Town of Caledon

Multi-Modal Transportation Master Plan

April 2024





TOWN OF CALEDON

FUTURE CALEDON

In Collaboration with
R.J. Burnside & Associates Ltd.

BURNSIDE

Contributors

Town of Caledon Core Project Team

Arash Olia – Project Manager, Manager, Engineering Services

Andrew Pearce – Director, Engineering Services

Imran Salam – Transportation Engineer, Engineering Services

Jillian Britto – Transportation Engineer, Engineering Services

Sabrina Davidson – Sustainable Transportation Coordinator, Engineering Services

R.J. Burnside & Associates Ltd. Core Project Team

Ray Bacquie – Project Manager, Senior Vice-President, Transportation

Gordon Hui – Senior Transportation Planner, Transportation

Xinli Tu – Transportation Planner, Transportation

Nansen Feng – Transportation Planner, Transportation

Jennifer Vandermeer – Environmental Assessment Lead, Environmental

Hanna Chung – Landscape Designer, Landscape Architecture

In Association with

MHBC

TIMCON Associates

Executive Summary

Caledon MMTMP: Charting a New Course to 2051

The Caledon Multi-Modal Transportation Master Plan (MMTMP) is a long-range plan that coordinates mobility solutions of infrastructure, services and policies with anticipated future development. This plan is particularly important for Caledon, given the unprecedented growth that is planned for the municipality. The transportation system response to planned growth is presented in a manner that is environmentally, operationally and financially sustainable.

The plan identifies long-term needs for elements of the transportation system and determines an overall recommended based on the vision and goals of the transportation master plan, while incorporating the various policy objectives of the municipality.

This MMTMP was integrated with the development of "Future Caledon", the Town's new Official Plan (OP). The Town's OP is a comprehensive plan and policy document that dictates how land in the Town should be used and developed. It applies to all lands within the municipal boundary and the policies within it provide direction for the size and location of land uses, provision of municipal services and facilities, and preparation of regulatory by-laws to control the development and use of the land.

This study was carried out through an open public process as a Master Plan study (Approach #1) under the Municipal Class Environmental Act (MCEA) to serve as direct input to any subsequent Environmental Assessment (EA) studies that may be deemed appropriate. This study satisfies Phases 1 and 2 of the five-phase MCEA process.

There were several opportunities for stakeholder and public participation and engagement throughout the study. There were a total of two (2) Technical Advisory Committee (TAC) meetings and three (3) Public Information Centre (PIC) meetings. A variety of tools were used to inform the community, including direct mail, a webpage hosted on the Town's website, dedicated project email addresses and phone numbers, social media (Facebook, Twitter), newspaper advertisements and Town press releases. Individual letters and notices were also sent by email/mail to Indigenous communities throughout the study process. Feedback received (by email, by phone and at these events) were documented and incorporated in the study, where appropriate.

Master Plan Context

The Town of Caledon is abundant in natural heritage. Natural environment resources are important elements of Caledon that provide habitat, recreation and economic viability. The Town's urban structure is largely shaped by several significant geographical and environmental features. The Oak Ridges Moraine (ORM) runs through much of the northeast

part of the Town and provides for important groundwater recharge for the Greater Toronto Area. The Niagara Escarpment's diverse ecosystem extends through the Town and much of the remaining land area within the Town of Caledon is located within the Greenbelt Plan Area, which was introduced in 2005 to protect the natural environment and agricultural areas.

Caledon's history is rich with Heritage buildings and landscapes with extensive listed and designated properties, heritage conservation districts and candidate cultural heritage landscapes.

The Town of Caledon will face the challenge of accommodating substantial development growth adjacent to these natural and cultural assets. The Region of Peel Official Plan Review has allocated growth in population for Caledon from 76,581 to 300,000 by the year 2051, with comparable growth in employment to 125,000 jobs. Much of this growth will be focused in the Settlement Area Boundary Expansion (SABE) in south Caledon.

Vision

The Vision developed for the MMTMP is as follows:

By 2051, the Town will have a transportation system that provides accessible, affordable, safe, and sustainable travel choices for all, and is well-integrated, effective to use, promotes healthy lifestyles, and supports economic prosperity, livable communities and climate commitments.

Objectives

The MMTMP's supporting objectives include:

- Develop a future-ready transportation plan for the Town and expand the multi-modality of the transportation system including driving, transit, walking, cycling, and other emerging mobility options;
- Provide infrastructure to support and manage future land use growth and address the needs and priorities for both rural and urban communities;
- Deliver sustainable strategies that protect natural heritage assets while reducing transportation's effects on climate change;
- Build a safe and inclusive transportation system that supports age-friendly communities and promotes healthy living; and
- Develop complementary transportation solutions that supports Provincial, Regional, and Local policies and the Town's Official Plan (OP) update.

Transportation Needs and Opportunities

Future transportation needs were assessed for all modes of municipal mobility based on policy objectives related to capacity, equity and sustainable transportation system targets. The Region of Peel Transportation Forecasting Model, which accounts for the latest population and employment growth based on a preliminary assessment of land use geographic distribution, was used to project future traffic volumes. Mobility needs and opportunities to the year 2051 include the following:

- A transportation plan to address the additional capacity and goods movement needs on collector roads and future Town arterials that will be within the planned SABE growth area and addresses traffic levels through urban areas and rural communities including Caledon Village. The plan will need to accommodate active modes with a Complete Streets approach to mobility and align with an urban form of nodes and corridors.

- A transportation plan to provide intermunicipal transit opportunities based on the MTSAs (in Bolton and Mayfield West) and along Highway 413 and introduces a Town of Caledon transit system with route coverage that will achieve ridership objectives. The plan will involve a transit strategy study that defines the governance model and financial plan for a Caledon managed transit system and guidance to the secondary plan process for new transit through the SABE lands.

- A transportation plan that will provide a network of cycling and pedestrian infrastructure with context sensitive solutions given roadway topography and natural and cultural heritage features. An Active Transportation Master Plan (ATMP) will provide an implementation plan that will identify new pedestrian, cyclist, and trail routes and facilities, maximize network connectivity, provide direction for connectivity to future secondary plan areas in the SABE lands and provide support and recommendations for updated operational policy and design guidelines, Travel Demand Management (TDM) measures, parking demand management measures and emerging technologies.

Evaluation of Alternative Solutions

Alternative strategies were considered that focused on 1) major roads and highways, 2) transit and active transportation and 3) a combination of road and alternative modes. Given the magnitude of planned growth, the economic objectives of the Town and climate change commitments a combination of improvements has been identified as the preferred alternative solution.

Road Network Plan

Road network improvements were developed based on the following objectives:

- **Capacity of Commuter Accommodation:** The need for public commuting by automobile includes a range of purposes such as travel to work, medical, shopping or leisure purposes from/to locations that are not adequately served by transit / active transportation and/or do not adequately serve users with mobility or other barriers to travel by other modes. Capacity improvements aim to facilitate these driving trips while minimizing congestion.

- **Accommodation of Alternative Modes of Travel:** In order for Caledon roads to provide all the necessary street elements and subsurface utilities for successful Complete Streets, the Town must acquire the necessary property and public right-of-way. This right-of-way will not only be used to facilitate mobility, but in an urbanized environment like the future SABE, the public right-of-way can be used to support an active transportation, pedestrian-oriented community.

- **Capacity for Goods Movement:** Within urbanized areas, the economic competitiveness of a municipality is affected by the efficiency and capacity of the movement of goods to / from business areas. Traffic congestion or lack of direct routes can significantly add to the cost of goods and services through transportation costs. Economic competitiveness often relies upon the connectivity between industry and transportation infrastructure including freeways, regional arterial roads and intermodal terminals. Capacity improvements aim to ensure that efficient goods movement is provided.

- **Network efficiency and connectivity:** Network efficiency and road connectivity needs commonly result from discontinuous or misaligned roadways. Misaligned intersections can contribute to poor roadway geometry and/or traffic movements that are not adequately supported by roadway conditions.

- **Community Circulation and Land Access Accommodation:** Within the Town of Caledon, new collector road networks are established by the Town's Secondary Plans. Secondary plans provide more detailed policies for the area it covers, and also establishes a collector road network within the lands. Guiding principles are provided to assist in the development of a Secondary Plan framework for the SABE.

Road improvement recommendations were summarized for the 2031, 2041, and 2051 horizon years. These road recommendations are presented in **Table ES-1, ES-2, and ES-3** respectively. The proposed ultimate (2051) road network is illustrated in **Figure ES-1**.

Table ES-1: Road Improvement Recommendations (2031)

ID	Road	From	To	Recommendation
1	Chinguacousy Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
2	McLaughlin Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
3	Albion Vaughan Road	Mayfield Road	King Street	Urbanization and widening from 2 to 4 lanes
4	Humber Station Road	Mayfield Road	North of King Street (Settlement Area Limits)	Urbanization and widening from 2 to 4 lanes
5	Abbotside Way	Bonnieglen Farm Boulevard	Heart Lake Road	Extension (4 Lanes)
6	Healey Road	The Gore Road	Coleraine Drive	Urbanization and widening from 2 to 4 lanes
7	Torbram Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
8	George Bolton Parkway	West of Coleraine Drive	Humber Station Road	Extension (4 Lanes)
9	Kennedy Road	Newhouse Boulevard	Old School Road	Urbanization and widening from 2 to 4 lanes

Table ES-2: Road Improvement Recommendations (2041)

ID	Road	From	To	Recommendation
10	Innis Lake Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
11	Centreville Creek Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
12	Old School Road	Winston Churchill Boulevard	Airport Road	Urbanization and widening from 2 to 4 lanes
13	Healey Road	Airport Road	The Gore Road	Urbanization and widening from 2 to 4 lanes
14	Kennedy Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes
15	Caledon King Townline	King Street	Columbia Way	Urbanization and widening from 2 to 4 lanes
16	Columbia Way	Regional Road 50	Caledon King Townline	Urbanization and widening from 2 to 4 lanes

Table ES-3: Road Improvement Recommendations (2051)

ID	Road	From	To	Recommendation
17	Chinguacousy Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes
18	McLaughlin Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes
19	Bramalea Road	Mayfield Road	King Street	Urbanization and widening from 2 to 4 lanes

ID	Road	From	To	Recommendation
20	Heritage Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
21	Creditview Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes
22	Heart Lake Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes

Additional road connectivity and network studies are listed below in **Table ES-4**

Table ES-4: Additional Road Studies and Classifications

ID	Additional Study	Description	Study Classification	Lead Agency
18	Alternative Routes to Bolton and Established Communities	MTO to collaborate with the Region and the Town to extend Highway 427 to Highway 9.	Alternate Route Study	MTO
19	Mis-aligned intersections (see **Appendix E**)	Monitor mis-aligned intersections for future improvements	Intersection Monitoring	Town of Caledon / Region of Peel
20	Horseshoe Hill from Olde Base Line Road to Highway 9	Remove from Region's Strategic Goods Movement Network	Goods Movement Update	Region of Peel
21	Mountainview Road from Olde Base Line Road to Charleston Sideroad	Remove from Region's Strategic Goods Movement Network	Goods Movement Update	Region of Peel

Town of Caledon

Transportation Master Plan

FIGURE ES-1

Road Network Improvements

Road Improvements (Phasing)

- Widening to 4 lanes (by 2031)
- Widening to 4 lanes (by 2041)
- Widening to 4 lanes (by 2051)

Future Land Uses

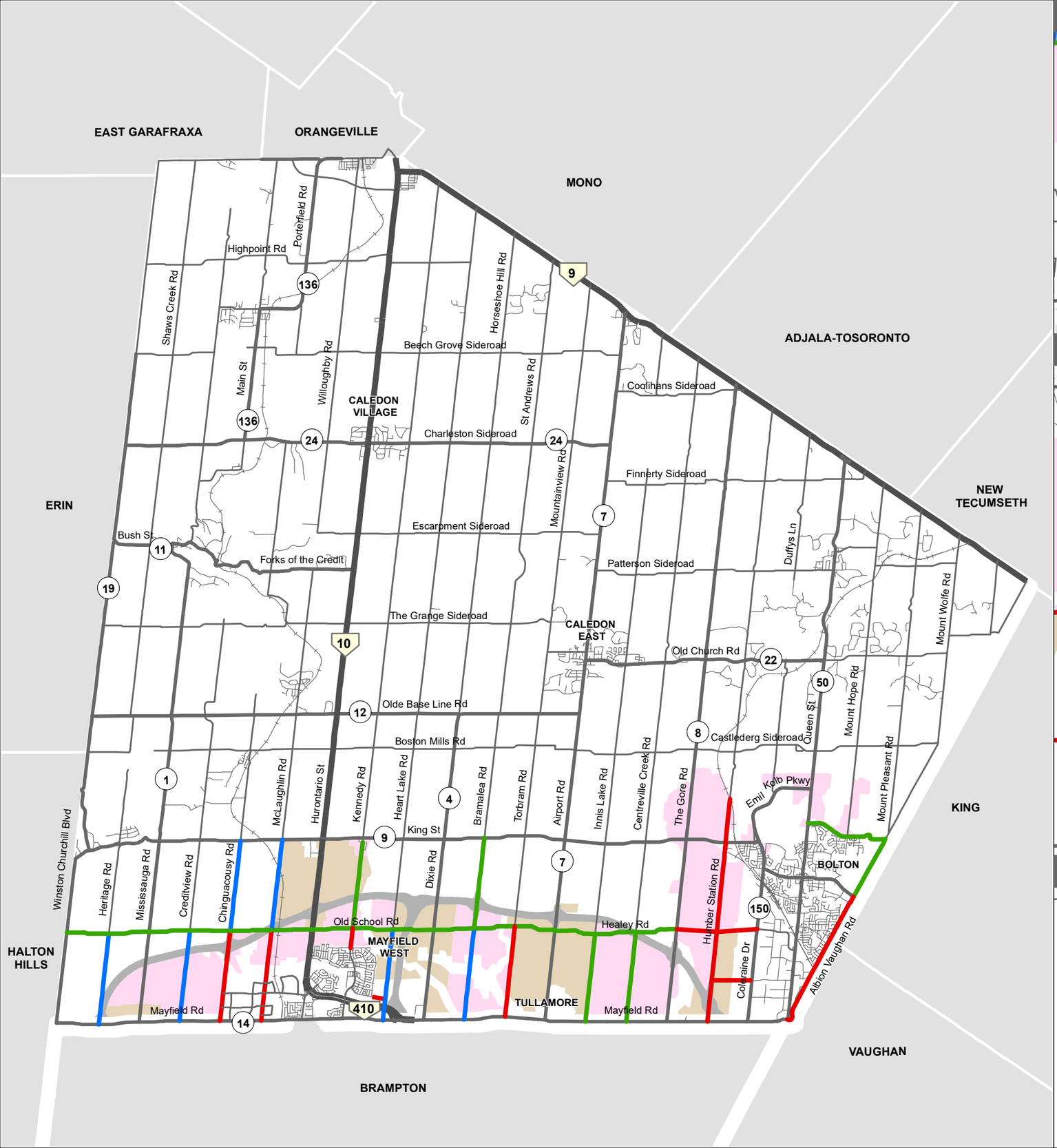
- Community
- Employment

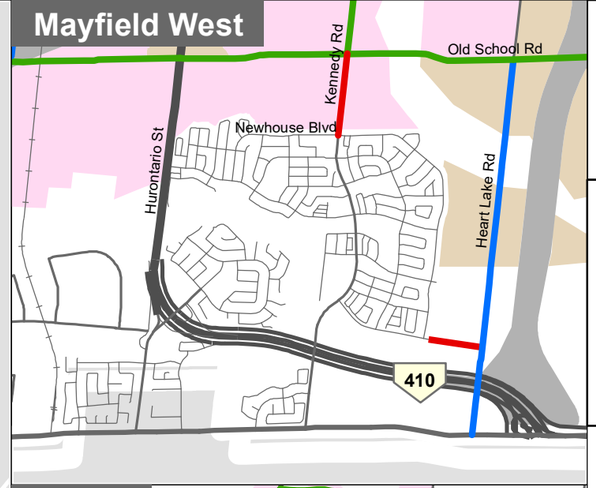
0 1 2 4 6 8 km

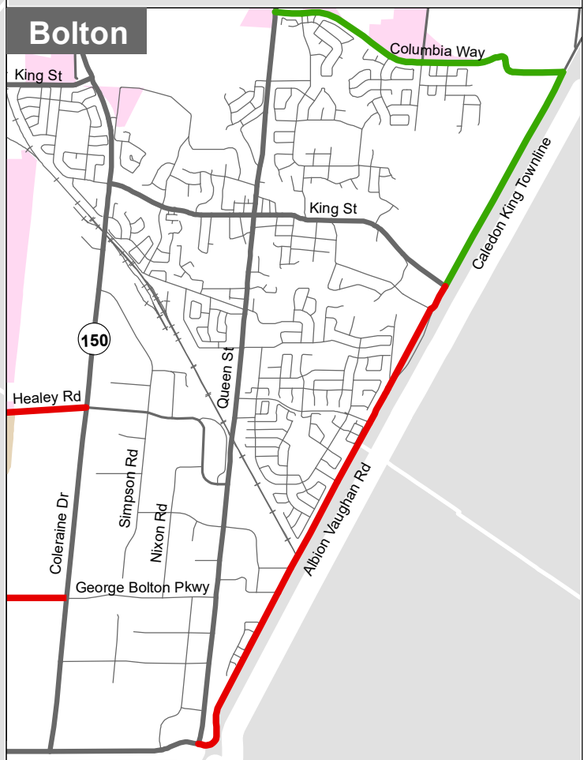
BURNSIDE

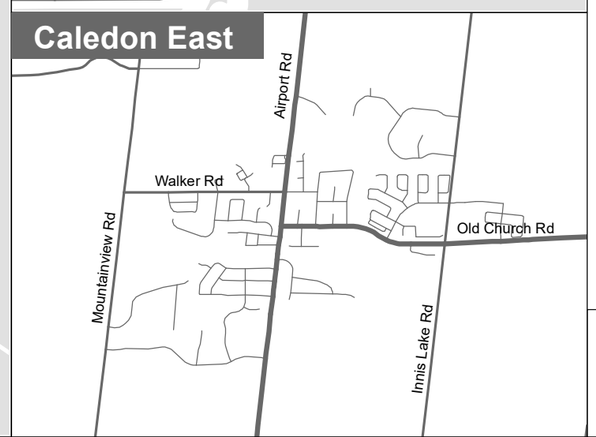
R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.









Active Transportation Plan

Active transportation strategies were developed based on the following objectives:

1. **Continuity:** Continuity within active transportation networks is important in establishing a reliable, “low-stress” active transportation network. Missing links should be identified in a network to identify and address continuity gaps.

2. **Connectivity:** Connectivity to proposed active transportation facilities in surrounding municipalities, existing and planned Regional routes and infrastructure, and key destinations should be considered in establishing a seamless inter-municipal network within and beyond Town boundaries.

3. **Policy framework for development and new infrastructure:** Opportunities will exist for the planning and implementation of active transportation infrastructure through the development review process. This will include active transportation strategies of new Secondary Plans in the SABE area and with individual developments. A policy framework guides the continuous development of the active transportation network within the Town of Caledon.

The MMTMP recommends regularly updating the Town’s Active Transportation Plan to focus on the following objectives:

- Establish comprehensive walking and cycling networks that connect existing and new settlement areas and rural communities

- Establish a trail system that is integrated with the pedestrian and cycling network and includes connections to open spaces

- Identify opportunities and locations for safe pedestrian and cycling crossings, including strategically located grade-separated crossings

- Promotes bicycle amenities at major employment / residential / institutional developments

- Engages community groups

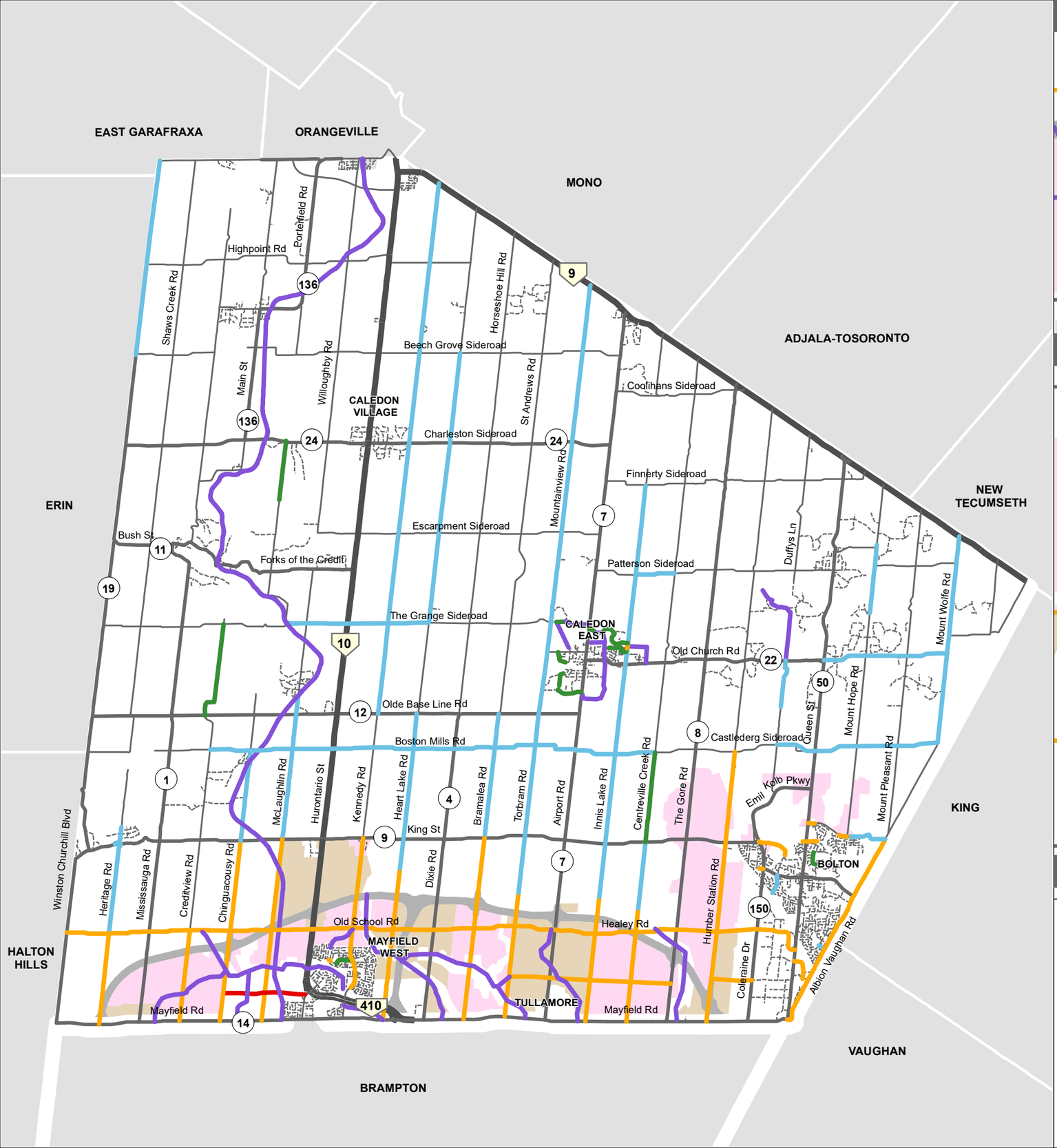
The Town’s AT Plan should provide a network implementation plan for facility selection, timing and costing of: paved shoulders on rural arterial and collector roads, separated facilities on urban arterial and collector roads and shared facilities on local roads and projects that enhance continuity within the Town and connectivity to adjacent municipalities. The active transportation plan is illustrated in **Figure ES-2**.

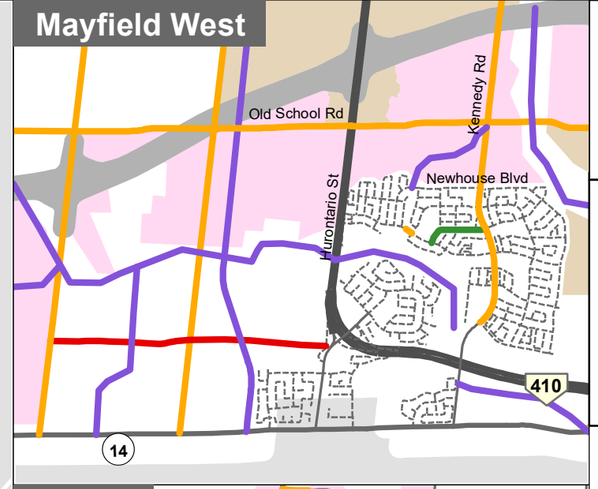
Town of Caledon

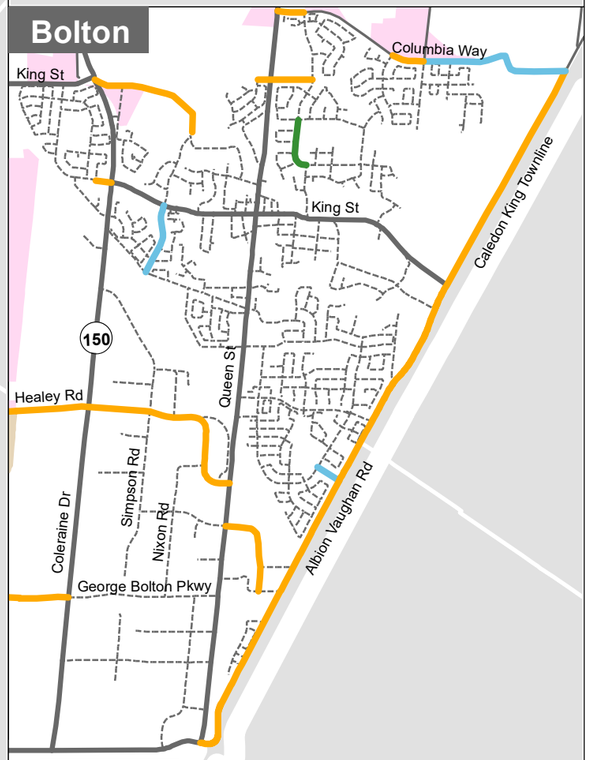
Transportation Master Plan

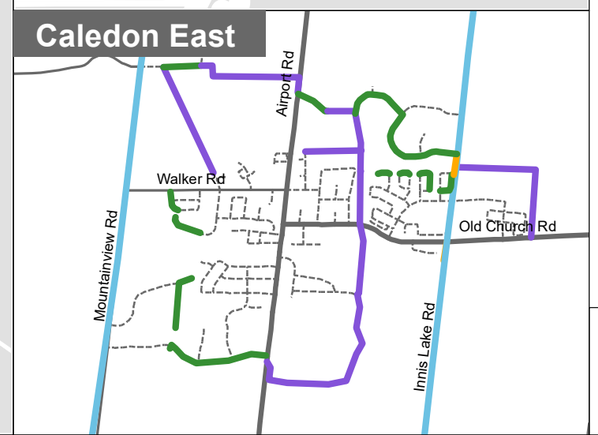
FIGURE ES-2

Future Active Transportation Network









Proposed Facility Type

- Multi-use Trail
- Painted Bike Lane
- Physically Separated
- Shared
- Visually Separated

Future Land Uses

- Community
- Employment

Source: Town of Caledon ATMP

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Transit Network Plan

Given the trip characteristics, population, growth and phasing within the town's secondary plans, along with origin and destination patterns, the MMTMP recommends that the Town leverage Brampton Transit by 2035 at the latest. Leveraging the existing Brampton Transit system will allow for benefits from economies of scale, fare integration and connectivity with a seamless transit service.

Beyond 2035 and following the completion of all Secondary Plans in the SABE area and the Highway 413 Environmental Assessment and Detailed Design, it is recommended that the Town revisit and undertake a transit strategy study to develop a service plan over a longer time horizon. In the meantime, it is also recommended that, as part of the secondary plan's approval process, the Town review and have developers submit and develop the transit plans, which will inform jurisdiction, implications, and connection to existing transit services, and also be reviewed by municipal partners. Transit planning can be informed by the needs and strategies at the secondary plan level, in which internal collector road networks, connections to external networks, and land use will be identified that will assess the efficiencies and merits of specific routing. Therefore, in addition to the proposed fixed-route transit corridors outlined in this MMTMP, the transit strategy study should take all transit plans from secondary plans as input for revisiting the transit plan at a larger scale to improve efficiency.

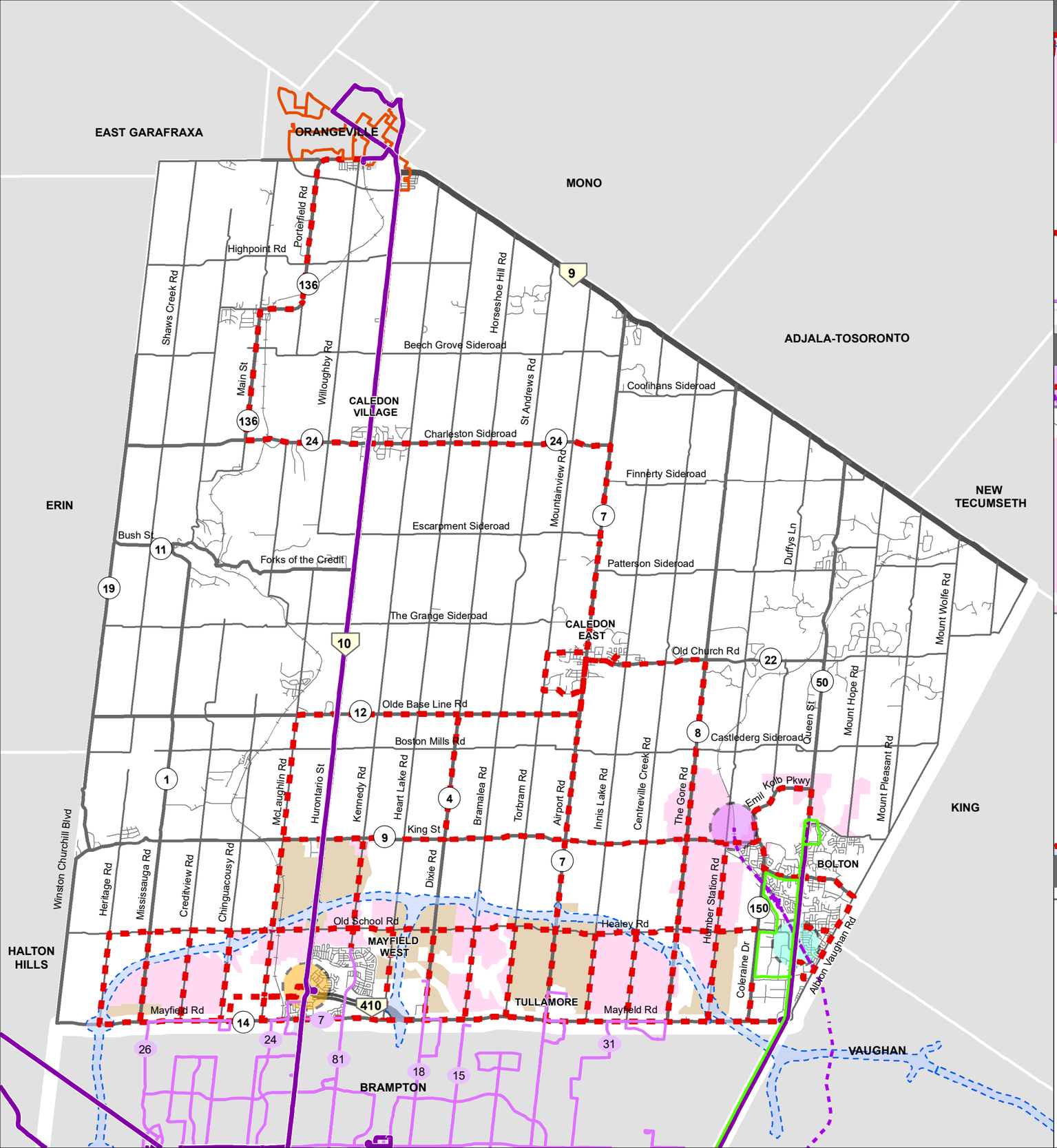
Proposed fixed-route transit corridors are illustrated in **Figure ES-3**. The fixed-route corridors serve as conceptual high-level recommendations for consideration in future studies to investigate further the feasibility of the proposed corridors, as well as internal connections to secondary plans.

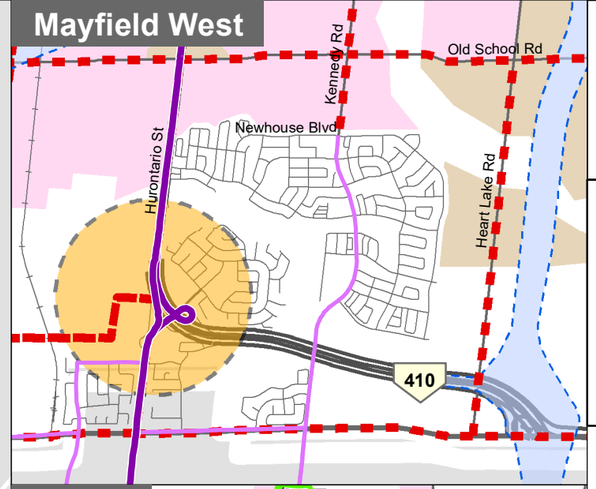
Town of Caledon

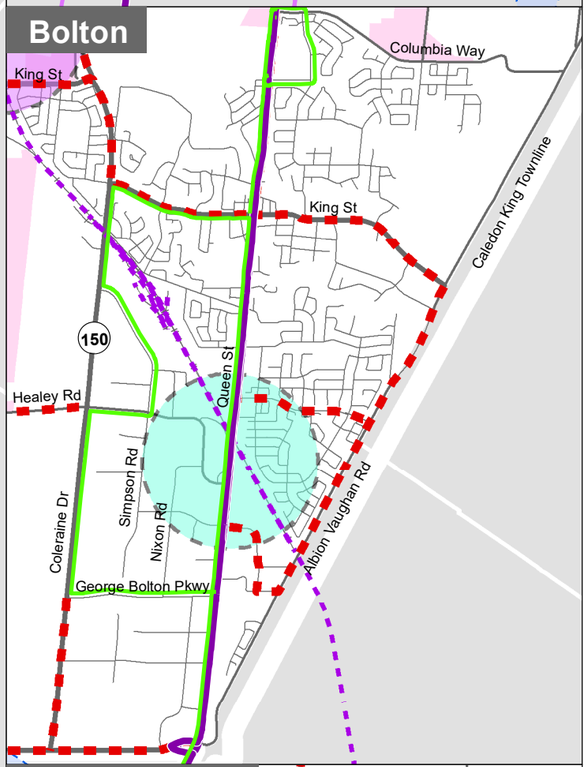
Transportation Master Plan

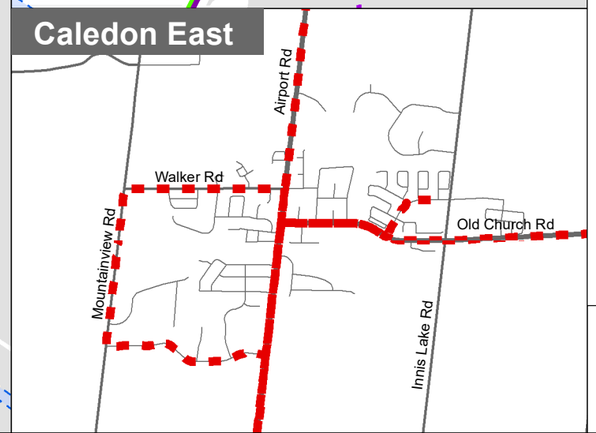
FIGURE ES-3

Proposed Transit Network









Existing

- Bolton Line
- GO Transit
- Brampton Transit
- Orangeville Transit

Future

- Proposed Corridors
- Bolton GO Rail
- Caledon GO Station
- Potential Second GO Station
- Mayfield Transit Hub
- GTA West Preferred Route

Future Land Uses

- Community
- Employment

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Table of Contents

1.0 Introduction 1
1.1 Study Purpose 1
1.2 Study Approach 1
1.2.1 Supporting Policies 1
1.2.2 Municipal Class Environmental Assessment 1

2.0 Stakeholder Engagement 4
2.1 Technical Agencies 4
2.2 Public 5
2.3 Indigenous Communities 6
2.4 Official Plan Review Consultation 6
2.5 Consultation Themes Summary 6

3.0 Study Context 8
3.1 Environmental Context 8
3.1.1 Natural Environment Context 8
3.1.2 Cultural Environment Context 11
3.1.3 Archaeological Resource Context 12
3.2 Urban Structure and Socio-Economic Context 13
3.2.1 Urban Structure 13
3.2.2 Population and Demographics 15
3.2.3 Employment 17
3.3 Existing Transportation System 24
3.3.1 Road Network 24
3.3.2 Active Transportation System 26
3.3.3 Transit Network 29
3.3.4 Rail Corridors 32
3.4 Existing Travel Characteristics 34
3.4.1 Travel Patterns 34
3.4.2 Trip Distribution 34
3.4.3 Mode Splits 37
3.4.4 Trip Purpose 38

4.0 Policy Framework and Master Plan Vision 39
4.1 Overview 39
4.2 Growth and Economic Objectives 40
4.2.1 Planned Growth 40
4.2.2 Settlement Area Boundary Expansion (SABE) 40
4.2.3 Provincially Significant Employment Zone (PSEZ) 44
4.2.4 Affordable Housing 45
4.2.5 Economic Strategies and Priorities 45
4.3 Climate Change Mitigation Objectives 46

4.3.1 Climate Change Emergency 46
4.3.2 Federal Climate Change Commitments 47
4.3.3 Zero Emissions Vehicle Infrastructure Program 47
4.4 Community Development Objectives 48
4.4.1 Future Caledon Official Plan 48
4.4.2 Policy for Nodes and Corridors 48
4.5 Future-Ready Objectives 49
4.6 Sustainable Mode Share Objectives 50
4.7 MMTMP Vision and Objectives 51
5.0 Road Needs and Opportunities 52
5.1 Role of the Road Network 52
5.1.1 Capacity for Commuter Accommodation 52
5.1.2 Capacity for Goods Movement 53
5.1.3 Accommodation of Alternative Modes of Travel 53
5.1.4 Community Circulation and Land Access Accommodation 53
5.2 Existing Road Capacity Needs and Opportunities 54
5.3 Future Road Capacity Needs and Opportunities 56
5.3.1 Population and Employment Growth 56
5.3.2 Future Road Capacity Needs 56
5.4 Good Movement Needs and Opportunities 58
5.4.1 Goods Movement Hub Trip Generators 58
5.4.2 Goods Movement Employment Area Destinations 59
5.4.3 Goods Movement Residential Area Destinations 59
5.4.4 Municipal Goods Movement Initiatives 60
5.4.5 Town of Caledon Goods Movement Policies 60
5.5 New Road Needs and Opportunities 63
5.5.1 Road Pattern Alternatives 63
5.5.2 Street Spacing and Intersection Density 65
5.5.3 East-West Major Route (Old School Road / Healey Road) 66
5.5.4 Street Hierarchy and Character 66
5.5.5 Major Corridors 67
5.5.6 Planning and Design Guideline Recommendations 67
6.0 Transit Needs and Opportunities 70
6.1 Role of Transit 70
6.1.1 Transit in Development of a Livable Community 70
6.1.2 Transit Addressing Mobility Needs 71
6.1.3 Transit in Support of Sustainability Objectives 72
6.2 Planned and Proposed Transit Improvements 73
6.2.1 Hurontario Priority Bus Corridor 73
6.2.2 Caledon GO Station and Rail Line to Bolton 74
6.2.3 Mayfield West Secondary Plan 75
6.2.4 Highway 413 Transit 75
6.2.5 Transit Feasibility Study 75

6.3 Transit Plan Development....76
6.3.1 Transit System Objectives....76
6.3.2 Proximity in High Density Areas....76
6.3.3 Connectivity to Key Origins and Destinations....76
6.4 Transit Service Models....78
6.4.1 Fixed Route Transit Categories....78
6.4.2 Fixed Route Service Levels....78
6.4.3 On-Demand Transit....81
6.5 Alternative Mobility and Transit Opportunities....81
6.6 Transit-Oriented Development....84
6.7 Summary of Transit Opportunities....84

7.0 Active Transportation....88
7.1 Role of Active Transportation Systems....88
7.2 Planned Active Transportation Infrastructure....88
7.2.1 Caledon 2017 Transportation Master Plan....88
7.2.2 Region of Peel Active Transportation Implementation Plan....91
7.3 Active Transportation Needs and Opportunities....93
7.3.1 Road User Needs....93
7.3.2 Continuity and Connectivity....94
7.3.3 Policies for Development and New Infrastructure....97
7.4 Recommended Active Transportation Network....98
7.5 Monitoring and Facility Selection....100

8.0 Alternative Solutions....101
8.1 Identification of Alternative Solutions....101
8.2 Evaluation Criteria....103
8.3 Evaluation Summary....104
8.4 Preferred Alternative Solution....107

9.0 Recommended Alternative....108
9.1 Road Network Plan....108
9.1.1 Capacity of Commuter and Alternate Mode Accommodation....108
9.1.2 Capacity for Network Efficiency....111
9.1.3 Community Circulation and Land Access Accommodation....111
9.2 Active Transportation Plan....112
9.3 Transit Network Plan....114
9.4 Road Classification....114
9.4.1 Road Classification Criteria....115
9.4.2 Road Right-of-Way Policies and Schedule....117

10.0 Climate Change Implications....120
10.1 What is Climate Change?....120
10.2 Climate Change and the EA Process....120
10.3 Town of Caledon Climate Change Needs....120
10.4 Resilient Caledon Action Plan....121
10.5 Climate Change and the MMTMP....122

11.0 Cost Estimates and Monitoring 124
11.1 Capital Costs 124
11.1.1 Road Projects 124
11.1.2 Active Transportation Projects 124
11.2 Implementation and Monitoring Plan 127
12.0 Bibliography 128

Tables

Table 1-1: Schedules of the Class EA Process 2
Table 2-1: Themes for Key Consultation Events 6
Table 3-1: Caledon 2019 Employers by Industry 17
Table 3-2: Provincial and Regional Road Network 24
Table 3-3: Summary of Road Alignment Issues 26
Table 3-4: Active Transportation Facility Inventory 26
Table 3-5: GO Transit Routes 29
Table 3-6: Brampton Transit Routes 29
Table 3-7: Orangeville Transit Routes 30
Table 3-8: Inbound and Outbound Trips (2016, All Modes) 34
Table 3-9: Internal Trip Distribution by Sub-Area (2016, AM Peak Period, All Modes) 37
Table 3-10: Mode Share for Caledon Trips (2016, AM Peak Period) 37
Table 3-11: Caledon Trips by Purpose (2016, AM Peak Period, All Modes) 38
Table 4-1: Population and Employment Growth Allocations ('000s) 40
Table 4-2: Caledon 2020-2030 Economic Development Strategy Priorities 45
Table 4-3: Caledon Mode Share Target Breakdown 50
Table 5-1: Proposed Town Road Improvements 57
Table 5-2: Approximate Volume of Goods by Intermodal Terminal 58
Table 5-3: Regional Goods Movement Strategic Plan Goals 60
Table 5-4: Town Truck Routes 63
Table 5-5: Possible Goals of the Network and Suggested Target Indicators 66
Table 6-1: Level-of-Service (LOS) Guidelines 79
Table 6-2: Transit User Experience Guidelines 80
Table 6-3: Hail Score Criteria 82
Table 6-4: Rideshare Base Fares Comparison 83
Table 6-5: Uber Total Price Range Comparison 83
Table 6-6: Proposed Fixed-Route Transit Corridors 85
Table 7-1: Pedestrian Improvement Corridors within Caledon 91
Table 7-2: Road User Categories 93
Table 8-1: Identification of Alternative Solutions 102
Table 8-2: Evaluation Criteria and Indicators 103
Table 8-3: Evaluation of different alternatives. 105
Table 9-1: Road Improvement Recommendations 108
Table 9-2: Additional Road Studies and Classifications 111
Table 9-3: Possible Goals of the Network and Target Indicators 112

Table 11-1: Road Project Capital Costs....125

Figures

Figure 1-1: Municipal Class Environmental Process.... 3
Figure 3-1: Natural Heritage Designations....10
Figure 3-2: Caledon Urban Areas, Villages and Hamlets....14
Figure 3-3: Labour Force by Industry (%) in 2016....16
Figure 3-4: Caledon Active and Inactive Aggregate Sites....19
Figure 3-5: Caledon Existing Land Use Designations....21
Figure 3-6: Agricultural Lands in Caledon....23
Figure 3-7: Existing Road Network....25
Figure 3-8: Existing Active Transportation Network....28
Figure 3-9: Existing Transit Network....31
Figure 3-10: Peel Region Rail Network....33
Figure 3-11: Trip Destinations by Sub-Area....36
Figure 4-1: Settlement Area Boundary Expansion....41
Figure 4-2: Caledon Population Growth 2021-2051....42
Figure 4-3: Caledon Employment Growth 2021-2051....43
Figure 4-4: Provincially Significant Employment Zone (PSEZ) in Caledon....44
Figure 5-1: Existing Traffic Volumes....55
Figure 5-2: Truck Restrictions on Regional Roads within Caledon....62
Figure 5-3: Comparison of Street Layouts....64
Figure 5-4: Network Spacing in Southern Caledon....65
Figure 5-5: Conceptual Collector Road Spacing....68
Figure 5-6: Conceptual Collector Road Layout....69
Figure 6-1: Frequent Rapid Transit Network....73
Figure 6-2: Proposed Caledon GO Station....74
Figure 6-3: Potential Second GO Station....74
Figure 6-4: Key Points of Interest....77
Figure 6-5: Transit Network Opportunities....87
Figure 7-1: Previous (2017) Active Transportation Recommendations....90
Figure 7-2: Pedestrian Improvement Areas....92
Figure 7-3: Scenic Route Recommendation....96
Figure 7-4: Proposed Active Transportation Network....99
Figure 9-1: Proposed Travel Lanes for Town Roads by 2051....110
Figure 9-2: Road Classifications....118
Figure 9-3: Road Right-of-Way Widths....119
Figure 10-1: Baseline GHG Emissions (2016)....121

Appendices

Appendix A: Policy Objectives and Background
Appendix B: Stakeholder Consultation and Emerging Technology Survey
Appendix C: Natural, Cultural and Archaeological Context

Appendix D: Travel Characteristics
Appendix E: Road Capacity and Connectivity Analysis
Appendix F: Complete Streets Framework
Appendix G: Speed Policy Review

1.0 Introduction

This chapter introduces the MMTMP including the purpose, study objectives, study approach, and consultation approach.

