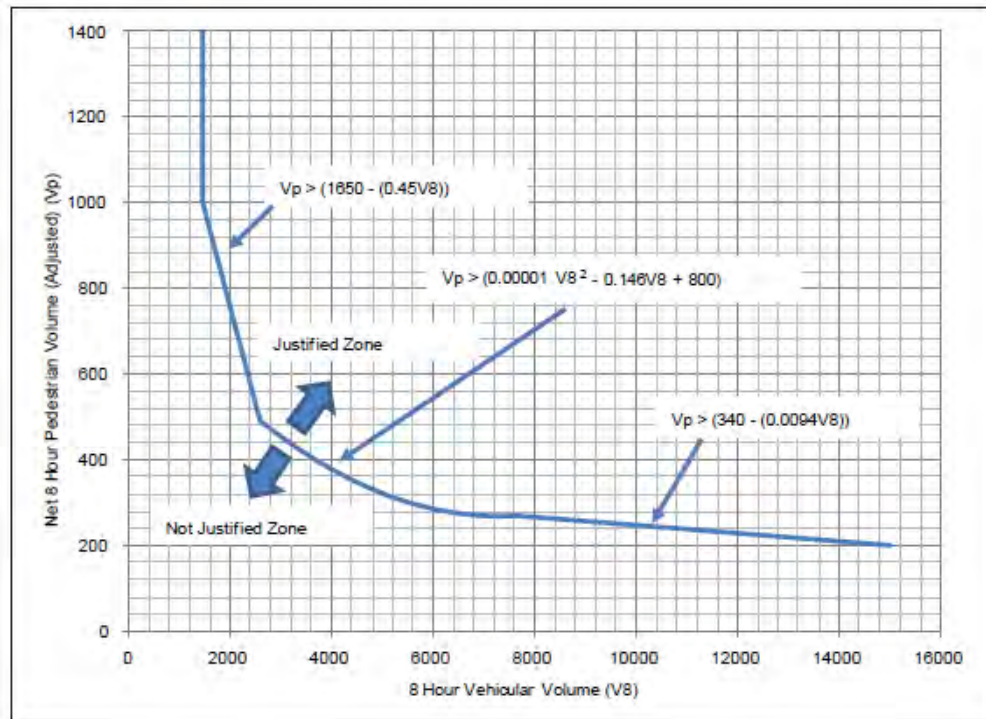
According to Section 4.9 of OTM Book 12:

- A PXO can be installed on roadways with a maximum of 4 lanes of two-way traffic or 3 lanes of one-way traffic;
- Vehicular traffic volumes are collected during the 8 hours with the highest pedestrian volumes;
- A PXO must not be used where the road volume exceeds 35,000 ADT; and,
- PXOs should not be installed within 200 m of other signal-protected pedestrian crossings.

