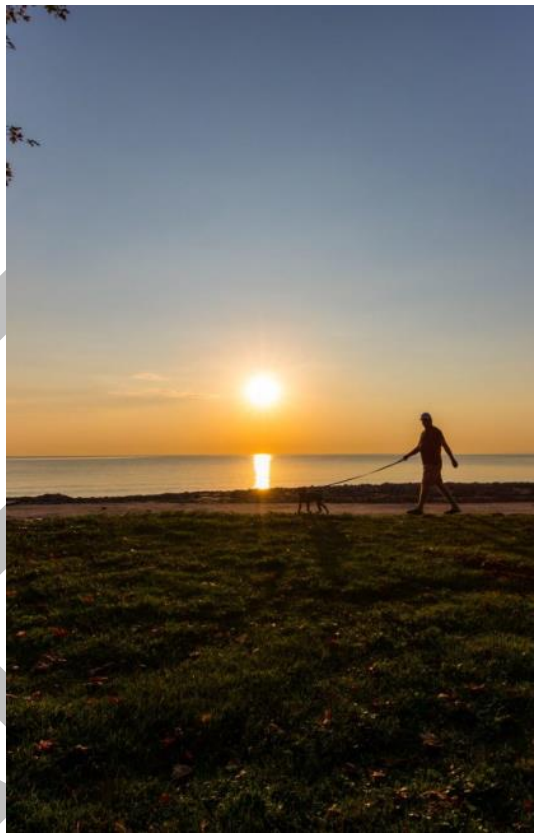
Transportation Master Plan

OAKVILLE

Honouring the Land and Territory



Oakville, as we know it today, is rich in the history and modern traditions of many First Nations. From the lands of the Anishinaabe, to the Attawandaron and Haudenosaunee, these lands surrounding the Great Lakes are steeped in First Nations history. As we gather today on the sacred lands of Treaties 14 and 22, we are in solidarity with Indigenous brothers and sisters to honour and respect Mother Earth, the original nations of the trees and plants, the four legged, the flyers, the finned and the crawlers as the original stewards of Mother Earth.

We acknowledge and give gratitude to the waters as being life and being sacred and to the carriers of those water teachings, the females. We acknowledge and give gratitude for the wisdom of the Grandfathers and the four winds that carry the spirits of our ancestors that walked this land before us.

The Town of Oakville is located on the Treaty Lands and Territory of the Mississaugas of the Credit. We acknowledge and thank the Mississaugas of the Credit First Nation, the Treaty holders, for being stewards of this traditional territory.

Acknowledgements

We are grateful for the many contributions to this master plan made by our engaged residents, community groups, and partners. We also acknowledge the thoughtful input from Town of Oakville elected officials and staff. The plan is designed to build upon our shared values and address our key priorities as a dynamic and growing municipality.

Town of Oakville Council (2022-26)

Mayor Rob Burton
Ward 1 Councillors Sean O'Meara and Jonathan McNeice
Ward 2 Councillors Cathy Duddeck and Ray Chisholm
Ward 3 Councillors Janet Haslett-Theall and Dave Gittings
Ward 4 Councillors Allan Elgar and Peter Longo
Ward 5 Councillors Jeff Knoll and Marc Grant
Ward 6 Councillors Tom Adams and Natalia Lishchyna
Ward 7 Councillors Nav Nanda and Scott Xie

Master Plan Project Committee

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Note: Appendices are being finalized and not circulated as part of this draft.

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1.0 Introduction

1.1 Planning Transportation Systems

The transportation system of streets, trails, transit routes, and related operating policies are necessary for the Town of Oakville (town) to be a livable and economically competitive community. This combination of infrastructure and services contributes to the town's mobility needs for commuting, travel to school, access to shopping and movement for leisure to community destinations.

The Oakville Transportation Master Plan (TMP) is a long-range plan that coordinates mobility solutions and services, transportation infrastructure and related policies with anticipated community growth. The plan identifies long-term needs for elements of the transportation system and determines an overall recommended strategy based on the vision that is consistent with town's corporate objectives.

Transportation solutions, however, cannot be developed in isolation. This transportation master plan is guided by federal and provincial policies, Halton Region infrastructure and services, and town plans and studies. Provincial and municipal policies highlight the health, equity and climate benefits associated with sustainable transportation including transit, cycling and walking.

1.2 Transportation Systems Support Livable Communities

The town's Official Plan policies and planning reports support sustainable transportation solutions. Sustainable solutions include initiatives that contribute to a shift to alternative modes of transportation. In this plan, sustainable also means solutions that must be operationally sustainable to meet the growth needs of the town and fiscally sustainable such that the costs of the implementation of the plan can be adequately funded.

As a livable community, Oakville will balance the need to support and manage growth with promoting public transit and active transportation options through this transportation master plan. This plan presents a balanced transportation system that accommodates various choices for residents. It includes phasing and funding strategies to ensure that transportation solutions are implemented as needed. Additionally, the study outlines a plan for the effective use of town streets for both mobility and public space.