1.1 Study Purpose

The Town of Caledon initiated the Multi-Modal Transportation Master Plan (MMTMP) to assess future transportation needs in support of planned growth and to inform the Caledon Official Plan update. This study has been developed in parallel with the Town's new Future Caledon Official Plan (March 2024), which provides a plan and sets out policies for land development within the Town.

This document is an update to the 2017 Transportation Master Plan. It is the Town's plan to define and achieve transportation related goals to the year 2051 and meet the Town's strategic objectives.

1.2 Study Approach

1.2.1 Supporting Policies

The Town of Caledon's transportation system is integrated with adjacent municipalities, the Region of Peel, and the Province of Ontario. Due to this integration, the study approach must be aligned with key policies by the Province and the Region and consider the policies from other jurisdictions. Key provincial documents include the Provincial Policy Statement (PPS, 2020), Ministry of Transportation Ontario's (MTO's) Greater Golden Horseshoe Transportation Plan (2022), and A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020).

The Region and the Town provide policy guidance through the Region and Town Official Plans, the Region of Peel Long Range Transportation Plan, and the Town's previous Transportation Master Plan. A summary of key documents is provided in **Appendix A**.

1.2.2 Municipal Class Environmental Assessment

This study was carried out through an open public process as a Master Plan study under the EA Act to serve as direct input to any subsequent EA studies that may be deemed appropriate. Undertakings that fall under the MCEA are defined by schedules with escalating requirements dependent on the potential for environmental impacts and level of complexity. The four different schedules are Schedule A, A+, B, and C. These schedules are outlined in **Table 1-1**.

Table 1-1: Schedules of the Class EA Process

Schedule	Summary
A	Schedule A: Projects are limited in scale, have minimal adverse environmental effects and include many municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full Class EA planning process. Schedule A projects generally include normal or emergency operational and maintenance activities. Schedule A+: The purpose of schedule A+ is to ensure some type of public notification for certain projects that are pre-approved under the municipal class EA, it is appropriate to inform the public of municipal infrastructure project(s) being constructed or implemented in their area. There, however, would be no ability for the public to request a Part 2 Order. If the public has any comments, they should be directed to the municipal council where they would have more appropriately addressed.
B (<$2.4M)	The proponent is required to undertake a screening process, involving mandatory contact with directly affected public and with relevant government agencies to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the proponent may proceed to implementation. Schedule B projects generally include improvements and minor expansions to existing facilities. However, if the screening process raises a concern which cannot be resolved, a Part II Order may be invoked; alternatively, the proponent may elect voluntarily to plan the project as a Schedule C undertaking.
C (>$2.4M)	Such projects have the potential for significant environmental effects and must proceed under the full planning and documentation procedures specified in the Class EA document. Schedule C projects require that an Environmental Study Report (ESR) be prepared and filed for review by the public and review agencies. Schedule C projects generally include the construction of new facilities and major expansions to existing facilities.

The scope of the study will follow Section 2.7 (Master Plans) in the Municipal Class EA guidelines, following Master Plan Approach #1. This study satisfies Phases 1 and 2 of the five-phase Municipal Class EA process.

This Master Plan can be used as the basis for and in support of future investigations for specific Schedule B and C projects, where Schedule B projects would require the filing of a project file for public review and Schedule C projects would require fulfillment of Phases 3 and 4 prior to filing an Environmental Study Report for public review.

The Town will record consultation with any subsequent applications to the Ministry of Environment Conservation and Parks associated with any substantial changes to the MMTMP or any subsequent permits. Phase 1 defines the problem and/or opportunity, whereas, Phase 2 identifies alternative solutions to the problem, considers environmental implications, and consults with the public and affected agencies. The Municipal Class Environmental Process is illustrated in **Table 1-1.**

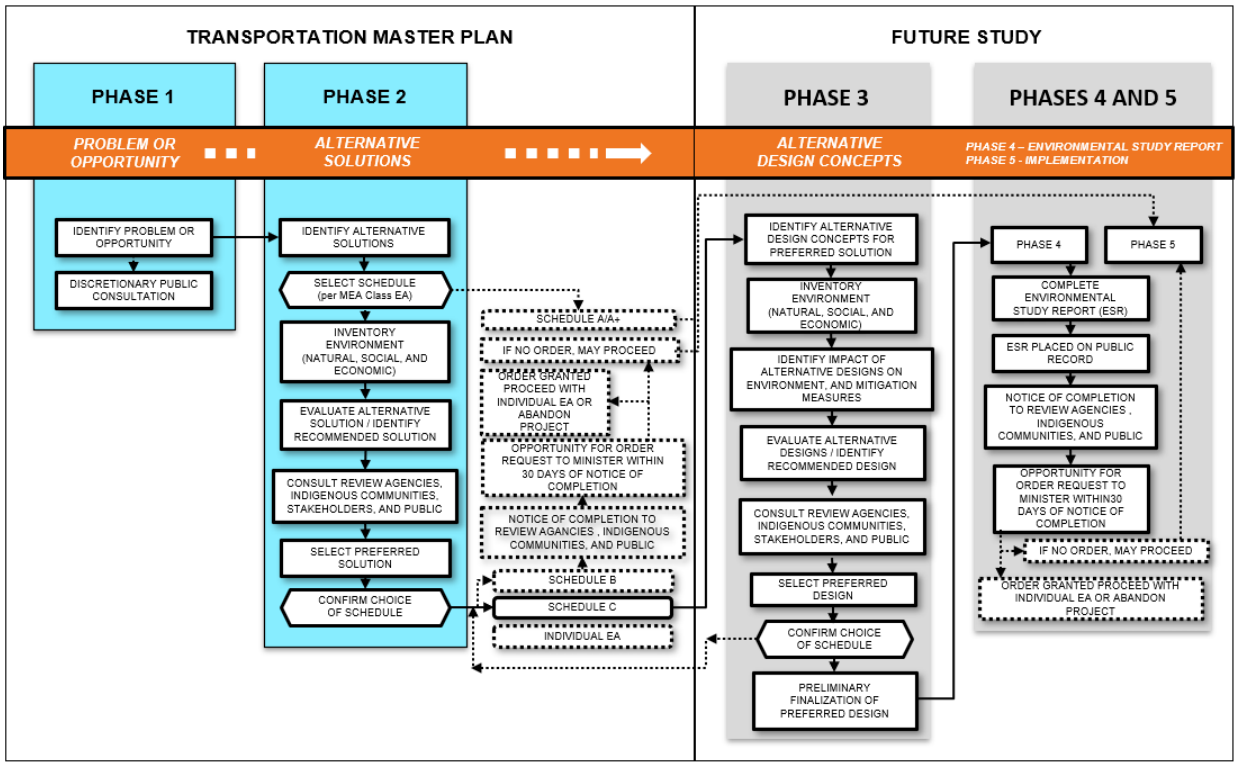


Figure 1-1: Municipal Class Environmental Process

Source: Municipal Class Environmental Assessment, Municipal Engineers Association, 2020

The MMTMP informed the Future Caledon Official Plan. It identifies transportation network plans, new infrastructure and policies affecting the transportation system, urban design and land use planning, and climate change mitigation implications. The Development Charges Act provides an opportunity for the Town to fund growth related transportation needs.

The Municipal EA process suggests that master plans should be reviewed every five years to determine the need for a comprehensive formal review and/or update. Potential changes which may trigger the need for a detailed review include:

- Major changes in the original assumptions.
- Major changes to components of the master plan.
- Significant new environmental effects.
- Major changes in proposed timing of projects within the master plan.
- Major planned or anticipated land use changes.

2.0 Stakeholder Engagement

A comprehensive consultation process was undertaken to gather community and stakeholder input within the master plan process. The following section documents the public and stakeholder consultation process. From the outset of the study, a communication plan was prepared to guide the consultation process with the following objectives:

- To ensure that town residents, the business community and other stakeholders are made aware of the importance of the transportation master plan initiative and kept informed and up to date about study components, progress and opportunities for input.
- To create meaningful and strategically appropriate opportunities for public and stakeholder engagement over the course of the study.
- To foster an environment that is conducive to substantive dialogue, a respectful, informed and productive discussion of transportation-related issues and the town's future.
- To inspire confidence in the TMP development process and in the town's implementation and management of it.
- To present a well-integrated and seamless project progression that ensures consistency of word and action, demonstrates positive momentum and minimizes contentious issues.
- To establish and reinforce realistic expectations regarding feasible transportation-related choices and the way stakeholder input will be considered/acted upon.

A variety of tools were used to inform the community, including direct mail, a webpage hosted on the town's website, dedicated project email addresses and phone numbers, social media (Facebook, Twitter), newspaper advertisements and town press releases. Notification to the public included a Notice of Commencement, two Public Open House notices, and presentations posted to the Town website.

The TMP study was initiated On March 4, 2021 through a Notice of Commencement published on the Town's website. The Town's website, https://haveyoursaycaledon.ca/mmtmp, also provided information about upcoming public events, council presentations, and contact information for the Town and Consultant project managers so that the public could reach the study team to provide input and comment.

2.1 Technical Agencies

Relevant technical agencies were invited to participate in the Technical Agencies Committee (TAC). The TAC consisted of town staff, staff from the Region of Peel and adjacent local municipalities, provincial ministries, transit authorities, conservation authorities, and other affected agencies. Two TAC Meetings were held on the dates below. The TAC meetings were held in a virtual format on Microsoft Teams due to considerations of provincial public measures and participant's health and safety during the COVID-19 pandemic.

- The first TAC meeting was held on January 13, 2021 and provided an overview of the Caledon MMTMP study purpose, scope, and preliminary transportation needs and opportunities. Participants were given the opportunity to indicate their interests in the project and identify additional needs and opportunities from their respective agencies.
- The second TAC meeting was held on April 12, 2022 and provided an overview of the preliminary draft recommendations and supporting strategies and policies.

A presentation was provided at each TAC meeting and was followed by a discussion period where attendees could ask questions and receive further information.

2.2 Public

Two public information centres (PICs), as required by the master plan process, were held to inform the public of the study activities and provide opportunities for the public to ask questions and obtain further information from the study team. Both PICs were held in a virtual format on Webex and Microsoft Teams, respectively, due to considerations of provincial public measures and participants' health and safety during the COVID-19 pandemic.

The first PIC was held on March 24, 2021 from 4:00 to 6:00 PM. The public information centre was the first point of contact with the general public to provide an overview of existing and planned conditions and preliminary list of transportation needs and opportunities. The public was made aware that their input on issues, concerns and opportunities would assist in the identification of projects and strategies within the alternative solutions. An overview of the alternative solutions was also provided. A formal presentation was delivered, followed by a facilitated question and answer period. The presentation was hosted on the Town of Caledon website after the meeting for the public to review and comment.

The second PIC was held on May 12, 2022 from 6:00 to 7:30 PM. Following up from the first public open house, a formal presentation was provided an overview of the preliminary preferred alternative, which included active transportation, transit and road components. Supporting strategies and policies were also presented to the public. A facilitated question and answer period immediately followed the presentation. After the meeting was adjourned, members of the public were invited to review the presentation on the Town's website for comment.

The third PIC was held on September 19, 2023 from 6:00 to 7:30 PM. This was an in-person PIC that outlined the preferred transportation solution on boards. Attendees were able to review and provide verbal feedback, which was documented by the Project Team, as well as provide their input via comment sheets.

Presentation slides or boards and comment/response summary from the PICs are included in **Appendix B**.

2.3 Indigenous Communities

Letters and notices were sent by email to Indigenous communities. MECP has developed guidance on the steps to rights-based consultation with Indigenous communities. Indigenous communities with a potential interest in the project were identified through correspondence provided to the following communities:

- Haudenosaunee Confederacy,
- Huron-Wendat Nation,
- Mississaugas of the Credit First Nation,
- Métis Nation of Ontario, and
- Six Nations of the Grand River.

A summary of communication with identified Indigenous communities was maintained by Burnside on the Project Contact List.

2.4 Official Plan Review Consultation

As part of the consultation process for the Official Plan update, the MMTMP project team presented at two Town Council meetings. At these meetings, Town Councillors were able to provide input on the new Official Plan and supporting studies, including the MMTMP helping to coordinate transportation and land use policy.

The first meeting was held as a Council workshop on October 4, 2021 starting at 10:00 AM. The MMTMP presentation outlined a summary of the study's vision, transportation needs and opportunities and preliminary plans for the road network, active transportation and transit network.

The second meeting was held during the Town's Planning and Development Committee Meeting on March 22, 2022 from 7:00 PM to 10:00 PM. The MMTMP project team presented the draft recommendations for the road network, active transportation network, and transit network. The major focus of this meeting was the transportation policies that was inputted into the new Official Plan through the MMTMP. Town Councillors were able to provide input and voice their concerns on these recommendations.

2.5 Consultation Themes Summary

Themes from consultation events with the public, TAC, and Council are provided in **Table 2-1**.

Table 2-1: Themes for Key Consultation Events

Event	Date	Theme
Technical Agency Committee #1	January 13, 2021	• Seek Town and agency input on transportation-related needs and alternative solutions

Event	Date	Theme
		• Agencies and Town staff provided opportunities to synergize with their on-going studies
Public Information Centre #1	March 24, 2021	• Seek public and stakeholder input on transportation needs and alternative solutions
Official Plan Review Workshop	October 4, 2021	• Seek Council input on the draft transportation recommendations regarding transit corridors, active transportation corridors, and road improvements
Official Plan Review Workshop	March 22, 2022	• Seek Council input on the ultimate 2051 road, active transportation, and transit networks and related transportation policies that was provided as input to the Official Plan Review
Technical Agency Committee #2	April 12, 2022	• Seek agency input on the evaluation scoring and criteria and preferred transportation solution
Public Information Centre #2	May 12, 2022	• Seek public and stakeholder input on the evaluation scoring and criteria and preferred transportation solution
Public Information Centre #3	September 19, 2023	• Seek public and stakeholder input on Official Plan updates and the preferred transportation solution

Some of the transportation-related comments raised at stakeholder meetings are summarized below. Detailed documentation on consultation is provided in **Appendix B**.

- Consideration of low carbon emission targets
- Emphasis on a shift to more sustainable modes and away from the single-occupant automobile to accommodate the significant magnitude of growth in the Town
- Awareness of environmentally-sensitive areas and constraints
- Noted increase in active transportation use during the pandemic and the need to accommodate this growth
- Consideration and alignment with stakeholder scheduling and timelines (such as Peel's Regional Official Plan Amendment)
- Consideration for alternative routes to minimize impacts on local settlement areas
- Opportunities for transit-supportive communities where people can live and work in the same area
- Concerns expressed regarding the future capacity of Highway 10 (Hurontario Street)
- Concerns on truck routes / goods movement and the use of aggregate vehicles along Town roads

3.0 Study Context

This chapter provides a summary of the environmental context including the natural environment, archaeological and cultural environment, and socio-economic environment. The following sections also outline the existing transportation system, travel characteristics and patterns.

3.1 Environmental Context

3.1.1 Natural Environment Context

The Town of Caledon is abundant in natural heritage. Natural environment resources are important elements of Caledon that provide habitat, recreation and economic viability. They include forests, wildlife, geological formations, farms, mineral and water resources. The majority of the Town's natural resources are located within the Oak Ridges Moraine, Niagara Escarpment, and Protected Countryside, as illustrated in **Figure 3-1** and documented in **Appendix C**.

Efforts have been made to conserve and protect environmental features and properties. The Town of Caledon is subject to a variety of land use plans and policies that shape how transportation systems are to be developed within, and around, natural features. The Provincial Policy Statement, Niagara Escarpment Plan, Greenbelt Plan, Oak Ridges Moraine Conservation Plan, Lake Simcoe Protection Plan, Growth Plan, Town and Regional Official Plans all include policies to protect significant natural features, including the following:

- Significant Wetlands;
- Significant Woodlands;
- Significant ANSIs;
- Significant Wildlife Habitat;
- Significant Valleylands;
- Habitat of Endangered and Threatened Species; and
- Fish Habitat.

With respect to lands within the Niagara Escarpment Plan, the following additional natural features are protected:

- All wetlands;
- All Life Science and Earth Science ANSIs; and
- Habitat of special concern species in Escarpment Natural and Escarpment Protection Areas.

With respect to lands within the Greenbelt Plan and ORMCP, the following additional natural features are protected:

- All wetlands;

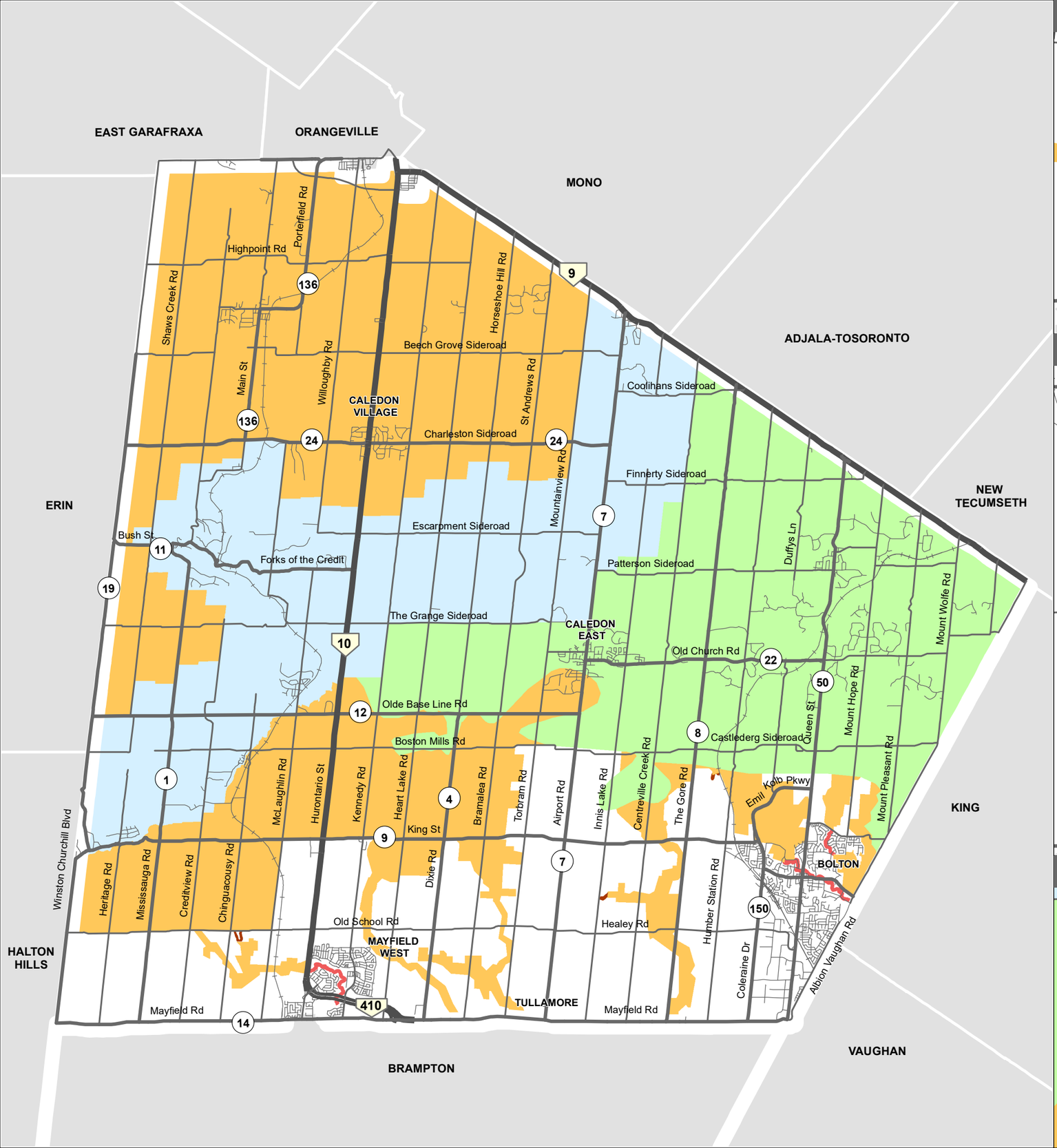
- All Life Science ANSIs;
- Habitat of special concern species;
- Sand barrens, savannahs and tallgrass prairies; and
- Alvars (Greenbelt Plan only);
- Permanent and intermittent streams,
- Kettle lakes (ORMCP),
- Lakes and their littoral zones (Greenbelt) seepage areas and springs; and
- Minimum vegetation protection zones.

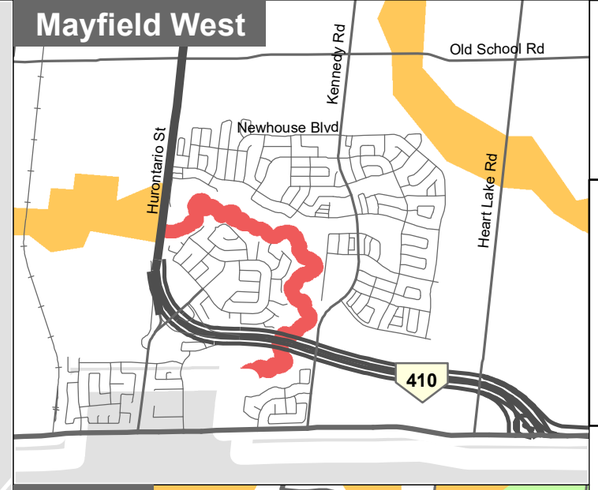
Town of Caledon

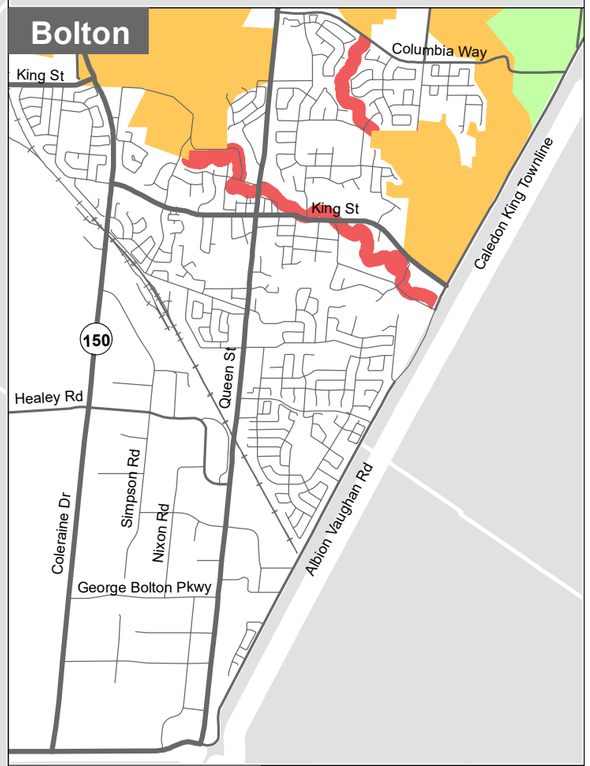
Transportation Master Plan

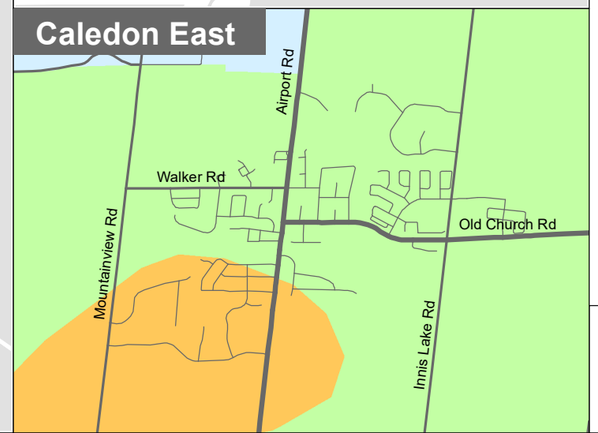
FIGURE 3-1

Natural Heritage Designations









- Niagara Escarpment Plan
- Oak Ridges Moraine Conservation Plan
- Protected Countryside
- Urban River Valley

Growth Plan for the Greater Golden Horseshoe

- Natural Heritage System

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Conservation Authorities active in ensuring the conservation, restoration and responsible management of Ontario's water, land and natural habitats within Caledon include: Toronto Region Conservation Authority (TRCA) and Credit Valley Conservation Authority (CVC), Nottawasaga Valley Conservations Area (NVCA) and Lake Simcoe Region Conservation Area (LSRCA).

Protected properties are properties in public ownership that are protected for the purposes of conservation and nature-based recreation. In Caledon, these include:

Provincial Parks:

- Forks of the Credit Provincial Park

Conservation Areas owned by Credit Valley Conservation (CVC):

- The Cheltenham Badlands
- Belfountain Conservation Area
- Ken Whillans Resource Management Area
- Upper Credit Conservation Area
- Elora Cataract Trailway
- Charles Sauriol Conservation Area

Conservation Areas owned by Toronto and Region Conservation Authority (TRCA):

- Glen Haffy Conservation Park
- Albion Hills Conservation Park
- Bolton Resource Management Tract
- Palgrave Forest and Wildlife Area

3.1.2 Cultural Environment Context

Caledon's history is rich with Heritage buildings and landscapes. They provide powerful, tangible connections in which people today come in touch with the past. A detailed assessment of the archaeological and cultural environment is documented in **Appendix C** and outlined briefly below.

Heritage buildings and landscapes are often recreational destinations with the potential for tourism economic benefits. In Caledon, there are:

- 131 designated properties (Part IV, OHA)
- 968 listed properties (Section 27, OHA)
- 1 Heritage Conservation District, with 168 designated properties (Part V, OHA)
- 14 Cultural Heritage Landscapes (Town of Caledon CHL Inventory)

A Heritage Conservation District designation includes buildings, streets, landscapes and views within a specific area. The Town of Caledon has one Heritage Conservation District (HCD) in the Village of Bolton. The Village of Bolton Heritage Conservation District is Caledon's first Heritage Conservation District. Settled in 1821, Bolton is an historic 19th century mill village in

the Humber River valley. The street layout has maintained its original integrity and hosts a wide variety of commercial buildings and residences from the mid- to late-Victorian era. The District encompasses the core of the historic village and contains approximately 108 ‘contributing’ properties.

The Town is currently working on a second Heritage Conservation District in Alton.

3.1.3 Archaeological Resource Context

Archaeological resources are scarce, fragile, and non-renewable and therefore must be managed in a prudent manner if they are to be conserved. Effectiveness in incorporating archaeological resources within the overall planning and development process requires a clear understanding of their physical nature, the variety of forms they may assume, and their overall significance and value to society.

Archaeological potential is defined in the Provincial Policy Statement (2020) as:

…areas with the likelihood to contain archaeological resources.

Criteria to identify archaeological potential are established by the Province…

The Town of Caledon has created a detailed archaeological potential model for the Town within the context of developing an archaeological management plan (Town of Caledon Draft Archaeological Management Plan, March 2021). The model has been developed on a Geographic Information Systems platform to best manipulate and analyze site location attribute data. The result is a simple to use digital map of archaeological potential, which can be used by municipal staff and development proponents to determine the need for archaeological assessment in advance of land disturbing activities.

3.2 Urban Structure and Socio-Economic Context

3.2.1 Urban Structure

The Town of Caledon is the northernmost of three municipalities within Peel Region, which is a fast-growing region of Ontario with a 2021 population of approximately 1.45 million people. Caledon itself comprises approximately 55% of the total land area in Peel Region and consists of a series of urban areas and rural communities (including villages and hamlets), as summarized below, and illustrated in **Figure 3-2**.

Urban Areas

- Caledon East
- Mayfield West
- Bolton

Villages

- Alton
- Caledon Village
- Mono Mills
- Belfountain
- Cheltenham
- Palgrave

Hamlets

- Melville
- Cataract
- Terra Cotta
- Claude
- Victoria
- Campbell's Cross
- Mono Road
- Albion
- Wildfield

The Town of Caledon is primarily rural agricultural to the north, and transitions to an urban form along the southern boundary with Brampton, as well as within the Urban Areas of Mayfield West, Caledon East, and Bolton. This is illustrated in **Figure 3-5**. The Village of Palgrave is adjacent to the Palgrave Estate Residential Community, which consists of rural estate residential development across a large portion of land in the northeast part of the Town.

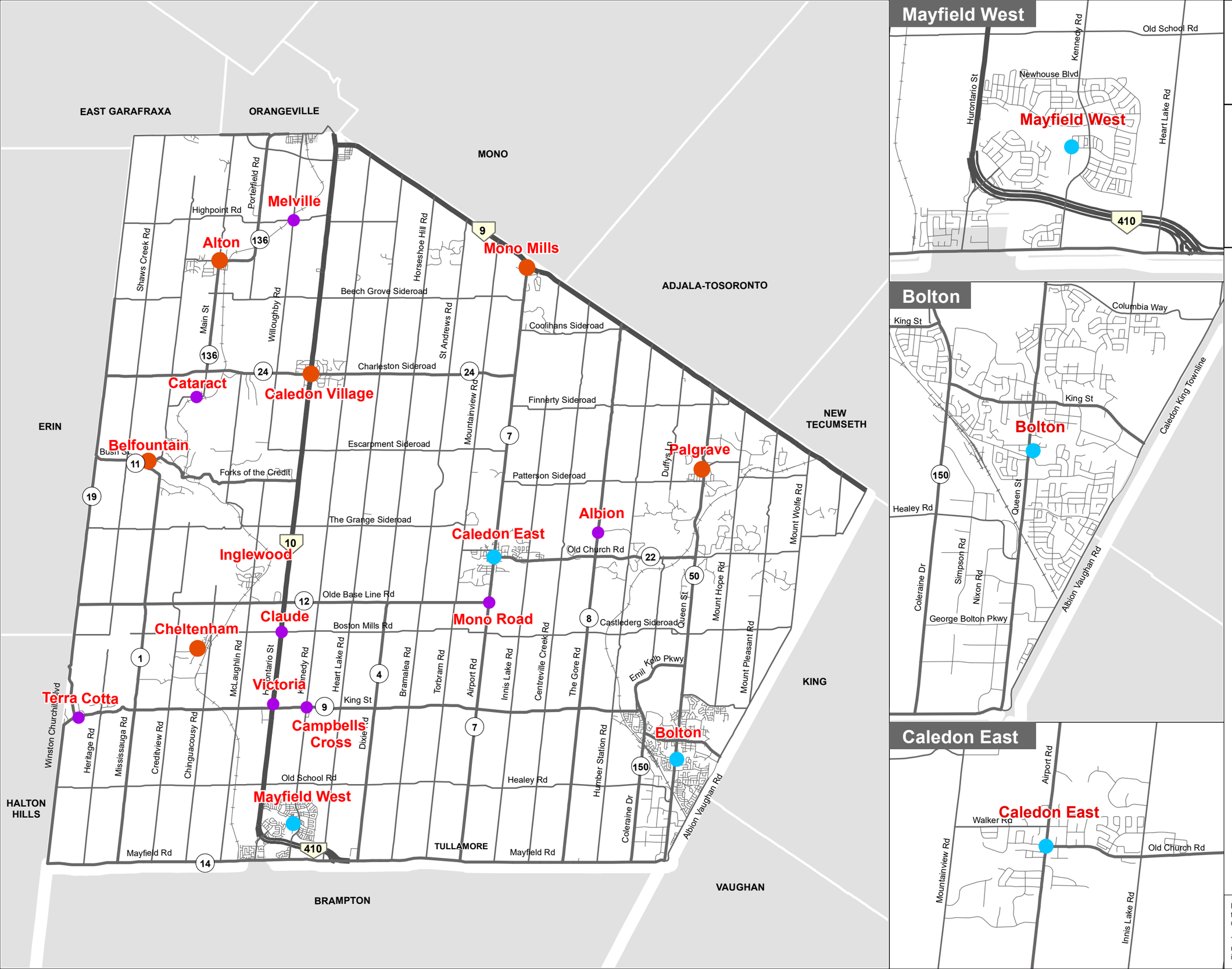
The Town's urban structure is largely shaped by several significant geographical and environmental features. The Oak Ridges Moraine (ORM) runs through much of the northeast part of the Town and provides for important groundwater recharge for the Greater Toronto Area. The Niagara Escarpment runs across the Town from the southwest border with Halton Region to the northeast border with Simcoe County. Additionally, much of the remaining land area within the Town of Caledon is located within the Greenbelt Plan Area, which was introduced in 2005 to protect the natural environment and agricultural areas. The Greenbelt Plan identifies large portions of land within the Town of Caledon where urbanization should not occur.

Town of Caledon

Transportation Master Plan

FIGURE 3-2

Caledon Urban Areas, Villages and Hamlets



- Urban Area
- Village
- Hamlet

0 0.35 0.7 1.4 2.1 2.8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

The socio-economic characteristics and needs of the municipality impact the transportation demand. These characteristics include population demographics, labour force, types of employment lands, tourist destinations and other transportation attractors, all of which influences the type and number of trips. The socio-economic context is described in greater detail below and was summarized primarily based on information contained in the Caledon 2020-2030 Economic Development Strategy. The latest (2021) statistic data was reported, where available.

3.2.2 Population and Demographics

The Town of Caledon recorded a population of 66,502 in 2016, according to Statistics Canada. The Town's population grew to 76,581 people by 2021, which accounts for approximately 5% of Peel Region's total population, despite having a land area of 688 km^2 (representing more than half of Peel's land area). From 2016 to 2021, the Town's population experienced a 15% increase in growth. This growth is a result of the rural nature of the Town, provincial growth plans, and linear population growth across the Greater Toronto Hamilton Area (GTHA).

3.2.2.1 Demographics

The median age of Caledon residents remained the same between 2016 to 2021 at 41 years old. During the 2011 to 2016 period, there was also a marginal increase in population for the 25-34 age group and a decline in population for the 35-44 age group. A declining core workforce (i.e., 35-44 age group) trend is important to monitor, as it may indicate a future skills shortage.

The majority of the population exists in the Urban Areas. Bolton is the largest Urban Area within the Town of Caledon, and had a 2016 population of approximately 28,000 people, which is approximately 40% of the Town of Caledon's population. Mayfield West had a 2016 population of approximately 18,000 people. Caledon East had a 2016 population of approximately 6,000 people.

Caledon's existing housing stock is predominantly single-detached dwellings, resulting in a proportion of low-density housing units that is higher than Peel Region and the Province.

3.2.2.2 Income

The median household income in Caledon in 2015 was $113,651, which is much higher compared to the $74,287 median income in the Province and $86,233 median income in Peel Region. The median household income grew by 15%, an increase of $15,149 from 2010 to 2015. This compares to the median income growth of $7,929 in the Province overall. A high proportion (58%) of households in Caledon are deemed high-income earners ($100,000 and over), which raises the income profile of the community.

3.2.2.3 Labour Force

Caledon has a labour participation rate of 72.1%, which is 7.4% higher than the Province, and an employment rate of 5.5%, compared to the Province at 7.4%. The higher labour participation and lower employment rate indicate a healthy labour market. However, it may also indicate a labour market with more limited job opportunities and/or people employed in any job or working more than one job.

Caledon's top four labour force industries are construction, manufacturing, retail trade, and education services. Relative to the Region and the Province, Caledon has a larger proportion of the workforce in the construction industry. A comparison of the labour force broken by industry is shown in **Figure 3-3**.

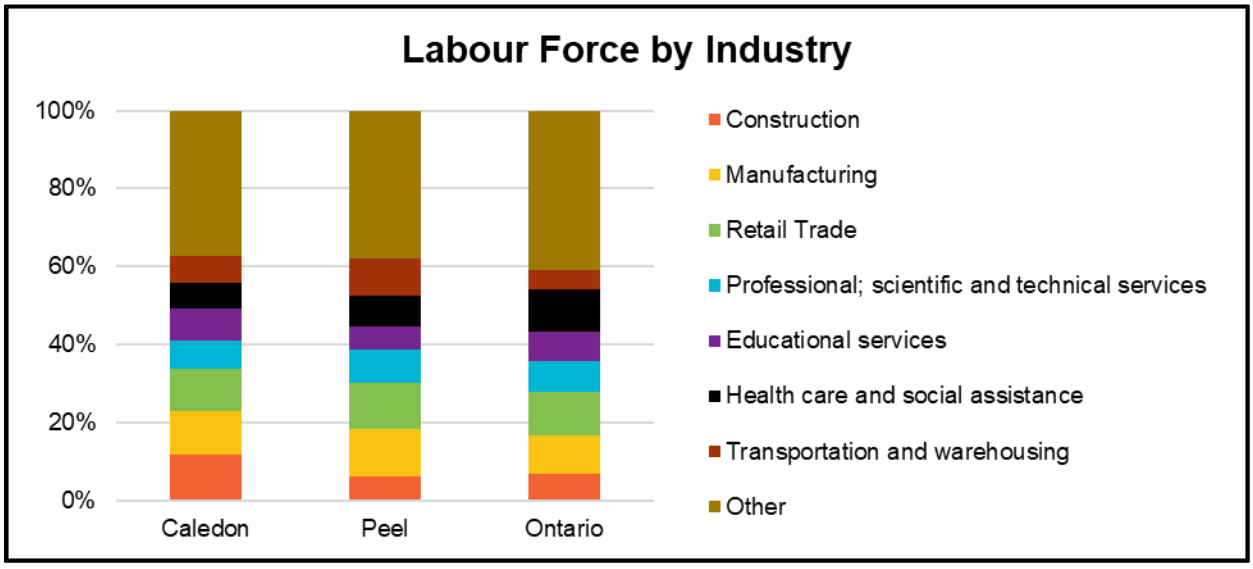


Figure 3-3: Labour Force by Industry (%) in 2016

Source: Statistics Canada, 2016 Census of Population, Caledon *2020-2030 Economic Development Strategy*.
Note: "Other" includes Agriculture/forestry/fishing and hunting, mining, utilities, wholesale trade, information and cultural industries, finance and insurance, real estate, management of companies/enterprises, administrative and support, arts/entertainment, accommodation and food services, public administration and others.

Between 2011 and 2016, the labour force in Caledon grew by 15% (4,890 people), whereas the Region and the Province experienced a 6% and 4% growth, respectively. The industries that experienced the largest growth in net employment within Caledon are as follows:

- Construction – net growth of 1,450 people
- Retail trade – net growth of 810 people
- Accommodation and food services – net growth of 535 people

There are approximately 6,615 Caledon residents that work within the Town, most of which work in industries such as retail trade, manufacturing, and accommodation and food service sectors. There are approximately 22,110 Caledon residents that work outside of the Town and 13,110 non-residents that travel to Caledon for work. As such, Caledon is identified as a net

exporter of workers (i.e., there are more residents that leave Caledon to work than non-residents that travel to Caledon for work).

Of the residents leaving the Town for work, most work in the manufacturing, retail trade and educational service industry, among others. The manufacturing, transportation and warehousing, and construction industry are the top three sectors identified to attract the greatest number of non-residents to work in Caledon.

3.2.3 Employment

3.2.3.1 Current Employment Profile

Employment within Caledon consists of approximately 10,361 businesses, 3,237 of which are employers. The number of business employers within Caledon by industry is summarized in **Table 3-1**. The top four employer industries in Caledon are construction, transportation and warehousing, professional (scientific and technical services) and retail trade. Considering construction and retail trade also make up two out of the four top industries of Caledon's labour force (i.e., 12% in construction and 11% in retail trade), there is a potential for a high degree of self-containment (i.e. Caledon to Caledon) for home-to-work trips.

Table 3-1: Caledon 2019 Employers by Industry

Industry	Business Employers	% of Total
Construction	599	19%
Manufacturing	178	5%
Retail Trade	216	7%
Educational services	22	1%
Professional; scientific and technical services	295	9%
Transportation and warehousing	600	19%
Health care and social assistance	148	5%
Wholesale trade	151	5%
Accommodation and food services	106	3%
Public administration	1	0%
Administrative and support; waste management and remediation services	164	5%
Finance and insurance	81	3%
Other	676	21%
Total	**3,237**	**100%**

Source: Canadian Business Counts (June 2019), Caledon *2020-2030 Economic Development Strategy*.

3.2.3.2 Aggregate Lands

With the construction industry encompassing a large portion of both the labour force and business employers of Caledon, aggregate lands (quarries and pits) serve an important role in supporting this sector. Aggregates are used for the construction of roads, subway tunnels,

homes and other structures; solid bedrock (e.g., limestone, granite, etc.) is extracted from quarries and loose material (e.g., sand, gravel, etc.) is extracted from pits.

The locations of licensed and permitted pits and quarries under the Aggregate Resources Act of Ontario, as regulated by the Ministry of Natural Resources (MNR), are shown in **Figure 3-4**. These sites are up-to-date as of August 2021.

Town of Caledon

Transportation Master Plan

FIGURE 3-4

Caledon Active and Inactive Aggregate Sites



Active Aggregate Site

Inactive Aggregate Site

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

3.2.3.3 Industrial Lands

A significant portion of the existing, developed land within Caledon is designated as industrial, as shown in **Figure 3-5**. Employers in the manufacturing as well as transportation and logistics industry operate facilities on these lands.

In 2018, there were 175 manufacturing businesses within Caledon, which provided 5,275 jobs. Approximately 11% of Caledon's labour force worked in the manufacturing industry in 2016. Some of the top companies in this industry include Husky Injection Molding Systems, Mars Canada Inc., Multi Vans and Sardo Foods. The manufacturing sector in Caledon is projected to experience a growth of over 10% by 2024, resulting in 5,810 jobs.

Peel Region is home to Toronto Pearson International, Canada's largest commercial airport, along with railway networks (Canadian Pacific Railway and Canadian National Railway) travelling across the Region to provide connections across Canada and the U.S. As a result, Caledon's transportation and logistics industry is positioned to play an important role in Ontario's logistics network, with 698 transportation and logistics businesses residing in Caledon and providing 4,148 jobs in total. Top companies in this sector include Amazon, UPS, Canadian Tire distribution centre and The Harman Group (HGC).

In 2018, building permits were issued for major industrial projects including the Bolton-based Amazon Distribution Centre (which opened in 2019) and Prologis as per Caledon's 2020-2030 *Economic Development Strategy.*

Industrial lands, along with the manufacturing and transportation and logistics industry currently and will continue to play a key role in Caledon's economy.