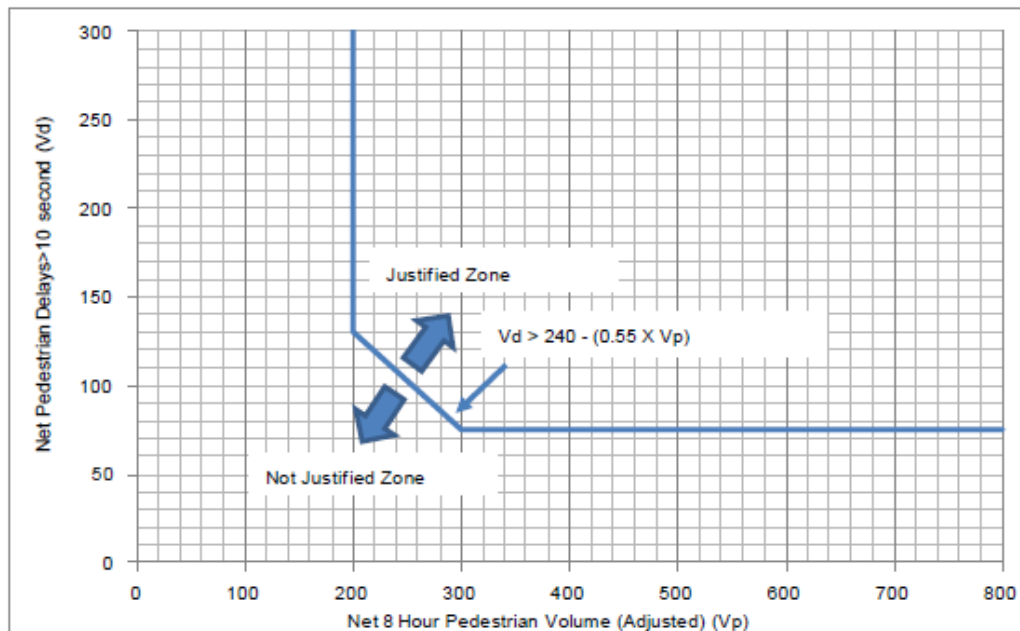


Attachment 1

OTM Book 12 Justification 6 – Pedestrian Volume



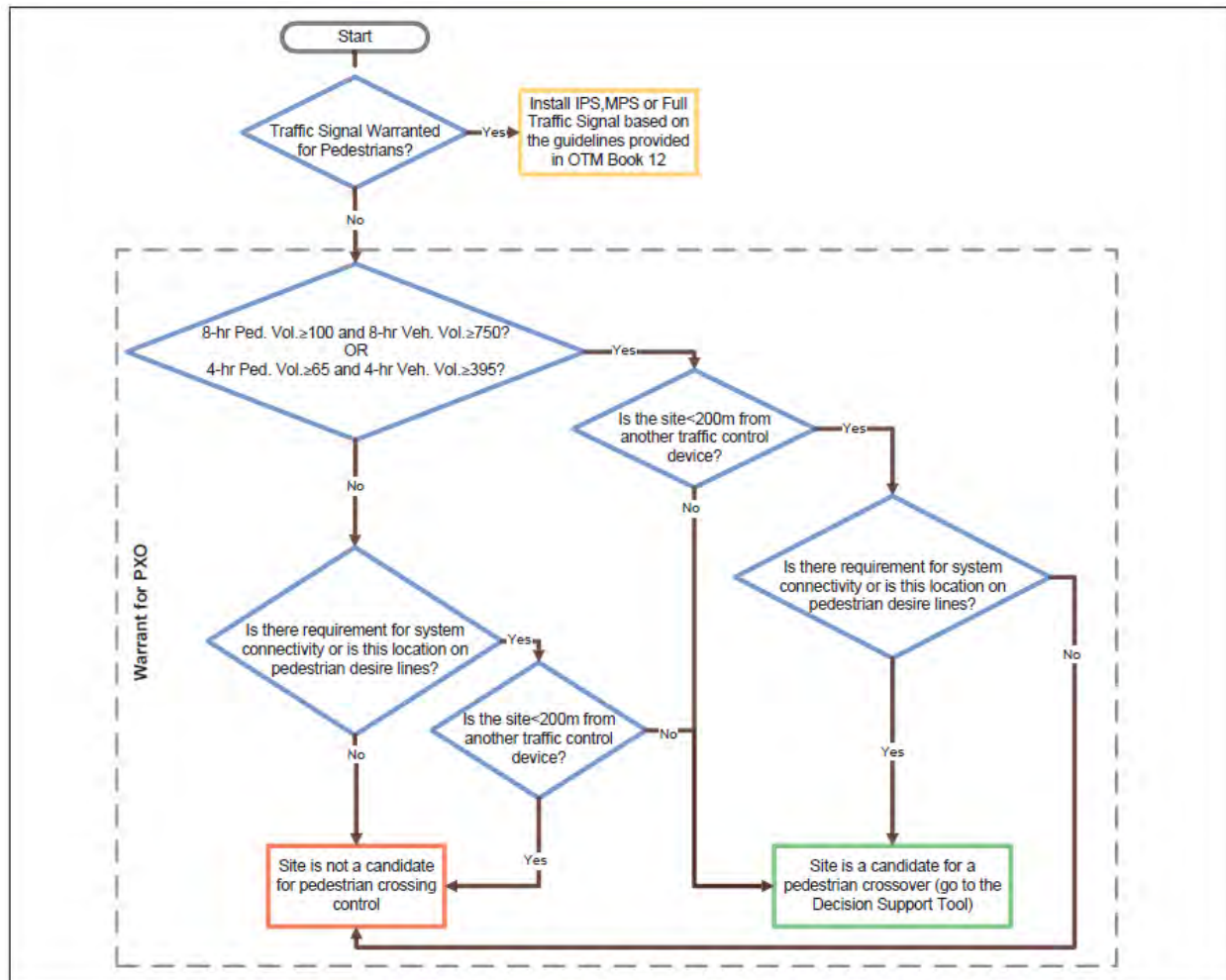
OTM Book 12 Justification 6 – Pedestrian Delay