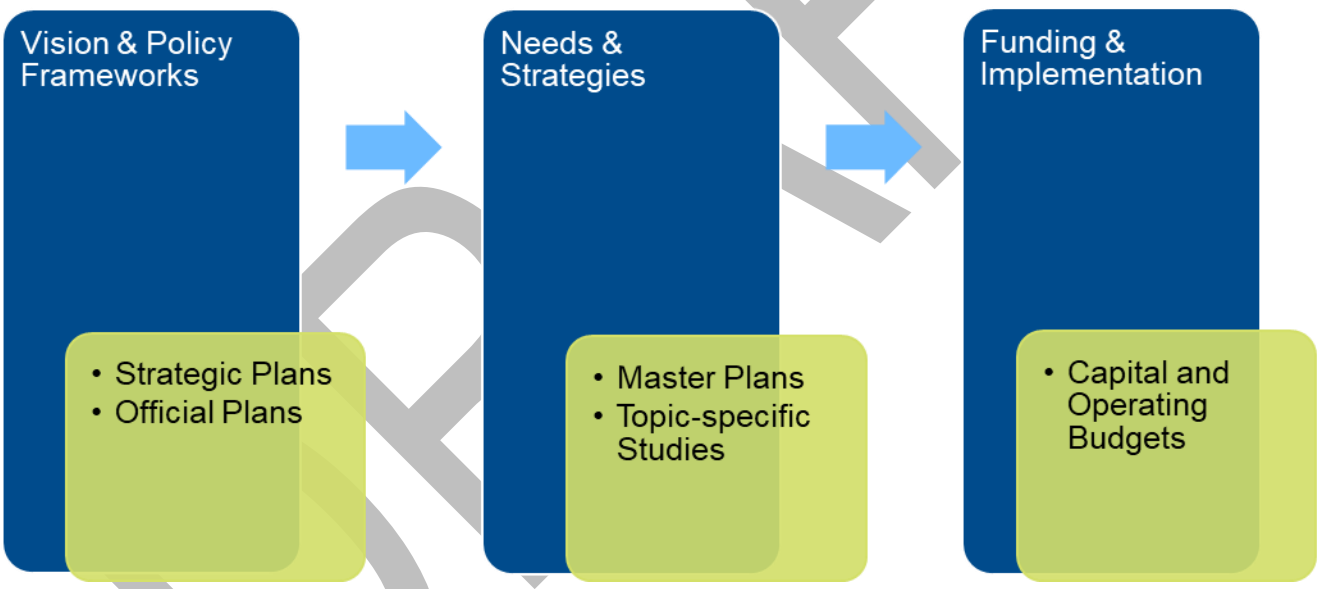
2.0 Transportation Master Plan Overview

Master plans build on the goals and policies from the Official Plan and are guided by the Strategic Plan to define specific medium-range Master Plans on topics such as parks and recreation, economic development, cultural enhancement, transportation and more.

The Master Plans implement town strategies, guide town decisions and provide specific actions to be completed over a set time period. Collectively, the Master Plans address, enhance and monitor actions that contribute overall to a high quality of life and prosperity for the town's residents and businesses. Master Plans are generally reviewed every five to 10 years.

This Transportation Master Plan (TMP) creates a long-term vision for the Town of Oakville. This TMP provides recommendations for guidelines, policies, programs and infrastructure improvements up to 2051.

Figure 2-1: Hierarchy of Policy Documents



2.1 Goals, Objectives and Purpose

2.1.1 Problem and Opportunity

The Town of Oakville Transportation Master Plan has been developed in response to current transportation problems and emerging opportunities. This justification of transportation solutions is guided by the town's Official Plan ("Livable Oakville Plan"), Council Strategic Plan, the 2023-2026 Action Plan and relevant planning studies. The Problem and Opportunity Statement for the Town of Oakville Transportation Master Plan is as follows.

"For Oakville to be a vibrant and livable community, the transportation system needs to build long-term prosperity, environmental stewardship and benefit the well-being of residents by establishing a balance between demands for new development with the need to create a sustainable, integrated, and safe multimodal network, while remaining responsive to emerging trends and recent legislation that will affect transportation choices and land use patterns over the next three decades."

2.1.2 Strategic Objectives and Targets

The Town of Oakville Council Strategic Plan (dated July 2023) identifies four strategic priorities, with a Vision to create a vibrant and livable community for all. The transportation master plan addresses all four strategic priorities:

- **Growth Management –** recommending infrastructure needs/programs/polices to accommodate future growth and provide efficient mobility across the town.
- **Community Belonging –** provide transportation system/services that are equitable, inclusive, that engages the residents of Oakville to have an active life style and support overall wellbeing.
- **Environmental Sustainability –** explore ways to decrease auto use, recommend micro mobility, parking, efficient infrastructure/services to minimize GHG emissions and positively contribute to climate change mitigation and adaptation.
- **Accountable Government –** provide recommendations on efficient and effective transportation service delivery, create long term plans of infrastructure improvements, and continue to partner with other levels of government including seeking additional funding opportunities.

Council declared a climate emergency in 2019 and made a commitment to addressing the impacts of climate change. To mitigate and significantly reduce the risk of experiencing these climate impacts, the Oakville Community Energy Strategy (CES) is a result of joint work and collaboration of various sectors collectively known as the Oakville Energy Task Force. Transportation accounts for almost half of community wide greenhouse gas (GHG) emissions and over 70% of transportation activity is personal vehicle use. To achieve the town goals, the CES defines six strategic objectives related to transportation efficiency which are summarized in Table **2**-1.

Table 2-1: Transportation Efficiency Strategic Objectives and Targets

No.	Strategic Objective	2041 Target
1	Reduce average trip length	Reduce average trip length by 5% for Light-Duty Vehicles.
2	Increase trips by walking and cycling	Increase the share of passenger kilometers travelled (PKT) by walking and cycling to 10%.

No.	Strategic Objective	2041 Target
3	Increase trips by bus	Increase the share of passenger kilometers travelled (PKT) by bus to 10%.
4	Increase trips by GO Train	Increase the share of passenger kilometers travelled (PKT) by GO Train by 15%.
5	Increase use of electric vehicles	Increase electric share of light duty vehicle to 30% and heavy-duty vehicle to 10%.
6	Increase efficiency of vehicles	Increase efficiency of gas / diesel vehicles by 36% and electric vehicles by 20%

Source: Oakville Community Energy Strategy (CES)

2.1.3 Transportation Purpose and Goals

The TMP purpose statement and supporting high-level objectives and goals developed for each horizon period of the study are identified below and in Table **2**-2, respectively.

> "The Town of Oakville is developing an equitable, sustainable, accessible, and connected transportation system that supports planned growth and enables the development of vibrant, people-oriented, and transit-supportive complete communities through 2051"

Table 2-2: Supporting Objectives and Goals by Horizon Period

	Short Term	Medium Term	Long Term
Time Period	Within 10 years (by 2035)	Between 10-16 years (by 2041)	Between 16-26 years (by 2051)
Objective	Develop a safe and efficient transportation network that prioritizes pedestrian safety, supports transit and active transportation, and fosters community connectivity.	Expand and enhance public transit options to reduce reliance on private vehicles, reduce greenhouse gas emissions, and alleviate traffic congestion.	Implement sustainable transportation solutions that reduce carbon emissions, promote environmental conservation and achieve net zero greenhouse gas emissions.
Key Goals	Upgrade and implement new cycling infrastructure to promote cycling as a viable travel mode and initiate a strategy for e-scooters and micromobility.	Expand public transit coverage to underserved areas and increase frequency of services.	Enhance eco-friendly transportation options such as continued electric bus fleet expansion and new cycling corridors.