3.2.3.4 Tourism

The tourism industry in Caledon is a growing sector that has a significant impact on the local economy. It is estimated that the Town's tourism sector has a $15 million impact on the Region's overall Gross Domestic Product (GDP). Caledon's tourism industry attracted approximately 568,000 visitors in 2019, with top destinations (and employers) being golf clubs, conservation areas, and agri-tourism. The Town's tourism sector consists primarily of the following markets:

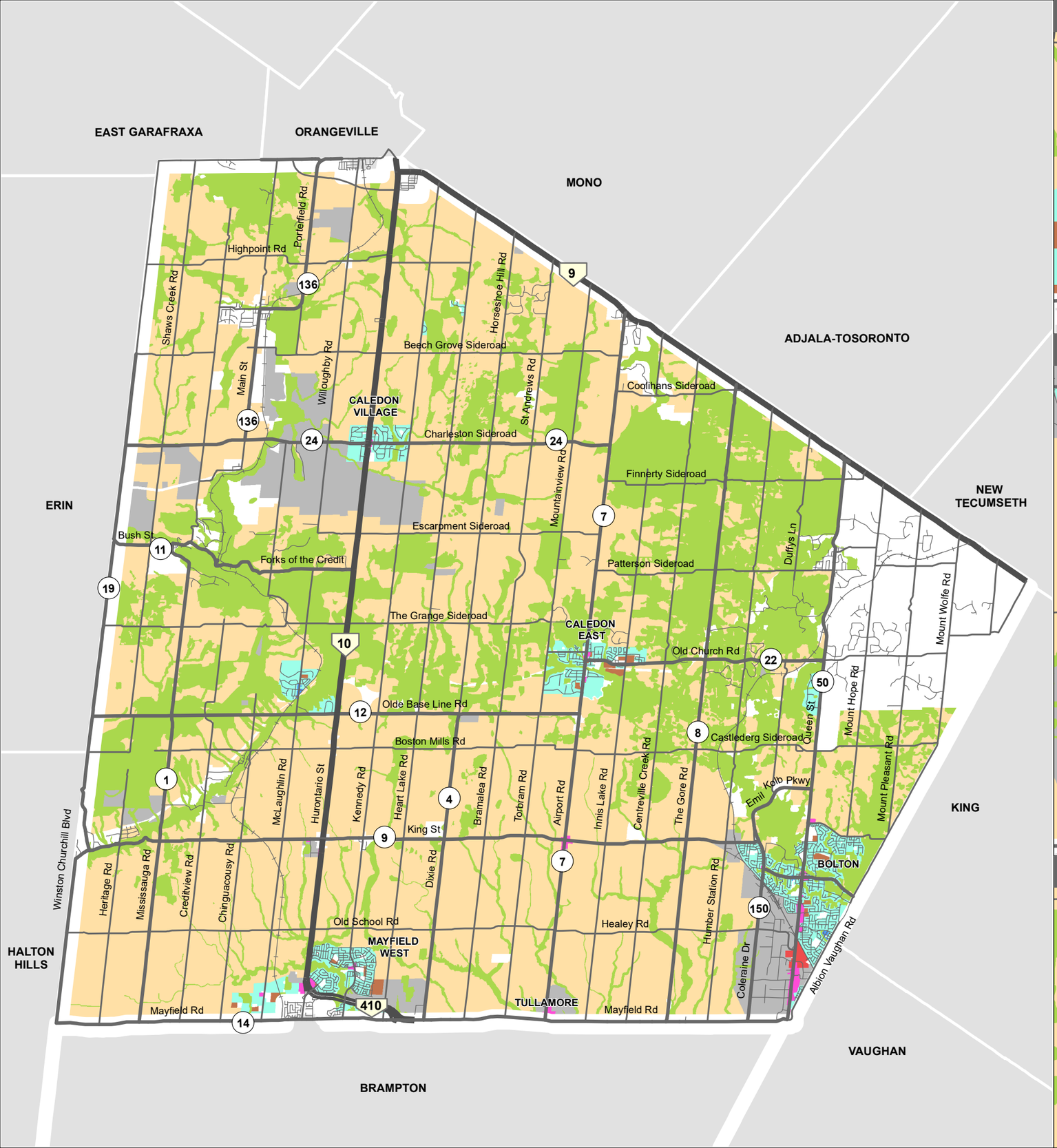
- **Culinary and Agri-Tourism** (e.g., Spirit Tree Estate Cidery, Downey's Farm Market, Albion Orchards & Country Market, Bolton Farmer's Market, Heatherlea Farm Shoppe, and craft breweries)
- **Arts, Culture and Heritage** (e.g., Alton Mills Arts Centre, Brampton Flight Centre, and Headwaters Arts Festival)
- **Bicycle Touring** (e.g., Caledon Trailway)
- **Soft Adventure** (e.g., Albion Hills Conservation Area)
- **Equine Tourism** (e.g., Caledon Equestrian Park)
- **Health and Wellness** (e.g., Millcroft Inn and Spa)

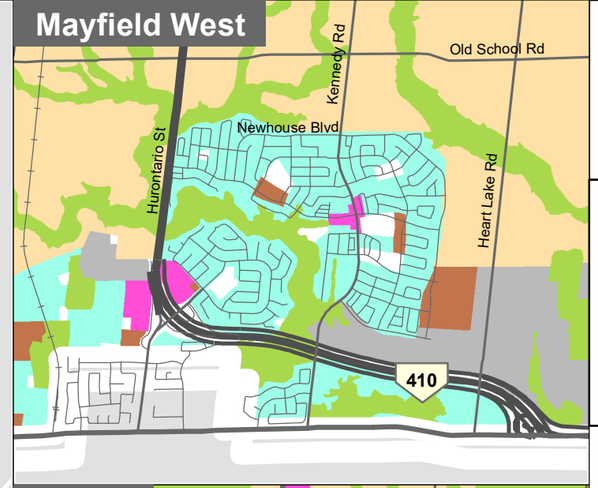
Town of Caledon

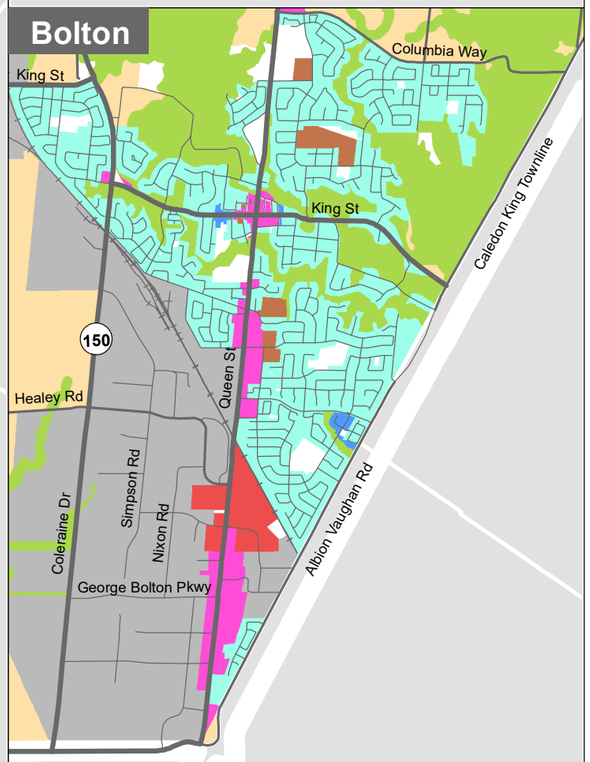
Transportation Master Plan

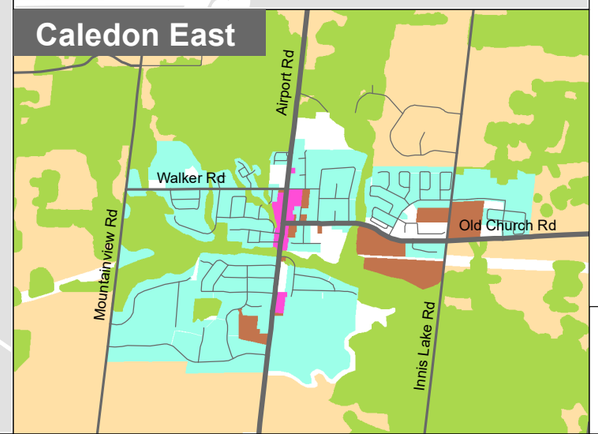
FIGURE 3-5

Existing Land Use Designations









- Agricultural / Rural
- Commercial
- Environmental Policy Area
- Industrial
- Institutional
- Mixed use
- Precinct A-H
- Residential

Note: There are gaps in this data. Refer to the latest Town Official Plan for detailed land use designations.

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

3.2.3.5 Agricultural Lands

The agricultural and food sector plays an integral role in Caledon's economy, as the Town has one of the largest primary goods producing sectors, with 345 farms and 46% of its land contributing to this industry. Over 565 people in Caledon are directly employed in agriculture. Land uses designated as Prime Agricultural Areas as per the Future Caledon Official Plan are shown in **Figure 3-6**. Per the Official Plan, Prime Agricultural Areas should be protected from fragmentation, development, and non-agricultural land uses, including site alteration and fill activities that are not consistent with normal farming practices, and which distort the natural landform character of the agricultural area.

Town of Caledon

Transportation Master Plan

FIGURE 3-6

Agricultural Lands
in Caledon

Prime Agricultural Area

EAST GARAFRAXA
ORANGEVILLE
MONO
ADJALA-TOSORONTO
NEW TECUMSETH
KING
ERIN
HALTON HILLS
BRAMPTON
VAUGHAN
CALEDON VILLAGE
CALEDON EAST
BOLTON
MAYFIELD WEST
TULLAMORE

Highpoint Rd
Porterfield Rd
Shaws Creek Rd
Horseshoe Hill Rd
Beech Grove Sideroad
Main St
Willoughby Rd
St Andrews Rd
Coolihans Sideroad
Charleston Sideroad
Mountainview Rd
Finnerty Sideroad
Escarpment Sideroad
Bush St
Forks of the Credit
Duffys Ln
Patterson Sideroad
Mount Wolfe Rd
The Grange Sideroad
Old Church Rd
Olde Base Line Rd
Boston Mills Rd
Castlederg Sideroad
Queen St
Mount Hope Rd
Mount Pleasant Rd
Emil Kolb Pkwy
King St
Winston Churchill Blvd
Heritage Rd
Mississauga Rd
Creditview Rd
Chinguacousy Rd
McLaughlin Rd
Hurontario St
Kennedy Rd
Heart Lake Rd
Bramalea Rd
Torbram Rd
Airport Rd
Innis Lake Rd
Centreville Creek Rd
The Gore Rd
Dixie Rd
Humber Station Rd
Old School Rd
Healey Rd
Mayfield Rd
Coleraine Dr
Albion Vaughan Rd

9
136
136
24
24
7
11
19
10
12
22
50
8
1
4
9
7
150
410
14

Mayfield West

Old School Rd
Kennedy Rd
Newhouse Blvd
Hurontario St
Heart Lake Rd
410

Bolton

Columbia Way
King St
Caledon King Townline
King St
150
Queen St
Healey Rd
Coleraine Dr
Simpson Rd
Nixon Rd
George Bolton Pkwy
Albion Vaughan Rd

Caledon East

Airport Rd
Walker Rd
Old Church Rd
Mountainview Rd
Innis Lake Rd

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

3.3 Existing Transportation System

3.3.1 Road Network

The existing road network in the Town of Caledon is comprised of provincial highways, Region of Peel arterials and Town of Caledon arterial, collector and local roadways, as shown in **Figure** 3-7.

Highways within the Town are under the jurisdiction of the Province of Ontario and summarized in **Table 3-2**. Highway 410 is an access-controlled freeway, that connects the north-south segments of Highway 410 to Hurontario Street (Highway 10). Highway 10 runs through the Town and provides north-south connectivity for both through and local traffic. Highway 9 runs along the north boundary of Caledon, which is shared with Dufferin County and Simcoe County.

All arterial roads within the Town are currently under the jurisdiction of the Region of Peel, except Albion Vaughan Road, as summarized in **Table 3-2**. Arterial roads generally function as thoroughfares, with collector roads forming smaller block grids between the arterial road system.

Table 3-2: Provincial and Regional Road Network

Highway	Direction
Provincial	
Highway 410	East-West
Hurontario Street (Highway 10)	North-South
Highway 9	East-West
Regional	
Charleston Sideroad (Regional Road 24)	East-West
Bush Street/Forks of the Credit Road (Regional Road 11)	
Old Base Line Road (Regional Road 12)	
King Street (Regional Road 9)	
Mayfield Road (Regional Road 14)	
Winston Churchill Boulevard (Regional Road 19)	North-South
Mississauga Road (Regional Road 1)	
Porterfield Road (Regional Road 136)	
Dixie Road (Regional Road 4)	
Airport Road (Regional Road 7)	
The Gore Road (Regional Road 8)	
Highway 50 (Regional Road 50)	

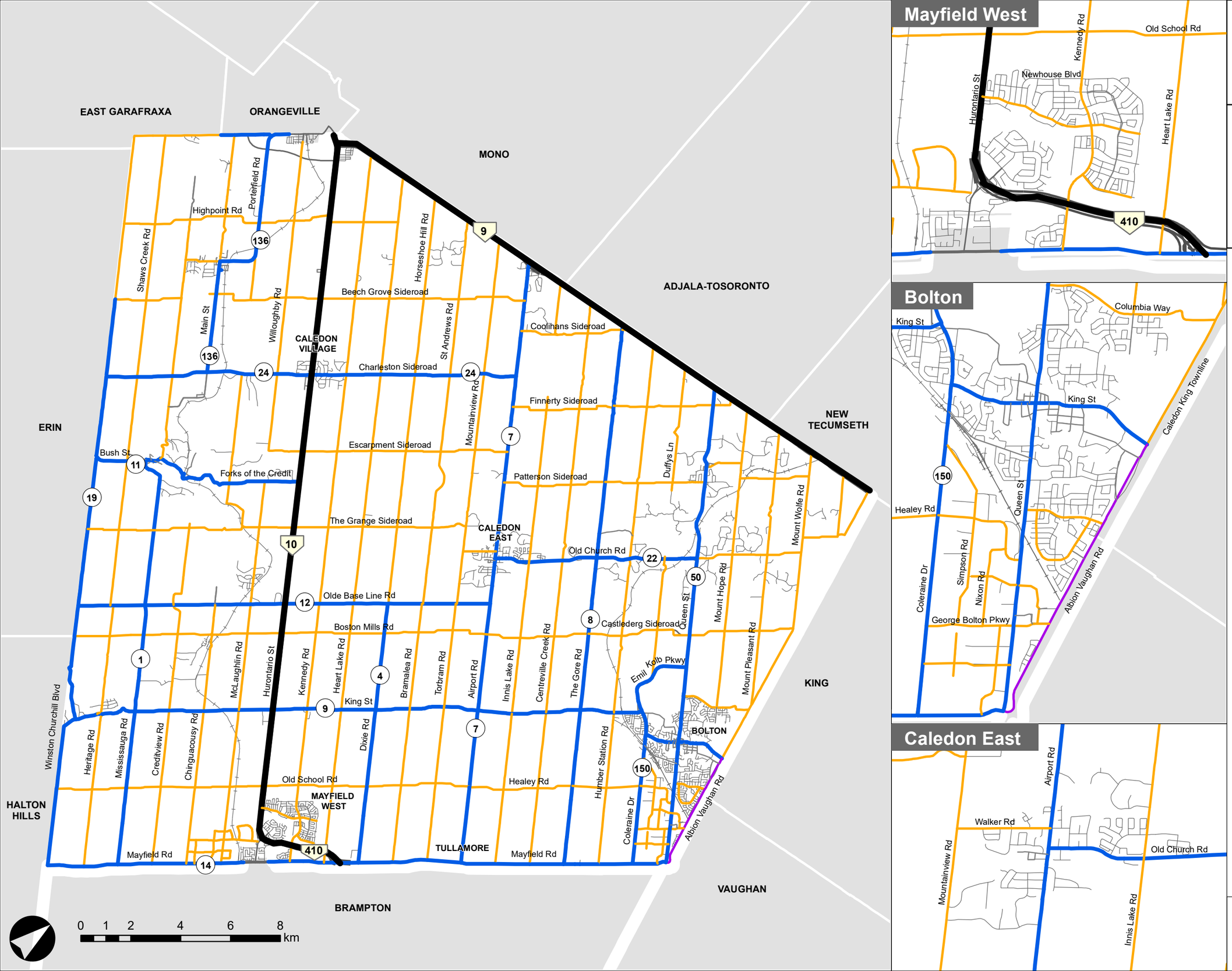
Town of Caledon roads include arterial, collector and local roads that provide circulation and land access. In rural areas, the Town road network includes a grid network of concession roads, with a 3.0 kilometre north-south spacing and a 1.4 kilometre east-west spacing.

Town of Caledon

Transportation Master Plan

FIGURE 3-7

Existing Road Network



- Provincial Highway
- Regional Arterial
- Town Arterial
- Town Collector
- Town Local

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

The Town arterial / collector road grid is historic and contains some discontinuous or misaligned roadways. Misaligned intersections can contribute to inefficient traffic movements and safety related conflicts. These inefficiencies and conflicts increase as traffic levels increase and there is greater interaction between road users.

A summary of locations for potential road alignment issues is shown in **Table 3-3**. Collision data along Peel Regional roads were reported, where available, and analyzed to inform potential issues at intersecting Town roads. Supporting documentation on road alignment issues within the Town of Caledon can be found in **Appendix E**.

Table 3-3: Summary of Road Alignment Issues

Major Road	Minor Road 1	Minor Road 2	Issue
Halls Lake Side Road	Albion Trail	19th Sideroad	Sharp Turns and Hidden Driveways
Patterson Side Road	Humber Station Road	Humber Station Road	Offset intersection
Mayfield Road	Humber Station Road	Clarkway Drive	Offset intersection
The Gore Road	Finnerty Side Road	Finnerty Side Road	Offset intersection
Airport Road	Old School Road	Healey Road	Offset intersection
Olde Base Line Road	Mountainview Road	Torbram Road	Offset intersection
Olde Base Line Road	St. Andrews Road	Bramalea Road	Offset intersection
Olde Base Line Road	Heart Lake Road	Heart Lake Road	Offset intersection
Olde Base Line Road	Kennedy Road	Kennedy Road	Offset intersection

3.3.2 Active Transportation System

The existing active transportation network consists of pedestrian and cyclist facilities as shown in **Figure 3-8.** These facilities are managed by the Town of Caledon and Peel Region. An overview of active transportation facilities offered within the Town is summarized by kilometer in **Table 3-4** and described below. Detailed descriptions of each type of active transportation facility are provided in a subsequent section of this report.

Table 3-4: Active Transportation Facility Inventory

Type	Facility	km within Caledon
Pedestrian Facility	Sidewalks	272
	Recreational Trails	157
Pedestrian and Cyclist Shared Facility	Multi-Use Trail (MUT)	90
	In-Boulevard Multi-Use Path (MUP)	35
Cyclist Facility	Conventional Bike Lane	2

Type	Facility	km within Caledon
Cyclist and Vehicle Shared Facility	Signed Route	54
Regional Facility	Varies	33

Pedestrian Network

Sidewalks are provided along a substantial portion of local roads within Caledon Urban Areas (Mayfield West, Bolton and Caledon East). There are also sidewalks provided within select Town villages (Alton, Caledon Village, Inglewood and Palgrave), but with much less coverage compared to the urban areas.

Most trails, which include both hiking trails and unmarked dirt trails, currently form networks north of King Street. Notable trails in Caledon include the Bruce Trail, Humber Valley Heritage Trail, Oak Ridges Moraine Trail, Elora-Cataract Trail and Trans Canada Trail. Some segments of these recreational trails are roadside trails, serving to provide better connectivity.

Cycling Network

The existing cycling network consists primarily of on-road facilities, such as bicycle lanes, signed bicycle routes and paved shoulders. All roads with bicycle lanes reside within Bolton. Road segments with signed bicycle routes and paved shoulders currently serve to provide connections between urban areas, major destinations and scenic viewpoints.

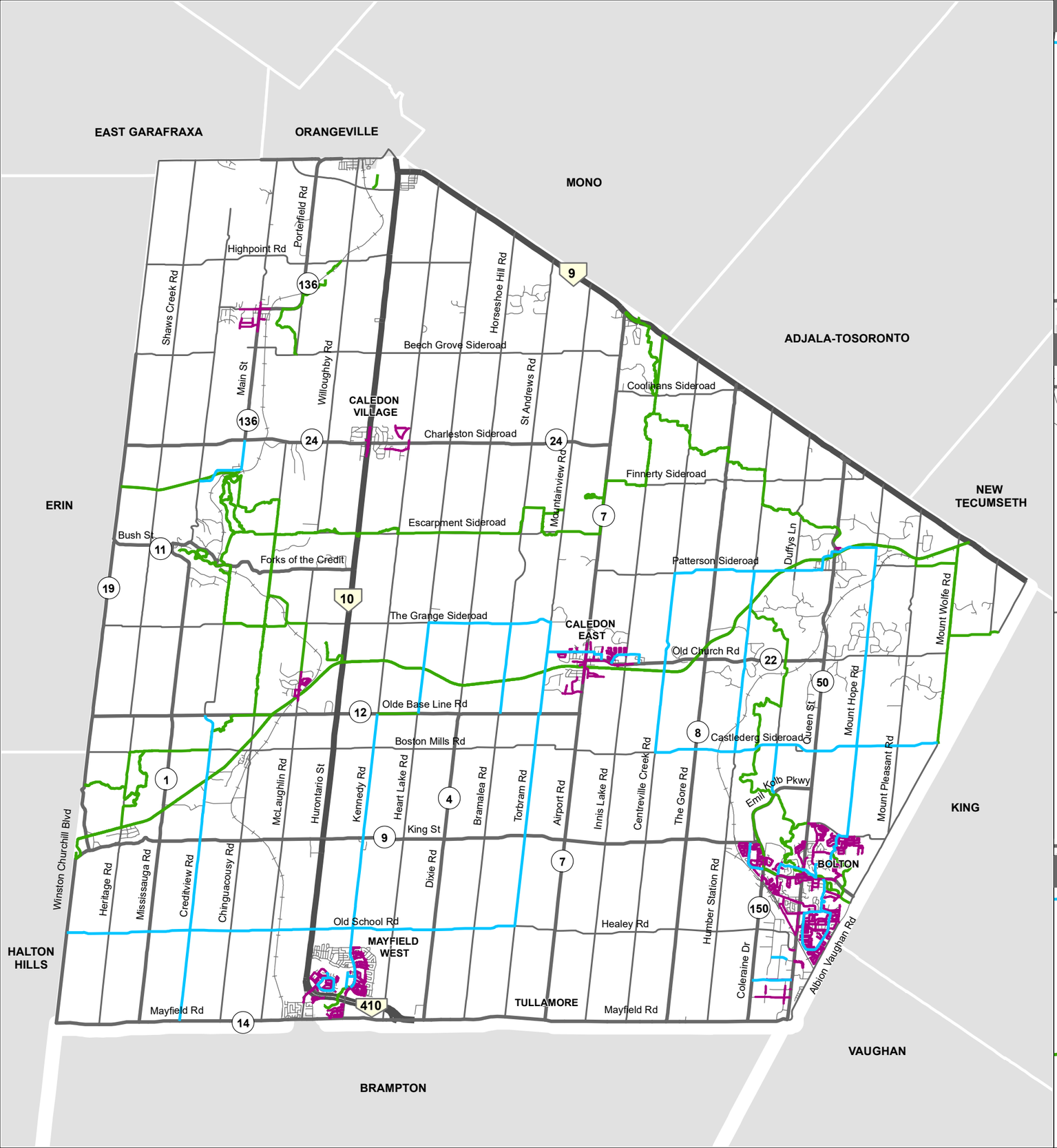
The most prominent multi-use trail within the Town is the east-west 35 km Caledon Trailway, which travels across the Town and through Caledon East; it services a variety of users, including cyclists, pedestrians, horseback riders and cross-country skiers.

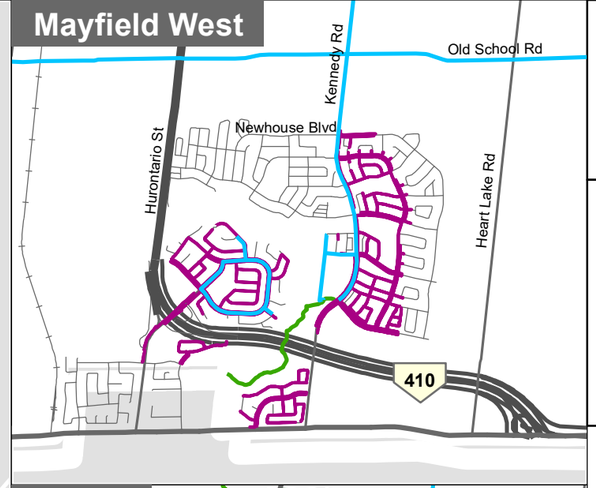
Town of Caledon

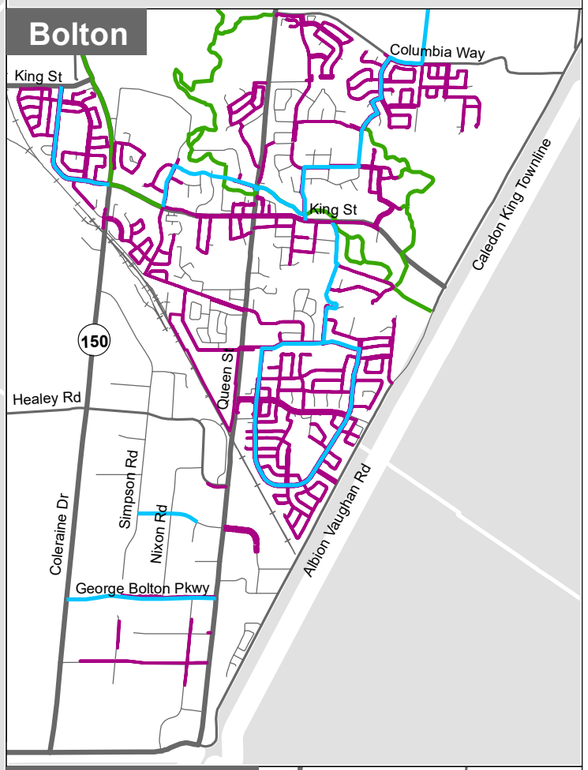
Transportation Master Plan

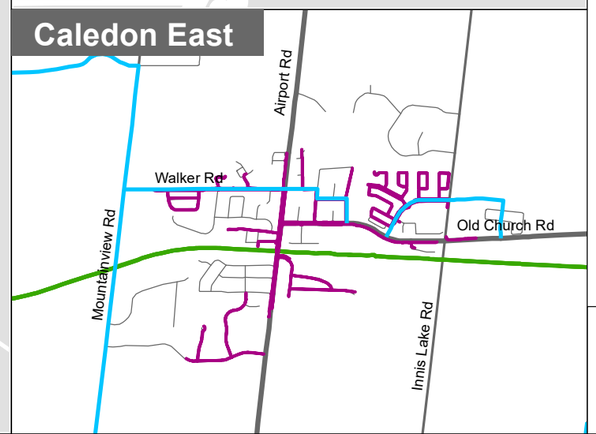
FIGURE 3-8

Existing Active Transportation Network









- Cycling Routes
- Trails
- Sidewalk

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

3.3.3 Transit Network

3.3.3.1 Fixed-Routes

Existing scheduled transit provided within the Town of Caledon is serviced primarily by various transit service providers: GO Transit (Metrolinx), Brampton Transit and Voyago Transit (Commissioned by the Town of Caledon). Current service is summarized below.

GO Transit

GO Transit operates two north-south peak service bus routes through Caledon, as summarized in **Table 3-5**.

Table 3-5: GO Transit Routes

Route Name	Days of Operation	Service Frequency	Route Description
37 Orangeville / Brampton	Weekdays	AM peak period: 60 min PM peak period: 60 min	Provides service between Hansen Blvd. @ First St. (Orangeville Mall) and Brampton GO
38 Bolton / Malton	Weekdays	AM peak period: 45 min (southbound only) PM peak period: 150 min (northbound only)	Provides service between Malton GO and Highway 50 @ Columbia Way

Brampton Transit

Brampton Transit extends its bus service north to Mayfield West and Tullamore via Route 81 and Route 30, respectively. The Brampton Transit service extension for Route 30 (Airport Road) is paid for by the Town under a cost-sharing agreement. The service frequency for these bus routes extending into Caledon, along with other Brampton Transit bus routes that service areas close to the Brampton-Caledon border (Mayfield Road), are summarized in **Table 3-6**.

Table 3-6: Brampton Transit Routes

Route Name	Days of Operation	Service Frequency	Route Description
81 Mayfield West	Weekdays	AM peak period: 45 min PM peak period: 45 min	Provides service between Sandalwood Loop and Kennedy Rd. north of Dougall Ave.
30 Airport Road	Daily	AM peak period: 10 min PM peak period: 10 min Weekday off-peak: 20 min Weekends: 30 min	Provides service between 12203 Airport Rd. (Legacy Warehouse) and Westwood Mall Terminal
7/7A Kennedy	Daily	AM peak period: 5-10 min PM peak period: 5-10 min Weekday off-peak: 15 min Weekends: 10-30 min	Provides service between Hurontario St. @ Courtneypark Dr. E. and Hurontario St. south of Mayfield Rd.
15/15A Bramalea	Daily	AM peak period: 20 min PM peak period: 15-25 min Weekday off-peak: 40-45 min Weekends: 30 min	Provides service between 11785 Bramalea Rd. (Smart Centres – Walmart Plaza) and Telford Way @ Tranmere Dr.

Route Name	Days of Operation	Service Frequency	Route Description
18 Brampton South	Daily	AM peak period: 5-15 min PM peak period: 5-10 min Weekday off-peak: 15-25 min Weekends: 10-20 min	Provides service between Dixie Rd. @ Meyerside Dr. and Inspire Blvd. east of Dixie Rd.
24 Van Kirk	Weekdays	AM peak period: 30-40 min PM peak period: 30 min (limited service) Weekday off-peak: 30-35 min	Provides service between 20 Lynch St. (Peel Memorial Hospital) and Hurontario St. south of Mayfield Rd.
26 Mount Pleasant	Monday to Saturday	AM peak period: 40 min PM peak period: 40 min Weekday off-peak: 40 min Saturdays: 40 min	Provides service between Mount Pleasant Village and Clockwork Dr. between Edenbrook Hill and Chinguacousy Rd.
31 McVean	Daily	AM peak period: 35 min PM peak period: 35 min Weekday off-peak: 35 min Weekends: 60 min	Provides service between the Gore Rd. north of Queen St. and Squire Ellis Dr. opposite Trail Rider Dr.

Voyago Transit (Bolton)

The Town recently retained Voyago to provide local service in the Bolton area via the Bolton Line, which began to operate on November 11, 2019. The local transit line includes 27 new bus stops along the route, providing service between Highway 7 and Highway 50. It operates during peak commute hours (Monday to Friday, 6:00 AM – 9:30 AM and 3:00 PM – 6:30 PM) with 30 min headways.

Orangeville Transit

Orangeville Transit operates bus service just outside the northern border of Caledon. Routes that are operating near the border are summarized in **Table 3-7**, including their respective service frequencies.

Table 3-7: Orangeville Transit Routes

Route Name	Days of Operation	Service Frequency	Route Description
Blue Route	Monday to Saturday	30 min during all operating times	Services south end of the City via Orange St., Mill St., Church St., Parkview Dr., Riddell Rd., Centennial Rd. and Broadway
Orange Route	Monday to Saturday	30 min during all operating times	Services the central portion of the City via Broadway, Diane Dr., Riddell Rd., Montgomery Blvd., Brenda Blvd., Clark St. and Third St.
Green Route	Monday to Saturday	30 min during all operating times	Services the north end of the City via Broadway, Rolling Hills Dr., McCannell Ave., Fourth Ave., Hansen Blvd. and Blind Line

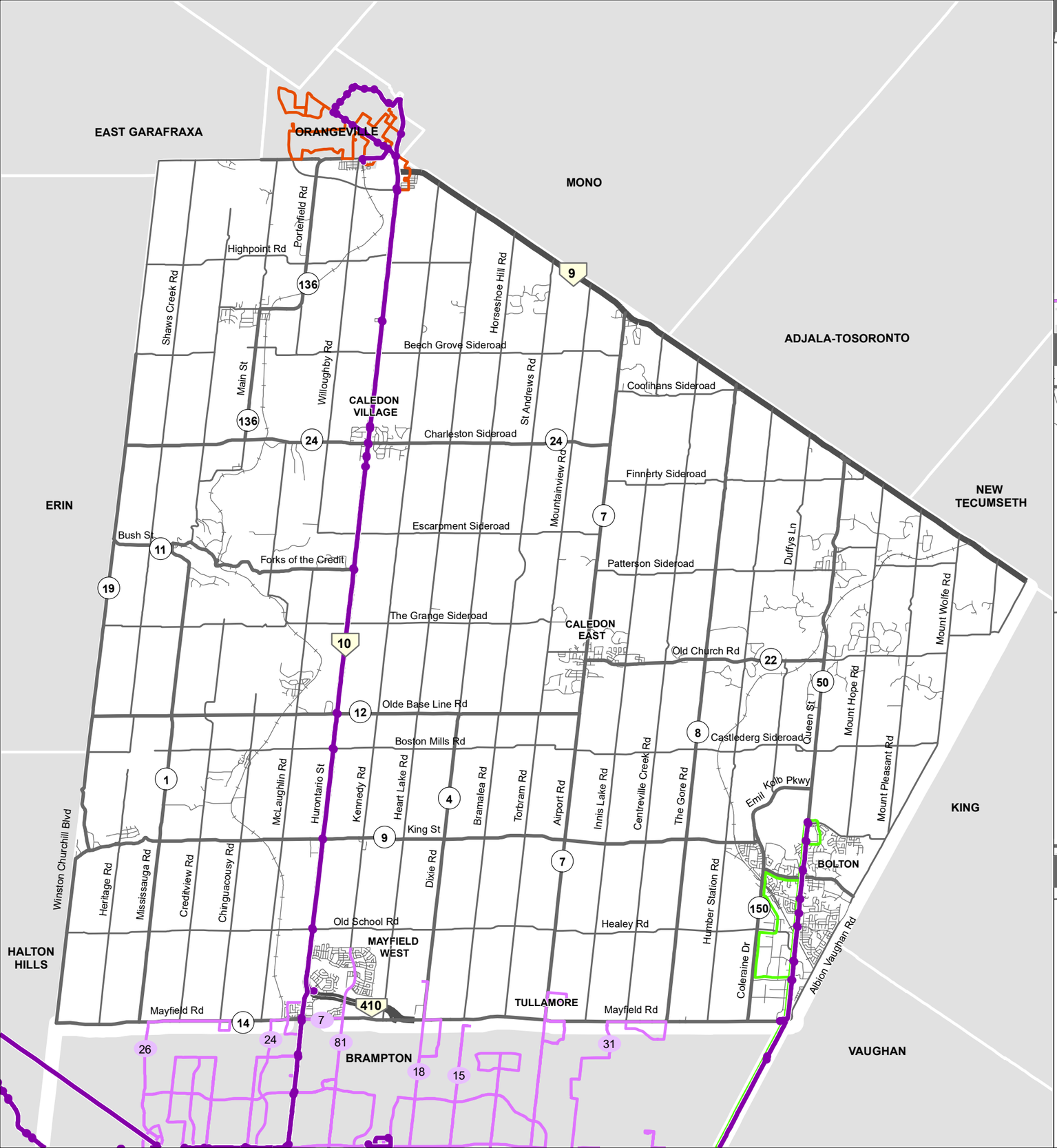
Figure 3-9 illustrates the existing scheduled transit service within the Town of Caledon. Service is not currently provided to the vast majority of the geographic area of Caledon and service is not convenient for much of the three urban centres.

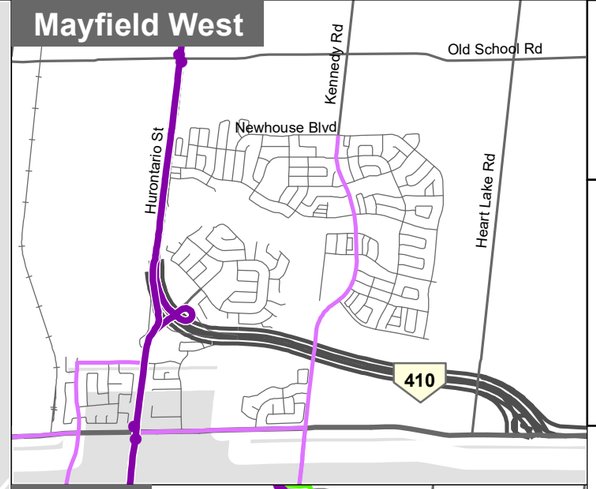
Town of Caledon

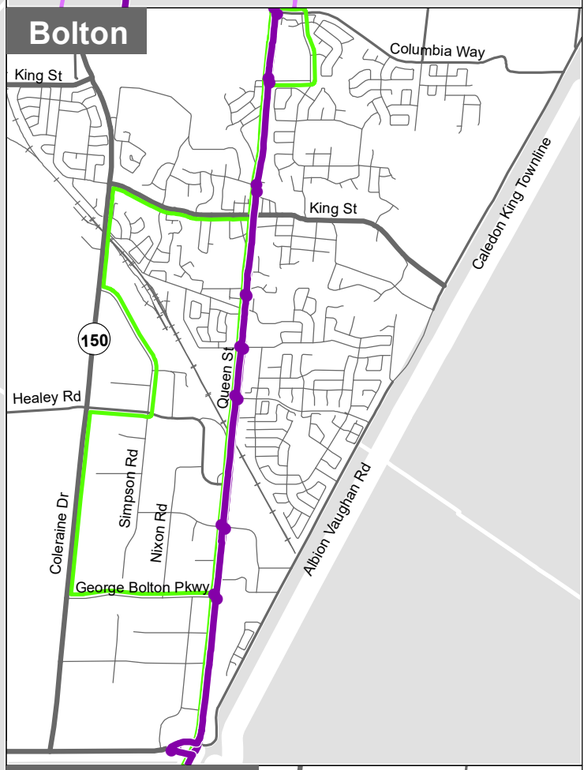
Transportation Master Plan

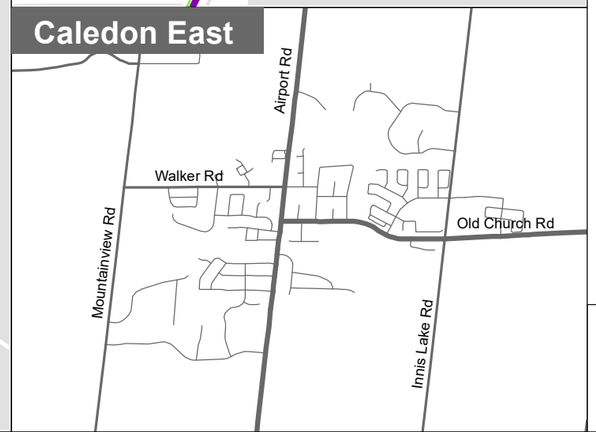
FIGURE 3-9

Existing Transit Network









- Bolton Line
- Orangeville Transit
- Brampton Transit
- GO Bus Transit
- GO Bus Stops

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

3.3.3.2 On-Demand Transit Services

There are on-demand services that are offered within the Town, which include specialized transit to accommodate accessibility needs. Peel Region operated TransHelp service and Caledon Community Services (CCS) provide accessible transportation services within the Town, as described below. These services are an important component to a comprehensive and equitable transportation service.

TransHelp

TransHelp is an agency that provides service for people with disabilities throughout Peel Region. Eligible users include those that experience a barrier to using conventional public transit due to a physical, cognitive, visual, sensory and/or mental health disability. TransHelp operates service between 6:00 AM to 1:00 AM daily but requires an advanced booking notice of 7 days.

Caledon Community Services (CCS)

CCS is Caledon's largest human service provider. Beginning in 1989, funding from the Ministry of Health & Long-Term Care (MOHLTC) has enabled CCS to provide specialized accessible transportation options to Caledon seniors and adults with disabilities who are unable to drive. CCS is the Region of Peel's contracted TransHelp service provider in Caledon.

The CCS transportation service is provided using a shared ride model, transporting multiple clients, whose rides are subsidized by different levels of government, traveling on the same bus to different destinations. Current Client eligibility include residents who are aged 60 and over and have specified physical issues.

3.3.4 Rail Corridors

The movement of bulk commodities over a long-distance is commonly completed via rail. As illustrated in **Figure 3-10** there are two rail corridors that pass-through Caledon – the Orangeville Brampton Railway (OBRY) to the west and Canadian Pacific Railway (CP) to the east. However, the OBRY is no longer an operational rail corridor. There are three types of railway crossings within Caledon—at grade, rail bridge and rail underpass crossings.

CP is classified as a 'Class-1' railroad, which experiences higher freight volumes and covers a greater geographic region (North America-wide). Two at-grade crossings along the CP network at Coleraine Drive and King Street are to be considered for grade separation.

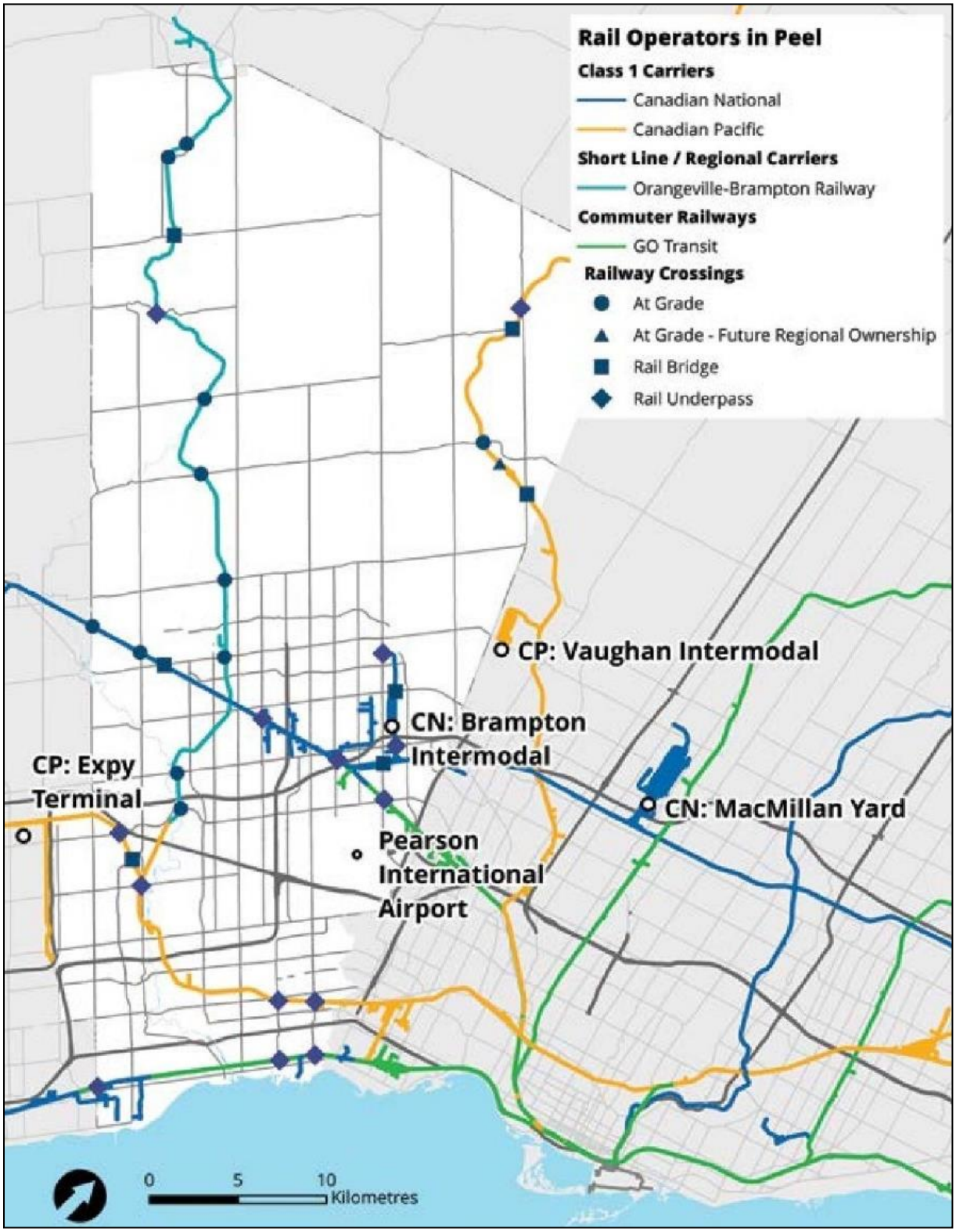


Figure 3-10: Peel Region Rail Network

Source: Region of Peel Goods Movement Strategic Plan 2017-2021

3.4 Existing Travel Characteristics

An important starting point of transportation planning is understanding existing travel patterns and behaviour to forecast future demand and develop adequate transportation networks. This data is captured in the Transportation Tomorrow Survey (TTS), which has been a comprehensive travel survey distributed by the University of Toronto Transportation Research Institute every five years since 1986 (with the latest data released in 2016). The survey is conducted in the Greater Golden Horseshoe and the data utilized to make transportation planning and investment decisions within local, regional, provincial and transit agencies, among others.

The subsequent Sections will review the current travel patterns to better approach the challenge of shifting the mindset to more sustainable modes of transportation in Caledon. Additional analyses on travel characteristics are provided in **Appendix D**.

3.4.1 Travel Patterns

An assessment of number of trips generated by communities and rural geographic areas within Caledon as summarized in **Table 3-8**. The Bolton community generates 41% of the morning outbound trips, consistent with the percentage of population in the Town. The 50% of the morning inbound trips that are attributable to Bolton is consistent with the very high proportion of jobs in Bolton.

Table 3-8: Inbound and Outbound Trips (2016, All Modes)

Sub-Area	AM Peak Period				PM Peak Period			
	Outbound		Inbound		Outbound		Inbound	
	Trips	%	Trips	%	Trips	%	Trips	%
Bolton	13,982	41%	13,332	50%	14,460	53%	13,563	42%
Mayfield West	6,192	18%	3,944	15%	3,288	12%	5,382	17%
Caledon Village	447	1%	180	1%	314	1%	430	1%
Caledon East	5,636	17%	4,505	17%	4,848	18%	5,219	16%
Rural Caledon West	1,521	4%	1,328	5%	1,032	4%	1,556	5%
Rural Caledon East	6,226	18%	3,452	13%	3,137	12%	5,992	19%
Total	**34,004**	**100%**	**26,741**	**100%**	**27,079**	**100%**	**32,142**	**100%**

3.4.2 Trip Distribution

During the AM peak period (6:30 AM – 9:30 AM), 38% of trips stay within the Town of Caledon. Morning outbound trips destined for Brampton / Mississauga represent 27% of trips. Most other AM trip destinations are in the City of Toronto (14%) and York Region (12%).

Most morning peak period trips originating in the Town's more developed residential areas (Mayfield West, Bolton, Caledon East and Caledon Village) are external to Caledon. Trips originating in Bolton have the largest proportion (49%) of internal trips. The remaining trips

originating in Bolton are rather evenly split between Toronto, York Region and Brampton / Mississauga. A substantial proportion of trips originating in Mayfield West and Caledon East (55% and 41%, respectively) are destined for the rest of Peel Region (Brampton and Mississauga). The distribution for trips originating from sub-areas within Caledon during the morning peak period is illustrated in **Figure 3-11**.