Attachment 2

Ontario Traffic Manual Book 15 Decision Support Tool





Attachment 3

Ontario Traffic Manual Book 15 Pedestrian Crossover Selection Matrix

Book 15 • Pedestrian Crossing Treatments

Table 7: Pedestrian Crossover Selection Matrix

Two-way Vehicular Volume			Posted Speed Limit (km/h)	Total Number of Lanes for the Roadway Cross Section ¹			
Time Period	Lower Bound	Upper Bound		1 or 2 Lanes	3 lanes	4 lanes w/raised refuge	4 lanes w/o raised refuge
8 Hour	750	2,250	≤50	Level 2 Type D	Level 2 Type C ³	Level 2 Type D ²	Level 2 Type B
4 Hour	395	1,185					
8 Hour	750	2,250	60	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	395	1,185					
8 Hour	2,250	4,500	≤50	Level 2 Type D	Level 2 Type B	Level 2 Type D ²	Level 2 Type B
4 Hour	1,185	2,370					
8 Hour	2,250	4,500	60	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	1,185	2,370					
8 Hour	4,500	6,000	≤50	Level 2 Type C	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155					
8 Hour	4,500	6,000	60	Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 2 Type B
4 Hour	2,370	3,155					
8 Hour	6,000	7,500	≤50	Level 2 Type B	Level 2 Type B	Level 2 Type C ²	Level 1 Type A
4 Hour	3,155	3,950					
8 Hour	6,000	7,500	60	Level 2 Type B	Level 2 Type B		
4 Hour	3,155	3,950					
8 Hour	7,500	17,500	≤50	Level 2 Type B	Level 2 Type B		
4 Hour	3,950	9,215					
8 Hour	7,500	17,500	60	Level 2 Type B			
4 Hour	3,950	9,215					

Type A
 Type B
 Type C
 Type D

Approaches to roundabouts should be considered a separate roadways.

¹The total number of lanes is representative of crossing distance. The width of these lanes is assumed to be between 3.0 m and 3.75 m according to MTO Geometric Design Standards for Ontario Highways (Chapter D.2). A cross sectional feature (e.g. bike lane or on-street parking) may extend the average crossing distance beyond this range of lane widths.

²Use of two sets of side mounted signs for each direction (one on the right side and one on the median).

³Use Level 2 Type B PXO up to 3 lanes total, cross section one-way.

The hatched cells in this table show that a PXO is not recommended for sites with these traffic and geometric conditions. Generally a traffic signal is warranted for such conditions.



<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-003		
INSTALLATION OF PEDESTRIAN CROSSEOVERS			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			
	Signature		



Engineering and Public Works

Policy #:	60-2800-CP-004
Branch:	Traffic and Transportation
Effective Date:	
RADAR MESSAGE SPEED BOARD	

PURPOSE:

To establish a guideline for the placement of the radar message speed board on Town roads.

POLICY:

Engineering and Public Works staff will receive and approve requests from Council and residents for the use of the radar message speed board system. The speed boards are deployed at one location for one to two months before being assigned to other locations. The rotation allows for maximum road coverage and equal use of the speed boards across the Town. In this regard, it is desirable to use a standard form to direct Engineering and Public Works on the utilization of the system. The radar message speed board installation procedures are detailed in **Attachment 1**.

Engineering and Public Works will install, secure, endeavor to monitor, replace and recharge the batteries and relocate the radar message speed board as directed. The radar message speed board will generally not be available for placement during winter road maintenance period (November to April) unless directed by the General Manager of Engineering and Public Works.