	Short Term	Medium Term	Long Term
	Integrate the Oakville Transit Five-Year Business Plan into TMP strategies. Improve pedestrian safety and connectivity through a Complete Streets design approach. Implement traffic management strategies to reduce congestion and improve traffic flow.	Enhance transportation hubs to improve connectivity between modes of transportation. Implement smart traffic management systems to optimize traffic flow.	Develop green corridors and prioritize the expansion of public transit in suburban areas and along major transportation corridors.

2.2 Master Plan Process

The Oakville Transportation Master Plan has been developed in accordance with approaches of the Sustainable Planning Guidelines report developed by Transport Canada and the Transportation Association of Canada. It is consistent with the Provincial Planning Statement (PPS 2024) and is based on a vision of transportation solutions that are integrated with growth in a manner that is environmentally, operationally and financially sustainable.

The study has been informed by the current Town of Oakville and Halton Region Official Plans and compliments the town's Official Plan update.

This study has been carried out through an open public process as a Master Plan study under the Environmental Assessment (EA) Act to serve as direct input to any subsequent EA studies that may be deemed appropriate. Undertakings that fall under the Municipal Class Environmental Assessment (MCEA) are defined by four 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.

The scope of the study followed Section 2.7 (Master Plans) in the Municipal Class EA guidelines, following Master Plan Approach #1. This study provides sufficient information for Phases 1 and 2 of the five-phase Municipal Class EA process, whereby Phase 1 defines the problem and / or opportunity and Phase 2 identifies alternative solutions to the problem.

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 this transportation master plan and / or any subsequent permits.

2.3 Engagement and Consultation

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 and included the following objectives:

- To allow town residents, the business community, Indigenous communities and other stakeholders to be aware of the importance of the transportation master plan initiative and kept informed 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 transportation master plan 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 a 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, a project initiation video, newspaper advertisements and town press releases. Notification to the public included a Notice of Commencement, four Public Open House notices, and interactive presentations conducted with the public and posted to the town website. In total, there were over 600 points of contact with stakeholders and more than 300 comments and issues raised.

The transportation master plan was initiated on April 20, 2023, through a Notice of Commencement published on the town's website. The town's website, **WWW.OAKVILLE.CA**, 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. **Appendix A** documents stakeholder input and responses throughout and during the 30-day review period of the study.

2.3.1 Public

Four public information centre (PIC) meetings 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; two meetings are required by the master plan process. All PICs were held in an in-person drop-in centre format with a presentation. The presentation was recorded for the benefit of those who could not attend in person and the presentation materials were also shared on the town's project web page.

The first PIC was held on December 7, 2023, at 6:00 p.m. The public open house was the first point of contact with the public to identify the study context and objectives and provide an overview of existing and planned conditions.

The second PIC was held on June 18, 2024, at 6:00 p.m. to provide a preliminary list of transportation needs and opportunities and alternative solutions for consideration. An overview of the alternative solutions under consideration was provided.

The third PIC was held on November 27, 2024, at 6:00 p.m. to provide the evaluation of alternatives and preliminary preferred alternative. Supporting strategies and policies were also presented to the public.

The fourth PIC is expected to be held the last week of May, 2025 to present the proposed phasing, costing and implementation plan.

Several supplementary engagement events were held with the public and town organizations including public surveys, a councillor workshop, Oakville Chamber of Commerce meeting, town staff workshops, pop-up outreach at community events and meetings with community interest groups.

A summary of the details of the PIC materials, public engagement events and stakeholder feedback is provided in **Appendix A**.

2.3.2 Agency Stakeholders

Relevant technical agencies were invited to participate in the Technical Advisory Committee (TAC) meetings. The TAC consisted of town staff, staff from Halton Region, adjacent municipalities, Ministry of Transportation (MTO), 407 ETR, Metrolinx, Halton and Halton Catholic District School Boards, Conservation Halton, and Credit Valley Conservation. Five virtual TAC meetings were held on the dates below.

- TAC Meeting #1 – June 8, 2023
- TAC Meeting #2 – November 14, 2023
- TAC Meeting #3 – May 17, 2024
- TAC Meeting #4 – September 18, 2024
- TAC Meeting #5 – May, 2025

2.3.3 Indigenous Communities

Letters and the notices were sent by email / mail to Indigenous communities by the town. The Ministry of the Environment, Conservation and Parks (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:

- Mississaugas of the Credit First Nation
- Six Nations of Grand River
- Haudenosaunee Confederacy Chiefs Council (c/o Haudenosaunee Development Institute)

Consultation with identified Indigenous communities was initiated by the town and summarized in **Appendix A**.

2.3.4 Coordination with Other Studies

This Oakville Transportation Master Plan was coordinated with other studies, including the following:

- **Oakville Transit Five-Year Business Plan**: Oakville Transit completed a Five-Year Business Plan (2025 – 2029) that was approved in November 2024. The plan developed strategies and policies to guide Oakville Transit to accommodate growth in the town, address changing needs, and align with key plans and studies throughout (and beyond) the 2025 to 2029 period.
- **Halton Region Integrated Master Plan (IMP)**: At the time of this study, Halton Region was completing its Integrated Master Plan which includes water, wastewater and transportation strategies to enable local municipalities to reach growth targets to 2051. The transportation component focusses on establishing a network for transit users, active transportation (e.g., pedestrians and cyclists), cars and trucks that accommodate all users and abilities.
- **Midtown Oakville Review and Transportation Plan**: The Transportation Plan for Midtown Oakville was under development at the time of this study. Midtown Oakville is bounded by the QEW highway to the north, Chartwell Road to the east, Cornwall Road and the rail line to the south and Sixteen Mile Creek to the west. The plan aims to create a vibrant, livable and mixed-use community with sustainable infrastructure systems.