Town of Caledon

Transportation Master Plan

FIGURE 3-11

Trip Destinations by Sub-Area

Destinations

(2016, AM Peak Period, All Modes)

- Caledon
- Brampton / Mississauga
- Toronto
- York
- Halton
- Other

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

EAST GARAFRAXA
ORANGEVILLE
MONO
ADJALA-TOSORONTO
NEW TECUMSETH
ERIN
HALTON HILLS
TULLAMORE

Highpoint Rd
Porterfield Rd
Beech Grove Sideroad
Main St
Coolhans Sideroad
Finnerty Sideroad
Escarpment Sideroad
Bush St
Forks of the Credit
The Grange Sideroad
Patterson Sideroad
Church Rd
Olde Base Line Rd
Mount Wolfe Rd
Winston Churchill Blvd
Heritage Rd
Mississauga Rd
Creditview Rd
Chinguacousy Rd
McLaughlin Rd
Huronontario St
Heart Lake Rd
Bramalea Rd
Torbram Rd
Airport Rd
Innis Lake Rd
Centreville Creek Rd
Old School Rd
Healey
Mayfield Rd
Albion Vaughan Rd

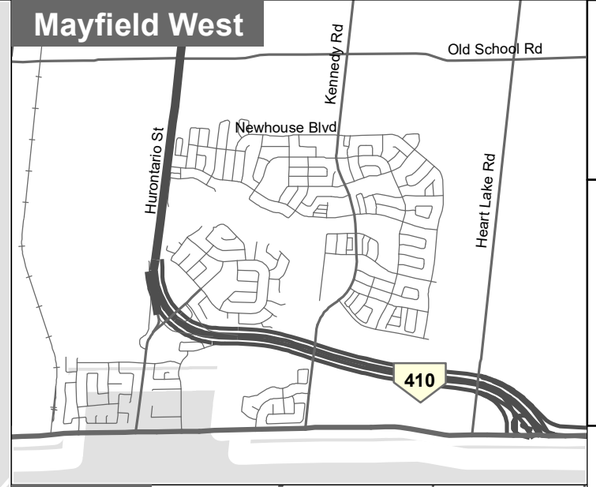
CALEDON VILLAGE
35%
31%
2%
25%
7%

CALEDON EAST
11%
27%
13%
8%
41%

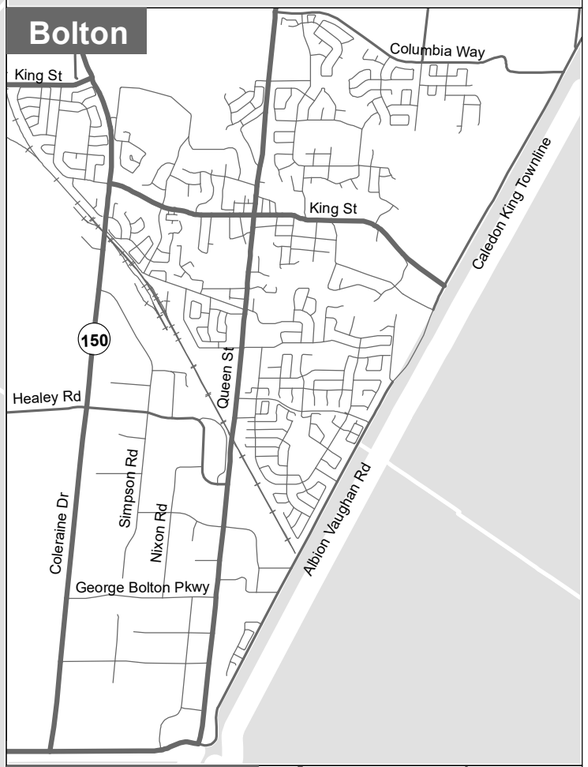
MAYFIELD WEST
4%
4%
23%
13%
55%

BOLTON
4%
49%
16%
16%
15%

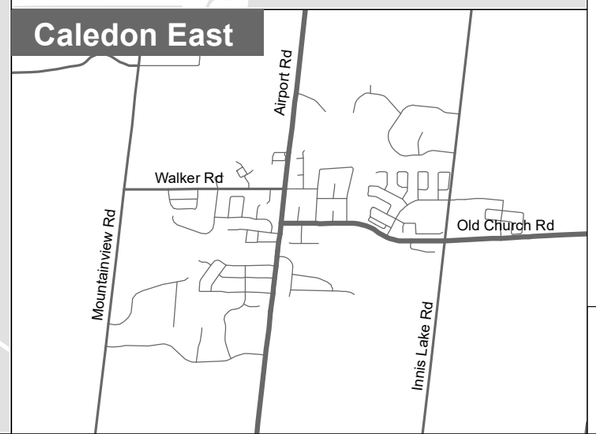
Mayfield West



Bolton



Caledon East



A review of internal trips within the Town indicates that the majority of trips originating within each sub-area of Caledon are internal during the morning peak period. This is particularly evident for trips originating in Bolton, where most trips (approximately 5,500) are internal to the sub-area (i.e., destined to Bolton). While travel between these major sub-areas do not appear to be significant compared to the proportion of internal sub-area trips, a decent portion of trips originating in Caledon East and Mayfield West are destined for Bolton (84 and 135 trips, respectively). The internal trip distribution by sub-area is summarized in **Table 3-9**.

Table 3-9: Internal Trip Distribution by Sub-Area (2016, AM Peak Period, All Modes)

Origin / Destination	Bolton	Mayfield West	Caledon Village	Rural Caledon West	Caledon East	Rural Caledon East	Total
Bolton	5,524	16	32	39	63	986	6,660
Mayfield West	135	735	0	455	78	0	1,403
Caledon Village	0	65	0	76	0	0	141
Rural Caledon West	245	388	7	630	92	193	1,555
Caledon East	84	0	0	45	280	0	409
Rural Caledon East	1,642	76	0	123	249	815	2,905
Total	7,630	1,280	39	1,368	762	1,994	13,073

3.4.3 Mode Splits

Trips with origins or destinations in Caledon consist largely of vehicle trips during the morning peak period. This is especially evident for external trips (i.e., those that start or end outside of the Town), which have a 95% automobile mode share.

Trips with both origin and destination in Caledon, however, have higher non-auto trip use. Approximately one-quarter of the trips internal to the Town are made via a school bus. The most prevalent active transportation mode is walking, which makes up 9% of the mode share for internal trips. Minimal cycling trips were identified during the morning peak period.

The mode share breakdown is shown in **Table 3-10**.

Table 3-10: Mode Share for Caledon Trips (2016, AM Peak Period)

Mode	Internal		External		Total	
	Trips	%	Trips	%	Trips	%
Automobile	8,445	65%	32,233	95%	40,678	87%
Local Transit	18	0%	577	2%	595	1%
GO Rail / Joint GO Rail	0	0%	136	0%	136	0%
School Bus	3,389	26%	1054	3%	4,443	9%
Walk	1,220	9%	64	0%	1,284	3%
Cycle	0	0%	0	0%	0	0%
Other (e.g., Motorcycle)	0	0%	35	0%	35	0%
Total	**13,072**	**100%**	**34,099**	**100%**	**47,171**	**100%**

3.4.4 Trip Purpose

Home-based work trips make up approximately half of the trips originating from or destined to Caledon during the morning peak period. Most of these home-based work trips start or end outside of the Town. The *Caledon 2020-2030 – Economic Development Strategy* indicated that the Town is a net exporter of workers (i.e., more people leave the Town to work than enter it for work). As such, a reduction of auto traffic would require an increase of suitable employment within Caledon to keep residents working in Caledon and/or an introduction of an efficient regional transportation system with car lot, bus, rail connectivity.

Among the trips travelling to/from Caledon, there is a fairly even split between home-based school and home-based discretionary trips (21% and 20%, respectively). These trip purpose splits remain relatively consistent with trips originating within each sub-area of the Town, although Caledon East is observed to have a much higher proportion of home-based work trips (72%) compared to the other sub-areas. A large proportion (43%) of internal Town trips consist of home-based school trips, resulting in a 26% school bus mode share as mentioned in the previous section.

The trip purpose breakdown is shown in **Table 3-11**.

Table 3-11: Caledon Trips by Purpose (2016, AM Peak Period, All Modes)

Trip Purpose	Internal		External		Total	
	Trips	%	Trips	%	Trips	%
Home-Based Work	3,145	24%	15,402	68%	18,547	52%
Home-Based School	5,612	43%	1,761	8%	7,373	21%
Home-Based Discretionary	3,511	27%	3,557	16%	7,068	20%
Non Home-Based	803	6%	1,824	8%	2,627	7%
Total	**13,071**	**100%**	**22,544**	**100%**	**35,615**	**100%**

4.0 Policy Framework and Master Plan Vision

This chapter summarizes the current planning policies that frames and creates a foundation for the study followed by the development of the vision of the MMTMP.

4.1 Overview

This Multi-Modal Transportation Master Plan is responding to the ambitious growth forecast for the Town of Caledon. This future growth is an opportunity to realize strategic Town initiatives and to develop communities consistent with the Town's planning Vision. Hence, this master plan has been developed with the guidance of policy documents from the Province, the Region, and the Town. The policy framework was categorized into four initiatives which include:

- Growth and Economic objectives,
- Climate Change Mitigation objectives,
- Community Development objectives, and
- Future-Ready objectives.

These policy aspirations help develop a vision for the plan and transportation system development over the next 30 years. A more detailed review of the policy documents is provided in **Appendix A** and includes references to the following documents:

- Provincial Policy Statement, 2020
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020
- Greenbelt Plan, 2017
- Niagara Escarpment Plan, 2017
- Oak Ridges Moraine Conservation Plan, 2017
- 2041 Regional Transportation Plan, 2018
- GTA West Corridor Environmental Assessment
- Peel Region Official Plan, December 2018 Consolidation
- Peel Growth Management Focus Area Policy Directions Report
- Future Caledon Official Plan, March 2024
- Caledon 2023-2035 Strategic Plan
- Caledon 2020-2030 Economic Development Strategy
- Resilient Caledon
- Caledon Fire Master Plan
- Caledon Recreation and Parks Master Plan
- Bolton Residential Expansion Area, ROPA 30
- Mayfield West Phase 2 Secondary Plan, OPA 222

4.2 Growth and Economic Objectives

4.2.1 Planned Growth

The Region of Peel Official Plan Review (Peel 2051) has been completed in accordance with the requirements of the statutory planning framework in Ontario. Of particular importance to Peel 2051 is the provincial plan to manage growth in the Greater Golden Horseshoe (the Growth Plan). The Growth Plan includes detailed policies for Settlement Area Boundary Expansions (SABE) and Official Plan reviews.

Policy 2.2.8.3 of the Growth Plan requires that the feasibility and most appropriate location for the proposed SABE areas be identified based on the comprehensive application of all the policies in the Plan. Region of Peel Council has determined that much of the Regional growth to 2051 will occur in southern Caledon. The Region has allocated future population growth up to 2051 as summarized in **Table 4-1**. Caledon's population and employment are expected to quadruple from the existing 76,581 residents (2021 Census) and an estimated 32,000 jobs.

Table 4-1: Population and Employment Growth Allocations ('000s)

Municipality	2031 Population	2041 Population	2051 Population	2031 Employment	2041 Employment	2051 Employment
Town of Caledon	112,000	201,000	300,000	52,100	82,100	125,000
City of Brampton	865,000	929,100	985,100	273.400	314,100	355,000
City of Mississauga	852,000	920,000	995,000	537,300	562,800	590,000
Region of Peel	1,829,000	2,050,100	2,280,100	862,800	959,000	1,070,000

Source: 2051 Land Needs Assessment, Peel Region

4.2.2 Settlement Area Boundary Expansion (SABE)

In support of growth plan density targets, new residential and employment lands are planned in Caledon, especially those within the vicinity of the proposed Highway 413 (also known as the GTA West corridor). Based on minimum intensification targets, it is estimated that an additional 4,300 ha of combined community and employment area is required to accommodate new growth in the Settlement Area Boundary Expansion (SABE) area of Caledon.

A conceptual SABE 2051 boundary, as developed based on technical studies, is shown in **Figure 4-1**. Region of Peel Council adopted a new Official Plan in April 2022 which includes the SABE area and associated land use designations. Caledon's Preferred SABE, endorsed by Town Council in December 2021, has some differences.

The proposed boundary and land use allocations may change, with ongoing refinement and further evaluation required. It is noted, however, that an approved Minister's Zoning Order

(MZO) was issued by the Government of Ontario for most of the land area designated as 'Mayfield West (Phase 2 Stage 2)' in the draft conceptual SABE map. This MZO allows for fast-track development in this area.

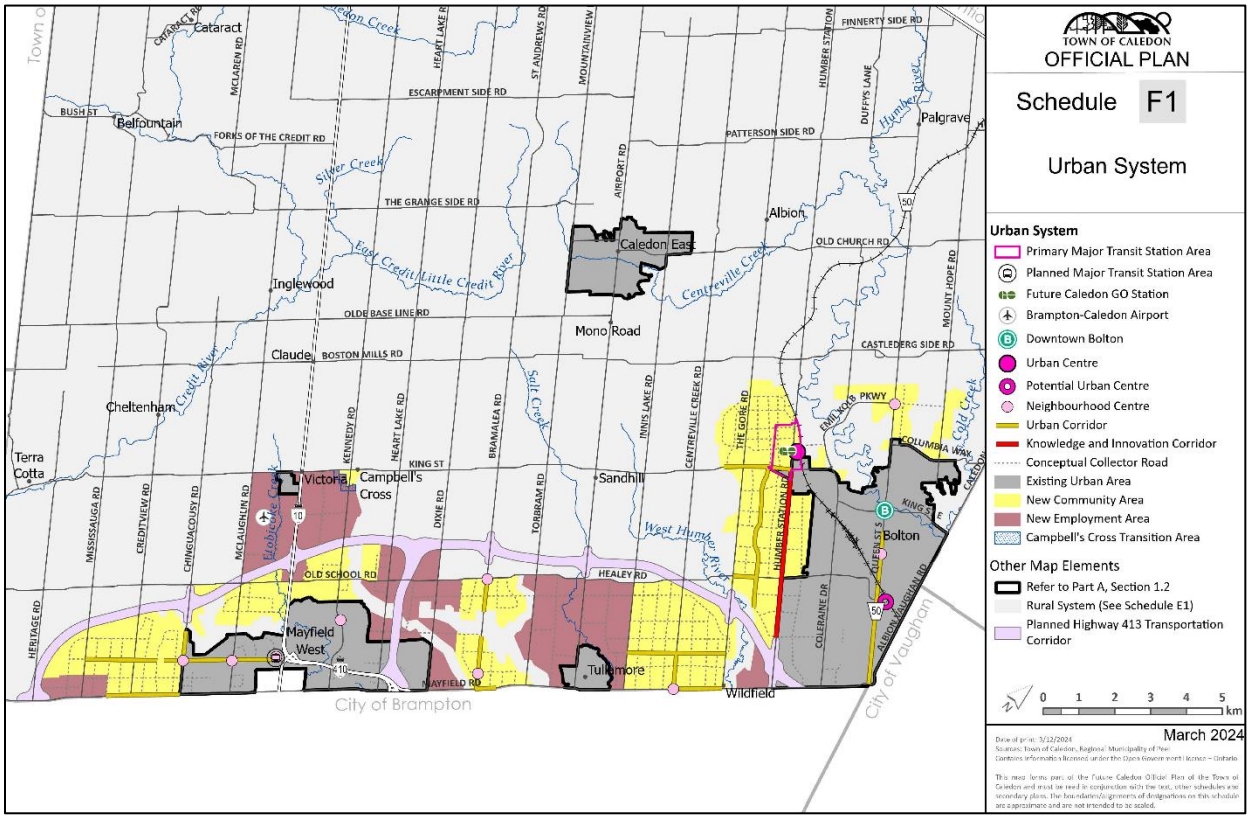


Figure 4-1: Settlement Area Boundary Expansion

Source: Future Caledon Official Plan (March 2024)

The projected allocation of population and employment growth within Caledon between 2021 and 2051 is illustrated in **Figure 4-2** and **Figure 4-3**, respectively.

Town of Caledon

Transportation Master Plan

FIGURE 4-2

Population Growth
2021 - 2051

Population Growth 2021 - 2051

- < 3,000
- 3,000 - 6,000
- 6,000 - 9,000
- 9,000 - 12,000
- > 12,000

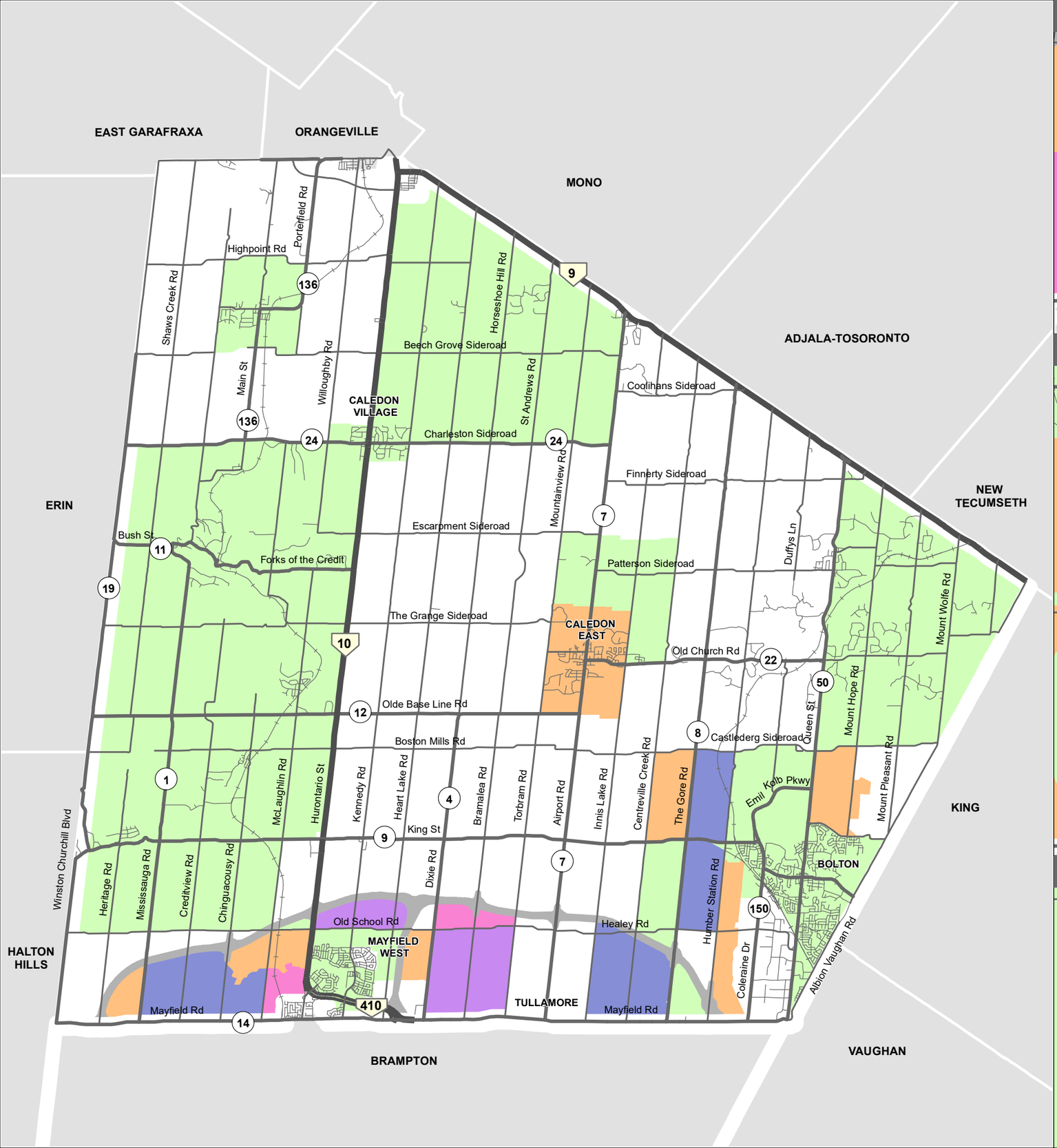
* Note: Draft land use allocations provided by Peel Region (May 2021)

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

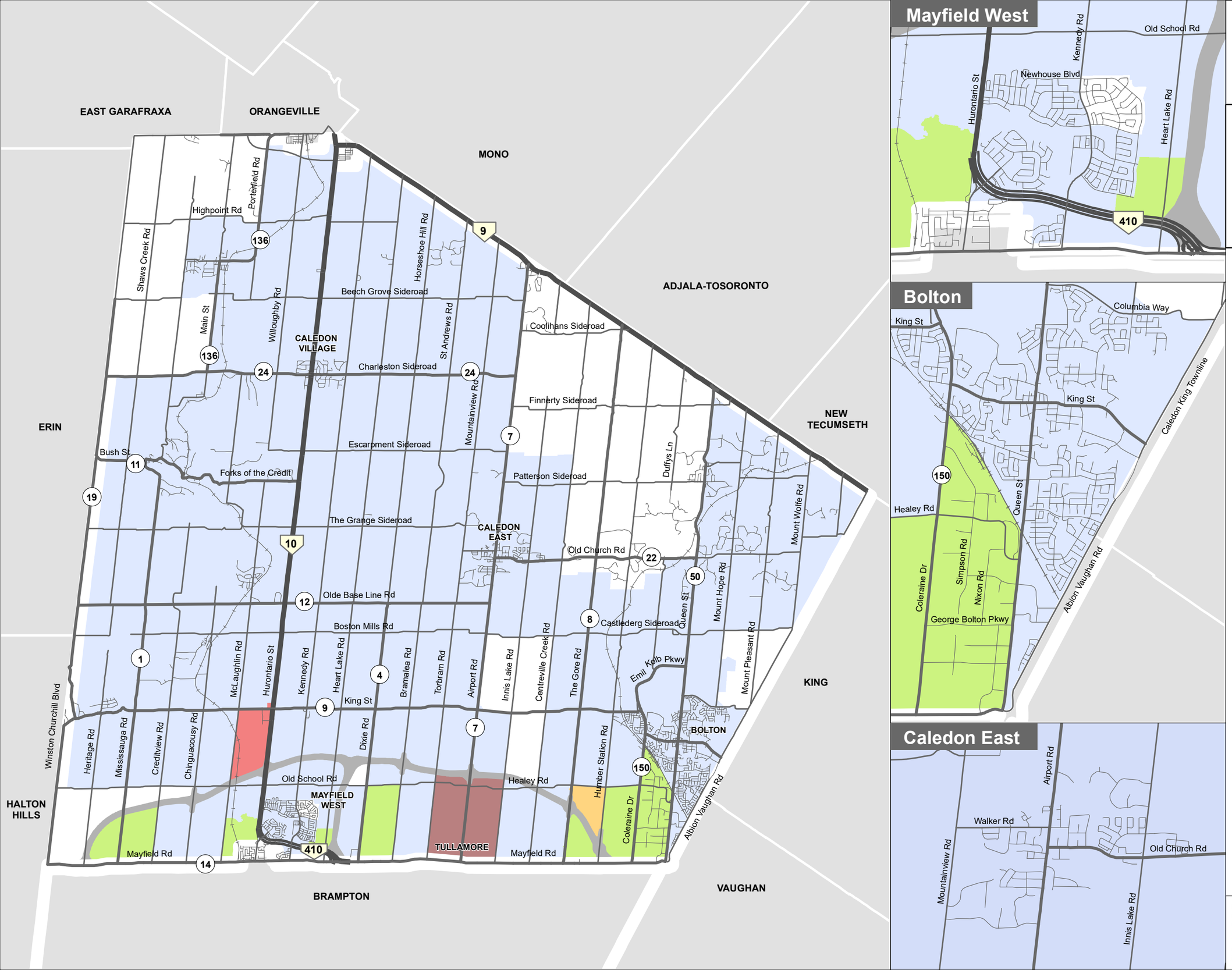


Town of Caledon

Transportation Master Plan

FIGURE 4-3

Employment Growth
2021-2051



Job Growth 2021-2051

- < 2,000
- 2,000 - 4,000
- 4,000 - 6,000
- 6,000 - 8,000
- > 8,000

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

4.2.3 Provincially Significant Employment Zone (PSEZ)

Within the SABE area there are established industrial areas in Bolton. The westerly expansion of these employment lands has been recognized by the Province of Ontario as a designated Provincially Significant Employment Zone (PSEZ) in the Province's *Growth Plan* (2019). These lands were identified for job creation and economic development for the purpose of long-term planning. The PSEZ within Caledon is in the Bolton area as illustrated in **Figure 4-4**. According to *A Place to Grow* (August 2020), PSEZs can consist of employment areas as well as mixed-use areas that contain a significant number of jobs.

A Place to Grow details new policies that protect employment areas critical to the local and provincial economy. These policies provide municipalities with flexibility to change the use of lands from employment areas to other uses, while ensuring key employment areas are protected for the long-term.

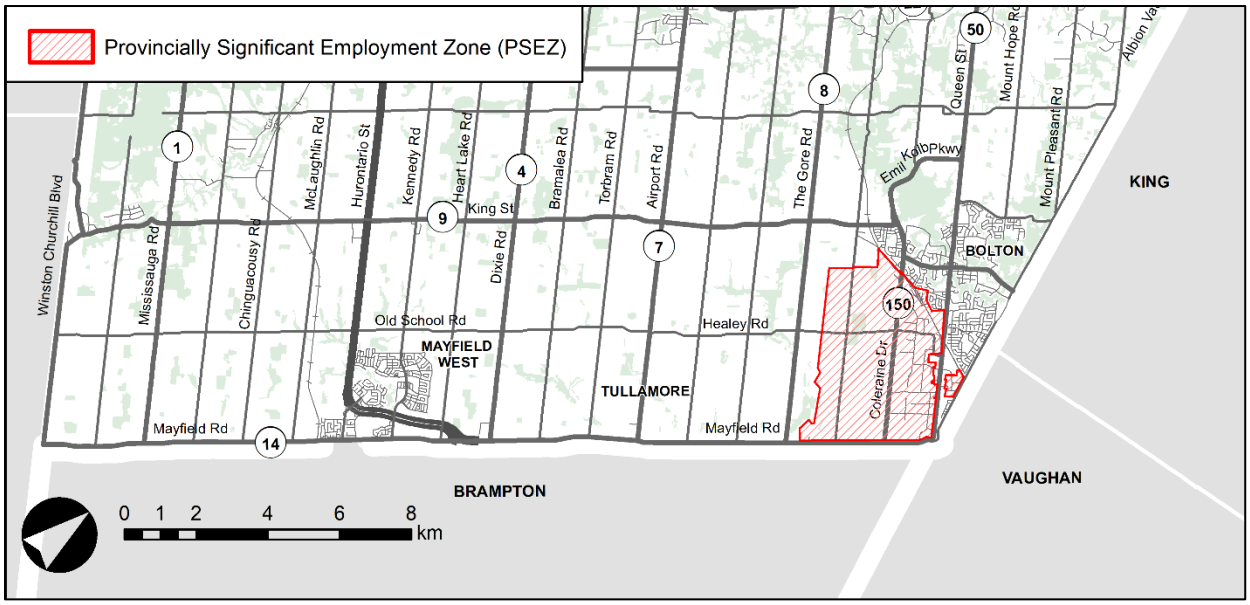
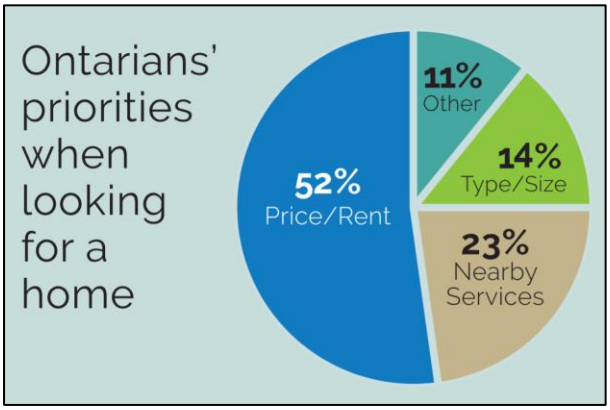


Figure 4-4: Provincially Significant Employment Zone (PSEZ) in Caledon

Source: https://www.ontario.ca/page/provincially-significant-employment-zones

4.2.4 Affordable Housing

The vision of Ontario's Housing Supply Action Plan (May 2019) is to allow all Ontarians to "find a home that meets their needs and their budget". Offering more options for housing to a wider income range will help improve the economy by supporting local business owners and their employees. A survey conducted by the Province indicated that the majority of people prioritize affordability when looking to purchase a home, followed by access to nearby services (i.e., transit, schools and other services).



Source: Ontario housing supply consultation, 2019

The plan to boost the housing supply in Ontario will need to be supported by more infrastructure, in good repair. This is complimented by investments in improved transportation networks and transit-oriented development.

4.2.5 Economic Strategies and Priorities

Actions within Caledon *2020-2030 Economic Development Strategy* align with four strategic priorities, as summarized in **Table 4-2.**

Table 4-2: Caledon 2020-2030 Economic Development Strategy Priorities

	Objective
Priority I: Support an Entrepreneurial and Small Business Economy	Provide entrepreneurs with the tools and resources to succeed in an increasingly integrated regional, provincial and global economy.
Priority II: Focus on Business Retention and Growth	Work with and for our local businesses to generate new investment and innovation in the Caledon economy.
Priority III: Improve Quality of Place	Create a network of vibrant, attractive urban/rural communities in our urban core, villages and hamlets that respects Caledon's rural heritage but is responsive to the planned growth of the Town.
Priority IV: Enhance Investment Readiness	Provide the structure and policies to effectively target investment attraction and diversification of the local economy.

The major expectations and outcomes of the strategy are to:

- Grow the diversity of the Town's business and industrial activity, taking into consideration the limits on employment land and impact on the community;
- Balance the anticipated population growth with an increase in the non-residential tax base;
- Assess the opportunities for growth and urban renewal in the commercial cores;
- Increase the economic viability of the town of Caledon in the short and long term; and
- Inform the development of annual work plans for the Economic Development and Tourism Division as well as other departments within the Town.

Input from Economic Development indicated that a specific need related to transportation is the provision of affordable transportation options, such as local transit, to connect employees with jobs in Caledon. This level of connectivity will help make employment lands and businesses more viable and would also help transportation efficiencies associated with shorter more self-contained trips.

4.3 Climate Change Mitigation Objectives

4.3.1 Climate Change Emergency

The Town of Caledon recognizes that if no action is taken to address climate change, the Town will see higher risks of damage to infrastructure due to flooding and other extreme weather, increased health impacts, poor air quality, and damage to crops and livestock. To mitigate and significantly reduce the risk of experiencing these catastrophic impacts, the Town of Caledon Council declared a climate change emergency on January 28, 2020 and directed Town staff to report back on the actions that are required by the Town and community to reduce local GHG emissions.

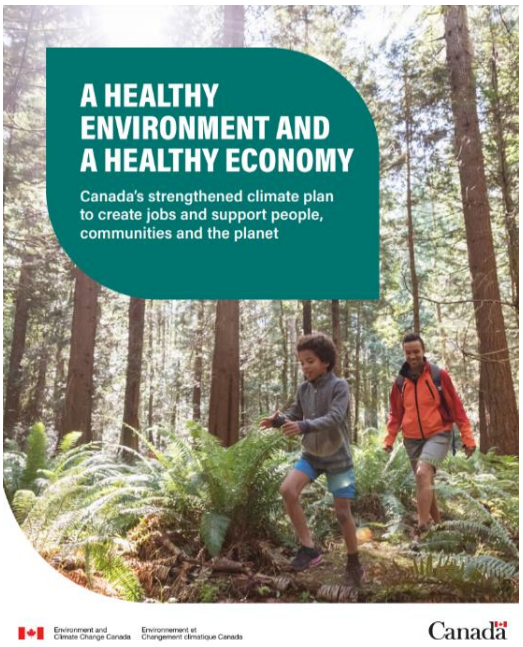
The Town committed to a greenhouse gas emissions reduction target that is in line with limiting global warming to 1.5-degree Celsius based on findings and recommendations by the Intergovernmental Panel on Climate Change (IPCC). The IPCC stated that human activities have caused approximately 1-degree Celsius of global warming above pre-industrial levels and will worsen over the next few decades. Climate change is an urgent crisis that requires radical changes to our society and economic systems in order to limit warming to no more than 1.5C above pre-industrial levels to reduce the risk of catastrophic climate impacts. Even if we meet the 1.5C warming threshold, climate impacts are already expected, including increases in severe storms, sea level rise, extreme heat, flooding, drought, species and habitat loss, loss of cop yields, and spread of disease.

The IPCC stated that limiting global warming to 1.5-degree Celsius as opposed to 2-degree Celsius could reduce the number of people both exposed to climate-related risks and susceptible to poverty by up to several hundred million by 2050.

On June 28, 2020, Town Council adopted a community greenhouse gas (GHG) emissions reduction target of net zero by 2050 as part of the ongoing Resilient Caledon Plan, aligning with the 1.5-degree Celsius warming scenario.

The federal government and other municipalities within Ontario have also committed to a net zero target including the City of Toronto, City of Hamilton, and the City of Guelph.

4.3.2 Federal Climate Change Commitments



In December 2020, the Government of Canada introduced A Healthy Environment and a Healthy Economy, a climate plan that builds off the 2016 Pan-Canadian Framework on Clean Growth and Climate Change (PCF). This plan aims to exceed its 2030 Paris Agreement emission reduction target and aims for a net-zero emission future by 2050.

A major component to this updated plan is making clean, affordable transportation and power available in every Canadian community. The commitments made by the Government of Canada include expanding the supply of clean electricity, investing in next-generation clean energy and technology, encouraging cleaner modes of transportation such as zero-emission vehicles, transit, and active transportation.

Federal targets on zero-emission vehicles include:

- 10% of light-duty vehicle sales are zero-emission by 2025,
- 30% of light-duty vehicle sales are zero-emission by 2030, and
- 100% of light-duty vehicle sales are zero-emission by 2035.

Action items related to this component include the following:

- Invest an additional $287 million over two years to continue the Incentives for Zero-Emission Vehicles (iZEV) program until March 2022,
- Include a 100-percent tax write off for commercial light-duty, medium-duty, and heavy-duty zero-emission vehicles,
- Develop a national active transportation strategy and explore ways to deliver more active transportation options, and
- Develop a plan to electrify public transit systems and provide permanent public transit funding.

4.3.3 Zero Emissions Vehicle Infrastructure Program

The Zero Emissions Vehicle Infrastructure Program is a federal initiative to support the growth of localized charging and hydrogen refuelling opportunities for Canadians. The 5-year program costs $280 million and ends in 2024. This program subsidizes up to 50% of the costs of electric vehicle and hydrogen refuelling stations. Eligible areas include public parking areas such as libraries and retail, on-street parking, workplaces, multi-unit residential buildings, and areas for commercial and public fleets.

4.4 Community Development Objectives

Community development objectives for the Caledon MMTMP are guided by the Town's strategic planning documents, including the Official Plan, Resilient Caledon, Council Strategic Plan, and Economic Development Strategy. The MMTP also aligns with Provincial policies as outlined in the Provincial Policy Statement, A Place to Grow, and Metrolinx's 2041 Regional Transportation Plan.

4.4.1 Future Caledon Official Plan

This Multi-Modal Transportation Master Plan is a companion document of the Future Caledon Official Plan. Future Caledon was prepared to support the Town's long-term environmental, social and economic prosperity through climate change mitigation and adaption, protection of agricultural and environmentally sensitive lands, preserving our rural communities, responsible urban growth management, and equity and inclusion for all.

4.4.2 Policy for Nodes and Corridors

The urban structure concept of nodes and corridors has been presented in provincial policy documents including the Ministry of Transportation (MTO) Transit Supportive Guidelines (2012). The designation of nodes and corridors can "help to direct and focus growth to support the clustering of uses and activities and enable the creation of a more efficient transit network". It also identifies the opportunities for alternative modes of travel:

- "Linking new streets to existing streets in adjacent developments can improve connectivity and transit service efficiency".
- "Space collectors at intervals of 400 m or less in designated nodes and corridors in order to facilitate higher levels of walking and cycling"
- "Walkable neighbourhoods typically have a higher number of intersections per hectare (iph). Achieving an intersection density of 0.6 iph or higher in nodes and corridors will help create multiple options for moving between destinations, enhancing connections between transit services and nearby uses"
- "Minimize block lengths to promote greater connectivity and enhance the walkability of neighbourhoods. Generally, residential blocks should be less than 250 m along their longest side, with maximum block lengths of 120 m in mixed-use activity nodes and corridors."

The MTO Transit Supportive Guidelines supports grid network "The local street and block pattern should be designed as an interconnected grid network aimed at maximizing connectivity for all travel modes and minimizing travel distances to surrounding streets, uses and open spaces".

These concepts are supported by the Council-adopted Peel Regional Official Plan (ROP) which provides direction and policies for the Regional Urban Structure. The Growth Management section (Section 5.5 of the ROP) includes the following statements:

- “Accommodate intensification within urban growth centres, intensification corridors, nodes, and major transit station areas and any other appropriate areas within the built-up area.
- Require the area municipalities to develop intensification strategies that, among other things, identify intensification areas to support a mix of residential, employment, office, institutional and commercial development where appropriate, and to ensure development of a viable transit system.
- Encourage the area municipalities to require development around major transit station areas within the designated greenfield to achieve a minimum density of 100 residents and jobs per hectare.
- Direct the area municipalities to incorporate official plan policies to plan for complete communities within designated greenfield areas that create high quality public open spaces with site design and urban design standards that support opportunities for transit, walking and cycling.”

These concepts are further supported by the Future Caledon Official Plan which states that “the Town will work collaboratively with the Region of Peel, Metrolinx, Province, neighbouring municipalities and other appropriate jurisdictions to promote transit stations and terminals in urban nodes and corridors, as identified in this Plan.”

4.5 Future-Ready Objectives

MTO’s 2022 Greater Golden Horseshoe transportation plan (“Connecting the GGH”) outlines the need to create a more resilient network harnessing new technology and innovations that can be designed for an unknown future. One of the primary goals of MTO’s GGH transportation plan is “Actions to be Future Ready” which includes electric vehicle production and leveraging automated vehicle technologies.

Global trends and mobility technologies that are disrupting typical transportation planning practices have been evolving and will continue to evolve over the next few decades. While transportation plans need to forecast into the future to adequately plan the transportation system, flexibility and resilience needs to be imbedded within the plan. The implementation plan outlined in the MMTMP should still be able to provide a robust transportation system even if these global trends and mobility technologies deviate from the assumed future outlook.

Deviations are usually caused by various shocks and stresses on the transportation system. A recent example of a shock is the COVID-19 pandemic. As a result of this pandemic, trip-making behaviours were severely altered. Decreased trip-making for both discretionary and non-discretionary trips caused traffic volumes and transit usage to decrease while trends like working from home and e-commerce increased. At the later stages of the pandemic, traffic volumes returned closer to normal levels, however transit usage struggled to fully recover.

Other transportation and travel trends that the GTHA is experiencing near the later stages of the pandemic or is anticipated to experience post-pandemic include the following:

- There has been a reduction in the use of other shared transportation modes such as carpooling and ride-hailing due to perceived health risks.
- Perceived health risks from shared transportation modes may exacerbate the use of the personal vehicles.
- The emerging trend of "working from home" from primarily knowledge workers, most prevalent near the peak of the pandemic, may persist post-pandemic.
- The trip purpose for regional transit may shift away from essential, commuter trips to non-essential trips like for leisure and sporting events, local tourism, airport travel.
- Rising housing prices during the pandemic and other factors caused relocation of many residents away from urban centres to more suburban municipalities. This relocation may lead to lengthier trip distances and commute times which have negative environmental consequences. Increased auto dependence and rising fuel prices during the beginning of 2022 have increased the need for alternate, affordable, and sustainable modes of transportation.

Transportation shocks within this plan's horizon include the adoption of emerging technologies such as autonomous and electric vehicles, extreme climate change, and economic trends that can alter trip making behavior of people and goods such as fuel prices, inflation, and supply chain disruptions. A future-ready transportation system ensures that the system can absorb these potential shocks and adapt using a multi-modal transportation approach supported by growth management and land use planning.

4.6 Sustainable Mode Share Objectives

The Region of Peel's 2019 *Long Term Transportation Plan* (LRTP) targets a region-wide sustainable mode share of 50% by 2041. Sustainable mode share includes carpooling, walking, transit, biking and other non-single occupancy vehicle trips (e.g., school bus, taxis, etc.). The 2041 sustainable target mode share for Caledon is 32%, which is 3% higher than the 2011 sustainable mode share for the AM peak period. This target non-auto mode split corresponds to the following breakdown shown in **Table 4-3**.

However, these objectives were established before the Region of Peel allocated land uses to the Town of Caledon by 2051 through the Municipal Comprehensive Review (MCR); it is anticipated that a higher transit modal share will be required for development of the SABE and a population of 300,000 for the Town of Caledon. Therefore, the target 2051 mode splits as shown in the table were developed as part of this MMTMP based on a benchmarking exercise of municipalities that currently have a population density comparable to SABE.

Table 4-3: Caledon Mode Share Target Breakdown

Mode of Travel	2011 [2]	2041 Vision [2]	2051 Vision
Driving	71.0%	68.1%	60%
Walking	3.5%	3.6%	6%
Cycling	0.0%	0.8%	1%

Mode of Travel	2011 [2]	2041 Vision [2]	2051 Vision
Transit	2.0%	2.5%	6%
Carpool	8.2%	9.9%	13%
Other [1]	15.3%	15.1%	14%
Sustainable Transportation	**29.0%**	**31.9%**	**40%**

Note: 1. "Other" modes include motorcycle and school bus.
2. Source: Region of Peel's 2019 Long Term Transportation Plan (LRTP)

4.7 MMTMP Vision and Objectives

By 2051, the Town will have a transportation system that provides **accessible**, **affordable**, **safe**, and **sustainable** travel choices for all, and is well-integrated, effective to use, promotes healthy lifestyles, and supports economic prosperity, livable communities and climate commitments. The MMTMP's objectives include:

1. Develop a future-ready transportation plan for the Town and expand the multi-modality of the transportation system including driving, transit, walking, cycling, and other emerging mobility options.

2. Provide infrastructure to support and manage future land use growth and address the needs and priorities for both rural and urban communities.

3. Deliver sustainable strategies that protect natural heritage assets while reducing transportation's effects on climate change.

4. Build a safe and inclusive transportation system that supports age-friendly communities and promotes healthy living.

5. Develop complementary transportation solutions that support Provincial, Regional, and Local policies and the Town's Official Plan (OP).

5.0 Road Needs and Opportunities

This chapter outlines the existing and future travel demand modelling to identify road capacity needs, transportation needs and opportunities of other elements of the transportation system such as transit and active transportation.

5.1 Role of the Road Network

The Town road network provides access to land, accommodates circulation of people and goods by vehicles (including transit) and provides rights-of-way for other infrastructure including utilities and active transportation (e.g., sidewalks, multi-use trails, etc.). Road capacity needs and opportunities reflect the level of efficiency and convenience necessary for public commuting, supporting public transit and accommodating goods movement.

5.1.1 Capacity for Commuter Accommodation

The need for public commuting by automobile includes a range of purposes such as travel to work, medical, shopping or leisure purposes from/to locations that are not adequately served by transit / active transportation and/or do not adequately serve users with mobility or other barriers to travel by other modes.

Traffic congestion, where vehicles cannot travel at their free flow speed, occurs as vehicle volumes approach the throughput capacity of roadways causing a reduction in speed. Insufficient road capacity, relative to traffic volumes can cause traffic congestion which can have economic, social, and environmental impacts.

Economic impacts from traffic congestion include loss of time for productive activity. Social impacts from traffic congestion can include driver frustration and can contribute to what is commonly referred to as “road rage.” Congestion can increase time spent in vehicles and less time for family, leisure and physical activity.

Environmental impacts from traffic congestion include the impacts to air quality due to the use of non-optimal speeds in relation to fuel economy. Non-optimal speeds are variable between vehicle manufacturers however, in general, optimal speeds can be between 50 km/hr and 90 km/hr. Lower speeds can cause decreased fuel economy and increase emissions per kilometre travelled. Roadway congestion can also impact the quality of transit service especially if transit vehicles are mixed with traffic.

5.1.2 Capacity for Goods Movement

Within urbanized areas, the economic competitiveness of a municipality is affected by the efficiency and capacity of the movement of goods to / from business areas. Traffic congestion or lack of direct routes can significantly add to the cost of goods and services through transportation costs. Economic competitiveness often relies upon the connectivity between industry and transportation infrastructure including freeways, regional arterial roads and intermodal terminals.

An estimated $1.8 billion worth of commodities (product or raw material) travel to, from, and through Peel every day by various modes including trucking, rail, air, marine, or pipeline. Goods movement is a pillar of the regional economy. In addition, goods-movement related industries have contributed $49 billion of GDP to Peel Region's economy.

The Town of Caledon Economic Development Strategy presents an action plan to support economic growth in the Town. It recognizes the need for key transportation infrastructure such as the GTA-West Transportation Corridor (also referred to Highway 413). The strategy expects "that the expeditious approval and development of Highway 413, will result in 118,000 jobs in Caledon by 2041". It acknowledges the need for serviced "industrial areas and business parks, with a mixture of heavy industrial and light industrial land uses; warehousing and distribution facilities; small and medium scale office buildings".

5.1.3 Accommodation of Alternative Modes of Travel

A Complete Streets approach to road design considers the needs of motorists, pedestrians, cyclists, and transit riders of all ages and abilities. Provincial, Regional and Town policy support the planning and design of Town of Caledon's streets consistent with Complete Streets principals in support of all transportation modes and strongly consider the needs of utility and maintenance providers within the public right-of-way. For Caledon roads to provide all the necessary street elements and subsurface utilities for successful Complete Streets, the Town must acquire the necessary property and public right-of-way.

5.1.4 Community Circulation and Land Access Accommodation

Within the Town of Caledon, new collector road networks are established by the Town's Secondary Plans. Secondary plans provide more detailed policies for the area it covers, and they also establish a collector road network within the lands.

Historically, the Town of Caledon directed most of their new population and employment growth in Caledon to the Urban Areas of Bolton, Caledon East and Mayfield West. The future growth allocation approach focuses development in the south of Caledon, away from sensitive environmental areas and heritage settlements, minimizes interference with agricultural activity and concentrates new demands for services in locations where this demand can be most readily met. Secondary planning areas are illustrated in Figure F3 of the Future Caledon Official Plan.

Planning for the future, the Town's previous "tri-nodal" growth management is evolving. While major arterials currently exist through the planned growth areas in south Caledon, new collector road networks will need to be introduced through future secondary plans. Given current spacing of the road grid and existing property block sizes in the future growth areas, there is a need for a denser road network to provide the circulation and land access required. There are alternative approaches to define a finer road grid and solutions will need to be context specific.