Engineering and Public Works staff are to maintain a log of all placements with the relevant information for follow-up by the Road Watch Committee or Council.

Attachment 1

Radar Message Speed Board Installation Procedure

- Add new request, including requesters contact information to List;
- Staff examine any existing speed studies and/or carry out a pneumatic speed study and determine:

Installation Determination

1. If the 85th percentile speed exceeds the posted speed limit by 25% or more and the ADT (both directions combined) is 500 or greater, installation of the sign is warranted without further study. Timing of the installation of locations meeting this condition will coincide with the timing of the request. Sign installation in locations meeting these conditions will take precedence over locations meeting the conditions in section 2.
2. If the 85th percentile speed exceeds the posted speed limit by 16% to 24% and the ADT (both directions combined) is 500 or greater, installation of the sign is warranted pending the following assessments:
 - Proximity to the following (i.e. vehicular access or pedestrian crossing locations associated with the following uses are located within 100 metres of the location where speeds were measured):
 - Schools
 - Parks
 - Retirement homes
 - School bus stops
 - Road Geometrics (i.e. substandard geometrics within 100 metres of the location where speeds were measured):
 - Vertical and Horizontal Curves
 - Stopping Sight Distance
 - Intersection Sight Distance
 - Lane Width
 - Shoulder and ditch alignment (rural environment)
3. If the 85th percentile speed exceeds the posted speed limit by 15% or less, sign installation is not warranted.



Notes:

- At the time requests are made, residents will be notified of the existence and use of the Road Watch Program.
- All requests from residents will be sent to York Regional Police (YRP).
- Traffic reports produced with data collected by the Radar signs will be sent to YRP.
- Any requested location may be given preference over other requested locations if there are extraordinary conditions such as high accident frequency or if noted as a complaint area by YRP.
- Town staff can establish sign locations without the need for a resident request.
- Lowering of 40 km/h speed limits will not be considered.
- Except in extenuating circumstances lowering of 50 km/h speed limits will only be considered in school or park zones as per the Speed Limit Warrant Policy.



<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-004		
RADAR MESSAGE SPEED BOARD			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			



Signature



Engineering and Public Works

Policy #:	60-2800-CP-005
Branch:	Traffic and Transportation
Effective Date:	
SIDEWALK INSTALLATION	

PURPOSE:

To establish a policy for the installation of sidewalks on roads within the Town of East Gwillimbury to promote pedestrian safety and an accessible connection to community services such as schools, parks, businesses, and places of work. All sidewalks will continue to comply with AODA (Accessibility for Ontarians with Disabilities Act) requirements.

POLICY:

To ensure connectivity, safety, and convenient sidewalks for pedestrian traffic in new development and existing areas.

Engineering and Public Works staff review sidewalk installation candidates every year as part of our capital budget planning. Project recommendations are generally identified through the Town's Transportation Master Plan. In addition, requests are received from staff, Council, and the public. Sidewalk installations outside of the Town's urban boundary are generally not recommended.

For projects that are recommended, staff consider coordination between other capital projects within our 10-year capital plan, as well as capital projects planned through York Region. In this regard, it is desirable that staff utilize the sidewalk installation policy process outlined below.

NEW DEVELOPMENT AREAS

- Arterial Roads:
 - o Sidewalks shall be constructed on both sides of the roadway.
- Collector Roads/Industrial Collector Roads:
 - o Sidewalks shall be constructed on both sides of the roadway when the road is constructed.

- Local Roads:
 - o Sidewalks shall be constructed on one side of the roadway with the following exceptions:
 - Sidewalks are not required for cul-de-sacs with 15 units or less, unless the paths or walkways are within the cul-de-sac;
 - Sidewalks shall be on the same side if adjacent to high pedestrian generators like schools, institutional or commercial uses;
 - All public walkways are required to connect to a sidewalk.
 - o **EXISTING AREAS** Arterial & Collector Roads: Sidewalks shall be constructed on both sides of the street.
 - The road is classified as arterial, or collector based on the Town's Official Plan.

If site conditions do not permit for a sidewalk on both sides, a sidewalk on one side will be constructed.

- Local Roads:
 - o Sidewalks shall be constructed on one side of the street.