Other studies (such as the previous Oakville Transportation Master Plan and Active Transportation Master Plan) were referenced and incorporated into this plan.

2.4 Guiding Plans, Principles and Policies

2.4.1 Province of Ontario

The Oakville Transportation Master Plan builds upon and implements the existing policy framework provided by several provincial planning policies. Policies include the Provincial Planning Statement (PPS) 2024 and recent provincial legislation in support of building housing.

The PPS summarizes the province's policy regarding land use and associated infrastructure, including transportation. The PPS provides policy guidance on the efficient development of land in a manner which encourages growth priorities in redevelopment (intensification) areas. Generally, the PPS supports transit, cycling and pedestrian modes of travel. It encourages zero- and low-emission vehicles and transportation demand management strategies. The PPS policies protect transportation corridors and rights-of-way for transportation, transit and goods movement.

Since the completion of the previous Oakville Transportation Master Plan in 2018, the provincial government has passed several legislative acts presented in support of housing growth. Provincial legislation has also influenced the provision of transportation infrastructure. The transportation implications of these provincial bills are briefly summarized below:

- **Bill 23: More Homes Built Faster Act** set housing targets for municipalities by 2031 including 33,000 units for Oakville. It will remove all aspects of site plan control for residential development proposals up to ten units. It will require municipalities to amend their zoning by-laws to establish minimum densities and heights around transit.
- **Bill 108: More Homes, More Choices Act** requires shorter timelines for municipal processing of development applications and identification of transportation requirements for Official Plan Amendments, Zoning By-laws and Draft Plans of Subdivision.
- **Bill 185: Cutting Red Tape to Build More Homes Act** restricts municipal councils from requiring parking in Protected Major Transit Station Areas (as well as areas surrounding higher-order transit where minimum densities are prescribed).
  Bill 212: Reducing Gridlock, Saving You Time Act restricts municipalities to construct, install or mark a bicycle lane on a roadway under its jurisdiction without approval from the Ministry of Transportation if the design would reduce the number of marked lanes available for travel by motor vehicle traffic.

2.4.2 Metrolinx

The 2041 Regional Transportation Plan (2041 RTP), developed by Metrolinx, includes a vision for an integrated, multimodal transportation system for the Greater Toronto and Hamilton Area (GTHA) in 2041. The implementation of the plan supports improved rapid transit and proposes to make travel more affordable for elderly and low-income residents of GTHA. The plan will also help achieve provincial objectives for land use intensification and the reduction of greenhouse gas (GHG) emissions.

Key projects in Oakville identified in the 2041 RTP include:

- Dundas West Priority Bus (Bronte Road-Brant Street)
- Dundas BRT (Kipling Station-Bronte Road)
- Bronte / Regional Road #25 Priority Bus (Bronte GO-Steeles Avenue)
- Trafalgar BRT / LRT (Oakville GO-Highway 407)
- Harvester / Speers / Cornwall Priority Bus (Waterdown Road-Port Credit GO)

- Lakeshore West 15-min GO Service Extension (Aldershot GO-Hamilton GO)

Additional regional transit projects and policies relevant to the Town of Oakville include:

Metrolinx GO Regional Express Rail (RER) program will double GO train service during peak periods and quadruple service during off-peak periods. Electrification will reduce transit operating costs and environmental impacts, and boost travel speeds.

- Promotion of strategies that optimize the transportation system including:
  - Integration of transit fares (this strategy has been implemented within Halton and Peel)
  - Plans for the first and last-mile connections
  - Focus on the traveller experience (e.g., mobile and app information)
  - Universal and barrier free access to transit
  - Transit safety including vision zero strategies
  - Expand the HOV lane network and managing road and highways to support transit
  - Reinventing transportation demand management programs
  - Optimizing major roads for goods movement
- Intensify and integrate development at Major Transit Station Areas (Midtown Oakville GO Urban Growth Centre and Bronte GO).

2.4.3 Halton Region

Halton's Regional Official Plan Amendment No. 49 (ROPA 49) was approved on November 4, 2022, to address modifications as part of the Municipal Comprehensive Review and implement the Region's Integrated Growth Management Strategy to accommodate population and employment growth in Halton up to 2051. ROPA 49 updates the current Regional Official Plan to include the following key elements:

- Major Transit Station Areas (MTSAs) – ROPA 49 delineates Major Transit Station Areas to ensure conformity with the Growth Plan (2019) and to provide direction for Local Municipalities to implement area-specific plans for important Strategic Growth Areas including Midtown Oakville GO UGC/MTSA, and Bronte GO MTSA.
- Primary Regional Nodes – ROPA 49 identifies Primary and Secondary Regional Nodes, including the addition of two new Primary Regional Nodes in Oakville (Hospital District and Palermo Village) and identifies Neyagawa Urban Core as a Primary Regional Node rather than a Secondary Node.

As part of Bill 23, *More Homes Built Faster Act, 2022,* Halton Region was defined as an "upper-tier municipality without planning responsibilities", which resulted in the Halton Region Official Plan being considered an Official Plan for each of the local area municipalities, including the Town of Oakville, until it is revoked or amended. The official date of this handover

was decided as part of Bill 185, *Cutting Red Tape to Build More Homes Act, 2024,* as of July 1, 2024.

Halton Region continues to operate the regional road system and establishes policy and implementation strategies for infrastructure improvements on regional roads in Oakville. Halton's Integrated Master Plan (IMP) prescribes transportation infrastructure improvements and has progressed concurrently with the Oakville Transportation Master Plan.

2.4.4 Town of Oakville

The Halton Official Plan supports transit, cycling and pedestrian modes of travel and transportation demand management strategies. The policies encourage the coordination of land use with transportation solutions and intensification areas and public transit. The Halton Official Plan also encourages the development of transportation corridors as shared-use facilities. Halton's ROPA 49 identified Regional Nodes, including new Primary Regional Nodes at the Hospital District, Palermo Village and Neyagawa Urban Core.