5.2 Existing Road Capacity Needs and Opportunities

To Traffic volumes, as provided by the Town, were used to provide an understanding of existing traffic conditions. Peak direction volumes are illustrated in **Figure 5-1**. The vast majority of Town roads operate with estimated peak direction volumes of less than 850 vehicles. The three Town road segments below are shown to experience high volumes and some degree of recurring congestion:

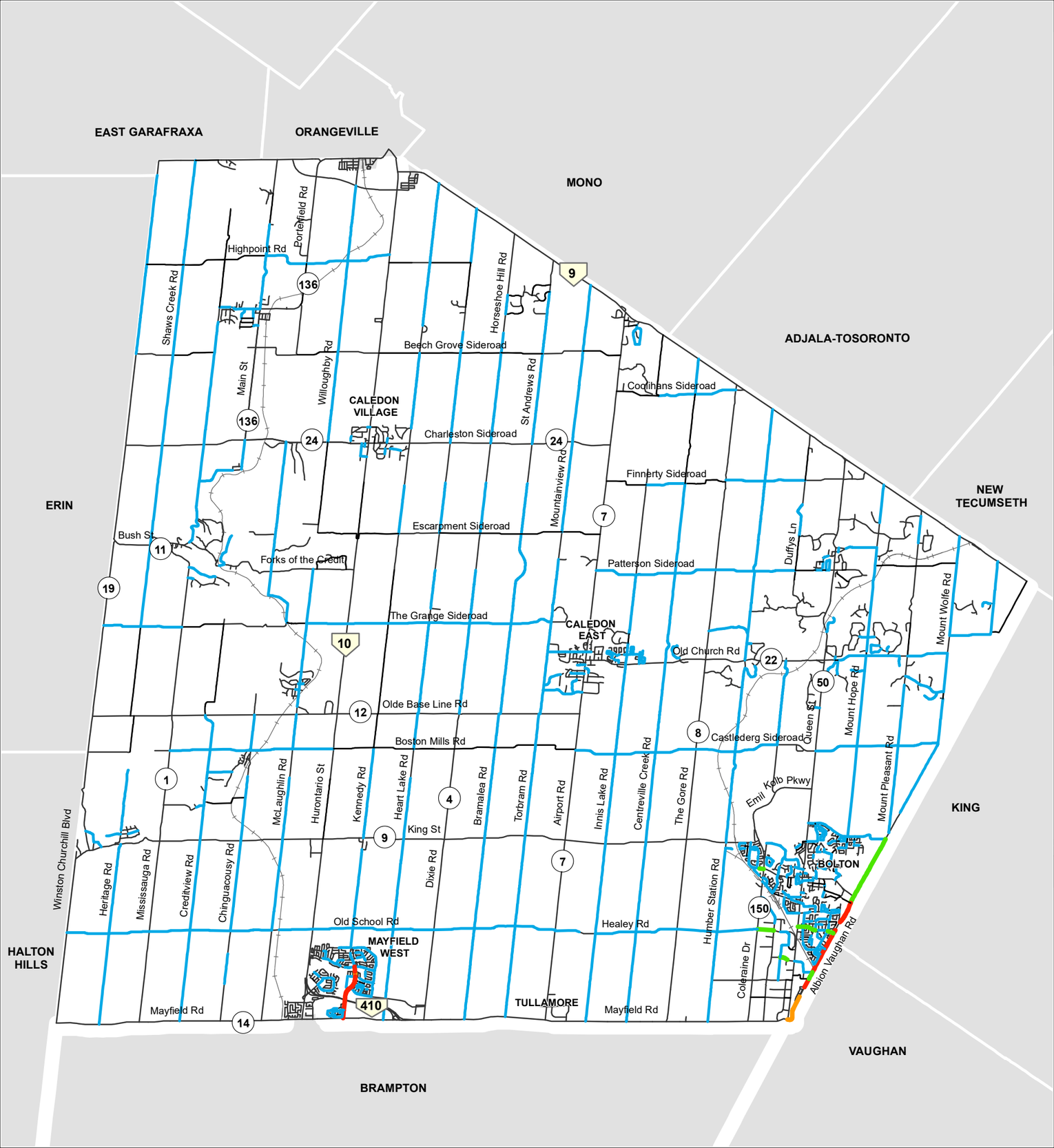
- Kennedy Road between Mayfield Road and Dougall Avenue,
- Albion Vaughan Road between Morra Avenue and north of Queensgate Boulevard, and
- Albion Trail between Mount Wolfe Road and 1 km north of Mount Wolfe Road.

Town of Caledon

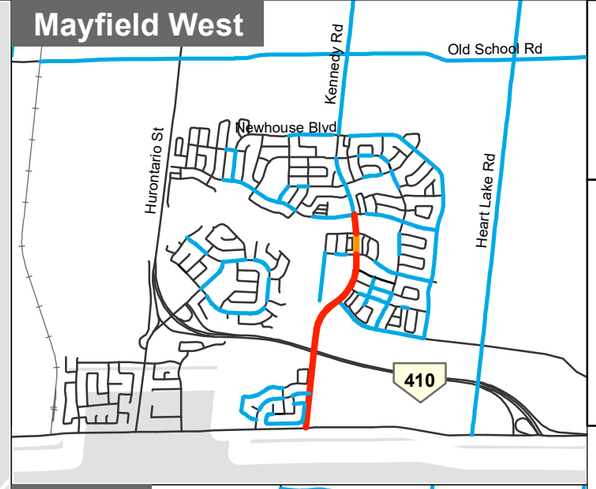
Transportation Master Plan

FIGURE 5-1

Existing Traffic Volumes



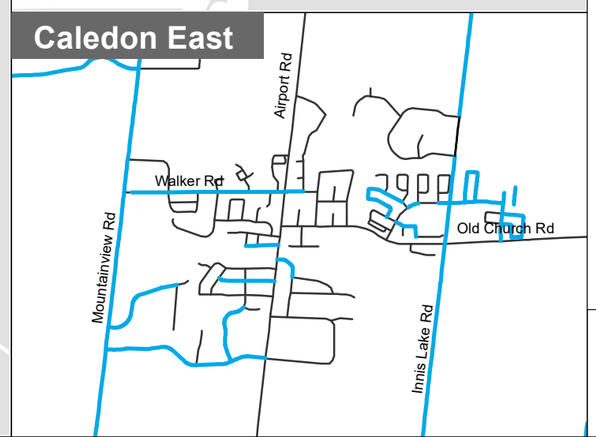
Mayfield West



Bolton



Caledon East



Peak Direction Volume

- No Data
- < 500
- 500 - 750
- 750 - 850
- > 850

Note: Year of data varies between 2017 - 2022

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

5.3 Future Road Capacity Needs and Opportunities

5.3.1 Population and Employment Growth

The Town of Caledon MMTMP has been undertaken concurrently with Region of Peel's Growth Management Strategy and the Region of Peel's Settlement Area Boundary Expansion (SABE) study. The draft 2041 and 2051 population and employment allocations for the Town of Caledon, City of Brampton, and City of Mississauga are summarized in **Table 4-1**.

5.3.2 Future Road Capacity Needs

An assessment of future road capacity needs was conducted and summarized below.

5.3.2.1 Road Capacity Improvements

The Region of Peel Transportation model was used to project future traffic volumes on Provincial, Regional and Town roads. The model contains future population and employment allocation assumptions.

As a part of the Region's Growth Management Strategy, the Region, in consultation with the Town of Caledon, City of Brampton, and City of Mississauga, developed the preferred population and employment land use allocations with consideration for growth identified through the Provincial Growth Plan and the Region's Land Needs Assessment which determines the amount of land required to accommodate the future land uses. The preferred land use allocations were incorporated into the model by Regional staff and use for this study.

By 2051, several road segments are expected to have per lane traffic volumes consistent with recurring congestion. Additional capacity constraints are anticipated on north-south major roads south of Old School Road given the change in nature of these streets (close intersection spacing, turning movements, transit operations and pedestrian activity) and related reduction in capacity. Congestion on Mayfield Road will require an alternative continuous east-west road, such as along Old School Road / Healy Road. Based on future congested road segments, road capacity improvements are warranted as summarized in **Table 5-1.**

However, as mentioned, this Transportation Master Plan supports and serves as the basis for more detailed investigations to confirm the improvements required as part of future Environmental Assessment and Secondary Plan studies.

Table 5-1: Proposed Town Road Improvements

Road	From	To	Recommendation	Year	Status [1]	Highway 413 Interchange Located Along Road Segment
Chinguacousy Road	Mayfield Road	Mayfield West Phase 2 Limit	Widening from 2 to 4 lanes	2031	Committed	No
McLaughlin Road	Mayfield Road	Mayfield West Phase 2 Limit	Widening from 2 to 4 lanes	2031	Committed	No
	Mayfield West Phase 2 Limit	Old School Road	Widening from 2 to 4 lanes	2031	Planned	No
Albion Vaughan Road	Mayfield Road	King Street	Widening from 2 to 4 lanes	2031	Committed	No
Chinguacousy Road	Mayfield West Phase 2 Limit	Old School Road	Widening from 2 to 4 lanes	2031	Proposed	Yes
Humber Station Road	Mayfield Road	North of King Street (Settlement Area Limits)	Widening from 2 to 4 lanes	2031	Proposed	Yes
Abbotside Way	Bonnieglen Farm Boulevard	Heart Lake Road	Extension (4 lanes)	2031	Committed	No
Healey Road	The Gore Road	Coleraine Drive	Widening from 2 to 4 lanes	2031	Proposed	No
Torbram Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2031	Proposed	No
George Bolton Parkway	West of Coleraine Drive	Humber Station Road	Extension (4 lanes)	2031	Proposed	No
Kennedy Road	Newhouse Boulevard	Old School Road	Widening from 2 to 4 lanes	2031	Proposed	No
Innis Lake Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2041	Proposed	No
Centreville Creek Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2041	Proposed	No
Old School Road	Winston Churchill Boulevard	Airport Road	Widening from 2 to 4 lanes	2041	Proposed	No
Healey Road	Airport Road	The Gore Road	Widening from 2 to 4 lanes	2041	Proposed	No
Kennedy Road	Old School Road	King Street	Widening from 2 to 4 lanes	2041	Proposed	No
Caledon King Townline	King Street	Columbia Way	Widening from 2 to 4 lanes	2041	Proposed	No
Columbia Way	Regional Road 50	Caledon King Townline	Widening from 2 to 4 lanes	2041	Proposed	No
Bramalea Road	Mayfield Road	King Street	Widening from 2 to 4 lanes	2041	Proposed	Yes
Heart Lake Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2051	Proposed	No
Chinguacousy Road	Old School Road	King Street	Widening from 2 to 4 lanes	2051	Proposed	Yes
McLaughlin Road	Old School Road	King Street	Widening from 2 to 4 lanes	2051	Proposed	No
Heritage Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2051	Proposed	No
Creditview Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	2051	Proposed	No

Note: 1. Proposed improvements refer to projects that are currently undergoing studies, planned improvements refer to those with approved studies but are not budgeted, and committed improvements refer to projects that have been budgeted as part of the Caledon capital plan or development charges study.

5.3.2.2 Highway 427 Extension

The Town of Caledon, with Regional Council support, have requested that the Province of Ontario protect for the lands required to extend Highway 427 to Highway 9 and beyond. The northerly extension of the Highway 427 had already been justified by MTO in the 1990s. Given the need for intermunicipal travel and goods movement, protection of established communities from increasing truck traffic, and the high traffic volumes on Highway 50, it is recommended that the Ministry of Transportation Ontario (MTO) reinvestigate the opportunity to extend Highway 427 from Major Mackenzie Drive to Highway 9 and beyond.

5.4 Good Movement Needs and Opportunities

Employment zones, major terminals and resource lands are important elements of the economic engine of the Region and are key traffic generators. An efficient transportation system is critical for business competitiveness and access for employees and customers.

The planned growth in Caledon provides an opportunity to improve coordination between land use planning, economic development, and infrastructure investments to support investment and job creation over the longer-term. Key employment areas for consideration are summarized below.

5.4.1 Goods Movement Hub Trip Generators

As stated in the Future Caledon Official Plan, the Town recognizes the importance of goods movement on the overall transportation system. The Official Plan also states: “Safe and efficient movement of goods and services within and through the Town is essential for sustained economic growth and in attracting and retaining a wide range of industries and businesses”. There are a few major goods movement hubs in and around Peel Region; however, all are situated south of the Town of Caledon; there will be a need for efficient high-capacity connections to the goods movement hubs identified below.

Canada’s two major rail operators, Canadian Pacific (CP) and Canadian National (CN), own approximately 52,000 route kilometres coast-to-coast. Railway operations have been more focused on long-distance train movements of goods. Approximate volume of goods at each of the two intermodal yards are shown in **Table 5-2**.

Table 5-2: Approximate Volume of Goods by Intermodal Terminal

Terminal	Volume (TEUs/Day)	Volume
CN Brampton Intermodal Terminal	7,700	160 trucks/hour 8-9 trains per day
CP Vaughan Intermodal Terminal	3,600	1,800 containers per day

The intermodal yards are situated south and southwest of Caledon and accessible via the provincial freeway network. The CN intermodal yard is situated north of Highway 407 and west of Highway 427 in Brampton, 10 kilometres from Caledon and 12 kilometres from the Bolton Industrial area. The CP intermodal yard is situated west of Highway 427, approximately 4 kilometres from the Bolton Industrial area.

With the anticipated 2051 population in the Town of Caledon of 300,000 people, growing customer demands and needs, and the proximity of the intermodal yards, truck traffic is expected to grow significantly over the next few decades.

5.4.2 Goods Movement Employment Area Destinations

The Bolton Industrial Area supports major businesses and approximately 13,000 jobs. Current major employers include Husky Injection Molding Systems, Verdi Alliance Group of Companies, Canadian Tire Distribution Centre, MARS, and Delgant Limited. The Bolton area and western expansion is part of a Provincially Designated Employment Zone as previously shown in **Figure** 4-4. As such, the area is seen as an area of high economic output. It is identified by the province as “strategically located to provide stable, reliable employment across the region”.

Pits and quarries also contribute significant truck traffic within the Town of Caledon. The availability of accessible clean aggregate will be critical to the anticipated growth in Caledon over the next 30 years. There are currently an estimated 19 pits and quarries in the Caledon. There are many pit and quarry operations south and west of Caledon Village and the transportation by truck of aggregates (e.g., sand, gravel, clay, bedrock) from these pits and quarries can cause concerns related to community disruption and safety. Directing trucks to routes that are away from sensitive areas will help address concerns related to transportation of aggregates. Aggregate sites are shown in **Figure 3-4**.

In 2019, the Toronto Pearson International Airport handled 465,606 tonnes of air cargo and frequently processes over 45% of Canada’s air cargo. The Greater Toronto Airports Authority, Pearson Airport’s operator, expects cargo volumes to increase to 958,000 tonnes by year 2037. In the freight industry, air travel is primarily used for high-value and/or time-sensitive cargo such as courier shipments and perishables. The Pearson airport is strategically located by Highway 407, 427, 401, and 410 which assists in the efficiency of goods movement delivery; hence there is a need for the Town of Caledon to have good higher capacity connections to the Provincial freeway network.

5.4.3 Goods Movement Residential Area Destinations

Trends in consumer needs also include the need for quick delivery of consumer goods and flexible return policies which have increased the need for complex supply chain strategies and local distribution points. In Canada, total retail sales grew by just 1.3% between January 2020 to January 2021 (in part attributed to the COVID-19 pandemic), however, sales in retail e-commerce grew 111% during this same time period.

E-commerce trips contribute to delivery traffic on collector and local roads. These trips will require consideration of traffic circulation and curbside management within new communities.

5.4.4 Municipal Goods Movement Initiatives

The Region of Peel has historically led stakeholders, in goods movement strategies, including the Peel Goods Movement Strategic Plan and Strategic Goods Movement Network. Peel Region's Goods Movement Strategic Plan (2017 – 2021) outlines the actions required to plan for a safe, convenient, and efficient goods movement transportation system that supports the economy. The plan contains the 6 goals identified in **Table 5-3**.

Table 5-3: Regional Goods Movement Strategic Plan Goals

Goals	Description
Community and Environmental Sustainability	Manage and mitigate adverse community impacts of goods movement operations and support environmental stewardship.
Safety	Improve the safety and resiliency of the goods movement network and its users.
Economic Competitiveness	Sustain and promote investments in the multimodal goods movement system for continued economic efficiency, growth, and regional competitiveness.
Innovation and Technology	Use advanced technology, innovation, and accountability in the operation and maintenance of the goods movement system.
Performance Management	Ensure timely, accountable and transparent plan implementation and performance evaluation.
System Performance	Enhance goods movement mobility through reduced delay, increased reliability and efficiency.

In addition, Smart Freight Centre (SFC) was established by the Region of Peel, McMaster University, University of Toronto, and York University, with the goal of coordinating transportation infrastructure, land development, regulation, technology tools, and resources to improve goods movement activities. This will be accomplished through evidence-based research on regionally significantly goods movement issues and projects in the Region and the Greater Toronto Hamilton Area (GTHA).

5.4.5 Town of Caledon Goods Movement Policies

Town of Caledon policies balance the support of goods movement with the needs of the transportation system and local communities. To ensure that trucks use arterials (mainly Regional Roads) as their primary route, the movement of trucks in the Town is regulated by traffic by-laws which restricts heavy truck movements to certain parts of the arterial road network and regulates vehicle weights relative to the carrying capacity of roads and bridges.

Regional arterials are designed to accommodate the loading and structural requirements of trucks and operate at higher speeds making them more suitable for the goods movement network. Town roads serve more as connectors for trucks to connect to these Regional arterial roads, subject to the loading restrictions of the roadway design. Most truck traffic should aim to travel on Regional arterials. Local roadways prohibit truck traffic unless it is local delivery and in

the absence of alternative acceptable routing. This ensures that trucks minimize their impact to the residential communities. Truck restrictions on Regional roads are shown in **Figure 5-2**. The Town roads that are designated as truck routes as part of the Region of Peel Strategic Goods Movement Network (SGMN) are summarized in **Table 5-4**.

Although these routes have been identified by the Region in the past, the Town of Caledon does not have a set of criteria to designate truck routes and therefore, does not support these classifications. Horseshoe Hill and Mountainview Road are not supported as truck routes given the road geometry. Evaluation criteria should include elements such as engineering feasibility, rehabilitation costs, and consider other elements of the roadway (e.g. Cycling facilities).

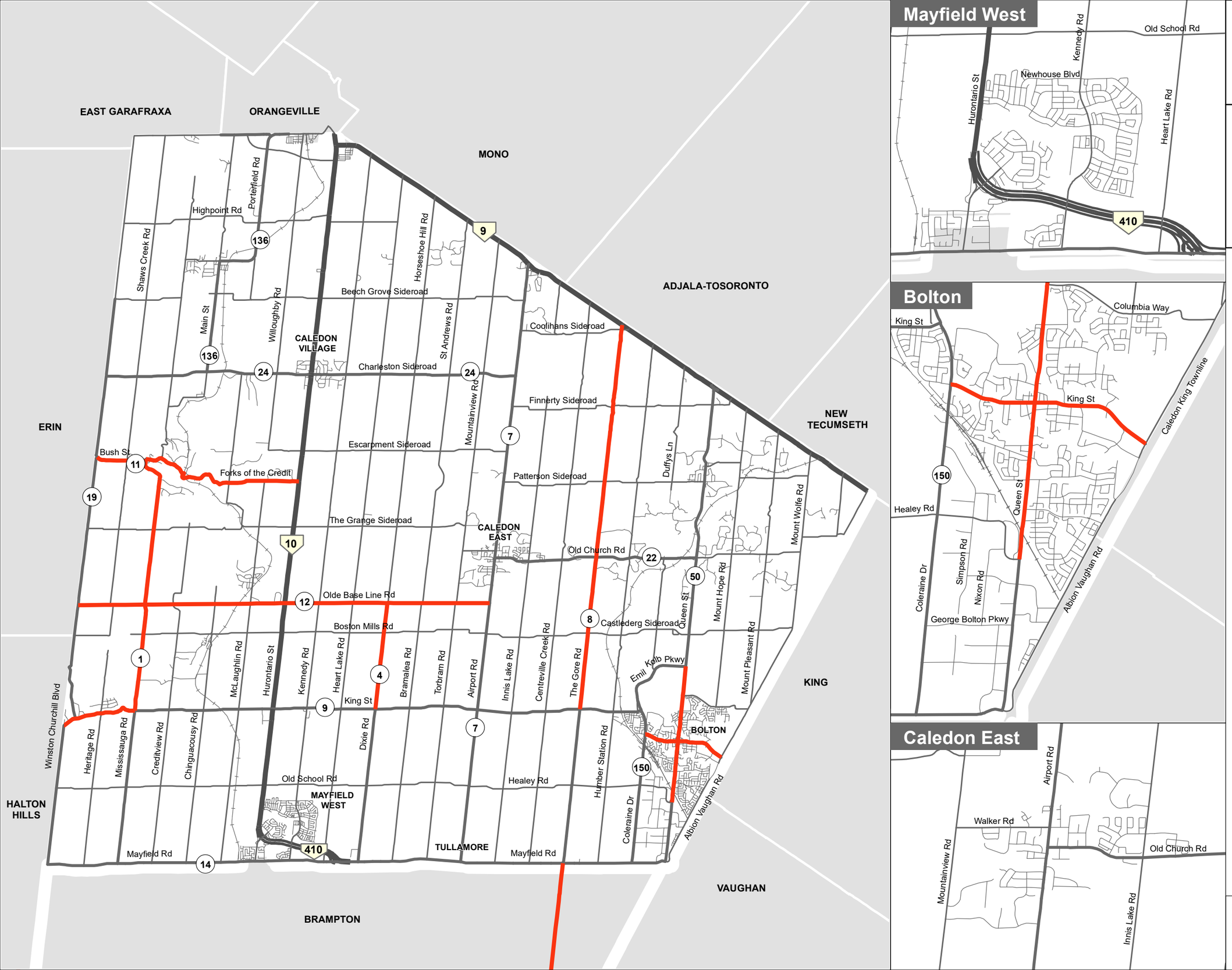
Town of Caledon

Transportation Master Plan

FIGURE 5-2

Truck Restrictions on Regional Roads within Caledon

Trucks Prohibited



0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Table 5-4: Town Truck Routes

Road	From	To	Peel Truck Network
Dufferin Rd 109	Caledon East Garafraxa Road	Hurontario St (Highway 10)	Primary Truck Route
Horseshoe Hill Road	Olde Base Line Road	Highway 9	Primary Truck Route
Mountain View Road	Olde Base Line Road	Charleston Sideroad (Regional Road 24)	Connector Truck Route

5.5 New Road Needs and Opportunities

With significant population and employment planned for the SABE, the Town will identify and undertake a series of Secondary Plans to guide its development. Typically, a secondary plan will provide more detailed policies for the area it covers, such as public spaces, parking, and urban design. A finer-grained road network will be developed for the Secondary Plans. The layout and design of the collector and local road networks within the future Secondary Plans should consider a framework for land access and circulation. Collector roads form the basic linear structural framework that communities are fashioned around. Their distribution, frequency, location, segment length, and degree of connection will establish the fundamental design elements that distinguish one community from another. The network of collector roads also establishes the primary transit, cycling, and pedestrian routes for a community. This section offers guidance for future consideration.

5.5.1 Road Pattern Alternatives

Historically, there have been two main types of street layouts: grid networks and curvilinear networks. Most curvilinear networks implement loops and cul-de-sacs that would feed into collector streets. Grid networks consist of street orientations that are in right angles and have rectangle formation. An example of a grid network, curvilinear network, and cul-de-sac is shown in **Figure 5-3**.

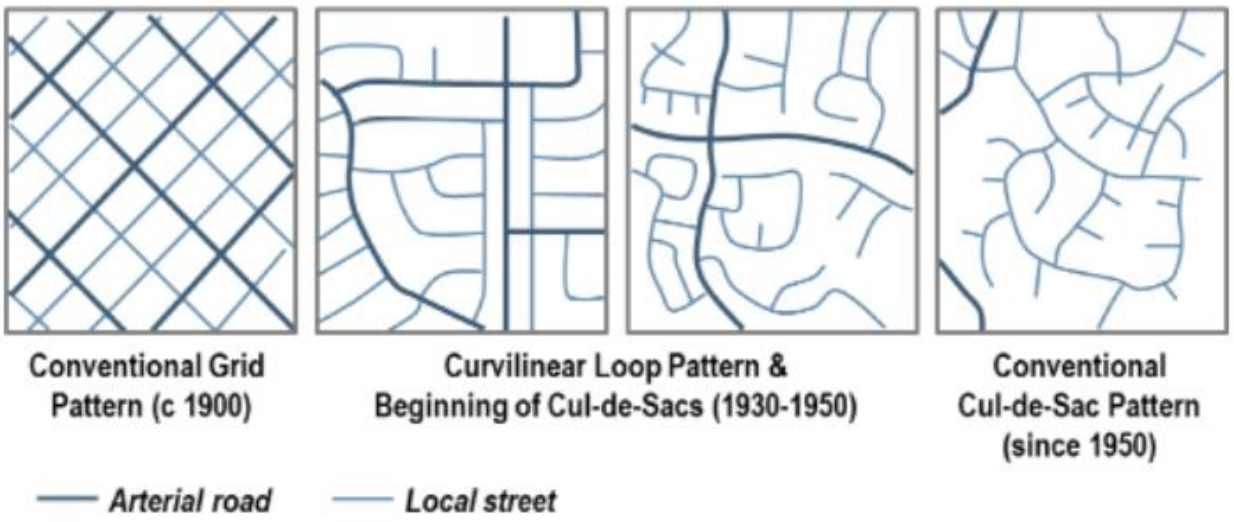


Figure 5-3: Comparison of Street Layouts

5.5.1.1 Curvilinear Street Networks

Curvilinear street networks with loops and cul-de-sacs were seen beneficial to noise reduction, traffic calming, and increased privacy. This type of network was perceived at the time by designers and developers to be able to slow vehicular traffic by the winding nature of the collector streets and non-continuous routes via the loops and cul-de-sacs reduced non-local traffic and noise from vehicles. The principle of having more discontinuous local streets feed into curvilinear collector streets also allowed for more privacy, which was once a preference to homebuyers and thus developers.

5.5.1.2 Grid Street Networks

Grid networks support walking and cycling and efficient transit service. Curvilinear road networks usually lack direct walking or cycling routes and street connections. Curvilinear road networks rely on an additional layer of off-road walking and cycling connections which can be added to discontinuous streets, however, discontinuous road networks can lead to unexpected desire paths (i.e. informal pathways created by pedestrians, bikers, and animals and represent routes more desirable to travelers). Grid networks are more suited in serving the pedestrian and cyclist in terms of connectivity, which is usually referred to as these neighbourhoods having better “walkability and cyclability”.

Although it is important to note that connectivity does not always correlate to perceived walkability and cyclability. Even if there are high levels of connectivity and high intersection density, if paths are not friendly to walk or bike through, less people to interact with, or if there are certain paths that are difficult to navigate or cross, the perceived level of walkability and cyclability decreases. Choosing to walk or cycle is influenced by connected and safe active transportation networks and attractive community spaces.

5.5.1.3 Transit Accessibility

Connected street networks with high intersection densities are more supportive of transit, as more users can walk directly to a transit stop. In other words, long road segments and less intersection density would lead to fewer people having direct access to the transit stop. Alternatively, the use of collector streets looping within a subdivision disadvantage the overall connectivity of the transit network, as buses would not be able to directly pass through the subdivision.

5.5.2 Street Spacing and Intersection Density

Intersection density or street spacing can impact the level of connectivity for driving, walking, cycling, and transit. Intersection density is an objective indicator of assessing a community's built environment. High intersection density allows the street network to be more walkable with higher connectivity and shorter road segments which can also impact the directness of accessing transit stops.

Higher intersection densities can also provide more impedance to vehicles assuming these intersections are stop control or signalized. Lower intersection densities lead to longer road segments which can facilitate the movement of vehicles.

Currently in Southern Caledon, the spacing between the future SABE lands is approximately 3.0 kilometers between major east-west roads and is approximately 1.4 kilometres between major north-south roads as shown in **Figure 5-4**.

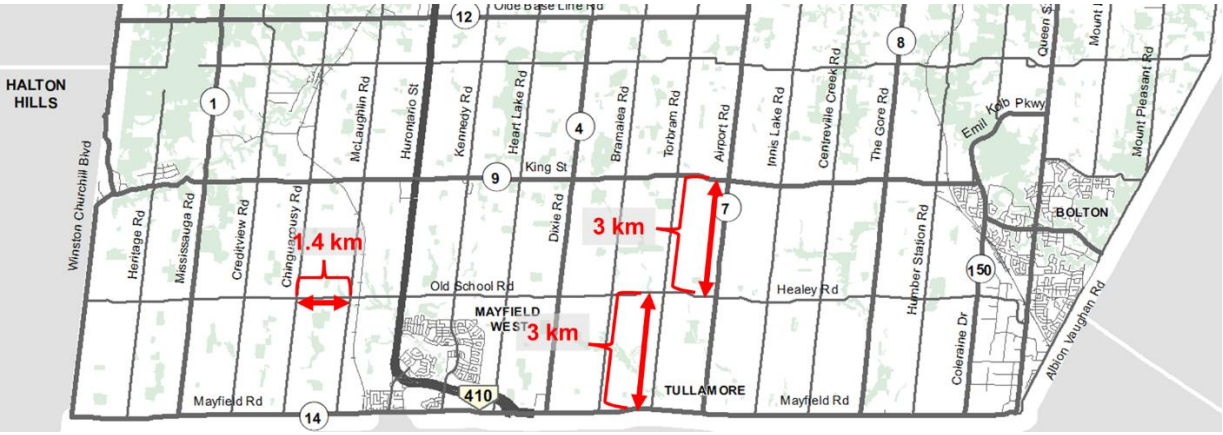


Figure 5-4: Network Spacing in Southern Caledon

In the City of Brampton, the spacing between major east-west roads is approximately 800 metres with a collector road located approximately mid-way. The spacing between major north-south roads is approximately one kilometre with a collector road located approximately mid-block.

5.5.3 East-West Major Route (Old School Road / Healey Road)

Old School Road and Healey Road is the only continuous east-west corridor within the SABE area. There is a need for additional capacity (above and beyond Highway 413) in order to facilitate traffic circulation and connectivity in the SABE between residential and employment areas and support active transportation and transit trips.

Currently, Old School Road and Healey Road are geographically located near the upper limits of SABE as previously shown in **Figure 4-1**. There is an opportunity to introduce new major east-west corridor(s) as an alternative to Old School Road and Healey Road.

5.5.4 Street Hierarchy and Character

A street network can perform most efficiently and safely if roads are designated and operated to serve their intended purpose. Street networks should consider primary uses for all road users. These uses can include traffic-through movements, walking, socializing, circulation, connectivity, freight movement, cycling, parking and loading, and access to properties. Based on the intended uses, road users and corresponding posted speeds, and other road design elements should be identified and established.

The Town's Road network is currently classified in the Official Plan as Town arterials, collectors, and local roads. There is an opportunity to identify and design roads based on their role in the network hierarchy and the roadway environment characteristics. Context sensitive "Complete Streets" designs represent more functionally appropriate roadways. Consideration could be given to network planning criteria shown in **Table 5-5**.

Table 5-5: Possible Goals of the Network and Suggested Target Indicators

Goals of the Network	Suggested Target Indicators
Promote Walkability	Higher intersection densities Shorter road segments Decreased spacing Higher km of active transportation infrastructure (e.g., Sidewalks, off-road trails)
Promote Connectivity	Higher intersection densities Shorter road segment length Higher population that is 400-m away from a transit stop
Promote Sociability	Increased number of mixed-use, institutional, or commercial land-uses Increased number of open and civic spaces Higher km of active transportation infrastructure (e.g., Sidewalks, off-road trails)
Reduce Traffic Infiltration and Road Construction costs	Higher # of loops and cul-de-sacs Lower # of streets (arterial or collectors) that can access the subdivision or community

5.5.5 Major Corridors

Consistent with the concept of nodes and corridors, the Future Caledon Official Plan designates of Urban Centres, Neighbourhood Centres and Urban Corridors.

Urban Corridors are defined as vibrant and prominent streets, serving as destinations and connections. Urban Corridors support intensification and are well served by transit and as such, Urban Corridors are proposed to be developed based on the following principles:

- Serve as a place for movement, living, and commerce that are intrinsically linked to the mobility systems that connect people and places,
- Provide appropriate transition to lower scale residential areas to mitigate adverse impact to sensitive land uses, and
- Provide a link to Major Transit Station Areas and high-order transit corridors.

5.5.6 Planning and Design Guideline Recommendations

This section provides design guidelines for the key components of Collector Roads when viewed as a “corridor” within the network of a broader community.

The items below can be considered by the Town as guidelines for new collector roads specifically in SABE and BRES areas. The collector roads shall:

1. Articulate an overall vision for the Collector Road network to direct decisions regarding urban structure in Community Design Plans, Secondary Plans, and other planning exercises. This vision should address the full family of Collector Roads in accordance with their varying planned functions and adjacent land use context.

2. Lay out the community with frequent connections of Collector Roads to Arterial roads in order to increase route choices, to reduce requirements for “backtracking”, to not “load up” individual collectors, and to create large development blocks well served by collectors. Locate these intersections between 250m to 400m apart to enable efficient traffic flow along an arterial road and to allow back-to-back left-turn lanes on an arterial road where required. Lesser spacings may be appropriate when collector roads form a three-way junction (“t-intersection”) at arterial roads. Accordingly, existing concession blocks in SABE area are expected to have about 3 north-south and 5 east-west collectors. Conceptual collector road spacing is illustrated in **Figure 5-5**.

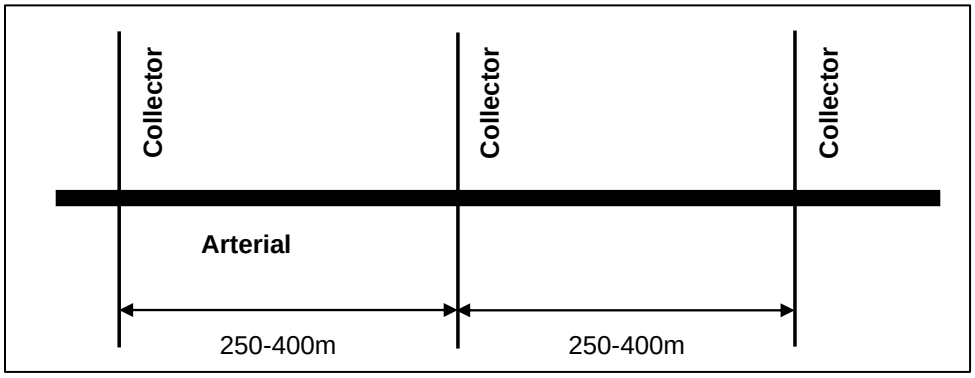


Figure 5-5: Conceptual Collector Road Spacing

3. Create a connected network of street and block patterns with relatively frequent Local Road intersections with Collector Roads to promote accessibility, connectivity and continuity along and across the Collector Road corridor.

4. To achieve a highly urbanized corridor, design blocks with intersecting side streets every 50m to 100m along the Collector Road. In Greenfield areas, blocks between 150 and 250m in length may be appropriate.

5. Design the system of Collector Roads to provide direct and continuous routing options for transit and cycling, and pedestrians, linking major recreation amenities, commercial areas, and employment areas, and connecting multi-use pathways.

6. Design the network so that all buildings will be within 400m walking distance of public transit.

7. Use the Collector Road pattern to establish the solar orientation of a neighbourhood such that the number of buildings with south-facing windows is maximized and energy consumption is reduced in winter months.

8. Where multi-use pathways need to cross Collector Roads, locate the crossing points at controlled locations, preferably intersections, to provide safe crossings. Where paths need to cross at mid-block locations, consider stop controls or pedestrian activated signals.

9. Design the intersection of Collector Roads and Arterial Roads as distinctive neighbourhood entry points, possibly including medians and special landscaping treatments.

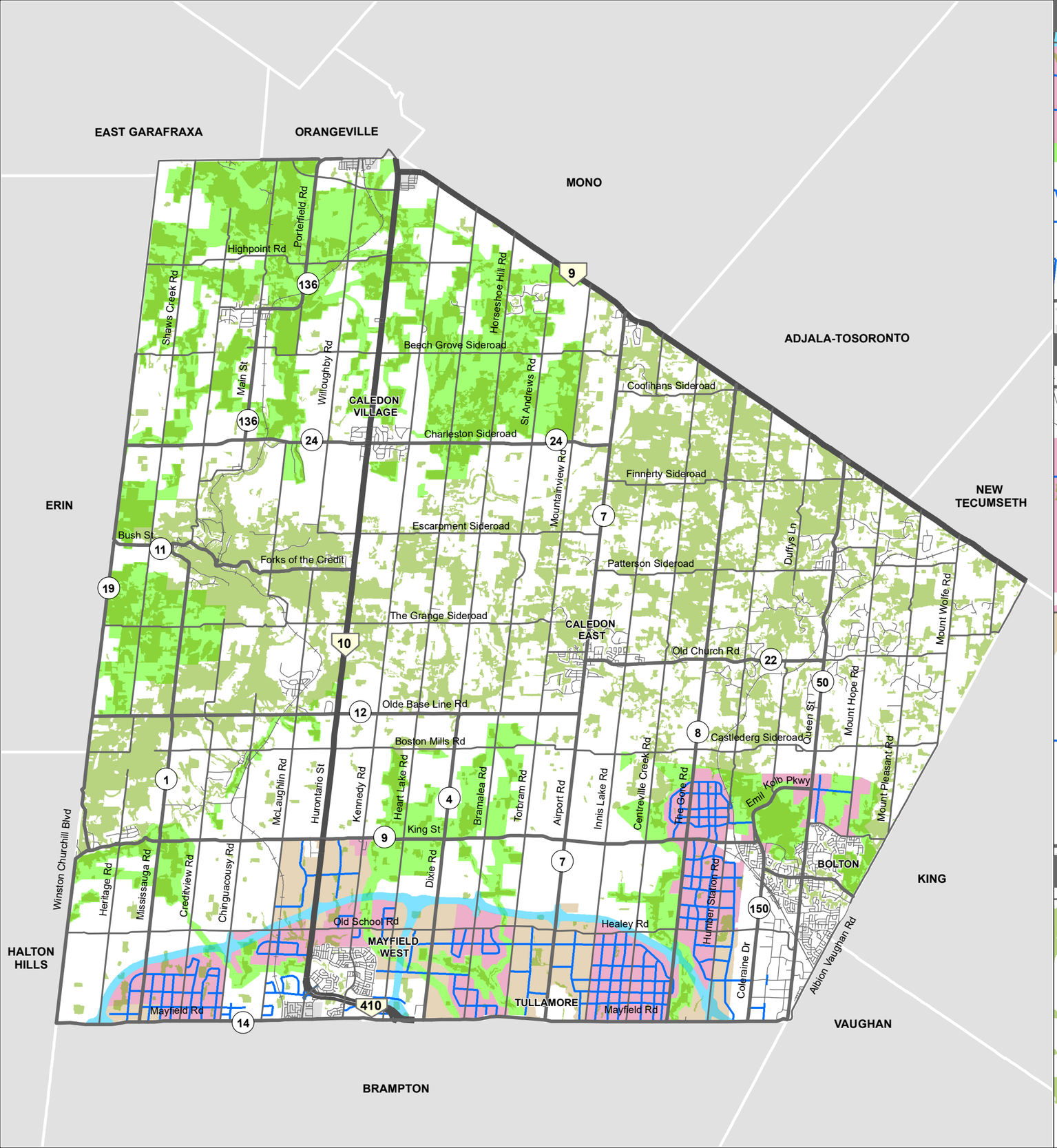
10. A conceptual layout of roads in the SABE area is illustrated in **Figure 5-6**. Note that this network is highly conceptual and its feasibility, including environmental impacts, is to be determined as part of secondary plans. Opportunities for active transportation connections within environmentally-sensitive areas may also be investigated as part of future studies.

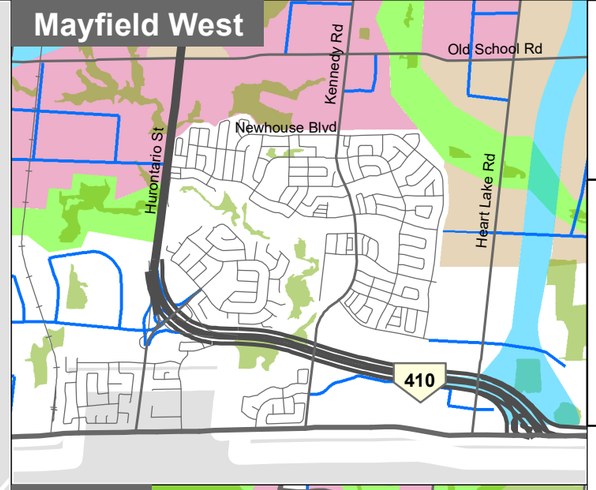
Town of Caledon

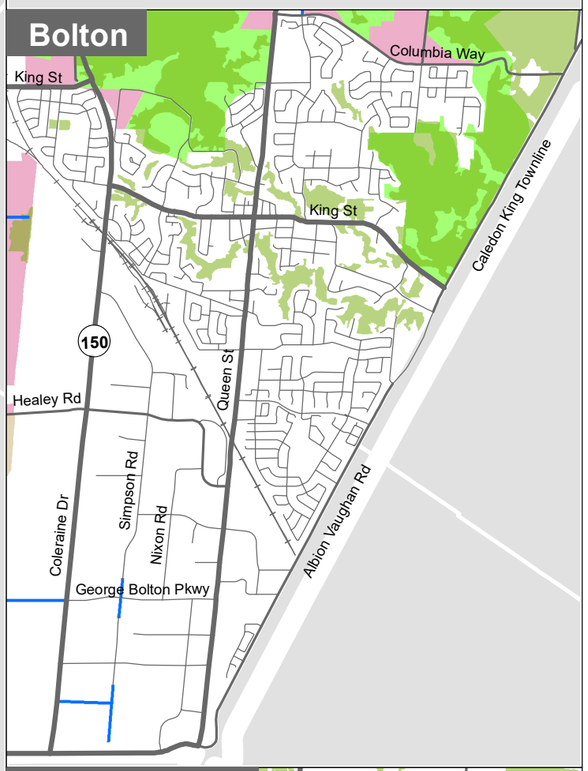
Transportation Master Plan

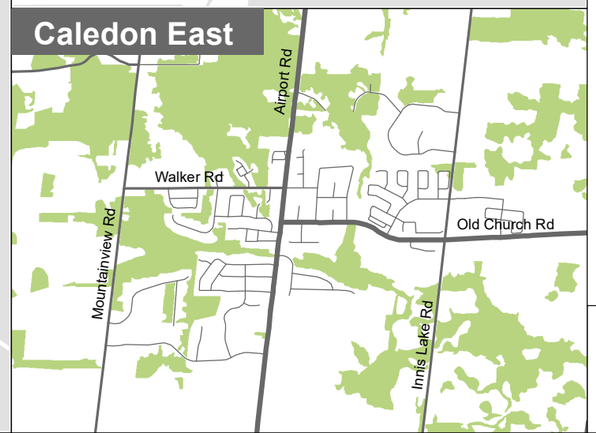
FIGURE 5-6

Conceptual Collector Road Layout









- Conceptual SABE Collector Roads
- SABE Community Area
- SABE Employment Area
- Highway 413 Preferred Route
- Natural Heritage System (NHS) Greenbelt
- Woodlands

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

6.0 Transit Needs and Opportunities

This chapter identifies the role of transit, long-term transit objectives, transit guidelines and proposes a recommended transit plan.

6.1 Role of Transit

Transit is a vital component of the multimodal transportation system. With strategic planning and prioritization of transit, it can become an attractive alternative to the automobile and promote the use of sustainable modes of transportation. Transit also serves to move a high volume of people for travel, which helps alleviate congestion along roads to accommodate future growth.

The development of a transit system that addresses needs with respect to future growth is consistent with Provincial, Regional and Town policy. With extensive development planned for Caledon, there is an opportunity for a new transit system for Caledon to provide connectivity within the Town, to adjacent municipalities, such as Brampton and York Region, and existing and future transit facilities and hubs.

Within the context of this MMTMP, the purpose of transit is to perform three primary functions: develop a liveable community, address mobility needs and support sustainability objectives, as described below.

6.1.1 Transit in Development of a Livable Community

A livable community can be defined as providing safe and healthy neighborhoods, sustainable employment, adequate housing and community services, sense of community and neighborhood-based cultural and recreational opportunities. Transit can be integral to making communities more livable by providing access to goods and services while supporting complementary community goals. Currently, regularly scheduled transit is not provided for the majority of Caledon. There are needs for transit to support new neighbourhoods and communities with the significant growth planned in the SABE lands. In addition, a key component in supporting sustainable communities and attaining non-auto mode share targets includes serving the commuter population in Caledon, who make consistent daily trips, with a reliable transit system.

6.1.2 Transit Addressing Mobility Needs

Future transportation should strive to improve accessibility for all people in the Town of Caledon. To establish mobility needs and transit service capture, the following key user groups were identified and considered as part of the development of this transit study.

Commuters

Regular commuters travelling to work are a major target user group in establishing the transit system. Transit is typically the most common travel mode for commuters in urban centres. With increased travel demand and congestion, transit can become the preferred mode of travel due to its cost-effectiveness and time savings. Commuters also typically make consistent, daily weekday trips and addressing their mobility needs would play a major factor in increasing the sustainable mode share. Affordable and reliable alternative transportation is key in helping workers commute to work, but also for employers that have identified a need for these services to connect to an available labour force.

Seniors and People with Disabilities

Some member of the community may be unable or have difficulty operating motor vehicles and therefore require accessible and economically viable alternatives for transportation. TransHelp, Peel Region's specialized transit service, served 538,000 passengers (2018) that were captive to non-auto driver modes according to the Canadian Urban Transit Association (CUTA).

The Underserved Residential Population

Existing transit within Caledon (Voyago, Brampton Transit and GO Transit) only covers roughly 45 km of the road network within the Town. Approximately 35% (roughly 24,000 people) of the Town's population reside within 800 metres (10 min walk) of scheduled transit service (including GO Bus), indicating that the existing scheduled transit service does not provide a viable alternative to the automobile for the vast majority of residents. The lack of proximity to transit service will be considered as part of the assessment of future transit opportunities.

Students

There is a substantial demand for transportation options to accommodate students, as home-based school trips make up approximately 20% of trips during the morning peak period in Caledon and approximately one-quarter of internal Town trips are made via a school bus. Transit connections should be considered to further facilitate travel between local residential neighbourhoods and schools. The STOPR (Student Transportation of Peel Region) arranges school bus service for students that satisfy a minimum distance requirement to travel to school, which varies between 1.0 km and 3.8 km, depending on their grade. However, for students residing in communities that are not served by public transit, the minimum distance requirement to be eligible is 3.2 km. Most schools within Caledon reside in the southern area near Mayfield

West and Bolton. However, there are no local transit services that provide direct service between residential neighbourhoods and schools within these communities.

6.1.3 Transit in Support of Sustainability Objectives

Town Council adopted a community greenhouse gas (GHG) emissions reduction target of net zero by 2050 as part of the Resilient Caledon Community Climate Change Action Plan. This plan had identified transportation-related action items to achieve this target. Specific action items that pertain to the transit system are summarized below.

Action 13.1: Expand opportunities for low-carbon transit and car-sharing in built-up areas and plan for transit in new communities.