Sidewalk Feasibility:

Sidewalk candidates need to be reviewed against a number of factors before being recommended, the following is a partial list of reasoning for why a sidewalk installation may not be feasible:

- o Insufficient road allowance space;
- o Zoning constraints;
- o Requires private land acquisition and/or expropriation;
- o Severe geometrics or grading issues;
- o Utility conflicts
- o Significant project costs;
- o Tree impact and/or tree removals
- o Limited pedestrian usage anticipated
- o Outside of the Town's urban boundary
- o Not recommended in the Town's Transportation Master Plan



SIDEWALK DESIGN AND LOCATION

- Site conditions may dictate the locations and design of sidewalks. Proper engineering design and safety constraints shall be paramount when locating and designing sidewalks. As well, new and replacement sidewalks including ramps must be designed to ensure pedestrian accessibility.
- Sidewalks shall be designed and constructed as per the Town's Engineering Standards and Design Criteria.
- A boulevard area between the sidewalk and curb should be constructed to a preferred minimum of 2.0 metres. However, boulevard area widths for existing streets will be determined on an individual basis due to existing constraints such as driveway lengths and utility locations.
- For sidewalk alignments, the side of the street shall be dictated by, but not limited to, factors such as: cost, streetlights, utility locations, geometric constraints (driveway slopes), connectivity of the sidewalk system, topographical constraints (land grades), and physical constraints (road allowance).

AODA REQUIREMENTS

- Sidewalks shall be designed and constructed to comply with the latest AODA requirements.

FUNDING AND IMPLEMENTATION

The sidewalk implementation will be based on a priority list and pending Council budget approval.

The Town will monitor its construction schedule for sidewalk installation triggers, as cost savings can be realized when a sidewalk installation is included as a part of an existing construction project or where developers will install sidewalks as a part of their development approval.

PUBLIC CONSULTATION

- For approved sidewalk installation projects, the Town generally holds a public information centre to consult with the public about project recommendations and details.
- Property owners may choose to initiate a Local Improvement through a petition following the Municipal Act and fund the project costs through fronting property owners. Details for this are covered in the Ontario Municipal Act, you may reach out to the Town for questions relating to Local Improvements.



<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-005		
SIDEWALK INSTALLATION			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			
	Signature		

Engineering and Public Works

Policy #:	60-2800-CP-006
Branch:	Traffic and Transportation
Effective Date:	
SPEED LIMIT REDUCTION WARRANT POLICY	

PURPOSE:

To establish a process for modifying of speed limits on Town of East Gwillimbury roads.

POLICY:

Engineering and Public Works staff will receive requests to review posted speed limit and report on all requests from Council, and from residents for review posted speed limit on Town roads. In this regard, it is desirable that the Engineering and Public Works will utilise the speed limit reduction warrant policy as outlined in **Attachment 1**.

Attachment 1

Basic Speed Limits

The following speed limits shall generally be adhered to:

- Community Safety Zones, School and Park Zones 40 km/h;
- Local Roads 50 km/h;
- Collector Roads 50 and 60 km/h;
- Arterial Roads 50 to 80 km/h.

Note: In Rural Areas, speed limit reduction requests in School and Park Zones will be assessed on an individual basis.

Speed Limit Study

Procedure

1. Upon receipt of a written request for a speed limit reduction, staff will carry out a preliminary review and, if possible, resolve the issue without further study. The person making the request will be notified of the results by Town staff.
2. If the preliminary review indicates that a speed limit reduction is technically warranted without further study, staff will proceed with a report to Council to amend the Consolidated Traffic and Parking By-Law accordingly. The person making the request will be notified of the results by Town staff.
3. If the preliminary review indicates that the request warrants further investigation, staff will proceed to carry out a detailed speed limit study. Upon completion of the study, staff will determine if a speed limit reduction is warranted and will inform the person making the request of the outcome. If warranted, a report to Council will be prepared and the Uniform Traffic By-Law will be revised accordingly.
4. If the preliminary review or detailed speed limit study indicates that a speed limit reduction is not warranted, staff will notify the person making the request accordingly. If they want to pursue the request, they will be advised that they can do so by providing a "Successful Petition" accompanied by supporting information to the Engineering Department.