Oakville's Official Plan, Livable Oakville, guides how the town will grow and develop. The Livable Oakville plan will guide the town's Complete Street typologies developed, stating that municipal roads *"should be developed and planned as multimodal transportation corridors that are designed to safely accommodate a blend of vehicular, transit, cycling and pedestrian movement"*. Livable Oakville requires consideration of *"maximizing transit access and minimizing transit vehicle travel time in the design of arterial road and collector roads."* Oakville's Official Plan also identifies the need to provide choices for mobility including roads, transit, walking and cycling trails.

The North Oakville East and West Secondary Plans establishes a detailed planning framework for the urban development of the North Oakville Planning Area (the majority of lands north of Dundas Street). It includes the establishment of *"an efficient and linked, safe pedestrian movement system (cycleways and walkways) along with an appropriate distribution of land uses so that residents do not need to rely on the automobile to meet the recreational, shopping and commuter needs of daily life"*. It promotes a "transit first" policy and explores all modes of transportation including the use of High Occupancy Vehicle (HOV) lanes, express bus lanes and transit rights-of-way.

The Town of Oakville has committed to promoting environmental initiatives and fostering a sustainable community through the development of Environmental Sustainability Policy. The policy promotes alternative modes of transportation such as walking, cycling, and public transit to reduce reliance on private vehicles and decrease greenhouse gas emissions. Additionally, the policy encourages the adoption of electric and hybrid vehicles, as well as the implementation of sustainable fuel options.

As noted, the Oakville Community Energy Strategy (CES) is a strategy for systemic change that is policy-driven and involves coordination and action from all levels of government. Its strategic objectives include reducing average trip length, increasing trips by walking and

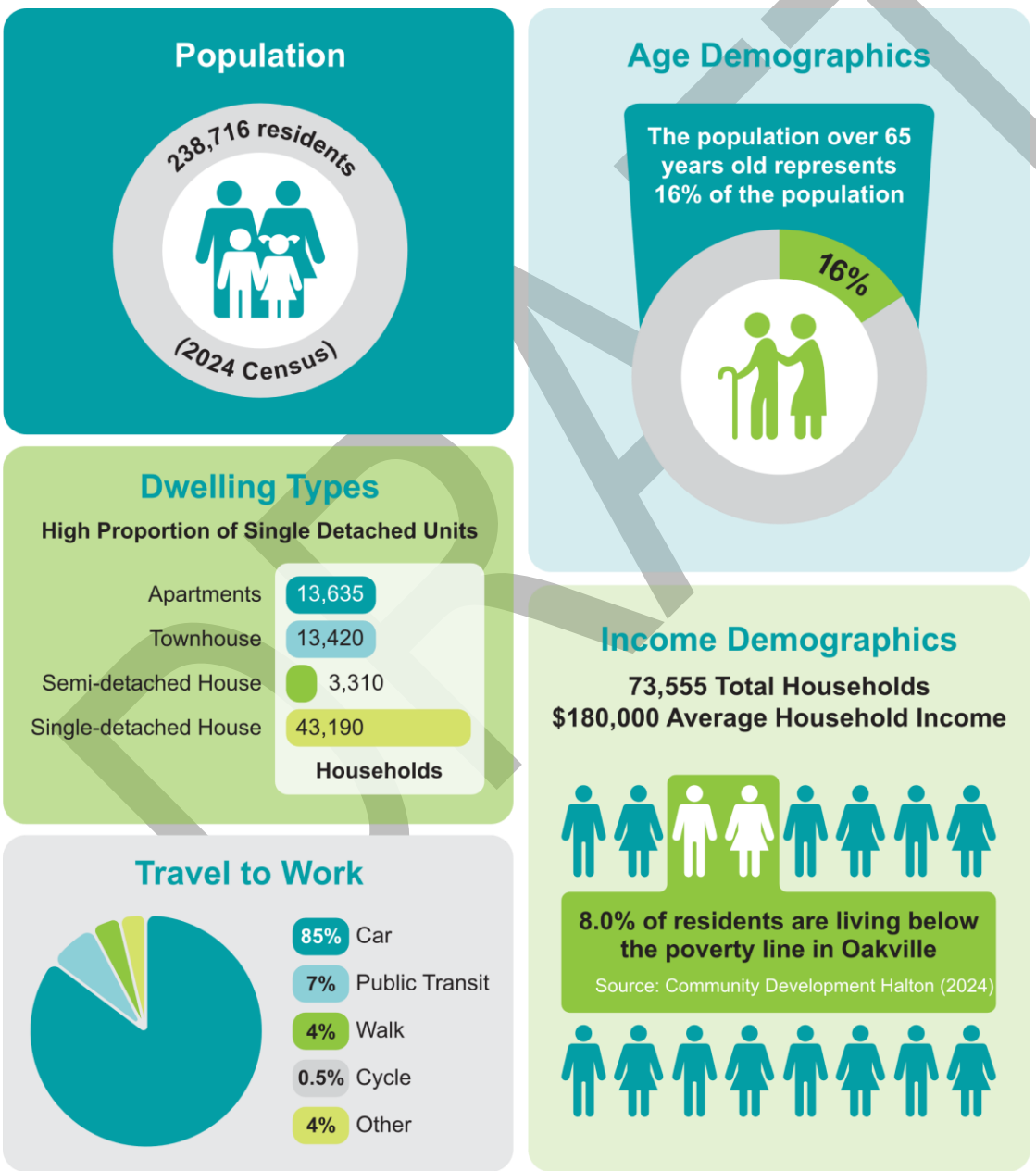
cycling, increasing trips by GO Transit, increasing electric vehicles and increasing the efficiency of vehicles.

3.0 Oakville Today

3.1 The People of Oakville

The Town of Oakville is a vibrant, livable community. The demographic profile of Oakville and the neighbourhoods within the town affect the transportation need and the appropriateness of alternative solutions. The infographics illustrated in Figure 3-1 present key demographic statistics of residents within Oakville.