- Expand bus service density, coverage, and scheduling.
- Establish a policy to purchase electric vehicles for transit.
- Explore on-demand transit opportunities using zero-emissions vehicles and prioritize low-carbon opportunities where possible.
- Encourage the uptake of car-share and car co-operative programs as well as increased carpooling.

Action 13.2: Develop a municipal Green Fleet Strategy to convert the Town's fleet to zero emissions.

- Provide support for maintenance, operations, and staff training for new fleet vehicles.
- Establish a policy for replacing fleet vehicles with low-carbon options.
- Evaluate the infrastructure requirements to support a low-carbon vehicle fleet.

The Town objectives also recognized the Region of Peel's 2020-2030 *Climate Change Master Plan* (CCMP), developed in support of the Climate Change Statement of Commitment, which was endorsed by Regional Council in 2017. One of the primary outcomes of the Region's CCMP is to reduce emissions; more specifically, corporate greenhouse gas emissions should be reduced by 45% by 2030, relative to 2010 levels. Among the 11 actions identified to support this target reduction in emissions, the two primary actions that pertain to the transportation system are summarized below:

Support Sustainable Transportation for Commuting

The *Sustainable Transportation Strategy* envisions a 50% sustainable mode share for region-wide peak trips by 2040. The Region can support this vision through internal promotion, as well as implementation of programs and initiatives that promote active transportation, ridesharing, electric vehicles, and remote working (i.e., telecommuting). This vision is also complimented by the Region's continued support for urban densification in its Official Plan.

The following activities were established in support of this action:

- Apply the Sustainable Transportation Strategy to mode shifting;
- Implementation of remote working initiatives; and
- Expand infrastructure to support low and zero-emission vehicle (ZEV) adoption.

Green the Fleet

With the transportation sector accounting for more than one third of Peel's community GHG emissions, implementation of the Region's Green Fleet Strategy (GFS) and Town's GFS, which was endorsed by Council in September 2021, is important. Current regional fleet vehicles will continue to reduce their GHG Emissions by increasing the use of ethanol and bio-diesel and transitioning to electric vehicles as technologies become available.

6.2 Planned and Proposed Transit Improvements

The Town, Metrolinx and Province have already identified the need and are planning for several transit services that will accommodate travel to/from Caledon for the future. These planned transit projects are detailed below.

6.2.1 Hurontario Priority Bus Corridor

As per the Metrolinx 2041 Regional Transportation Plan (RTP), the future Frequent Rapid Transit Network (FRTN) will consist of Priority Bus corridors, Bus Rapid Transit (BRT), Light Rail Transit (LRT), subway, and 15-minute GO Regional Express Rail (RER) corridors.

The RTP designated Hurontario (Main) Street north of Downtown Brampton to Mayfield West Community as a Priority Bus corridor ('p' on **Figure 6-1**), which is a practical and cost-effective way of providing fast, frequent and reliable transit service to more people without the need for a dedicated right-of-way.

It is recognized that this corridor may serve as a major north-south transit spine with the potential to link several east-west rapid transit routes along the corridor as well as the Hurontario LRT ('o' on **Figure** 6-1), offering better inter-municipal and inter-regional travel.

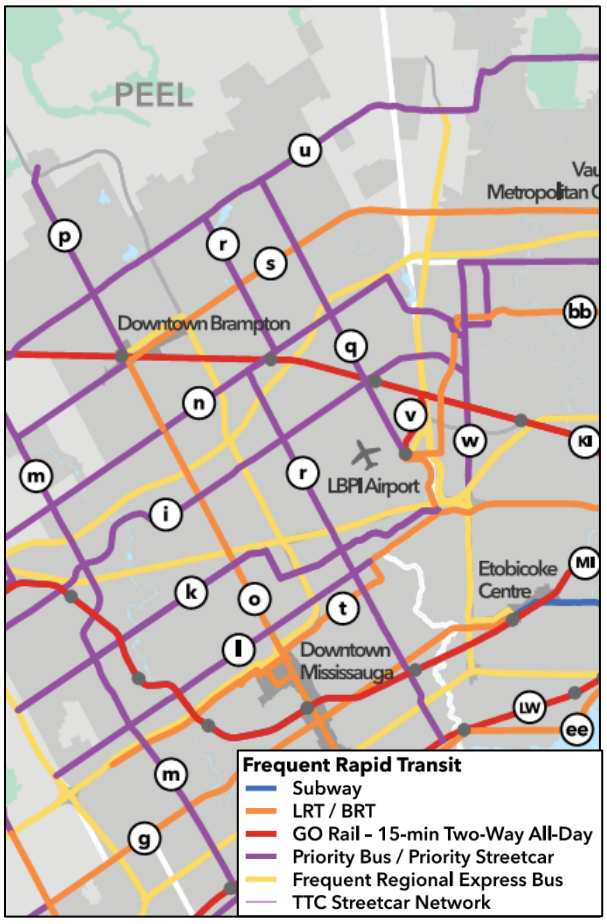


Figure 6-1: Frequent Rapid Transit Network
Source: Metrolinx 2041 Regional Transportation Plan

6.2.2 Caledon GO Station and Rail Line to Bolton

There is a need for higher-order transit to support growth in southern Caledon. The *Bolton Community Rail Feasibility Study* completed by MMM Group in 2010 assessed the technical requirements to implement a commuter rail service connecting the west side of Toronto to Vaughan and Caledon.

The study determined that introducing the service is feasible, which supports the vision outlined in the provincial government's *MoveOntario 2020* plan, as well as Metrolinx's *2041 Regional Transportation Plan.* As per *The Big Move*, the Bolton commuter corridor had been identified to operate rail service every 30 minutes or better during peak periods, and hourly or better service during counter-peak and off-peak times. The Province of Ontario's 2022 Greater Golden Horseshoe Transportation Plan also identified the need for the Province to work with Metrolinx and the Town to monitor transit demand and advance the business case for passenger rail service to Caledon as an action item to improve transit connectivity.

The proposed location of the Caledon GO Station is Humber Station Road and King Street, as shown in **Figure 6-2**. The Caledon GO Station area has been designated as a planned MTSA by the Region.

A second potential GO Station / MTSA was identified along Highway 50 / Queen Street as part of the ongoing Bolton Secondary Plans Review Study and is illustrated in **Figure 6-3**. This second GO Station was identified as a need to support a new transit-oriented community through intensification in the form of high density mixed-use and residential areas to optimize the use of existing infrastructure and services. The station will be further assessed as part of the secondary plan process.

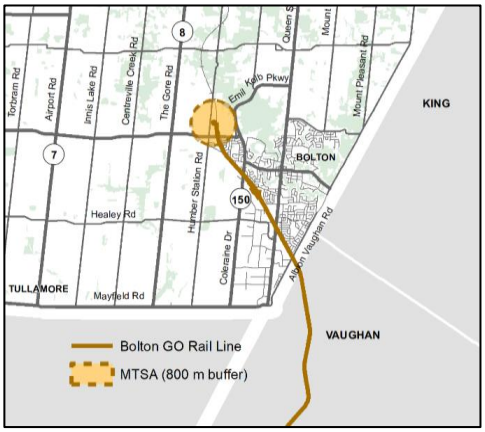


Figure 6-2: Proposed Caledon GO Station

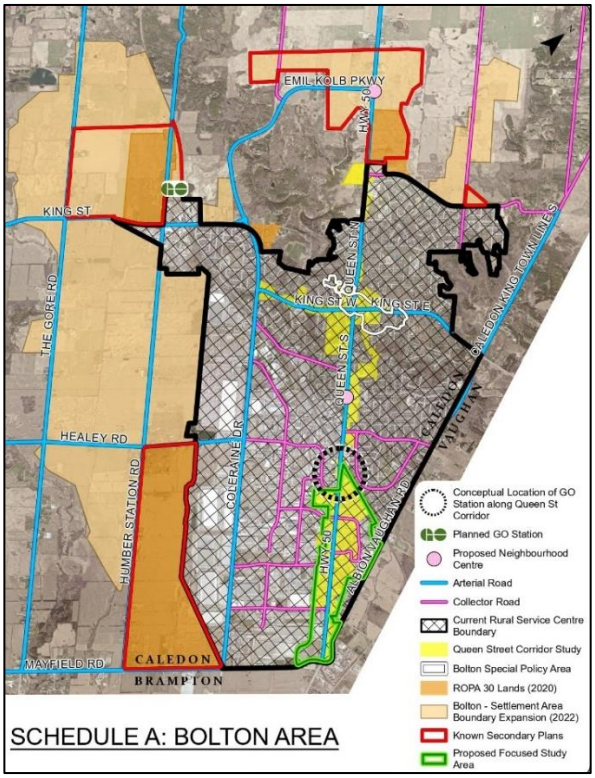


Figure 6-3: Potential Second GO Station

Source: Bolton Secondary Plan Review

6.2.3 Mayfield West Secondary Plan

The Mayfield West Community (Stages 1 & 2) Secondary Plan (MW2) is being developed as a transit-oriented community, which will accommodate a population of approximately 17,500 people. The Transit Hub has also been designated in the Mayfield West community near Highway 410 / Hurontario Street to serve Caledon and the catchment/influence areas. This development forms a key component of the MTSA considered in Mayfield West.

As part of the Development Staging and Sequencing Plan (DSSP) for the Mayfield West Stage 2 Secondary Plan Area (MW2), potential phased transit routing options were established. The proposed transit service in Mayfield West is expected to be delivered by extending or re-routing existing Brampton Transit routes.

A transit hub is also proposed in the Mayfield West community near Highway 410 at the future Spine Road. This planned transit hub is being developed in coordination with the approved Mayfield West Community (Stages 1 & 2) Secondary Plan (MW2). The surrounding area is identified as a planned Major Transit Station Area (MTSA), which is delineated as an 800 metre (10-minute walk) buffered area around a transit station or stop those services or will service transit corridors. These areas are protected for the purposes of developing high-density, mixed-use and transit-supportive neighbourhoods, which supports access to employment, housing, local amenities and recreational activities.

6.2.4 Highway 413 Transit

Highway 413 is a 59 km, 4 to 6-lane, 400-series highway and transit corridor that is proposed to travel through York, Peel and Halton Regions. The corridor is expected to have 11 interchanges and provide connections to Highways 400, 427, 410, 401 and 407 ETR. The preferred route, as shown in **Figure 6-5,** is proposed to extend from Highway 400 in Vaughan to the Highway 401 / 407 interchange near Milton. The transit corridor is expected to provide separated, exclusive access alongside the highway for public transit such as buses or light rail transit. Highway 413 represents a unique opportunity of a high-speed transit corridor through the future urban (SABE) area.

6.2.5 Transit Feasibility Study

A Transit Feasibility Study (TFS) was conducted for the Town of Caledon by Steer in 2019, which identified the need and demand for local transit services, the associated level of service and investment required, and opportunities for fixed route and on-demand service. The study considers existing travel patterns within Caledon and to/from surrounding municipalities, forecasted population and employment growth to 2041, and public consultation feedback to inform transit needs. The recommended type of transit service (i.e., fixed-route or demand-response) was examined based on estimated passenger volumes and geographic considerations.

As part of the study, a long list of 26 transit service options were developed. An assessment of all potential routes were conducted using quantifiable evaluation metrics developed based on goals for transit service that align with the Town's strategic directions and Council Work Plan. A prioritization hierarchy for proposed routes was established as a result of the assessment. Recommendations from the Transit Feasibility Study were considered as input in developing the future transit network for the Town, recognizing that some recommended routes were identified to overlap with other higher-performing options.

6.3 Transit Plan Development

6.3.1 Transit System Objectives

To develop a transit system that is a viable alternative mode of travel to the automobile, the following key factors were considered in identifying transit needs and opportunities to inform the recommended solution for Caledon.

- ***Proximity*** to a higher order transit station or a conventional transit stop based on the density of population and jobs in its vicinity;
- ***Connectivity*** of the transit system between key trip origins and destinations;
- ***Serviceability*** (scheduled service hours of operation and reliability);
- ***Frequency*** (headway) of service along transit routes, and
- ***Travel time*** (operating speed, number of stops, dwell time) along transit routes.

6.3.2 Proximity in High Density Areas

Considering significant growth and development planned as part of the Settlement Area Boundary Expansion (SABE), there is a need to provide transit service for southern Caledon, including existing and future urbanized lands in Bolton. To provide service accessibility similar to other well-served communities, east-west and north-south transit corridors should be planned for 10-minute access (i.e. within 800 metres of future high-density population and employment areas for fixed routes).

6.3.3 Connectivity to Key Origins and Destinations

Connectivity across a transit system is important as it ensures that travel needs (i.e., major origin-destination pairs) are met. Providing transit connectivity may take the form of connections between communities and existing/planned transit facilities and hubs within Caledon and neighbouring municipalities (Brampton and York Region), as well as connections between residential areas and major employment lands, schools, recreational facilities, carpool and commuter lots, etc. **Figure 6-4** depicts the locations of these points of interest. The transit plan was developed to assure connectivity to/from these major trip attractors/generators.

Town of Caledon
Transportation Master Plan

FIGURE 6-4
Key Origins and Destinations in Caledon

Points of Interest

- Elementary / Middle School
- Secondary School
- Brampton Caledon Airport
- Arts and Culture
- Commuter / Carpool Lot
- Conservation Area
- Government
- Health Care
- Library
- Seniors Residence/Housing
- Shopping Centre
- Social Services
- Sports and Recreation
- Child Care Centre

Existing / Proposed Transit

- Caledon GO Station
- Potential Secondary GO Station
- Mayfield Transit Hub
- GTA West Preferred Route
- Bolton GO Rail
- Bolton Line
- GO Transit
- GO Bus Stop
- Orangeville Transit
- Brampton Transit

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Mayfield West

Bolton

Caledon East

6.4 Transit Service Models

6.4.1 Fixed Route Transit Categories

Inter-Municipal Service

Inter-municipal routes provide connections between urban centres, major destinations, and/or major transfer stations within Caledon and other municipalities. These routes generally prioritize directness of travel, offering minimal stop locations, and operate along the provincial highway network and/or major arterials. The provision for inter-municipal service (via the proposed Caledon GO Rail Line, Highway 413, Mayfield West-Brampton Priority Bus Corridor, along with proposed transit to connect to these facilities) is important in accommodating travel demand and achieving long-term transit mode share objectives.

Inter-Community (Intra-Municipal) Service

Inter-community routes are similar to inter-municipal routes in that they generally operate along provincial highways and/or major arterials. They may also serve to include a feeder function with a local transit service area. Serving internal Town trips travelling between communities (Mayfield West, Bolton, Caledon Village, Caledon East) is important in accommodating this future demand, providing access and providing connectivity throughout the Town.

Local Service

Local routes can operate along arterial, collector and local roads. Their primary purpose is to provide internal community circulation, typically within a lower demand area. These routes are designed to maximize proximity to transit services for residents, which typically results in more circuitous and less direct routes. It will be important to establish transit use as a viable option early in the development of the residential areas within Mayfield West and the Bolton Residential Expansion Areas as these communities grow. Similarly, a transit study will be necessary as the SABE lands develop. As such, local service will be integral in facilitating internal travel within these communities and proximity to transit.

6.4.2 Fixed Route Service Levels

Transit level-of-service (LOS) will influence convenience and demand for use. Transit LOS standards can vary by category of transit service: inter-municipal service, inter-community service and local service as summarized below:

A benchmarking review of fixed route transit service standards was undertaken to generate guidelines for future service in Caledon. **Table 6-1** provides example guidelines for the frequency of service, hours of service and stop spacing.

Table 6-1: Level-of-Service (LOS) Guidelines

LOS Criteria	Guidelines		
Frequency of Service			
General Guidelines	Clock-face headways should be used for routes operating with headways greater than 10 min, provided that it does not incur unwarranted additional running / layover time and operating costs. Clock-face headways allow the scheduled stop times to repeat each hour, which help transit users remember the bus schedule. For routes that meet at a GO Station (i.e., proposed Caledon GO Station), headways should be scheduled such that transit users are provided a minimum transfer time of 5 min before boarding and after alighting the scheduled GO train/bus. On-demand considered in interim to assess needs, with local fixed route recommended as the Town transitions to a fixed-route transit system.		
Route Headways (min)	Inter-Municipal	Inter-Community	Local
	Weekday Peak: 30 *Off-Peak*: 60	*Weekday Peak*: 60 *Off-Peak*: On-Demand in interim, subject to further study	*Weekday Peak*: 30 *Off-Peak*: On-Demand in interim, subject to further study
Hours of Service			
General Guidelines	Shorter headways should correspond to peak period times. Demand-based transit can also be considered during off-peak times (i.e., weekend / holiday service).		
Route Service Hours	*Weekday Peak*: 7:00 AM – 9:00 AM 3:00 PM – 6:00 PM	*Off-Peak*: 9:00 AM – 3:00 PM 6:00 PM – 2:00 AM	
Proximity			
General Guidelines	Transit users are generally willing to walk 400 m (or approximately 5 min) to access a local transit stop and 800 m to access a higher order service (inter-municipal and inter-community). The location of inter-municipal and inter-community route stops should be spaced further apart to prioritize lower travel times, whereas local route stops should be closer together to prioritize convenient access for residents.		
Route Stop Spacing	Inter-Municipal	Inter-Community	Local
	1,000 m	600-800 m	400 m

Source: Niagara Transit Service Delivery and Governance Strategy, Dillon January 2017

The overall transit user experience is also an important element in the programming of public transit and increasing ridership. Transit networks should be designed to attract as many customers as possible, including both captive and choice customers, as it can directly influence mode choice. The guidelines summarized in **Table 6-2** were established with the goal of improving transit user experience through the accommodation of amenities, services, and integration with other modes. These guidelines are recommended for incorporation as part of the existing and future Town transit system.

Table 6-2: Transit User Experience Guidelines

	User Amenities	User Experience Services	Integration with Other Modes
Description	Through the provision of passenger amenity standards, a quantitative/qualitative scale for the provision of amenities will ensure an appropriate standard throughout the transit system. As a general standard, cleanliness and an appropriate level of upkeep needs to maintained for all amenities.	Transit-related customer service improvements include the provision of services and/or facilities that enhance the transit customers experience when using transit. This is an important element for encouraging transit ridership, especially for choice transit customers.	Transit service cannot be looked at in isolation. Integrating transit with other travel modes is essential to the success of a transit system. This includes providing convenient access to bus stops and transit terminals for pedestrians and cyclists.
Guidelines	Bus Stop Amenities ▪ Seats and benches ▪ High-capacity, heated shelters ▪ Litter and recycling receptacles, possibly coordinated with street furniture ▪ Lighting, where appropriate, or located in close proximity to well-lit areas ▪ Posted maps, up-to-date schedules and wayfinding signage In-Vehicle Amenities ▪ Automated next-stop displays ▪ Low-floor and multiple door boarding / alighting ▪ Stop request buttons and cords that can be reached from a seated position ▪ In-vehicle maps / traveler information ▪ “Plush” seats ▪ WiFi ▪ Charger plug-ins	▪ Implementation of Intelligent Transportation Systems (ITS) such as automatic vehicle location (AVL) systems and global positioning systems (GPS) on buses to allow users to make more informed travel choices ▪ Real-time communication of service (e.g., time of bus arrival) to customers through electronic displays at bus stops, on buses and at stations ▪ Real-time route tracking through mobile and/or web-based applications	▪ Pedestrian and cycling enhancements and provision of sidewalks at approaches near new and existing transit station areas and stops ▪ Provision of bike racks on buses ▪ Provision of secure bicycle parking / storage at transit stops and stations ▪ Clearly delineated pedestrian and cycling routes and accesses that connect to transit facilities ▪ Consideration of park and ride lots at major transit nodes such as near downtown cores, shopping malls, etc.

6.4.3 On-Demand Transit

Much like existing ride-sharing services, on-demand transit offers a flexible and cost-efficient alternative to traditional fixed-route mass transit. It allows riders to book their trip via an app, which uses an algorithm to program the most fast and fuel-efficient route for the bus driver to pick-up and drop-off passengers. The fleet for on-demand transit can consist of small/medium vehicles such as buses, taxes and vans. Tech companies specializing in the development of on-demand transit apps include Pantonium, Rideco, Spare and more.

Demand-responsive transit can achieve better fuel and cost economy as it would require a much smaller bus fleet with efficient routing. Additionally, hybrid on-demand routes that make scheduled stops at major destinations, such as senior homes, may also be considered.

Since the onset of the stay-at-home orders and social distancing regulations due to the COVID pandemic, a few municipalities within Ontario have taken the opportunity to fast-track or expand their on-demand transit. The City of Belleville, for example, contracted Pantonium to develop an on-demand transit app as a pilot in 2018 that allows travellers to book a trip on the City's late-night Route 11 bus, specify desired pick-up time, pick-up and drop-off locations, and wait-time tolerances. The on-demand transit service uses a dynamic routing system, so riders can be picked up and dropped off at a location of their preference, if it resides within the designated Route 11 zone.

An on-demand transit system is particularly effective for rural, low-to-medium-density areas that have a lower demand for transit, which is consistent with existing rural areas of Caledon. The Town's 2019 TFS identified seven demand-responsive services, which are primarily intended to facilitate travel within and between rural areas / villages of Caledon. On-demand transit can also be considered as an alternative to a proposed local community service and/or service interim demand if build-out of the lands are required to justify service provision.

6.5 Alternative Mobility and Transit Opportunities

Other alternative mobility and transit opportunities, including innovative transit and ridesharing, were investigated and summarized for the Town's consideration below.

Mobility as a Service (MaaS)

The concept of Mobility as a Service (MaaS) aims to integrate different transport services into one on-demand mobility service. Services can include, but are not limited to, transit, ride/car/bike-sharing, taxi and/or private automobile.

In particular, MaaS would help facilitate first- and last-mile connections with public transit. It provides the public the means to plan, access and pay for a complete origin-destination trip.

The approach addresses transportation services as a system, which ultimately provides a more convenient and attractive option to the use of a private vehicle, reducing congestion on the road network. Improvements to MaaS is conducive to achieving a higher sustainable mode share as

identified in the Region's LRTP. It is also integral in supporting transit use as it ensures safe access to transit stops.

MaaS has not been implemented in Canada, but has been piloted in cities such as Helsinki, Finland, and Gothenburg (Sweden). The challenges associated with implementing MaaS include, but are not limited to:

- The lack of a consumer protection framework enacted or proposed in Canada, which would ensure performance standards that allow for safe and reliable service across the different travel modes;
- The need for data protection and security measures for users; and
- Contractual arrangements to address data sharing between transport operators and other organizations.

Ride-Hailing Service

MaaS is currently being offered via the incorporation of ride-hailing services such as Uber, Lyft and bikeshare services in travel applications such as Google Maps. Within Caledon, ride-hailing is offered by Uber and Taxi services, providing residents with a demand-responsive transportation option. Taxi vehicle licensing, driver permits, and brokerages are currently administered and regulated by the Town of Caledon.

Up Hail, a web application to compare taxi and rideshare fares, gives Caledon a "Hail Score" (i.e. a metric to inform how rideshare and taxi-friendly a city is) of 5/10, indicating poor level of service. In comparison, the City of Toronto has a score of 8/10. The City of Brampton and Mississauga have scores of 7/10 and 6/10, respectively. The "Hail Score" rating system is shown in **Table 6-3**.

Table 6-3: Hail Score Criteria

Hail Score	Criteria
1	City has limited public transit options.
2	City has multiple public transit options including trains and buses.
3	City has no transit options, but taxi services.
4	City has taxi and public transit services.
5	City has 1 on-demand private car service with 1 tier of service.
6	City has 1 on-demand with 2 tiers.
7	City has 1 on-demand service with 2 or more tiers.
8	City has 2 or more on-demand services.
9	City has 1 rideshare service.
10	City has 2 or more rideshare services.

Both Uber and Lyft estimate rideshare fares based on an upfront, "base" fee plus an additional demand-based fee. The base rate is determined by the time and distance of a trip; a flat fee may be added depending on the city (to support operational, regulatory and safety costs). A comparison of rideshare "base" rates for neighbouring municipalities around Caledon are provided in **Table 6-4**, which shows very little difference in fares.

Table 6-4: Rideshare Base Fares Comparison

Ride Within	Base Fare ($)			Cost per Kilometre ($/km)		
	Taxi	Uber [2]	Lyft [3]	Taxi	Uber [2]	Lyft [3]
Caledon	$3.25	$2.50	$2.75	$2.82	$1.31	$1.22
Brampton	$3.25	$2.50	$2.75	$2.82	$1.31	$1.22
Mississauga	N/A	$2.50	$2.75	N/A	$1.31	$1.22
Oakville	$3.25	$2.50	$2.75	$2.82	$1.31	$1.22
Burlington	N/A	$2.50	$2.75	N/A	$1.46	$1.22
York	$3.25	$2.50	$2.75	$2.82	$1.31	$1.22
Toronto	$3.25	$2.50	$2.75	$2.82	$1.31	$1.22

Notes: 1. Source: uphail.com
2. Uber rates correspond to 'Economy Personal Ride' option
3. Lyft rates correspond to 'The Low Cost Lyft' option

The primary factor that controls the variation in rideshare prices between the municipalities above is demand and supply. Depending on the ratio of riders and available drivers, rideshare prices can experience a temporary surge to rebalance the market. The Uber app was used to compare the estimated total price range for trips within high-density urban centres of surrounding municipalities during peak rideshare travel periods to better inform rideshare usage and driver availability. The summary is provided in **Table 6-5**.

Table 6-5: Uber Total Price Range Comparison

Municipality	Price Range [1]
Caledon	N/A
Brampton	$17-23
Mississauga	$16-21
Oakville	$17-22
Burlington	$16-21
York	$17-23
Toronto	$18-23

Note: 1. The trip inputted using the Uber app reflects the average distance of an UberX ride, which is approximately 8-11 km per trip. The scheduled time of the ride was set to Friday after 5 PM, which is typically when demand peaks.

Given the price of current ride hailing services, the density / proximity of drivers and the hail score, ride-hail is not a competitive and reliable option for many commuters to facilitate regular commuting patterns (e.g., travel to work).

Within Canada, the Town of Innisfil was the first to initiate a partnership with Uber to provide an on-demand transportation service in place of a local transit system. Currently, a $4 discount is offered for any ride that starts or ends in Innisfil and a $6 flat rate is applied for trips travelling to/from the train station, a major employment area and carpool lot. This program has been successful, with significant ridership (86,000 rides in 2018); however, with increased use, the costs to the Town of Innisfil also increased as a result. With most of the revenue from the program going to Uber and fixed per-capita costs, Innisfil was forced to introduce a trip cap and is now considering options for a fixed transit system that will be complimented by Uber instead.

However, with the implementation of proposed fixed-route transit, ride-hail should be considered in coordination with transit to facilitate first- and last- mile connections.

6.6 Transit-Oriented Development

Transit-oriented development (TOD) is part of the provincial government's plan to build new, sustainable transit. It involves structuring higher density housing and jobs near or at transit stations along a major corridor. There are opportunities for the Town to establish transit-oriented development policies through the Multi-Modal Transportation Master Plan.

There are three proposed Major Transit Station Areas (MTSAs) within the Town of Caledon: two located within Bolton (for the future GO rail line to Caledon) and one located in Mayfield West near the future Spine Road and Highway 410 interchange. These transit hubs present an opportunity to develop complete transit-oriented communities. According to the provincial *A Place to Grow* (August 2020), MTSAs are areas that cover approximately 500 to 800 metre radius (i.e., about a 10 minute walk) to a transit station. The purpose of establishing a MTSA is to protect the area, delineate boundaries, provide minimum densities, prioritize and define the types of transit stations, and establish a framework to guide implementation planning.

Node-focused guidelines, as detailed in MTO's *Transit-Supportive Guidelines,* would support the objectives of the MTSA in coordinating compact, mixed use development to support transit ridership. The downtown core of Toronto is a prime example area that accommodates a wide range of transit-supportive land uses, such as schools, workplaces, homes and retail stores. While various nodes can be characterized by an overarching land use, the provision of mixed uses should be encouraged to better accommodate transit user demand across the system.

Major existing or planned transit routes (e.g., The Gore Road, King Street) within or near these MTSAs present opportunities to achieve 'mainstreet' type environments, which should align with **corridor-focused** guidelines as per MTO's *Transit-Supportive Guidelines*. Similar to the characteristics of transit-supportive nodes, transit-supportive corridors aim to create higher density and mixed uses in the surrounding area, typically designated as a 400-800 m (5-10 minute) walk from focal points along a corridor. Development is structured such that it provides linkages between transit nodes along the corridor. Land use strategies encourage the use of transit through the intensity of development and discourage the use of automobile-oriented developments such as drive-throughs and retail plazas.

6.7 Summary of Transit Opportunities

Transit services are typically operated by a municipality for areas within its jurisdiction to facilitate travel within communities and provide connections to key destinations. Given the trip characteristics, population, growth and phasing within the town's secondary plans, along with origin and destination patterns, the MMTMP recommends that the Town leverage Brampton Transit by 2035 at the latest. Leveraging the existing Brampton Transit system will allow for benefits from economies of scale, fare integration and connectivity with a seamless transit service. Beyond 2035 and following the completion of all Secondary Plans in the SABE area and the Highway 413 Environmental Assessment and Detailed Design, it is recommended that

the Town revisit and undertake a transit strategy study to develop a service plan over a longer time horizon.

The Town of Caledon transit system will have needs similar to other urbanized municipalities providing regular reliable fixed routes. The service will be key for connecting urban destinations in a reliable and predictable manner, supporting businesses, addressing residents' barriers to travel, and achieving long-term transit mode share objectives. The potential route strategy was developed by identifying transit corridors that maximize the number of people residing near transit and connections to major origins and destinations.

Given the future population and density within southern Caledon, the Town has an opportunity to provide continuous fixed route transit, linking homes and jobs, and concentrating densities and mixed land uses around transit stations. Transit routes and stops can be established along existing major roadways and new potential corridors. The Ministry of Transportation Ontario (MTO) Transit-Supportive Guidelines (2012) provides guidance on linking transit service and land use; it identifies a target transit service that accommodates communities within an 800-metre radius (or a 10-minute walk). Opportunities for fixed-route corridors, as summarized in **Table 6-6** and illustrated in **Figure 6-5** were recommended as a result of the evaluation to identify sufficient transit coverage. The identification of specific transit routes will be subject to Secondary Plan Studies that will identify collector road systems within the SABE area and regularly updated studies that will assess the efficiencies and merits of specific routing. It is expected that the proposed corridors will meet long-term mode share targets, as a significant proportion of the Town's population will be serviced by these transit corridors.

Table 6-6: Proposed Fixed-Route Transit Corridors

Transit Corridor(s) / Routes	Justification
Planned Transit Routes (2019 Transit Feasibility Study)	
Mayfield West / Bolton	Connects Mayfield West, Bolton and future SABE lands Connects planned Mayfield West MTSA, GO Transit / planned priority bus corridor on Hurontario Street, Brampton Transit Leverages Mayfield Road as a future rapid transit corridor
Mayfield West Local A	Services residents of the Mayfield West Secondary Plan area Connections to planned Mayfield West MTSA, Brampton Transit services and GO service
Mayfield West Local B	Services residents of the Mayfield West Secondary Plan area Connections to planned Mayfield West MTSA, Brampton Transit services and GO service
Caledon East / Caledon Village / Orangeville	Serves travel between Caledon East, Caledon Village and Orangeville Connection to GO service
Mayfield West / Caledon East / Bolton	Serves travel between Mayfield West, Caledon East and Bolton Connections to planned Mayfield West MTSA, Bolton MTSA, planned GO station, planned priority bus corridor along Hurontario Street, Brampton Transit services and GO service
Caledon East Local	Services residents in Caledon East and provide connections to Caledon Town Hall, community centre and Caledon East Park.
Caledon East / Tullamore / Brampton	Serves travel between Caledon East, Tullamore and Brampton Connections to future employment areas within SABE lands and Highway 413
Proposed Transit Corridors	
Emil Kolb Parkway / Queen Street south of Emily Kolb Parkway	Services residents in north Bolton Connections to planned GO station and key points of interests along Highway 50

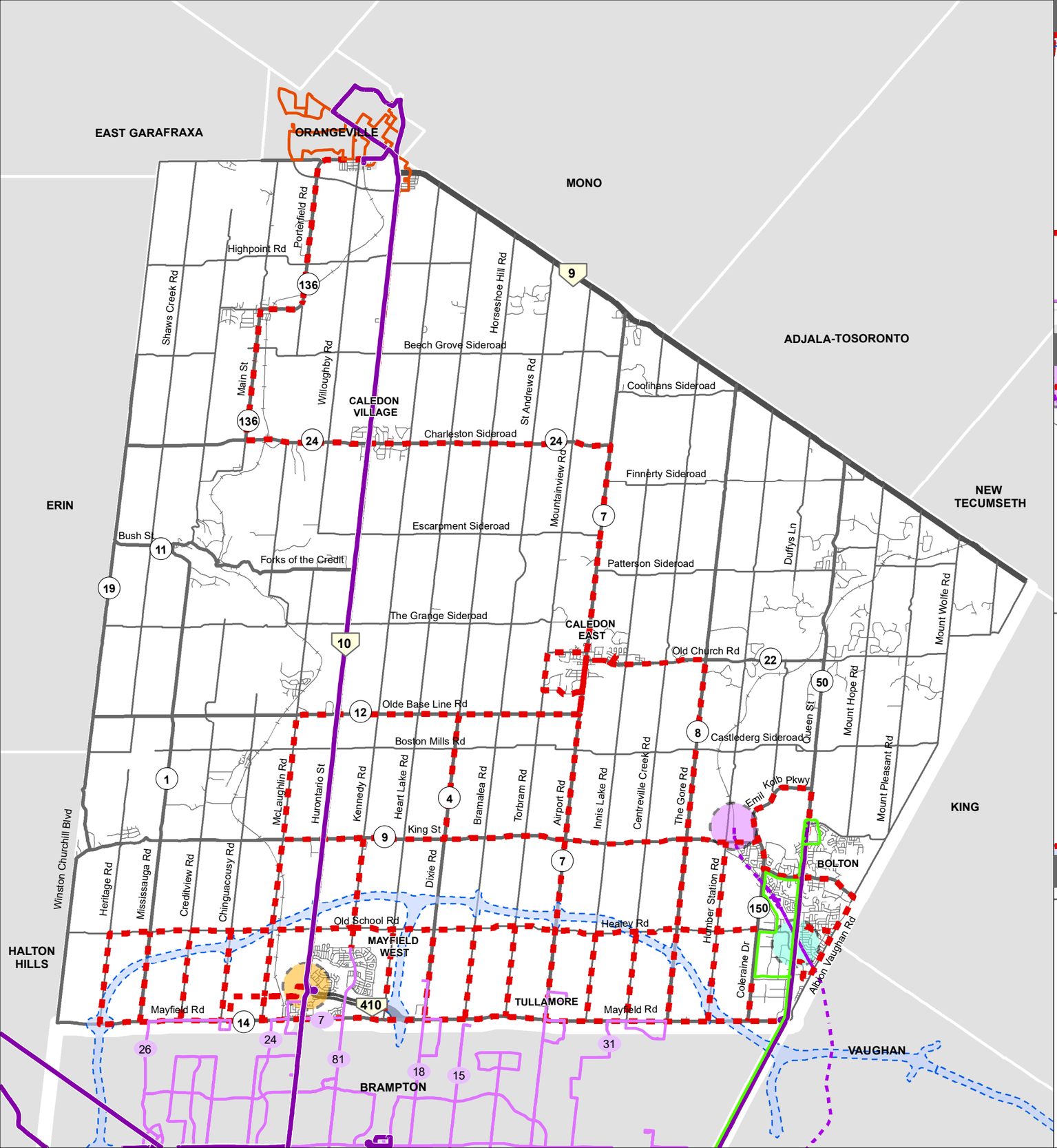
Transit Corridor(s) / Routes	Justification
King Street and Queensgate Boulevard, east of Queen Street, and Albion Vaughan Road	Services residents in east Bolton
McEwan Drive	Connections to the major shopping centre (Walmart, Canadian Tire) along McEwan Drive
Coleraine Drive, south of George Bolton	Services the existing industrial employment lands
King Street and Queensgate Boulevard, east of Queen Street, and Albion Vaughan Road	Services residents in east Bolton
McLaughlin Road / Olde Base Line Road near Inglewood	Services residents in Inglewood Facilitates travel between Caledon East, Mayfield West and planned SABE lands Connects to the Inglewood community centre / library
Charleston Sideroad / Main Street / Porterfield Road	Services residents in Caledon Village, Alton and Orangeville Connections to Orangeville Transit and GO bus service
Roads within SABE Lands	Facilitates travel from/to and within planned SABE lands and Brampton
King Street east of McLaughlin	Provides a continuous and direct transit route to facilitate travel to/from the planned SABE community lands near Bolton Connections to proposed north-south routes within SABE lands

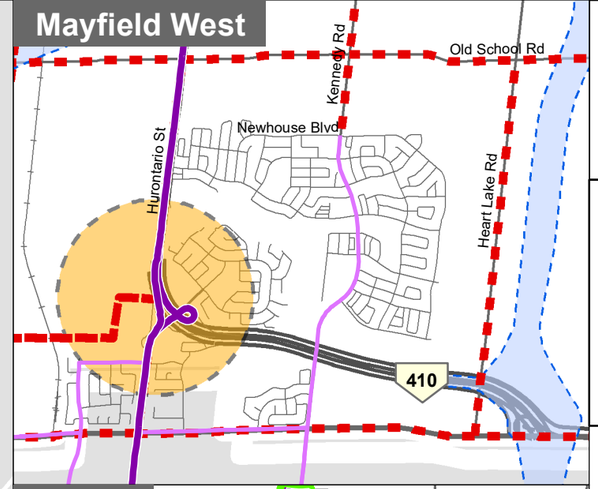
Town of Caledon

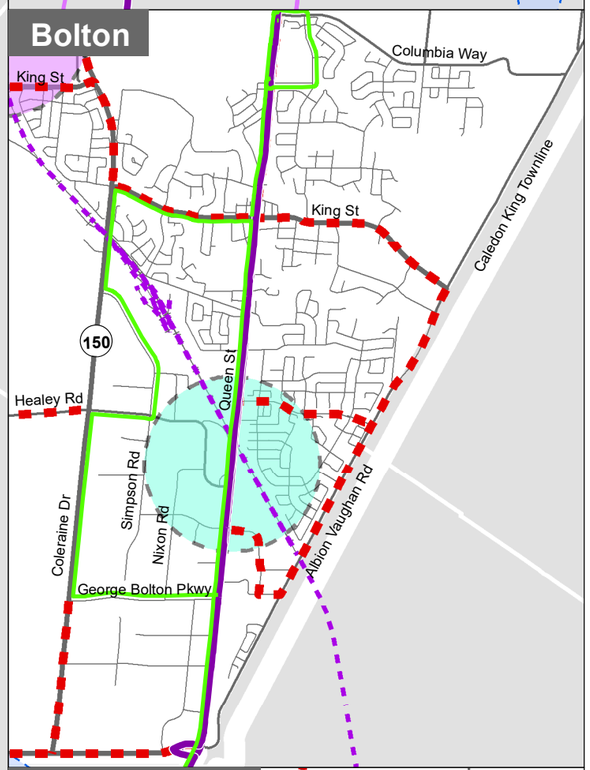
Transportation Master Plan

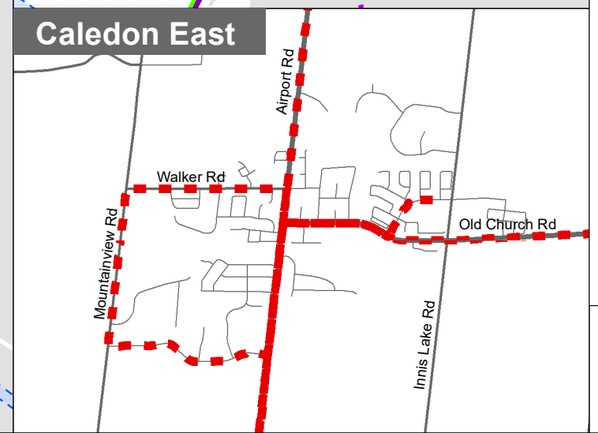
FIGURE 6-5

Transit Network Opportunities









Existing

- Bolton Line
- GO Transit
- Brampton Transit
- Orangeville Transit

Future

- Proposed Corridors
- Bolton GO Rail
- Caledon GO Station
- Potential Second GO Station
- Mayfield Transit Hub
- GTA West Preferred Route

Future Land Uses

- Community
- Employment

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Current travel trends indicate that the majority of external Town trips are destined to / originate from Brampton and Mississauga. With the north-south corridors within SABE lands proposed to accommodate transit, it is recommended that the Town expand the partnership and collaborate with the City of Brampton to extend routes into Caledon, particularly the north-south routes that could be implemented in coordination with or as an extension of Brampton Transit routes. Brampton Transit Route 25, 3, 34 and 502 ZUM, for example, are already proposed to be extended to service the Mayfield West expansion area as identified in the Development Staging and Sequencing Plan (DSSP) for the Mayfield West Phase 2 Secondary Plan Area (MW2).

The identification of specific transit routes will be subject to Secondary Plan Studies that will identify collector road systems within the SABE area and regularly updated studies that will assess the efficiencies and merits of specific routing.

7.0 Active Transportation

This chapter identifies active transportation needs and opportunities, a high-level implementation plan and guidelines for facility selection.

7.1 Role of Active Transportation Systems

Promotion of self-propelled modes of transportation that uses human energy such as walking, cycling, skating, jogging, rolling and skiing, referred to as active transportation (AT), provides social benefits. Active transportation helps to promote a healthy lifestyle, contribute to sustainable transportation and reduce the impact on the environment. Active transportation is explicitly supported in the Provincial Policy Statement and is supported as an important component of multimodal transportation systems.

Walking and cycling are the predominant modes of active transportation within Caledon. Future Caledon anticipates active transportation as a fundamental part of the transportation system. There are opportunities, particularly within the Settlement Area Expansion Boundary, to integrate active transportation into the urban form. Active transportation connections will be critical to achieving Future Caledon's objectives of developing "15-minute" communities.

7.2 Planned Active Transportation Infrastructure

7.2.1 Caledon 2017 Transportation Master Plan

The Town's previous 2017 Transportation Master Plan (TMP) developed future pedestrian and cycling network plans with the overall intent to allow Caledon residents and visitors to walk, bike and use other non-vehicular travel modes safely and efficiently.

Long-term network plans were developed in consideration of relevant plans / policies, the Town's Settlement Nodes (i.e., Urban Areas, Villages, Hamlets) and key destinations both within and outside of Caledon. Caledon staff, the Mayor/Council and the local cycling community were also consulted in determining desirable cycling routes. The proposed pedestrian network provides opportunities for personal travel and recreation via sidewalks, walkways and trails. The future pedestrian network was developed to address existing network gaps for walking and align with established plans / policies.

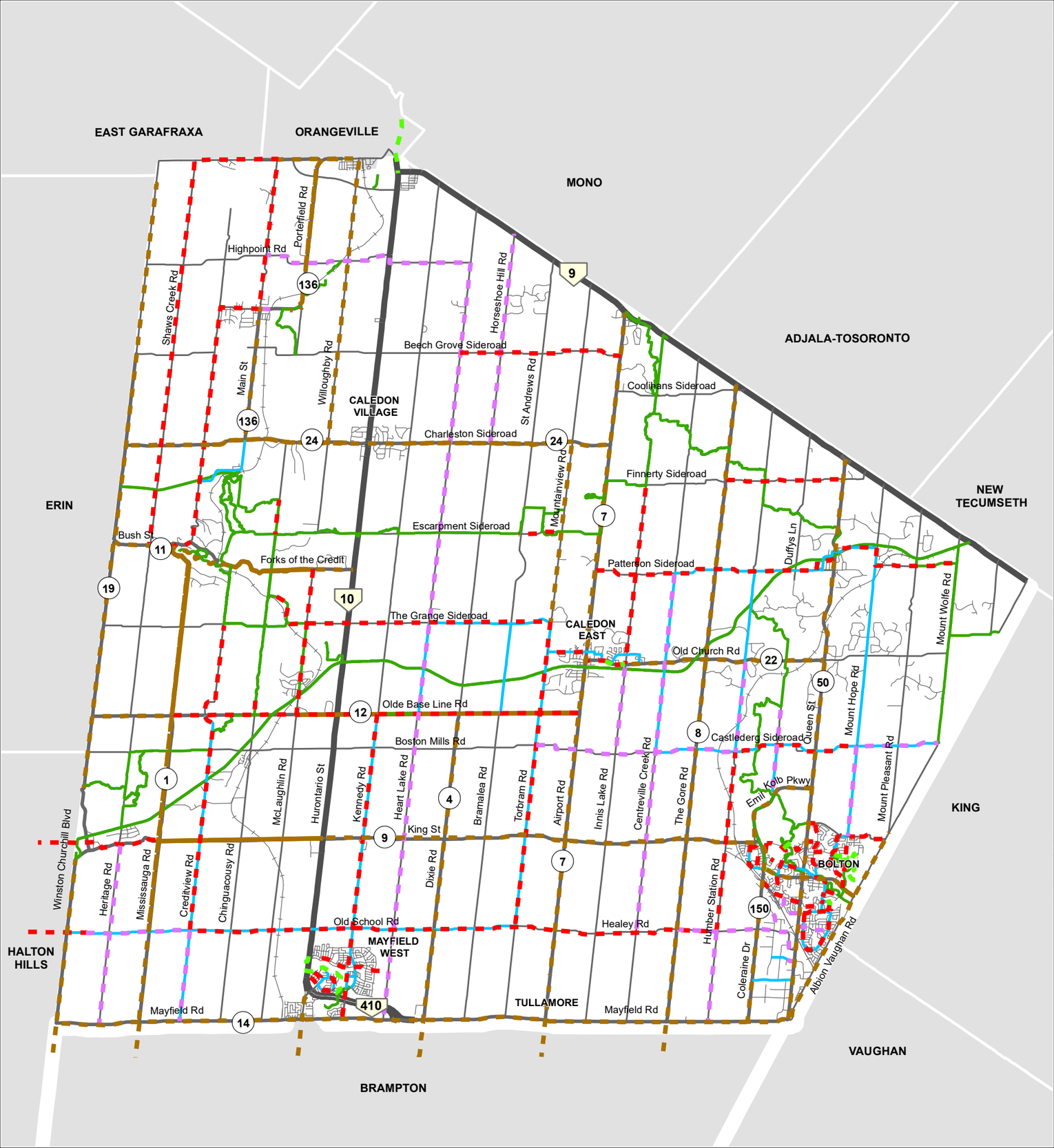
The active transportation network as recommended from the Town's 2017 Transportation Master Plan is illustrated in **Figure 7-1**.