5. “Successful Petition”

- In the event that a speed limit reduction request has been denied, the proponent will be required to submit a “Successful Petition” from residents of the affected area (as determined by the General Manager of Engineering and Public Works) before additional studies will commence. They will also be required to provide additional information supporting the need to reassess the original request.
 - A “Successful Petition” requires that at least 65% of the residents in the affected area have signed in favor of the requested speed limit reduction.
6. Upon receipt of a “Successful Petition”, staff will carry out a more detailed speed limit study within the pre-defined affected area and subsequently report back to Council.
 7. The proponent of the petition will be notified of the resulting recommendations.
 8. The affected area is defined as the road section(s) directly affected by a change in speed limit.
 9. Staff will implement any necessary changes as directed by Council.

Establishing Speed Limits

1. Speed limits should be set in accordance with the most favourable environmental and traffic conditions.
2. Speed limits should comply with the Highway Traffic Act.
3. Speed limits should not exceed the design speed of the roadway, and should generally be between 10 km/h and 20 km/h below the design speed, except for constrained urban conditions where the speed limit may approach or be equal to the design speed.
4. Isolated speed adjustments may be made with advisory speed signage without amending the Uniform Traffic By-Law.
5. Speed limits should be set as close as possible to the 85th percentile speed of free flowing traffic unless other technical criteria noted herein warrant a further reduction.

6. A speed limit reduction from the 85th percentile speed may be considered if one or more of the following criteria can be applied:
 - i. Where separation from curb face to sidewalk is less than 1.8m.
 - ii. Where there are sensitive land uses (i.e. with high proportion of vulnerable users), based on the judgment of Town staff.
 - iii. If the driveways on any one side of the road exceed 13/km.
7. Speed limits in school and park zones on local or collector roads should not exceed 40 km/h and 40 to 60 km/h on arterial roads unless a speed study can show otherwise. Speed limits in school zones may be higher during times 30 minutes before or after the school is not occupied by school children, and appropriately signed. A school zone speed reduction should be limited to a maximum 20 km/h below the regular posted speed limit.
8. The desired length of a speed zone shall be:
 - i. Rural Areas – 2000 metres (with 1000 metres being the minimum)
 - ii. Urban Areas – 1000 metres (with 500 metres being the minimum)
 - iii. School Zones and Park Zones – a minimum of 150 metres beyond school property. Consideration may be given to extending this to the closest intersections or compatible adjacent speed zones.
9. Speed related collision experiences may be a factor in determining speed limits.
10. The General Manager of Engineering and Public Works, using sound engineering principles, may exercise his discretion in establishing speed limits.



<u>Town of East Gwillimbury</u>			
Policy #:	60-2800-CP-006		
SPEED LIMIT REDUCTION WARRANT POLICY			
Date Reviewed:		Revision #:	1.0
Date Revised:		Prepared By:	
Approved By:			
	Signature		



Engineering and Public Works

Policy #:	
Branch:	
Effective Date:	
Proposed Road Ecology Policy	

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. The Town will conduct 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.

Road ecology practices, including but not limited to the following, shall be implemented through processes associated with Planning Act, Environmental Assessment Act and Conservation Authorities Act as part of transportation projects.

- Areas of significant wildlife movement and/or mortality should be identified and avoided. Where avoidance is not possible, appropriate mitigation shall be implemented.
- Fragmentation of natural heritage corridors with roads and infrastructure should be avoided, where possible.

- The movement of wildlife should be facilitated between natural areas to provide corridors and connect natural areas. Wildlife corridors such as key natural heritage features and key hydrologic features should be maintained and where possible, improved or restored.
- Where appropriate, new and replacement watercourse crossings shall be designed to facilitate the movement of appropriate native wildlife.
- In rural areas, roadside plantings to discourage wildlife habitat and movement immediately adjacent to infrastructure should be considered.
- Roadside warning signs should be placed in areas of significant wildlife movement.
- Temporary or seasonal speed limits should be implemented in high wildlife mortality zones.
- A roadway directional lighting strategy should be implemented that avoids too much lighting in environmentally vulnerable sites.