Figure 3-1: Town of Oakville Demographic Profile



Source: 2021 Census unless noted otherwise (Income and Population figures are from 2024 Census)

The Town of Oakville has a population of 238,716 residents (2024 Census). Based on 2021 Census data, the predominant age group in Oakville is between 45 to 54 years old, representing approximately 17% of the total population and an older average population than that of previous transportation master plans. Oakville's older residents (over 65 years old) represent 16% of the total population. The senior demographic may be unable or have difficulty with some transportation options, with physical or cognitive constraints posing as a barrier to travel via driving or active transportation modes.

Both children and seniors are considered vulnerable road users, as children tend to have an underdeveloped sense of safety and understanding of traffic control devices and there is a higher likelihood of fatality for the elderly involved in a collision.

Based on information from the Community Development Halton organization, approximately 8.0% of residents are living below the poverty line in Oakville. According to 2021 Census data, approximately 5.7% of households are below the Lower Income Cut Off (LICO) after tax. Lower income households typically have lower vehicle ownership and therefore rely more heavily on non-driving modes such as transit, cycling and walking.

The segment of the population often overlooked in the transportation system is disabled persons who may be dependent on the municipal delivery of services, such as transit and access to facilities. A disability can be described as a physical, sensory, intellectual, learning or speech impairment, or a physical or mental health condition. In Oakville, approximately 22% of residents are reported to have a disability according to the 2017 Canadian Survey on Disability, and there has been an increasing trend as the general population ages.

3.2 The Land Uses

The existing land uses in Oakville are comprised of urban centres, residential, employment, commercial, industrial, institutional, and undeveloped lands. The undeveloped lands include those lands designated as the parkway belt and greenbelt, future residential, future employment and "growth areas". There are also several ravines within the town that pass through or divide the various communities, the most notable ones being Bronte Creek and Sixteen Mile Creek.

Most of the land area within the town is dedicated to single detached houses, creating sparsely zoned areas that are less conducive to an environment where residents can walk or cycle to places of work, school, and play.

Lands subject to the Livable Oakville Official Plan, including areas south of Dundas Street and north of Highway 407, are comprised of several established residential communities that have developed from the initial 19th century settlements, in and around the area currently known as Downtown Oakville, to newer developing neighbourhoods such as Palermo and Uptown Core. The character of the street networks in these neighbourhoods range from curvilinear street

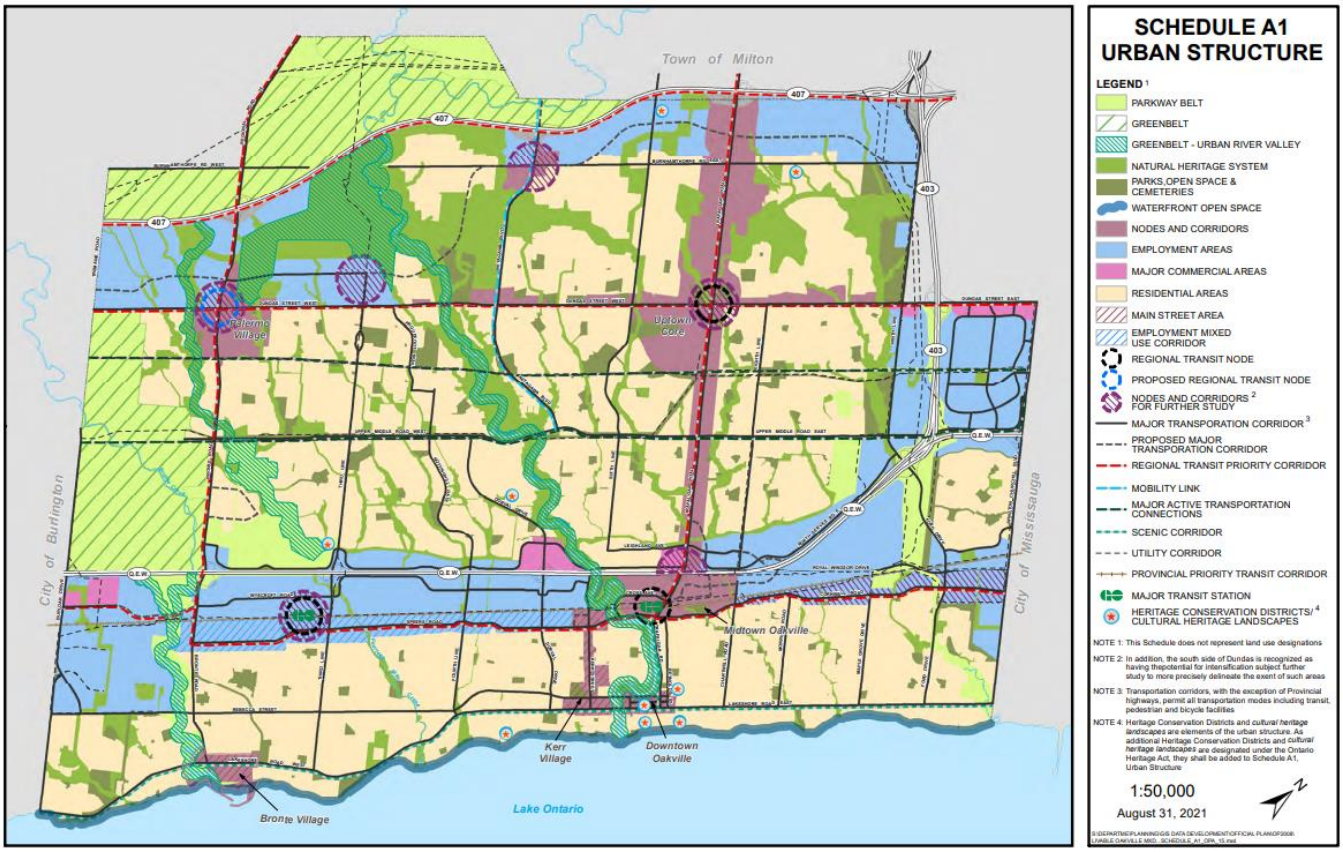
systems in recent developments to the traditional road grids of the town's original plan of settlement.