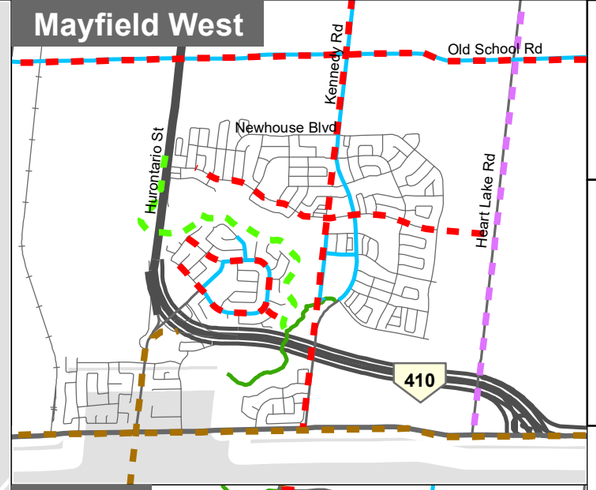
Town of Caledon

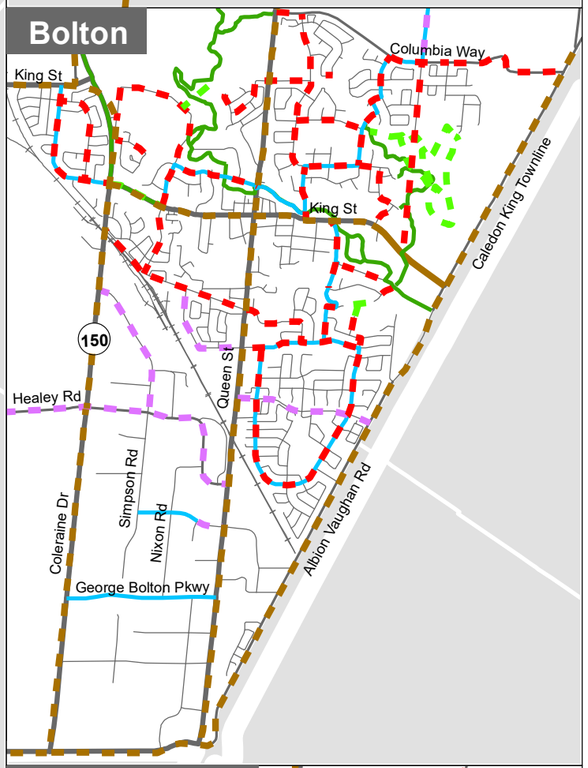
Transportation Master Plan

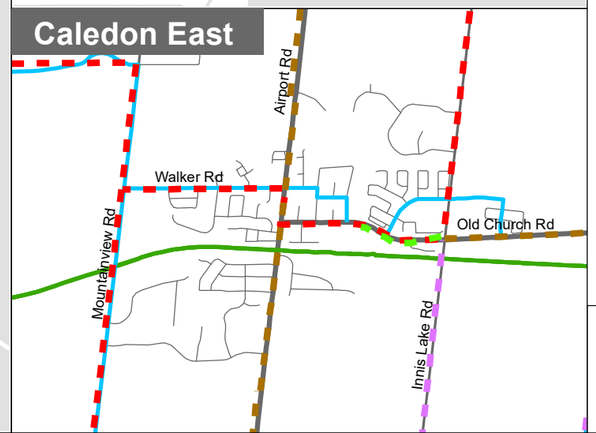
FIGURE 7-1

Previous (2017) Active Transportation Recommendations









Proposed

- Multi-Use Route
- Separated On-Road
- Shared On-Road
- Regional

Existing

- Cycling Route
- Trails
- Regional

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

7.2.2 Region of Peel Active Transportation Implementation Plan

The Region of Peel's 2018-2022 Active Transportation Implementation Plan (ATIP) was developed in support of the Region's Sustainable Transportation Strategy (STS). It provides strategies that expand on existing programs and describes new strategies to support active transportation across the Region.

In support of the STS, Pedestrian Improvement Corridors, as summarized in **Table 7-1** and illustrated in **Figure 7-2**, were identified to improve walkability along Regional roads. The location of these corridors was determined based on the Region's Road Characterization Study, their proximity to key destinations such as schools and transit hubs (to support first/last mile), and whether the STS mode share target analysis demonstrated a mode shift to walking to be more feasible in that area.

Table 7-1: Pedestrian Improvement Corridors within Caledon

Street	From	To	Road Characterization
Mayfield Road	McLaughlin Road	Highway 410	Suburban / Commercial
King Street	Coleraine Drive	Albion Vaughan Road	Suburban / Commercial
	Winston Churchill Boulevard	Heritage Road	Rural main Street
Highway 50	Columbia Way	130 m south of Bolton Heights Drive	Suburban / Commercial
	Patterson Side Road	Zimmerman Drive	Rural Main Street
Old Church Road	Airport Road	Innis Lake Road	Rural Main Street
Airport Road	Cranston Drive	Leamster Trail	Rural Main Street
	Highway 9	Mill View Court	Suburban / Commercial
Bush Street	Mississauga Road	Old Main Street	Suburban / Commercial
Charleston Sideroad	Kevinwood Drive	Kennedy Road	Rural Main Street
Main Street & Queen Street	450 m north of Beech Grove Sideroad	Porterfield Road	Rural Main Street

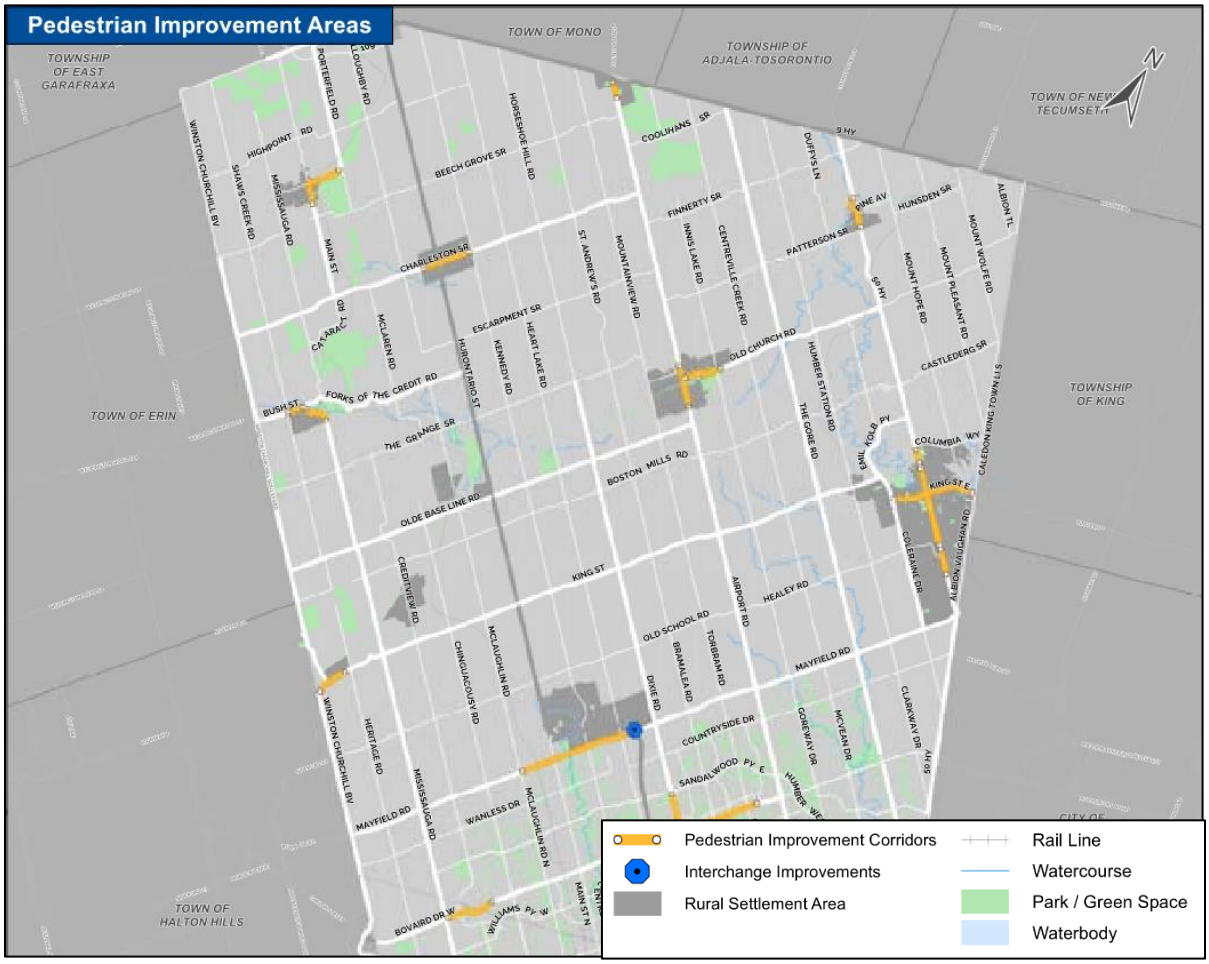


Figure 7-2: Pedestrian Improvement Areas

Source: Region of Peel 2018-2022 Active Transportation Implementation Plan

A series of upgrades and enhancements are planned to be implemented along these pedestrian improvement corridors. The type of upgrades will vary by corridor, given the roadway context and property considerations, but may include the following elements:

- Constructing any missing sidewalk links.
- Widening of sidewalks in some locations to provide additional clear width in areas of heavy pedestrian demand, or incorporating streetscaping and amenities such as trees, benches, planters or shrubs.
- Context specific upgrades to major intersections, which may include narrowing lanes approaching the intersection to slow vehicles, reducing corner radii, investigating the removal of right turn channels, Accessibility for Ontarians with Disabilities Act (AODA) upgrades such as the addition of missing curb ramps or tactile plate, adding audible pedestrian signals, signal timing adjustments to improve pedestrian level of service (LOS).
- Upgrades to minor intersections which may include AODA upgrades such as adding missing curb ramps and tactile plates and adding audible pedestrian signals.
- Introduction of additional mid-block crossings, potentially with median islands.

7.3 Active Transportation Needs and Opportunities

Since the development of the active transportation plan in the 2017 TMP, other planning initiatives have prompted a review of the 2017 TMP previously planned pedestrian and cycling networks. Consideration has been given to the needs associated with growth in the Town to 2051 and the Settlement Area Boundary Expansion (SABE) and additional opportunities identified by the Town. Active transportation needs and opportunities have been reassessed to address the following:

- Road user needs,
- Continuity and connectivity, and
- Policies for development and new infrastructure.

7.3.1 Road User Needs

Alternative forms of bicycle facility may be categorized into three functional categories reflecting the purpose and cyclist experience, as described in **Table 7-2**. They are commonly attributable to route characteristics. Distinguishing the preferences of distinct user groups allows for better prioritization of the active transportation facility type.

Table 7-2: Road User Categories

Form of Facility (Purpose / Experience)	Route Characteristics	Preferred Bicycle Facilities
Recreational		
Recreational riders typically bike for the purpose of enjoyment or exercise. They are usually less experienced and therefore have a lower comfort level when it comes to biking along high-speed or high-volume roads.	Quiet neighbourhoods (i.e., local roads) Low-volume and low-speed roads Trail connections	Dedicated bicycle lane Multi-use trail Paved shoulders (along rural roads)
Touring		
Experienced, or 'touring', riders typically take longer routes with scenic views. These trips usually take place between urban areas and/or key destinations, which may also require route planning beforehand. This user group generally consists of more experienced cyclists who do not mind travelling along high-speed roads.	Longer (i.e., less direct) routes Scenic viewpoints / key destinations Connections between Caledon cycling club meet-up points	Dedicated bicycle lane or paved shoulder on high-speed and/or high-volume roads Signed route on low-speed or low-volume roads Multi-use trail
Commuter		
Commuter, or 'utilitarian' riders make destination-oriented trips, typically for work, school or errands. They usually prefer direct routes to minimize travel time.	Major roadways (preferably with minimal signalized / stop-controlled intersections) Direct routes	Dedicated bicycle lane or paved shoulder on high-speed and/or high-volume roads Signed route on low-speed or low-volume roads

It is important to note that these serve as guidelines only and a more detailed analysis is required on a corridor-level to identify the appropriate level of separation and facility type that matches the context of the road and/or recommend unique mitigation actions, if required. For instance, other factors that determine the appropriate bicycle facility include the volume of buses and/or larger trucks expected to use adjacent travel lanes, on-street parking, pedestrian activity, intersection frequency, traffic operations, right-of-way (ROW) widths, and more.

7.3.2 Continuity and Connectivity

Continuity is important in establishing a reliable, “low-stress” active transportation network. Missing links should be identified in a network to identify and address continuity gaps.

Connectivity to proposed active transportation facilities in surrounding municipalities, existing and planned Regional routes and infrastructure, and key destinations should be considered in establishing a seamless inter-municipal network within and beyond Town boundaries.

Among Caledon’s neighbouring municipalities, the City of Brampton and York Region are the two most prominent origin or destination for external Town trips. As such, active transportation plans or studies for surrounding municipalities, including the City of Brampton 2019 *Active Transportation Master Plan* (ATMP), York Region 2016 *Pedestrian and Cycling Plan*, City of Vaughan 2020 Pedestrian and Bicycle Master Plan, and Town of Orangeville 2019 *Cycling Trails Master Plan* should be reviewed to assure connectivity between jurisdictions.

Settlement Area Boundary Expansion – Collector Road Connections

The Settlement Area Boundary Expansion (SABE) lands represent an additional 6,000 ha of urban expansion in Caledon (above and beyond the planned Mayfield West and Bolton Expansion Area) and 220,000 additional people in south Caledon. This development presents opportunities to protect and plan for continuous active transportation corridors, to connect the SABE lands with the Mayfield West and Bolton communities.

The SABE area can incorporate opportunities for local community cycling and pedestrian routes integrated into east-west and north-south collector road networks through the development of secondary plans. Consideration, however, should be given to linking these routes between secondary plans to allow for longer recreational and commuter travel.

New collector roads and/or separated facilities south of Old School Road connecting the urban expansion areas can facilitate safe and efficient commuter travel.



Source: By Richard Peace; Published: September 15, 2011 at 3:53 pm (https://www.bikeradar.com/news/bike-lanes-profitable-says-dutch-report/)

Rural Route Paved Shoulders

Given the rural nature of most of the Town collector road system, the option of implementing paved shoulder bicycle routes can be a reasonably cost-effective solution to provide connections between communities and key destinations. They can accommodate commuter and recreational cycling for experienced cyclists.

A paved shoulder on a designated bike route may include a buffer zone to provide greater separation between motorists and cyclists. Many Ontario municipalities have begun implementing paved shoulder bicycle facilities, including Grey County and Oxford County.

Through consultation with Town Council, it was recognized that paved shoulders can provide other transportation related benefits including accommodation of farm equipment. There was a desired raised by members of Council to maximize the use of paved shoulders where feasible.

Rail Corridors

Many jurisdictions have repurposed unused rail corridors as rail trails to act as key active transportation routes. Rail trails accommodate pedestrians and cyclists of all skill levels as they are far removed from road traffic. To become public recreational trails, rail tracks are typically removed and re-paved with appropriate signage. Rail trails within Ontario include the K&P Rail Trail, Lang Hastings Rail Trail, Elora Cataract Rail Trail and more.

The 35 km Caledon Trailway path, running east-west to the north of King Street and extending north of Olde Baseline Road, is an example of a successful rail trail corridor within the Town. It is recommended that the Town investigate the feasibility of an additional north-south multi-use trail through Caledon along the Orangeville-Brampton rail corridor.

Scenic Cycling Route

The Scenic Cycling Route, as recommended in the 2017 TMP, is shown in **Figure 7-3**. The proposed route provides connections between communities, conservation areas and scenic areas / viewpoints. It is recommended that the scenic route be revisited as part of the ATMP and include a connection to Caledon East to provide access to parking facilities, the Town Hall and Caledon East park.

Inter-municipal Connectivity

In 2018, the Region of Peel developed the Active Transportation Implementation Plan. Active transportation plans have also been developed or updated for adjacent municipalities, which should be considered to provide intermunicipal connections.

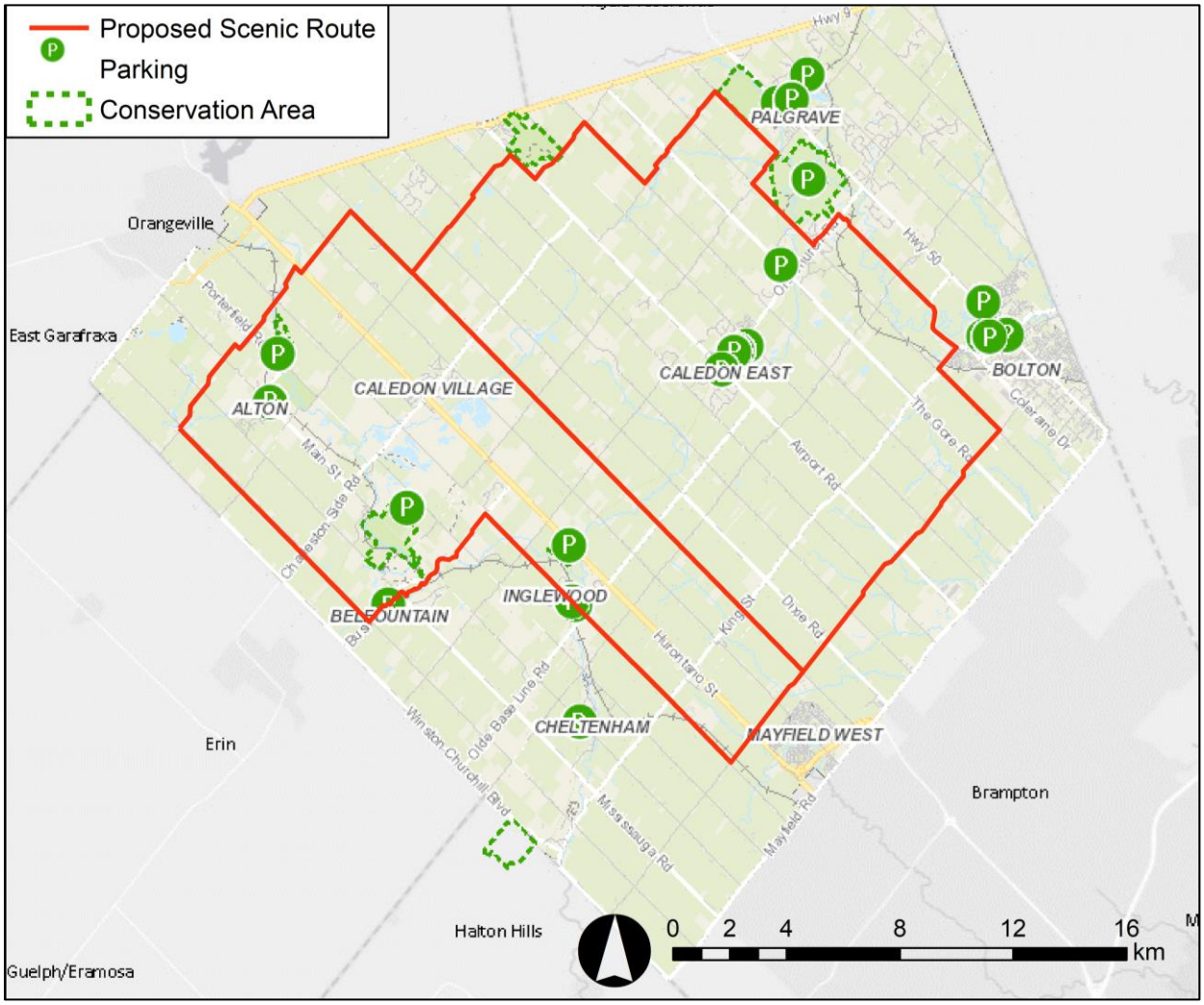


Figure 7-3: Scenic Route Recommendation

7.3.3 Policies for Development and New Infrastructure

Opportunities will exist for the planning and implementation of active transportation infrastructure through the development review process. This will include active transportation strategies of new Secondary Plans in the SABE area and with individual developments. As such, guiding policies will assist in establishing effective pedestrian and cycling connections. The following policies are proposed:

- The construction and reconstruction of new streets will apply complete streets design principles to support the integration of pedestrian and bicycle users, and enhanced streetscaping;
- Provisioning for safe and convenient active transportation facilities such as sidewalks along both sides of the road, cycling infrastructure and trails as needed, and bicycle parking for all development applications;
- Establishing Site Plan control requirements to improve pedestrian, cycling and trail connections at and surrounding development sites;
- Building safe active transportation facilities within and that connect between settlement areas and rural communities;
- Designing pedestrian infrastructure to remain consistent with Accessibility for Ontarians with Disabilities Act standards to achieve a barrier-free network accessible for all ages and abilities;
- Providing a degree of separation for bicycle facilities where applicable;
- Providing bike parking and storage facilities at transit terminals and MTSAs;
- Providing safe pedestrian and cycling facilities connecting to and in the vicinity of transit stops and stations;
- Provisioning for active transportation facilities as part of development applications, and when designing and constructing/reconstructing roads, bridges, intersections, etc., while also considering the impact to vulnerable road users, the character of the community and surrounding land uses and design;
- Adopting requirements for minimum bicycle parking spaces, bicycle storage facilities and other active transportation amenities, such as showers and change rooms, in conjunction with all high/medium density residential developments, employment nodes and other appropriate locations; and
- Ensuring that active transportation facilities meet or exceed industry safety standards, and are supported through appropriate design, signage and consistent safety enforcement.

7.4 Recommended Active Transportation Network

The Town initiated an Active Transportation Master Plan (ATMP) in April 2022, which aims to promote active transportation, trail development, and utilization to create a livable and sustainable community. The plan provides a framework to develop an active transportation network in a cost-effective manner that will connect, integrate, enhance and expand on our existing facilities.

The study consists of a comprehensive review of pedestrian, cycling and trail-related policies and plans. The goals established for the ATMP are as follows:

- Capture a vision for the future of accessible, safe, and connected active transportation throughout the Town of Caledon.
- Identify system and connection gaps in the existing active transportation network.
- Identify and prioritize the implementation of a trails system, routes and facilities to support a network of active transportation opportunities for people of all ages and abilities.
- Build on the Multi-Modal Transportation Master Plan by using the latest approaches to active transportation planning.
- Reflect the unique character and values of the Town of Caledon through engagement and outreach with the community.

The ATMP recommends a network of year-round active transportation features that will be safe and comfortable for all ages and abilities of people walking and cycling. The proposed active transportation improvements are illustrated in **Figure 7-4**.

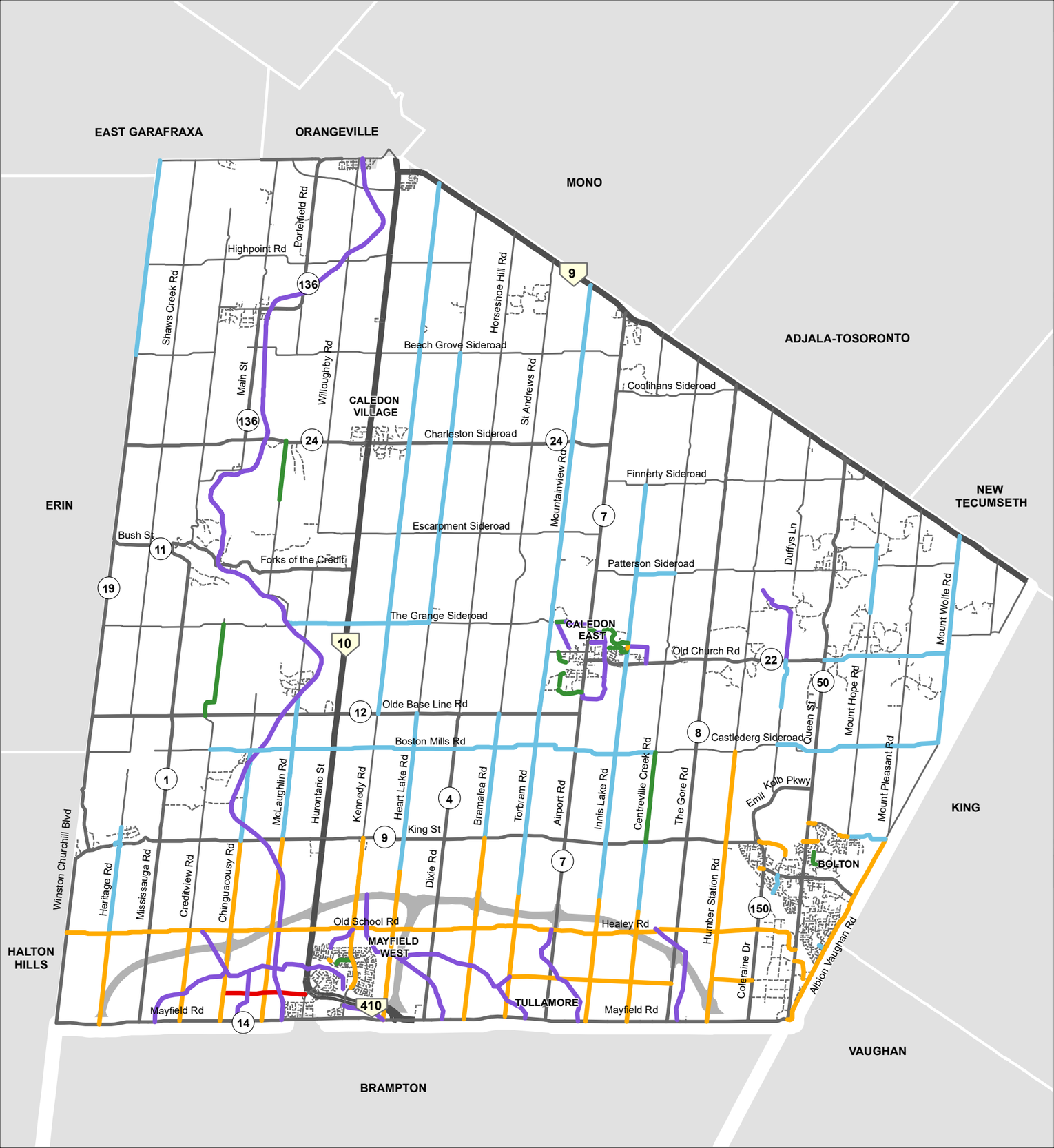
Public engagement and consultation formed a key component of the ATMP. The community engagement process consisted of two Public Information Centres (PICs) held throughout the course of the study to gather public input to better understand the current barriers to, and opportunities for, active transportation throughout Caledon. In addition, two Technical Advisory Committee (TAC) meetings were held to seek input from municipalities, agencies and other stakeholders.

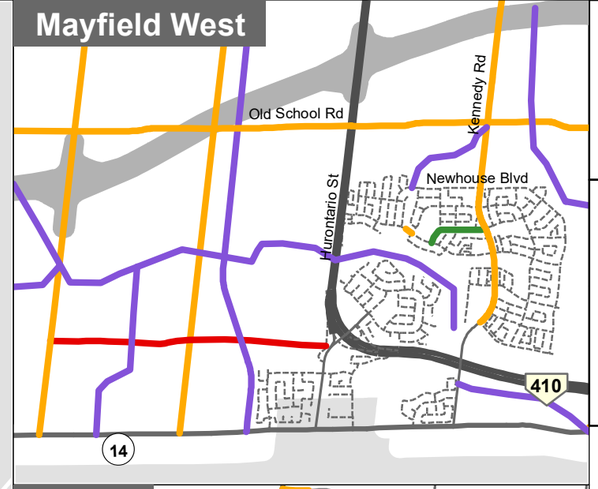
Town of Caledon

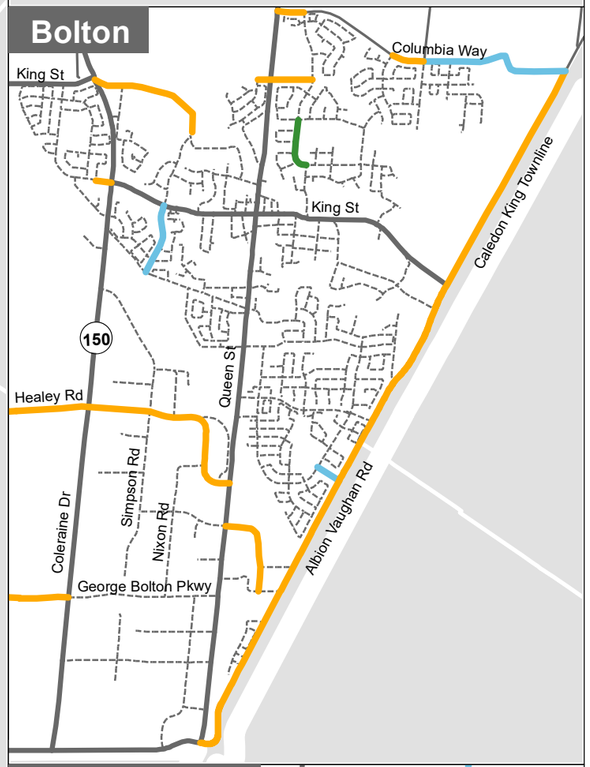
Transportation Master Plan

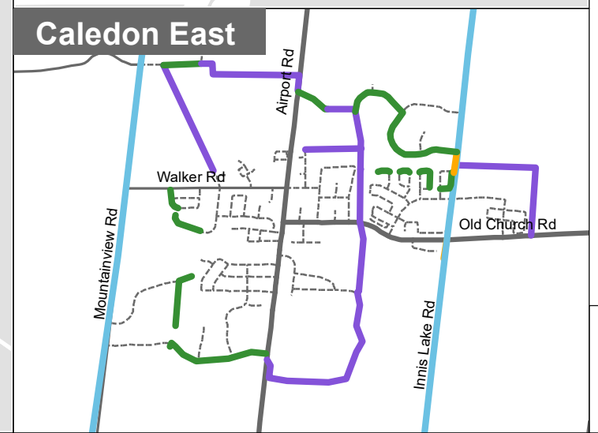
FIGURE 7-4

Proposed Active Transportation Network









Proposed Facility Type

- Multi-use Trail
- Painted Bike Lane
- Physically Separated
- Shared
- Visually Separated

Source: Town of Caledon ATMP

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

7.5 Monitoring and Facility Selection

Within the urban context, the requirement for safer, physically separated bicycle lanes are a function of both high posted speed limits and/or high daily traffic volumes. While projected traffic and posted speed limits provide guidance, it is the actual volumes and operating speeds along the corridor that affect safety and comfort for cyclists. As such, traffic counts and surveyed 85th percentile operating speeds better inform the design condition and are typically used instead of posted speeds to assess cycling facilities especially in rural areas.

While many roads within the Town are currently operating with AADT volumes less than 6,000 vehicles, with the exception of a few road segments within Bolton and Mayfield West, the future allocated population and employment growth is expected to add significant traffic along these roads and continued monitoring of the AADT is required to determine the desirable cycling facility on a corridor basis.

8.0 Alternative Solutions

This chapter identifies the four alternative solutions, evaluation criteria, preferred alternative solution, and climate change implications.

8.1 Identification of Alternative Solutions

Alternative 0 – "Do Nothing" Scenario: Maintaining the status quo is an alternative that the Town can consider. It reflects the transportation plan to 2031 from the 2017 Caledon Transportation Master Plan. It would not explicitly address the transportation needs associated with the Region of Peel Municipal Comprehensive Review (MCR) and the additional related growth from 220,000 to 300,000 residents. This scenario would require a ***low (or no) increase in funding*** for capital investment and operations.

Alternative 1 – Major Roads and Highway (Inter-Regional) Focused: In addition to meeting the growth needs to 2041 from the 2017 TMP, the Town would develop additional road infrastructure in support of the growth to 2051. Given the magnitude of growth from the MCR and the needs of efficient goods movement for employment areas, this alternative relies on other parties and partners to lead initiatives, including Highway 413 and the implementation of the Caledon GO Rail Station.

Alternative 2 – Transit / Active Transportation / TDM (Self-Containment) and New Technologies Focused: In addition to meeting the growth needs to 2041 from the 2017 TMP, the Town would develop additional transit and active transportation infrastructure and services in support of the growth to 2051 to influence commuter travel to shorter trips. Given the magnitude of growth from the MCR and the needs of efficient goods movement for employment areas, this alternative relies on other parties and partners to lead initiatives, including Highway 413 and the early implementation of the Caledon GO Rail Station. This alternative will strive to achieve much higher levels of service for transit, walking and cycling though increased connectivity and density of service and related policies.

Alternative 3 – Balanced (Combined) Transportation Scenario: In addition to meeting the growth needs to 2041 from the 2017 TMP, the Town would develop a combination of additional road, transit and active transportation infrastructure and services in support of the growth to 2051. Given the magnitude of growth from the MCR and the needs of efficient goods movement for employment areas, this alternative relies on other parties and partners to lead initiatives, including Highway 413 and the implementation of the Caledon GO Rail Station. This alternative will strive to achieve higher levels of service for transit, walking and cycling though increased connectivity and density of service and related policies. This alternative will also incorporate solutions to incorporate the benefits of new technologies affecting transportation.

Table 8-1: Identification of Alternative Solutions

Transportation Initiative	Alternative 0 "Do Nothing" Scenario	Alternative 1 "Road Network" Scenario	Alternative 2 "Sustainable Modes" Scenario	Alternative 3 "Combined" Scenario
Provincial Highway and Regional Improvements: Planned improvements: • Highway 413 (MTO): Construction of new freeway • Mayfield Road between Chinguacousy Road to West of Mississauga Road: Widening from 5 to 6 lanes • Mississauga Road between Mayfield Road to Old School Road: Widening from 2 to 4 lanes • The Gore Road between Mayfield Road to Healey Road: Widening from 2 to 4 lanes • A2 between Mayfield Road to Highway 50: Construction of new road	✓	✓		✓
Town Road Capacity Improvements – Committed (Approved, Budgeted) • Chinguacousy Road between Mayfield Road and Northern Limits of Mayfield West: Widening from 2 to 4 lanes • McLaughlin Road between Mayfield Road and North Limits of Mayfield West: Widening from 2 to 4 lanes • Abbotside Way between Bonnieglen Farm Boulevard and Heart Lake Road: Extension (4 lanes) • Albion Vaughan Road between Mayfield Road and King Street: Widening from 2 to 4 lanes	✓	✓		✓
Town Road Capacity Improvements – Planned (Approved, Not Budgeted) • McLaughlin Road between Northern Limits of Mayfield West and Old School Road: Widening from 2 to 4 lanes	✓	✓		✓
Town Road Capacity Improvements – Proposed through this study • Chinguacousy Road between Northern Limits of Mayfield West and King Street: Widening from 2 to 4 lanes • Humber Station Road between Mayfield Road and North of King Street (Settlement Area Limits): Widening from 2 to 4 lanes • Old School Road / Healey Road between Winston Churchill Boulevard and Coleraine Drive: Widening from 2 to 4 lanes • Torbram Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes • George Bolton Parkway between West of Coleraine Drive and Humber Station Road: Extension (4 lanes) • Kennedy Road between Newhouse Boulevard and King Street: Widening from 2 to 4 lanes • Innis Lake Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes • Centreville Creek Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes • Bramalea Road between Mayfield Road and King Street: Widening from 2 to 4 lanes • Caledon King Townline between King Street and Columbia Way: Widening from 2 to 4 lanes • Columbia Way between Regional Road 50 and Caledon King Townline: Widening from 2 to 4 lanes • Heart Lake Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes • McLaughlin Road between Old School Road and King Street: Widening from 2 to 4 lanes • Heritage Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes • Creditview Road between Mayfield Road and Old School Road: Widening from 2 to 4 lanes		✓		✓
Active Transportation Improvements • Implementation of the Town-wide Active Transportation Master Plan (ATMP) intitiated in 2022			✓	✓
Transit Improvements • Expand Public Transit Service			✓	✓

8.2 Evaluation Criteria

Evaluation criteria and sub-criteria have been developed for the alternative solutions based on typical requirements of the Municipal Class EA process. Indicators are measure of these criteria that reflect insights on qualitative measures or available quantitative data. The criteria and indicators were informed by public input and are listed in **Table 8-2**.

Table 8-2: Evaluation Criteria and Indicators

Criteria	Sub-Criteria	Criteria Indicator(s)
Transportation Service	Road Connectivity and Efficiency	Degree to which alternative: • Improves connectivity between urban centres • Addresses roadside safety issues • Maintains sufficient capacity to meet traffic demands • Improves traffic flow, circulation and safety at intersections and property accesses
	Mobility Choice and Transit Accessibility	Degree to which alternative: • Increases communities served by non-auto modes • Improves access to transit and ride-hail service information • Allows more frequent and convenient transit and ride-hail service • Allows more affordable transit and ride-hail services
	Active Transportation Accommodation	Degree to which alternative: • Supports complete streets and/or shared streets in urban areas • Improves safety for cyclists on Town roads • Improves cyclist / pedestrian connectivity between destinations
Climate Change Objectives	Sustainable and Active Travel Modes	Degree to which alternative: • Increases the share of sustainable and active travel modes, particularly in urban areas • Delivers travel demand management and education programs • Expands and enhances active transportation infrastructure to promote walking and cycling in urban areas as a means of travel between them • Expand opportunities for low-carbon transit and car-sharing in built-up areas and plan for transit in new communities.
	Air Quality and GHG Emissions	Degree to which alternative: • Promotes the use of zero-emissions vehicles in Caledon • Supports the Town's vision to reach net-zero emissions
Natural Environment	Impacts to designated natural areas	Potential impacts to: • National or Provincial Parks, • Niagara Escarpment Plan Areas • Areas of Natural or Scientific Interest (ANSI) • Provincially or Locally Significant Wetlands • Hazard Lands • County Forest and Park Lands and Special Policy Areas / Karst
	Impacts to Source Water Protection Features	Potential impacts to: • Wellhead Protection Areas and Intake Protection Zones • Significant Ground Water Recharge Areas • Highly Vulnerable Aquifers

Criteria	Sub-Criteria	Criteria Indicator(s)
	Impacts to terrestrial environment	Potential impacts to: • Existing vegetation • Wildlife, wildlife habitats and terrestrial Species at Risk
	Impacts to aquatic environment	Potential impacts to: • Existing watercourses • Aquatic habitats and Species at Risk
Socio–Economic and Cultural Environment	Supports Established Communities / Development Objectives	Degree to which alternative: • Protects established residential communities • Promotes opportunities for development consistent with the Official Plan
	Supports Economic Development Objectives	Degree to which alternative: • Promotes tourism • Supports existing businesses / employers • Attracts future businesses / employers
	Impact to areas archaeological potential and cultural heritage features	Degree to which alternative: • Relative estimate of areas of high archaeological potential • Potential to impact cultural heritage features
	Supports Healthy Living	Degree to which alternative: • Encourages walking and cycling
Cost	Capital Cost	Degree to which alternative requires: • Capital investment for construction and engineering support (Qualitative estimate) • Capital investment for acquisition of property, fleet and equipment (Qualitative estimate)
	Operating and maintenance Cost	Degree to which alternative requires: • Additional staff resources • Outsourced contract services • Funding for operations and maintenance of all modes of travel and support systems (Qualitative estimate)

8.3 Evaluation Summary

An evaluation of the alternative solutions was undertaken based on the evaluation criteria and associated measures that addressed: public concerns, Town of Caledon sustainability and climate change mitigation objectives and typical measures associated with the environmental assessment process. The evaluation was undertaken in consultation with the public through input at public information centres and stakeholder surveys. A summary of the evaluation is illustrated in **Table 8-3**. This evaluation uses pie charts to represent the scenario that is least preferred to most preferred as it relates to the evaluation criteria.

Table 8-3: Evaluation of different alternatives.

Transportation Initiative	Alternative 0 "Do Nothing" Scenario	Alternative 1 "Road Network" Scenario	Alternative 2 "Sustainable Modes" Scenario	Alternative 3 "Combined" Scenario
Transportation Service	○	◑	◔	●
Road Operations: Safety / Connectivity / Efficiency	• Limited connectivity within new urban areas • Future congestion	• Improved connectivity within new urban areas Limited congestion • Limited congestion	• Limited connectivity within new urban areas • Future congestion	• Improved connectivity within new urban areas • Limited congestion
Transit: Accessibility / Mobility Choice	• Does not address vision, need and opportunity especially with regard to accessibility and affordability	• Does not address vision, need and opportunity especially with regard to accessibility and affordability	• Increases mobility options for all road users	• Increases mobility options for all road users
Active Transportation Accommodation	• Limited public right-of-way to accommodate Complete Streets efficiently • Road system does not provide protection for all road users	• Road system does not provide safe protection for all road users • Road system does not promote walking and cycling for healthy lifestyles and non-discretionary trips	• Limited public right-of-way to accommodate Complete Streets efficiently • Provides the necessary protection for all road users adding safety • Promotes the use of active transportation modes by adding comfort to all road users	• Public right-of-way is sufficient to accommodate Complete Streets efficiently • Provides the necessary protection for all road users adding safety • Promotes the use of active transportation modes by adding comfort to all road users
Natural Environment	◕	◑	◕	◑
Designated Natural Areas, Source Water features, Terrestrial & Aquatic Environment: Potential for Impacts	• Potential Impacts associated with maintenance requirements	• Potentially higher impacts to natural environment including Designated Natural Areas, Source Water features, Terrestrial & Aquatic Environment compared to Do Nothing	• Potentially slightly higher impacts to natural environment including Designated Natural Areas, Source Water features, Terrestrial & Aquatic Environment compared to Do Nothing	• Potentially higher impacts to natural environment including Designated Natural Areas, Source Water features, Terrestrial & Aquatic Environment compared to Do Nothing
Climate Change Objectives	◔	◑	◑	◕
Sustainable and Active Transportation Modes	• Delivers less travel demand management since last TMP because SmartCommute is now cancelled • Does not expand opportunities for low-carbon transit and car-sharing	• Promotes travel demand management, but would be without the active transportation network to support • Expand opportunities for low-carbon transit and car-sharing in built-up areas and plan for transit in new communities.	• Promotes travel demand management with an attractive active transportation network • Expand opportunities for low-carbon transit and car-sharing in built-up areas and plan for transit in new communities.	• Promotes travel demand management with an attractive active transportation network • Expand opportunities for low-carbon transit and car-sharing in built-up areas and plan for transit in new communities.
Air Quality and GHG Emissions	• Does not promote the use of zero emissions vehicles in Caledon • Congestion will increase GHG emissions and GHG emissions per capita	• Promotes the use of zero emission vehicles in Caledon • Increased roadway supply can potentially cause more driving and more emissions	• Promotes the use of zero emission vehicles in Caledon • Congestion will increase GHG emissions and GHG emissions per capita	• Promotes the use of zero emission vehicles in Caledon • Increased roadway supply can potentially cause more driving and more emissions

Transportation Initiative	Alternative 0 "Do Nothing" Scenario	Alternative 1 "Road Network" Scenario	Alternative 2 "Sustainable Modes" Scenario	Alternative 3 "Combined" Scenario
		• Lowered congestion causes less emissions from vehicle acceleration and deceleration		• Lowered congestion causes less emissions from vehicle acceleration and deceleration
Socio-Economic and Cultural Environment:	○	◑	◑	●
Supports Communities and Economic Development Objectives:	• Transportation network does not support planned community growth in SABE and Designated Greenfield Areas • Transportation network does not support access to employment lands for jobs • Transportation network does not support enhancing business growth, investment, and innovation	• Transportation network partially supports planned community growth in SABE and Designated Greenfield Areas with more road infrastructure • Transportation network partially supports access to employment lands for jobs • Transportation network partially supports enhancing business growth, investment, and innovation • Mobility choice, affordability, and accessibility is not enhanced to support new community or employment lands or businesses	• Transportation network partially supports planned community growth in SABE and Designated Greenfield Areas with more mobility choice • Transportation network partially supports access to employment lands for jobs • Transportation network partially supports enhancing business growth, investment, and innovation • Limited support to new community and employment lands due to majority of trips lacking efficient connectivity with lack of new roadway infrastructure	• Transportation network fully supports planned community growth in SABE and Designated Greenfield Areas with more road infrastructure • Transportation network fully supports access to employment lands for jobs • Transportation network fully supports enhancing business growth, investment, and innovation
Impacts to Areas of High Archaeological Potential and Cultural Heritage Features:	• Potential Impacts associated with maintenance requirements	• Potentially higher impacts to areas of high archaeological potential and cultural heritage features compared to "Do Nothing"	• Potentially slightly higher impacts to areas of high archaeological potential and cultural heritage features compared to "Do Nothing"	• Potentially higher impacts to areas of high archaeological potential and cultural heritage features compared to "Do Nothing"
Supports Healthy Living:	• Does not encourage further walking or cycling	• Does not encourage further walking or cycling	• Encourages further walking or cycling by developing a safe environment for all road users	• Encourages further walking or cycling by developing a safe environment for all road users
Financial Environment	●	○	◔	○
Cost Assessment	• Minimal impact as planned roads would be budgeted	• Estimated Capital Cost: $452M • Relatively high increase in operating costs due to additional road projects	• Estimated Capital Cost: $270M - $290M • Relatively moderate increase in operating costs for new AT facilities	• Estimated Capital Cost: $722M - $742M • Relatively highest increase in operating costs for new AT facilities
Overall Assessment	**Not preferred**	**Not preferred**	**Not preferred**	**Recommended**

Legend

Least Preferred to Most Preferred

○ ◔ ◑ ◕ ●

8.4 Preferred Alternative Solution

Alternative 3, a combined multi-modal transportation scenario was preferred. This scenario focuses on providing a transportation network that focuses on road improvements and the development of active transportation infrastructure and transit service along key corridors. This multi-modal transportation network will be able to accommodate the planned population and employment growth within the Town of Caledon, support the Town's economic strategies and priorities, while aligning with the Town's Climate Change commitments and community development objectives.