Existing urban centres and growth areas within the town include Palermo Village, Uptown Core, Downtown Oakville, Midtown Oakville, Kerr Village and Bronte Village, which are developing as mixed-use hubs. The Regional Official Plan Amendment (ROPA 49) has also delineated Midtown Oakville GO and Bronte GO as a Major Transit Station Area (MTSA). There are opportunities to preserve and develop the existing elements of main street features within these areas.

The majority of the town's existing jobs are located near the Queen Elizabeth Way (QEW) / Highway 403 corridor and Royal Windsor Drive corridor, including the Ford Motor Company, the largest private sector employer with approximately 3,400 employees. Employment lands represent a wide range of economic uses including industrial operations, manufacturing and distribution, warehousing, research and development, commercial, institutional, and accessory retail uses.

The existing and planned urban structure is illustrated in Figure 3-2.

Figure 3-2: Oakville Urban Structure



Source: The Livable Oakville Plan (Official Plan), Schedule A1

3.3 The Environmental Heritage Features

The Town of Oakville, Regional Municipality of Halton, Conservation Halton, Credit Valley Conservation and other agencies have established and implemented policies to protect designated environment and heritage features, which include but are not limited to provincially significant wetlands, areas of natural and scientific interest (ANSI), watercourses, valleylands and features and habitats within the developed and developing communities.

The Provincial Greenbelt is comprised mainly of farmland, green spaces, forests, wetlands and watersheds within the Greater Golden Horseshoe, including the Oak Ridges Moraine and Niagara Escarpment. Within Oakville, the Greenbelt includes Bronte Creek Provincial Park, Bronte Creek Corridor and land on the north side of Highway 407 as protected areas.

The Town of Oakville differentiates valleylands as the major and minor valleylands. There are two major valleys including Sixteen Mile Creek and Bronte Creek and their tributaries. The town identifies 14 minor valley lands and tributaries.

Natural Features and Hazard Lands are designated natural areas and are identified by the Ontario Ministry of Natural Resources and Forestry (MNRF). They identify areas of Natural and Scientific Interest (ANSIs), wetlands, habitat of endangered and threatened species, Environmentally Sensitive Areas (ESAs), valleylands and woodlands.

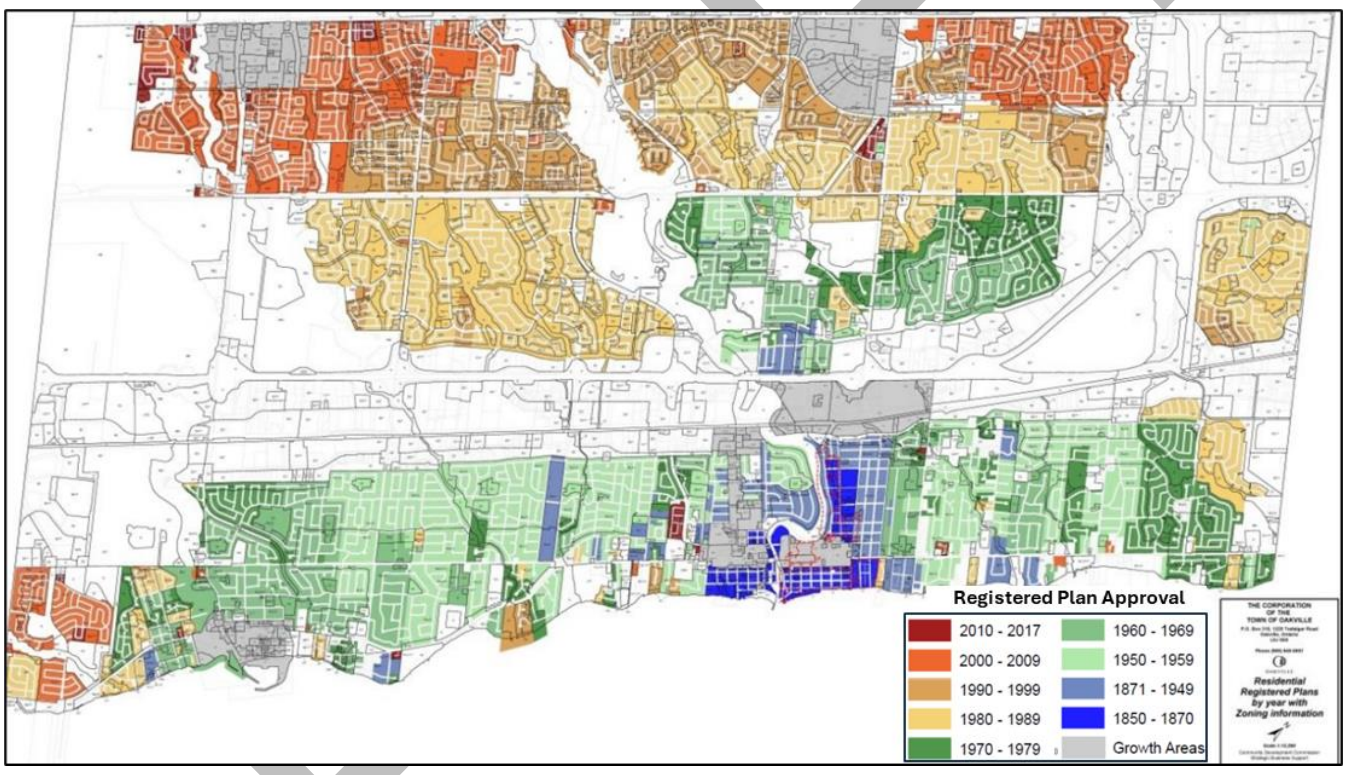
The existing Natural Features and Hazard Lands and natural heritage system for North Oakville are illustrated in **Appendix B**.

3.4 The Urban Structure and Neighborhood Profiles

Early neighbourhoods within Oakville were built as compact complete communities such that most of a resident's everyday needs were met within an 800 m radius. Transportation networks also evolved from a previous grid-like network to "lollipop" or cul-de-sac streets, which made walkability and direct access to nearby retail / commercial services more challenging.