This proposed transportation network is anticipated to have impacts to significant groundwater recharge areas (SGRA), highly vulnerable aquifers (HVA), provincially significant wetlands (PSW) and water crossings but the magnitude of impact is expected to be minimized through future studies.

9.0 Recommended Alternative

This chapter provides a summary of the preferred alternative solution including active transportation and road network improvements, key transit corridors, and a road classification update. Policies developed to support the recommended solutions and Town objectives include a Complete Streets and Speed policy, as detailed in **Appendix F** and **Appendix G**, respectively.

9.1 Road Network Plan

The proposed road network improvements are summarized below.

9.1.1 Capacity of Commuter and Alternate Mode Accommodation

Road improvement recommendations are summarized **Table 9-1.** The planned number of through lanes for Town roads for the 2031, 2041, and 2051 horizon years are shown in **Figure** 9-1. Phasing of these improvements will be verified through the Growth Management Strategy and Phasing Plan (for 2041 and 2051).

Table 9-1: Road Improvement Recommendations

ID	Road	From	To	Recommendation	Phasing
1	Chinguacousy Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2031
2	McLaughlin Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2031
3	Albion Vaughan Road	Mayfield Road	King Street	Urbanization and widening from 2 to 4 lanes	2031
4	Humber Station Road	Mayfield Road	North of King Street (Settlement Area Limits)	Urbanization and widening from 2 to 4 lanes	2031
5	Abbotside Way	Bonnieglen Farm Boulevard	Heart Lake Road	Extension (4 Lanes)	2031
6	Healey Road	The Gore Road	Coleraine Drive	Urbanization and widening from 2 to 4 lanes	2031
7	Torbram Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2031
8	George Bolton Parkway	West of Coleraine Drive	Humber Station Road	Extension (4 Lanes)	2031
9	Kennedy Road	Newhouse Boulevard	Old School Road	Urbanization and widening from 2 to 4 lanes	2031
10	Innis Lake Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2041
11	Centreville Creek Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2041

ID	Road	From	To	Recommendation	Phasing
12	Old School Road	Winston Churchill Boulevard	Airport Road	Urbanization and widening from 2 to 4 lanes	2041
13	Healey Road	Airport Road	The Gore Road	Urbanization and widening from 2 to 4 lanes	2041
14	Kennedy Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes	2041
15	Caledon King Townline	King Street	Columbia Way	Urbanization and widening from 2 to 4 lanes	2041
16	Columbia Way	Regional Road 50	Caledon King Townline	Urbanization and widening from 2 to 4 lanes	2041
17	Heart Lake Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2051
18	Chinguacousy Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes	2051
19	McLaughlin Road	Old School Road	King Street	Urbanization and widening from 2 to 4 lanes	2051
20	Bramalea Road	Mayfield Road	King Street	Urbanization and widening from 2 to 4 lanes	2051
21	Heritage Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2051
22	Creditview Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2051
23	Heart Lake Road	Mayfield Road	Old School Road	Urbanization and widening from 2 to 4 lanes	2051

Town of Caledon

Transportation Master Plan

FIGURE 9-1

Proposed Travel Lanes for Town Roads by 2051

Road Improvements (Phasing)

- Widening to 4 lanes (by 2031)
- Widening to 4 lanes (by 2041)
- Widening to 4 lanes (by 2051)

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

Mayfield West

Bolton

Caledon East

EAST GARAFRAXA
ORANGEVILLE
MONO
ADJALA-TOSORONTO
NEW TECUMSETH
KING
VAUGHAN
BRAMPTON
HALTON HILLS
ERIN
CALEDON VILLAGE
CALEDON EAST
MAYFIELD WEST
TULLAMORE
BOLTON
Highpoint Rd
Portelfield Rd
Shaws Creek Rd
Main St
Willoughby Rd
Horseshoe Hill Rd
Beech Grove Sideroad
Coolihans Sideroad
St Andrews Rd
Charleston Sideroad
Mountainview Rd
Finnerty Sideroad
Escarpment Sideroad
Bush St
Forks of the Credit
Patterson Sideroad
Duffys Ln
Mount Wolfe Rd
The Grange Sideroad
Old Church Rd
Olde Base Line Rd
Boston Mills Rd
Castlederg Sideroad
Queen St
Mount Hope Rd
Mount Pleasant Rd
Emil Kolb Pkwy
King St
Old School Rd
Healey Rd
Mayfield Rd
Winston Churchill Blvd
Heritage Rd
Mississauga Rd
Creditview Rd
Chinguacousy Rd
McLaughlin Rd
Hurontario St
Kennedy Rd
Heart Lake Rd
Bramalea Rd
Torbram Rd
Airport Rd
Innis Lake Rd
Centreville Creek Rd
The Gore Rd
Humber Station Rd
Dixie Rd
Coleraine Dr
Albion Vaughan Rd
Columbia Way
Caledon King Townline
Queen St
Simpson Rd
Nixon Rd
George Bolton Pkwy
Walker Rd
Old School Rd
Newhouse Blvd
Heart Lake Rd
410
9
10
7
50
22
12
8
4
1
11
19
14
150
136
24

9.1.2 Capacity for Network Efficiency

Additional road studies were identified to improve network efficiency.

There are limited opportunities for inter-municipal north-south through traffic through Caledon and no full access-controlled freeways. As a result, higher traffic levels including truck traffic are experienced through established communities. Studies to explore alternate routes around established communities are classified as “Alternate Route Study”.

Misaligned intersections within the future urban areas that will experience the highest level of exposure to conflicts and have the highest opportunity for improvement should be considered in future road reconstruction projects. Through these future road reconstruction projects, these intersections should explore aligning these off-set intersections. These types of projects are classified as “Off-set Intersection Study”.

Other misaligned intersections beyond the urban boundary should be monitored and considered in any future safety studies. These types of projects are classified as “Intersection Monitoring”.

Traffic calming measures should be explored by the Region of Peel along Airport Road through Caledon Village. This study is classified as “Traffic Calming Measures”.

Removal of two corridors identified in the Region of Peel’s Strategic Goods Movement Corridor is important as these corridors are not designed for heavy truck traffic. These recommendations are classified as “Goods Movement Needs”.

All additional studies are summarized in **Table 9-2**.

Table 9-2: Additional Road Studies and Classifications

ID	Additional Study	Description	Study Classification	Lead Agency
18	Alternative Routes to Bolton and Established Communities	MTO to collaborate with the Region and the Town to extend Highway 427 to Highway 9.	Alternate Route Study	MTO
19	Mis-aligned intersections (see **Appendix E**)	Monitor mis-aligned intersections for future improvements	Intersection Monitoring	Town of Caledon / Region of Peel
20	Horseshoe Hill from Olde Base Line Road to Highway 9	Remove from Region’s Strategic Goods Movement Network	Goods Movement Update	Region of Peel
21	Mountainview Road from Olde Base Line Road to Charleston Sideroad	Remove from Region’s Strategic Goods Movement Network	Goods Movement Update	Region of Peel

9.1.3 Community Circulation and Land Access Accommodation

Network planning factors include mobility and transportation mode, livability, and land value. This study offers considerations as it related to mobility with discussions regarding road design and traffic volumes, transit accessibility, and walkability and comfort. This study also offers

considerations as it related to livability with discussions regarding sociability and social interactions. There is limited discussion in this study regarding real estate and land value as it relates to network planning as it moves further away from transportation planning. However, is still an important area to explore further especially understanding developer needs as it reacts to consumer trends. The goals and indicators of the network are summarized in **Table 9-3**.

Table 9-3: Possible Goals of the Network and Target Indicators

Goals of the Network	Suggested Target Indicators
Promote Walkability	Higher intersection densities Shorter road segments Decreased spacing Higher km of active transportation infrastructure (e.g., Sidewalks, off-road trails)
Promote Connectivity	Higher intersection densities Shorter road segment length Higher proportion of population living within 400 m of a transit stop
Promote Sociability	Increased number of mixed-use, institutional, or commercial land-uses Increased number of open and civic spaces Higher km of active transportation infrastructure (e.g., Sidewalks, off-road trails)
Reduce Traffic Infiltration and Road Construction costs	Higher # of loops and cul-de-sacs Lower # of streets (arterial or collectors) that can access the subdivision or community

Other important considerations include:

- Future roads in SABE should consider a street hierarchy and use these existing road classifications in the Town's Official Plan and Complete Street Guidelines as guidance.
- The Secondary Plans should also identify one or two alternative east-west major arterials that connect through SABE lands as an alternative to Old School Road and Healey Road which are currently situated near the upper limits of the SABE lands.
- Pedestrian facilities should be spaced so block lengths in less dense areas (suburban or general urban) do not exceed 200 metres. (preferably 70 to 130 metres) and relatively direct routes are made available. In the densest urban areas (urban centers and urban cores), block length should not exceed lower.

9.2 Active Transportation Plan

Active transportation strategies were developed based on the following objectives:

1. **Continuity:** Continuity within active transportation networks is important in establishing a reliable, "low-stress" active transportation network. Missing links should be identified in a network to identify and address continuity gaps.

2. **Connectivity:** Connectivity to proposed active transportation facilities in surrounding municipalities, existing and planned Regional routes and infrastructure, and key destinations

should be considered in establishing a seamless inter-municipal network within and beyond Town boundaries.

3. **Policy framework for development and new infrastructure:** Opportunities will exist for the planning and implementation of active transportation infrastructure through the development review process. This will include active transportation strategies of new Secondary Plans in the SABE area and with individual developments. A policy framework guides the continuous development of the active transportation network within the Town of Caledon.

The MMTMP recommends regularly updating the Town's Active Transportation Plan. The Town's first AT Plan initiated in February 2022. The Town's AT Plan should focus on the following objective:

- Establish comprehensive walking and cycling networks that connect existing and new settlement areas and rural communities
- Establish a trail system that is integrated with the pedestrian and cycling network and includes connections to open spaces
- Identify opportunities and locations for safe pedestrian and cycling crossings, including strategically located grade-separated crossings
- Promotes bicycle amenities at major employment / residential / institutional developments
- Engages community groups

The Town's AT Plan should focus on a network that generally provides the following facility selection:

- Paved shoulders on rural arterial and collector roads
- Separated facilities on urban arterial and collector roads
- Shared facilities on local roads
- Projects that enhance continuity within the Town and connectivity to adjacent municipalities

9.3 Transit Network Plan

The Town's transit network plan has been developed based on the following objectives:

- Proximity to a higher order transit station or a conventional transit stop based on the density of population and jobs in its vicinity;
- Connectivity of the transit system between key trip origins and destinations;
- Serviceability (scheduled service hours of operation and reliability);
- Frequency (headway) of service along transit routes, and
- Travel time (operating speed, number of stops, dwell time) along transit routes.

Given the trip characteristics, population, growth and phasing within the Town's secondary plans, along with origin and destination patterns, the MMTMP recommends that the Town leverage Brampton Transit by 2035 at the latest. Leveraging the existing Brampton Transit system will allow for benefits from economies of scale, fare integration and connectivity with a seamless transit service.

Beyond 2035 and following the completion of all Secondary Plans in the SABE area and the Highway 413 Environmental Assessment and Detailed Design, it is recommended that the Town revisit and undertake a transit strategy study to develop a service plan over a longer time horizon. In the meantime, it is also recommended that, as part of the secondary plan's approval process, the Town review and have developers submit and develop the transit plans, which will inform jurisdiction, implications, and connection to existing transit services, and also be reviewed by municipal partners. Transit planning can be informed by the needs and strategies at the secondary plan level, in which internal collector road networks, connections to external networks, and land use will be identified that will assess the efficiencies and merits of specific routing. Therefore, in addition to the proposed fixed-route transit corridors outlined in this MMTMP, the transit strategy study should take all transit plans from secondary plans as input for revisiting the transit plan at a larger scale to improve efficiency.

Proposed fixed-route transit corridors are illustrated in **Figure 6-5.** The fixed-route corridors serve as conceptual high-level recommendations for consideration in future studies to investigate further the feasibility of the proposed corridors, as well as internal connections to secondary plans.

9.4 Road Classification

Transportation policies were recently updated in the Town Official Plan update ("Future Caledon"). The MMTMP recommends the following "Road Classifications" and "Road Right-of-Way" schedules for the next Town OP update.

9.4.1 Road Classification Criteria

Road classifications are related to land use planning and therefore should be applied to the next Official Plan update, but also be considered in tandem with Transit, Active Transportation and roadway safety for each road classification category.

Provincial Highways

- Are roadways under Provincial jurisdiction.
- Are roadways intended to serve large volumes of inter-regional and long-distance traffic at high speeds.
- Are roadways of high-speed design with uninterrupted flow, with access only achieved through grade separated interchanges, designated by the Ministry of Transportation as Controlled Access Highways.
- Direct access to a controlled access highway will not be permitted and all developments located adjacent to a Provincial Highway will require approval from the Ministry of Transportation.

Regional Arterials

- Are roadways under Regional jurisdiction.
- Serve moderate to high volumes of medium to long distance inter and intra-regional traffic at moderate speeds and will provide access to major attraction centres and facilitate access to or from highways.
- Generally experience average daily traffic of over 8,000 vehicles.
- Are primary truck and goods movement routes.
- Will generally have a 30 to 50 metre road allowance width with a 2 to 6 lane capacity and limited property access.
- Are designed with a high degree of access control to abutting properties.
- On-street parking will be discouraged.
- Will generally be designed to accommodate street furniture and the highest degree of separation for cycling facilities, where appropriate.

Town Arterials

- Are roadways under Town jurisdiction.
- Serve moderate to high volumes of medium to long distance inter and intra-regional traffic at moderate speeds and will support the Regional road system.
- Generally experience average daily traffic of over 8,000 vehicles.
- Direct property access will generally be discouraged.
- Will generally have a 30 to 36 metre road allowance with a 2 to 4 lane capacity and limited property access.
- On-street parking will be discouraged.
- Will generally be designed to accommodate the highest degree of separation for cycling facilities, where appropriate.

Major Collectors

- Are roadways under the Town's jurisdiction.
- Serve moderate volumes of short distance traffic between local and arterial roads at moderate speeds.
- Generally experience average daily traffic between 5,000 to 8,000 vehicles.
- Generally have a maximum of four travel lanes.
- Will serve as truck and goods movement routes along industrial roads. Otherwise, through traffic will generally be discouraged from using these roadways.
- Direct property access will generally be discouraged.
- Will generally have a 20 to 30 metre road allowance with a 2 to 4 lane capacity.
- On-street parking may be permitted.
- Will generally be designed to accommodate the highest degree of separation for cycling facilities, where appropriate.

Minor Collectors

- Are roadways under the Town's jurisdiction.
- Serve low to moderate volumes of short distance traffic between local and arterial roads at moderate speeds.
- Generally experience average daily traffic between 1,000 to 5,000 vehicles.
- Generally have a maximum of two travel lanes.
- Through traffic will be discouraged from using these roadways.
- Provide individual property access with some limitations.
- Will generally have a 20 to 26 metre road allowance with a 2 to 4 lane capacity.
- On-street parking may be permitted.
- Will generally be designed to accommodate some degree of separation for cycling facilities, where appropriate.

Local Roads

- Are roadways under the Town's jurisdiction.
- Serve local traffic only and provide connections to collector roadways at low speeds.
- Generally experience average daily traffic of less than 1,000 vehicles.
- Through traffic will be discouraged from using these roadways.
- Provide direct property access.
- Will generally have a 17 to 20 metre road allowance with a 2 lane capacity.
- On-street parking may be permitted.
- Where designated rights of way and environmental conditions permit, sidewalks will be provided on both sides of the road.

The Town's road classification is illustrated in **Figure 9-2**. It is noted that all roads anticipated to be urbanized are classified as Town Arterials. Urban and rural street typologies may fall under this classification. However, this Transportation Master Plan proposes cross-sections on a high-

level (i.e., by corridor) and the extent to which a segment is to be urbanized based on settlement area boundaries relies on future Environmental Assessment (EA) studies.

9.4.2 Road Right-of-Way Policies and Schedule

The Town aims to achieve the midblock right-of-way widths and provide the appropriate number of lanes to support the road classifications as set out in this Plan. Necessary right-of-way widths will be acquired through the Secondary Plan process and/or conditions of approval for subdivisions, severance, or site plans, or through purchase, expropriation, gift, bequeathment or other appropriate means. These right-of-way widths are not intended to specify that such roads will necessarily be widened, or intersections be improved. Furthermore:

- Any road that has less than the right-of-way width requirements identified in the Official Plan will be considered for widening pursuant to the relevant sections of the Planning Act, dealing with road widenings as a condition of development approvals.
- Intersection road allowances may be required in excess of the designated road allowances to provide for daylight triangles, lane channelization, or traffic control devices.
- Road widenings in excess of road allowance requirements may be required along roads to provide lands for environmental considerations, culvert accommodation, cut and fill requirements, bridges, utilities, landscape features, overpasses and for auxiliary turn lanes to provide better access and improve traffic operations.
- In cases where a road widening is obtained by dedication through the development process, land will generally be obtained in equal amounts from both sides of the roadway. However, under certain circumstances, including where there are physical constraints, such as environmental features or cemeteries, or where other policy objectives are relevant, such as heritage conservation, off-set or single-sided road allowance widenings may be considered.
- Where existing developments, road alignments, or topography make it impractical to obtain desired road widenings, road improvements may be designed within the existing right-of-way.

The Town's road rights-of-way is illustrated in **Figure 9-3**.

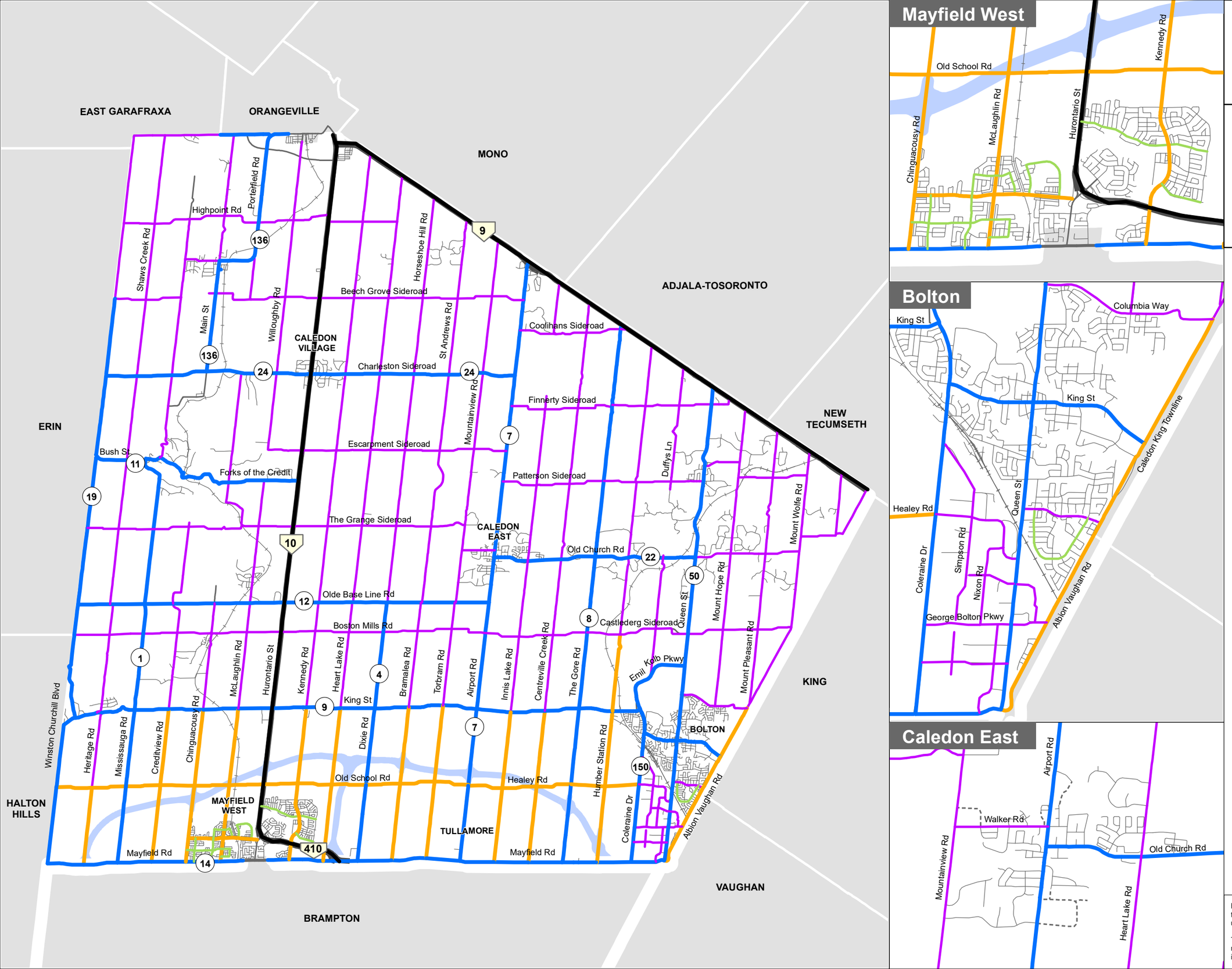
Town of Caledon

Transportation Master Plan

FIGURE 9-2

Road Classifications

Date: September 18, 2023
DRAFT



- Provincial Highway
- Regional Arterial
- Town Arterial
- Major Collector
- Minor Collector
- Local
- GTA West Corridor

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

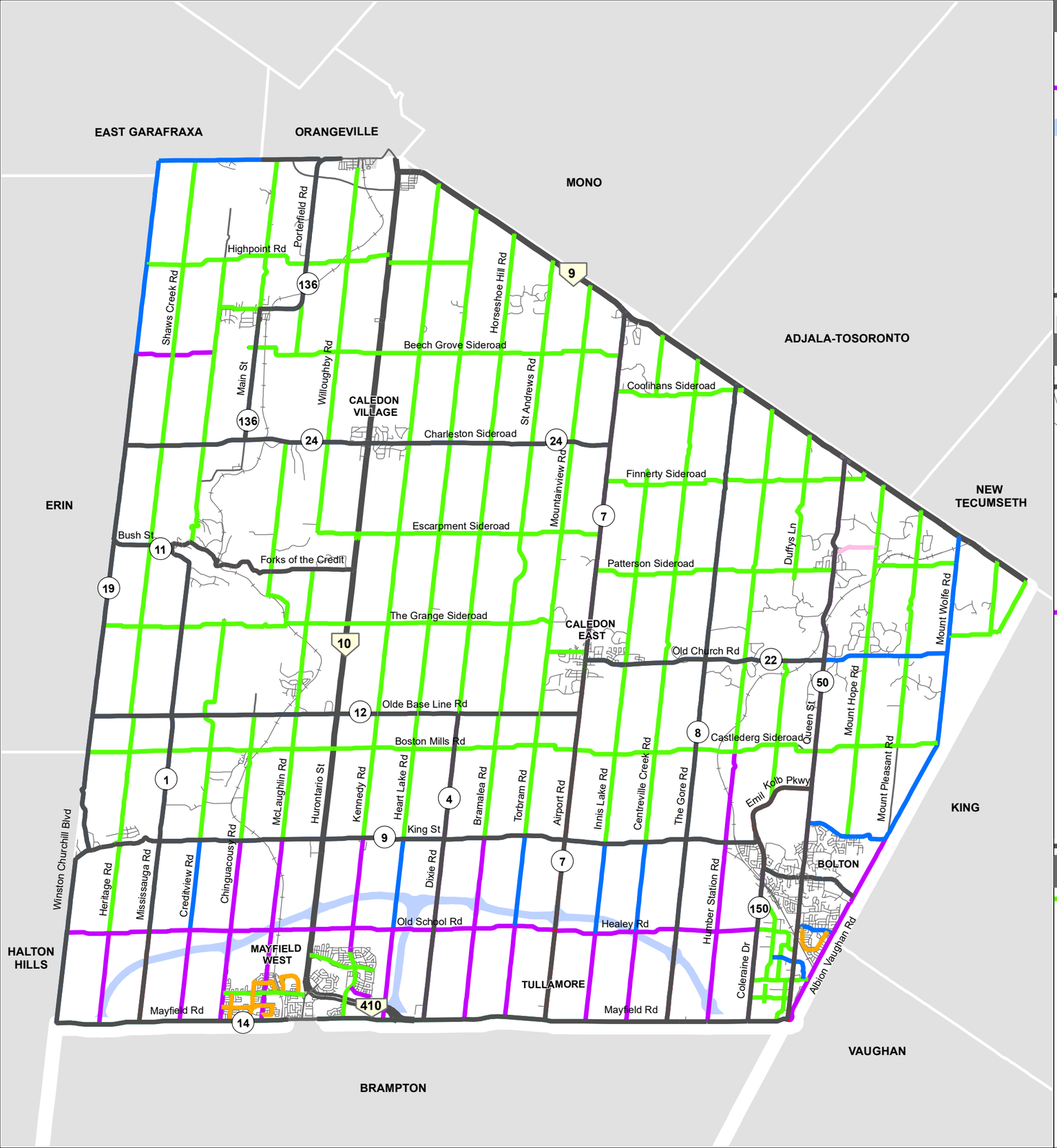
Town of Caledon

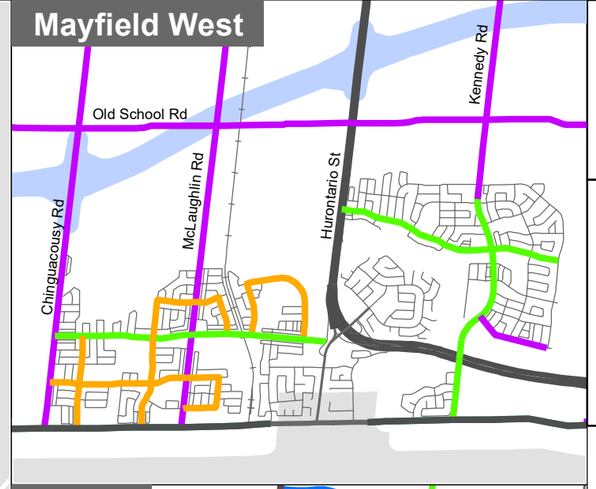
Transportation Master Plan

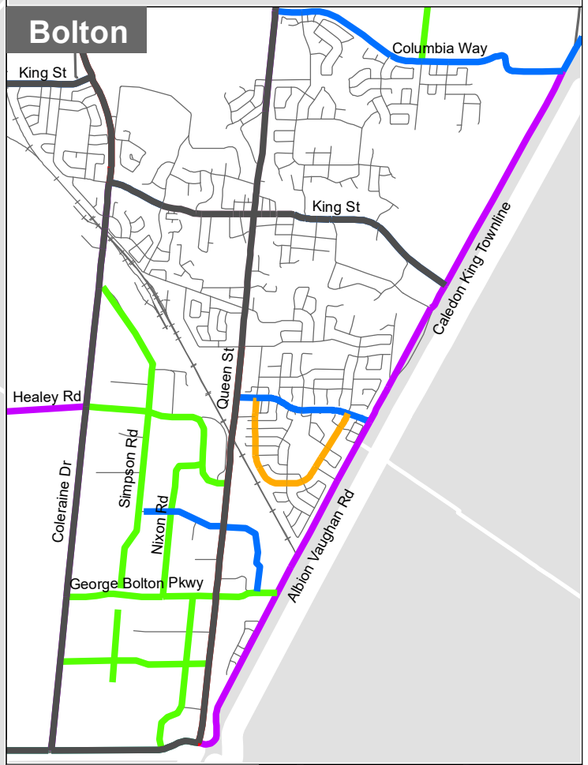
FIGURE 9-3

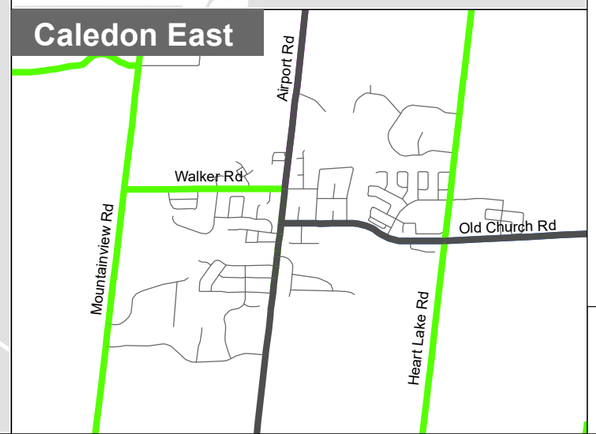
Right of Way (ROW) Widths

Date: September 18, 2023
DRAFT









ROW Width (m)

- 20
- 22
- 26
- 30
- 36
- Regional Roads
- GTA West Corridor

*** Note: ROW widths along Regional roads are based on the Region's 2019 Long Range Transportation Plan. Refer to Region for latest Regional Road ROWs.**

0 1 2 4 6 8 km

BURNSIDE

R.J. Burnside & Associates Limited is not responsible for the accuracy of the spatial, temporal, or other aspects of the data represented on this map. It is recommended that users confirm the accuracy of the information represented.

This map is the product of a Geographic Information System (GIS). As such, the data represented on this map may be subject to updates and future reproductions may not be identical.

10.0 Climate Change Implications

10.1 What is Climate Change?

Climate scientists have agreed that concentrations of greenhouse gases (GHGs) in the atmosphere have been steadily increasing over the past century as a result of human activity, primarily the burning of fossil fuels. When fossil fuels, such as oil and gas, are burned to power our buildings, vehicles, and industrial activities, they release greenhouse gas emissions into the atmosphere.

These GHGs warm the atmosphere by absorbing and emitting solar radiation, causing a greenhouse effect that traps heat close to the surface of the Earth. While some of these GHGs exist naturally, their concentrations in the atmosphere have increased dramatically over a relatively short time frame, causing Earth's average temperatures to increase, weather systems to become more extreme, and ecological systems to degrade.

The Intergovernmental Panel on Climate Change (IPCC) stated that human activities have caused approximately 1-degree Celsius of global warming above pre-industrial levels and will worsen over the next few decades. Climate change is an urgent crisis that requires radical changes to our society and economic systems in order to limit warming to no more than 1.5°C above pre-industrial levels to reduce the risk of catastrophic climate impacts.

10.2 Climate Change and the EA Process

The Provincial government has taken steps by ensuring that climate change is considered in the Environmental Assessment Process by incorporating certain considerations in the EA program's Guides and Codes of Practice. The Guide sets out the Ministry of Environment Conservation and Parks' expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA.

10.3 Town of Caledon Climate Change Needs

A baseline GHG emissions inventory was developed for the year 2016 which was the most recent year for which census and other data were available for the Town's Community Climate Change Action Plan (Resilient Caledon). In 2016, Caledon's total GHG emissions were 520,000 tCO2e.More than half of Caledon's emissions were from transportation, including commuters travelling out of town for work, and commercial vehicles and trucks.

If strategies are not undertaken to mitigate climate change, transportation emissions are expected to increase over the next 30 years due to the anticipated growth of 300,000 people and 125,000 jobs in the Town of Caledon by the 2051 horizon year. According to the United States Environmental Protection Agency, a typical passenger vehicle emits about 4.6 metric tons of carbon dioxide per year. The average passenger vehicle emits about 404 grams of CO2 per mile. Strategies in the MMTMP should aim to reduce the use and reliance of the gas-powered personal automobile.

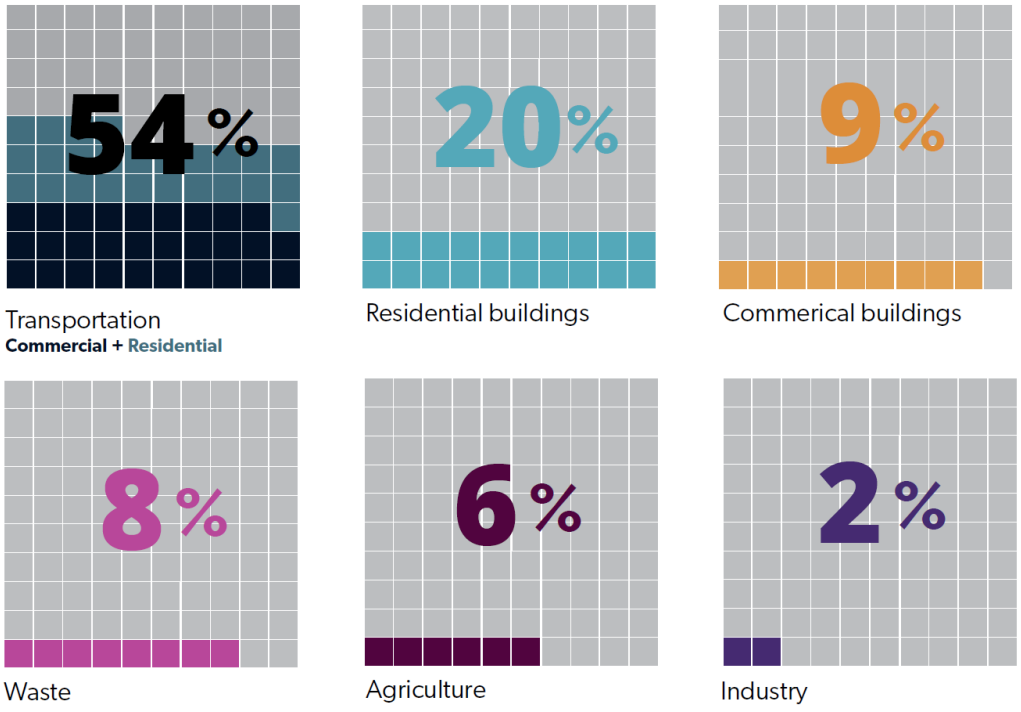


Figure 10-1: Baseline GHG Emissions (2016)

Source: Resilient Caledon - Community Climate Change Action Plan (2021)

Between 2021 to 2050, Caledon's population is expected to increase by more than 300%. If no additional climate actions are taken by any level of government, the Town's emissions model shows that Caledon's emissions will increase by 119%. By 2050, approximately 63% of the Town's emissions will increase from transportation due to this increase in population and employment and are projected to increase the most quickly (+130%).

10.4 Resilient Caledon Action Plan

On June 28, 2020, Town Council adopted a community greenhouse gas (GHG) emissions reduction target of net zero by 2050 as part of the ongoing Resilient Caledon Plan, aligning with the 1.5-degree Celsius warming scenario.

The Resilient Caledon Plan identified additional actions based on best practice research, reviews of past and current actions being implemented in the Town, and consultations with the

Climate Change Task Force and public. The resulting emissions modelling showed that these additional actions would reduce GHG emissions by 77% compared to the 2016 base year. According to the modelling, a significant portion of the reduction in GHG emissions is attributed to the conversion of vehicles from traditional combustion engines to electric motors, as well as supporting sustainable modes of travel, such as active transportation and transit, in existing and new communities.

These actions were grouped in five key sections which include Smart Growth, Sustainable Communities, Agriculture and Natural Systems, Low Carbon Transportation, and Resilient Infrastructure and Energy.

10.5 Climate Change and the MMTMP

Considerations

The MMTMP evaluated four different high-level alternative solutions. The evaluation criteria included the solution's impact to climate change and the natural environment. A detailed natural heritage assessment is provided in **Appendix C**.

Although the transportation improvements associated with this master plan's preferred solution will result in effects to the climate (e.g., due to increased greenhouse gas emissions) and impact the natural environment within the Town of Caledon, climate change was considered throughout the process, with the preferred solution developed to minimize GHG emissions.

Preferred Alternative Solution Mitigation Strategies

A multi-modal approach has been undertaken to develop the preferred alternative solution in collaboration with Resilient Caledon, the Town's climate change action plan. This multi-modal approach ensures that emissions and negative effects to air quality are minimized. This solution includes the following:

- Road capacity improvements manages average speeds of vehicles a level that minimizes GHG emissions by reducing congestion on key major corridors. This will be confirmed through Schedule B or C environmental assessments.
- Active transportation network plan that provides varying levels of protection for pedestrians and cyclists depending on the context to lessen the reliance of the personal automobile.
- Identification of key transit corridors that connects communities within Caledon ranging from smaller hamlets to larger and denser urban areas to lessen the reliance of the personal automobile.
- The promotion of electric vehicle charging stations so that if the trip is made by a personal vehicle, there is support for the vehicle to be electric which lowers GHG emissions per capita.

Summary and Next Steps

This Multi-Modal Transportation Master Plan satisfies Phase 1 and Phase 2 of the Municipal Class Environmental Process. Alternative solutions were identified, and a preferred alternative

solution was selected based on an evaluation criterion which involved both natural heritage and climate change objectives. As part of this study's policy framework, the Town of Caledon's existing climate change community action plan, Resilient Caledon, was incorporated. The recommendations of the MMTMP supports the Resilient Caledon Climate Change Action Plan and the Town's community greenhouse gas (GHG) emissions reduction target of net zero by 2050 through the support for alternative modes of transportation and electric vehicles. An inventory of natural heritage assets was also conducted to understand the extent of the impacts to the natural environment.

Climate change considerations and implications have been documented and assessed through this study. Additional project-specific studies that involve Phase 3 to Phase 5 of the Municipal Class EA process in the Town of Caledon should further consider impacts to the climate and use the information provided in the MMTMP as a foundation.

11.0 Cost Estimates and Monitoring

This chapter provides an estimate of capital cost investments required to implement projects proposed as part of the Alternative 3 “Combined” preferred scenario and identifies funding opportunities, and an implementation and monitoring plan.

11.1 Capital Costs

11.1.1 Road Projects

The capital costs associated with planned and proposed road improvements, including widening and new construction projects, are summarized in **Table 11-1**. It is estimated that short-term (by 2031) and medium-term (by 2041) projects will cost $270 million and $281 million, respectively. Long-term (2051 or beyond) projects are estimated to cost $175 million.

Recognizing that all the road widening projects are proposed along future Town Arterials it is recommended that urbanization (e.g., construction of curb and gutters) of each corridor be included as part of its respective construction year. Urbanization costs have also been incorporated in the estimate.

11.1.2 Active Transportation Projects

Costs associated with proposed active transportation improvements within the Town will be completed as part of the Town’s Active Transportation Master Plan (ATMP), which was initiated in early 2022. It is expected that the construction of planned road reconstruction projects includes recommended active transportation facilities as best practice.

Table 11-1: Road Project Capital Costs

Road	From	To	Recommendation	Corridor Length (km)	Capital Cost
2031					
Chinguacousy Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.1	$ 24,955,000
McLaughlin Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.1	$ 24,955,000
Albion Vaughan Road	Mayfield Road	King Street	Widening from 2 to 4 lanes	4.8	$ 96,140,000
Humber Station Road	Mayfield Road	Limit of Settlement Area (north of King Street)	Widening from 2 to 4 lanes	7.6	$ 61,180,000
Abbotside Way	Bonniglen Farm Boulevard	Heart Lake Road	Extension (4 lanes)	0.5	$ 3,738,000
Healey Road	The Gore Road	Coleraine Drive	Widening from 2 to 4 lanes	2.7	$ 21,735,000
Torbram Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.2	$ 25,760,000
George Bolton Parkway	West of Coleraine Drive	Humber Station Road	Extension (4 lanes)	1.3	$ 6,728,000
Kennedy Road	Bonniglen Farm Boulevard	Old School Road	Widening from 2 to 4 lanes	0.65	$ 5,233,000
				Subtotal	$ 270,424,000
2041					
Innis Lake Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3	$ 24,150,000
Centreville Creek Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.1	$ 24,955,000
Old School Road	Winston Churchill Boulevard	Airport Road	Widening from 2 to 4 lanes	16.6	$ 133,630,000
Healey Road	Airport Road	The Gore Road	Widening from 2 to 4 lanes	4.1	$ 33,005,000
Kennedy Road	Old School Road	King Street	Widening from 2 to 4 lanes	3.1	$ 24,955,000
Caledon King Townline	King Street	Columbia Way	Widening from 2 to 4 lanes	2.2	$ 17,710,000
Columbia Way	Regional Road 50	Caledon King Townline	Widening from 2 to 4 lanes	2.8	$ 22,540,000
				Subtotal	$ 280,945,000
2051					
Chinguacousy Road	Old School Road	King Street	Widening from 2 to 4 lanes	3.1	$ 24,955,000
McLaughlin Road	Old School Road	King Street	Widening from 2 to 4 lanes	3.1	$ 24,955,000
Bramalea Road	Mayfield Road	King Street	Widening from 2 to 4 lanes	6.2	$ 49,910,000
Heritage Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.1	$ 24,955,000

Road	From	To	Recommendation	Corridor Length (km)	Capital Cost
Creditview Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3	$ 24,150,000
Heart Lake Road	Mayfield Road	Old School Road	Widening from 2 to 4 lanes	3.2	$ 25,760,000
				Subtotal	$ 174,685,000

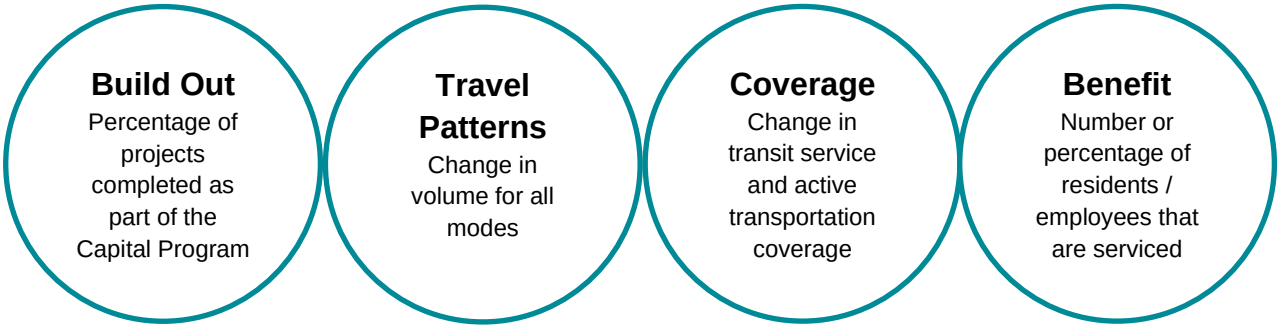
Source: Caledon Growth Management and Phasing Plan Study (2023)

11.2 Implementation and Monitoring Plan

This MMTMP provides a strategy for the implementation of transportation facilities and recommends relevant policies to support Town goals and objectives. Phasing of proposed projects were identified for the short, medium and long term. Implementation and timing of projects should be confirmed through subsequent corridor-specific studies and a further assessment to balance capital costs and funding strategies.

The MMTMP is recommended for review every five years as part of the Official Plan review as prescribed from the Planning Act. This allows for an ongoing review and assessment of the implemented programs and services for effectiveness, and appropriate adjustments to be made to account for changing land use assumptions, for example.

A monitoring program is recommended to track travel pattern and land use changes, which will rely on data collection and reporting programs. The objectives of the monitoring program can include a review of the following.



12.0 Bibliography

City of Orillia. *Multi-Modal Transportation Master Plan.* November 2019.

Region of Peel. *Long Range Transportation Plan*. 2019

Region of Peel. *Goods Movement Strategic Plan*. 2017

Draft Region of Peel Growth Forecasts, August 2021

Toronto Pearson, "Cargo Services", *Toronto Pearson*, [Online]. Available: https://www.torontopearson.com/en/corporate/partnering-with-us/cargo-services (August 3, 2021)

Ministry of Natural Resources and Forestry, "Pits and Quarries Online", [Online]. Available: https://www.lioapplications.lrc.gov.on.ca/Pits_And_Quarries/index.html?viewer=Pits_and_Quarries.Pits_and_Quarries&locale=en-CA (August 3, 2021)

Avison Young, "Intermodal Logistics in the Greater Toronto Area", *An Avison Young Topical Report*, 2018, [Online]. Available: https://www.avisonyoung.ca/documents/56635302/56647756/aytopicalreportgreatertorontoareaintermodallogisticsnov15-18final.pdf/a0ab9a8d-5ca2-42a3-b023-6683e272bca3 (August 3, 2021)

Statistics Canada, "Retail Trade, January 2021", *The Daily*, 2021, [Online]. Available: https://www150.statcan.gc.ca/n1/daily-quotidien/210319/dq210319a-eng.htm (August 3, 2021)

City of Toronto, 'Vehicle-for-Hire', *City of Toronto*. [Online]. Available: https://www.toronto.ca/city-government/accountability-operations-customer-service/long-term-vision-plans-and-strategies/vehicle-for-hire/ (Accessed 2 November 2021)

City of Toronto, 'Air Quality for Mid to High-Rise Residential & all Non-Residential Development', *City of Toronto*, [Online]. Available: https://www.toronto.ca/city-government/planning-development/official-plan-guidelines/toronto-green-standard/toronto-green-standard-version-3/mid-to-high-rise-residential-all-non-residential-version-3/air-quality-for-mid-to-high-rise-residential-all-non-residential-development/ (Accessed 2 November 2021)

What is Transportation Demand Management?", Victoria Transport Policy Institute, 31 Aug. 2011. [Online]. Available: http://www.vtpi.org/tdm/tdm12.htm. (Accessed 18 September 2021).

Town of Bradford West Gwillimbury. 'Shared-Ride Taxi Programs'. *Bradford West Gwillimbury*. [Online]. Available: https://www.townofbwg.com/transit/taxi-to-go. (Accessed 18 September 2021).

InnoVisions Canada. 'About telework'. *InnoVisions Canada*. [Online]. https://web.archive.org/web/20070111082145/http://www.ivc.ca/part2.html. (Accessed 18 September 2021).

Litman, Todd. 'Parking Management – Strategies, Evaluation and Planning', *Victoria Transport Policy Institute*, Victoria, BC. [Online]. Available: https://www.vtpi.org/park_man.pdf, (Accessed 2021 November 1)

Town of Caledon. "Caledon 2020 – 2030: An Economic Development Strategy for the Town of Caledon (Feb 2020)" [Online]. Available: https://pubcaledon.escribemeetings.com/filestream.ashx?DocumentId=9918 [Accessed May 2021].

Intergovernmental Panel on Climate Change. "Summary for Policy Makers" [Online]. Available: https://www.ipcc.ch/sr15/chapter/spm/ [Accessed June 2021].