The grid-like road network can be observed in the oldest parts of Oakville (i.e., Downtown Oakville) as shown in Figure 3-3. In contrast, the newer developments, such as the area surrounding Palermo Village provide more curvilinear networks and loops to accommodate the sparsely built, low-density single-family dwellings. The road network configuration contributes to a high percentage of residents that are dependent on vehicle travel as the proximity to key destinations grew further apart, creating highly trafficked arterials and highways and a greater demand for inter-municipal travel infrastructure.

Figure 3-3: Development Timeline in Oakville



Source: Residential Character Study (December 2017)

There is some variability in the characteristics of neighbourhoods within Oakville that may affect travel demand and needs. Environics Analytics tracks neighbourhood demographics and trends covering employment status, marital status, income, education, cultural diversity, amongst other measures. The data also offers behavioural metrics including social media usage, travel mode to work, and participation levels in leisure activities. The Transportation Master Plan has leveraged Environics to supplement data available from Census, creating a

more comprehensive picture of the residents on a neighbourhood-level according to their shared demographic, lifestyle, and behavioural traits as summarized in **Appendix B**.

3.5 Cultural Heritage Features

The Livable Oakville Plan, Part C, Section 5 provides direction for the conservation of Oakville's cultural heritage. Oakville's cultural heritage resources are required be conserved so that they may be experienced and appreciated by existing and future generations, and enhance the town's sense of history, sense of community, identity, sustainability, economic health and quality of life. They exist within both urban and undeveloped contexts, and include built heritage features, archaeological sites, and landscape elements. All protected heritage properties in the town are included in the Oakville Register of Properties of Cultural Heritage Value or Interest, as required by the Ontario Heritage Act (OHA). As of February 4, 2025, the town's protected cultural heritage resources include:

- 241 designated under Section 29, Part IV of the OHA
- 211 listed properties under Section 27, Part IV of the OHA
- Four conservation districts (as shown in **Error! Reference source not found.**) designated under Part V of the OHA

The implementation of any recommendation of the Transportation Master Plan will need to address and mitigate impacts to the Town's protected cultural heritage resources.

3.6 The Existing Transportation System

The Oakville Transportation Master Plan is being developed within the context of the existing transportation system consisting of streets and highways, transit services, active transportation networks, railway services, and mobility support services. The understanding of the existing service together with committed future services will provide the basis for identifying system solutions to best accommodate town growth. Metrolinx, Ministry of Transportation, 407 ETR, freight operators, Halton Region and the town are all transportation service providers within the town.

The following sections and **Appendix C** describe the existing transportation system.

3.6.1 Highway, Regional Road and Street Network

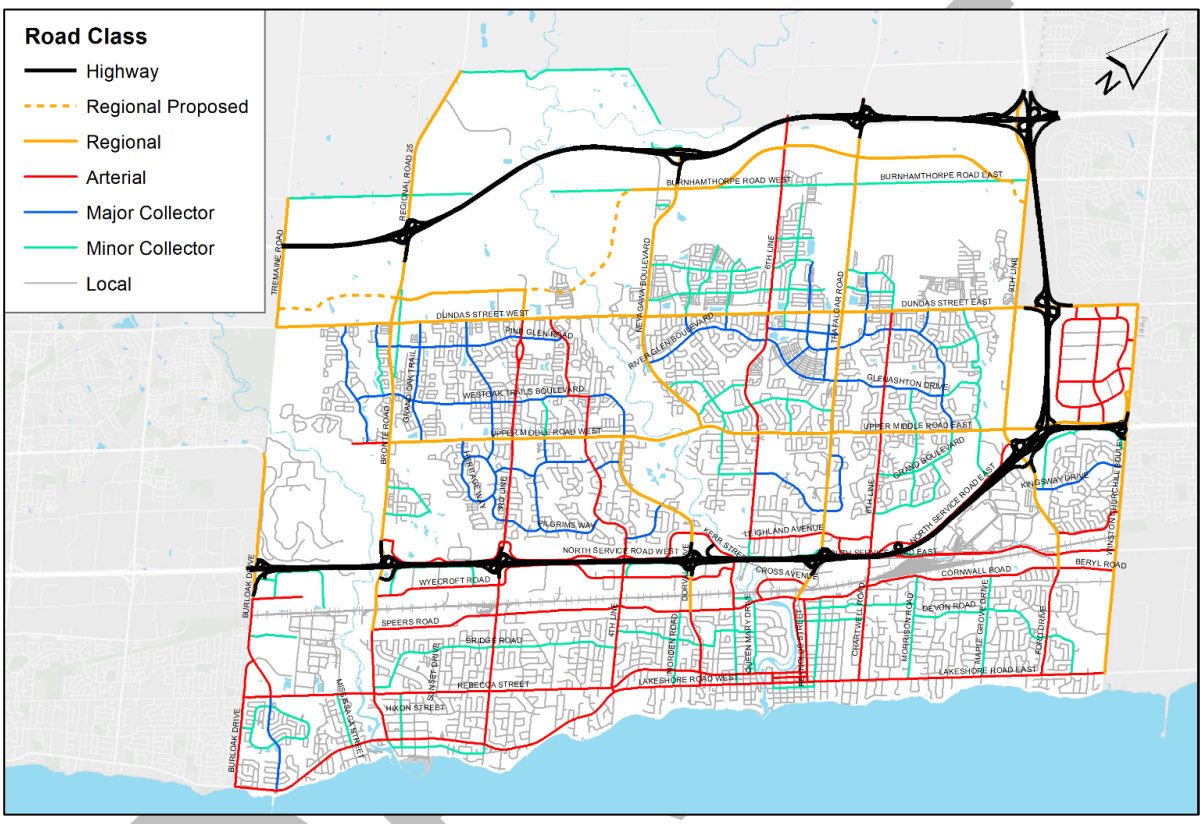
The Ministry of Transportation Ontario (MTO) has jurisdiction over the provincial highway network, which includes the QEW / Highway 403 corridor within Oakville. Highway 407 is operated as a toll facility under the authority of 407 ETR. The provincial highway system provides for long-distance commuter traffic and goods movement by truck.

A grid of major arterial roads within Oakville is under the jurisdiction of Halton Region and the town. The regional and town arterial network provides road capacity for inter-regional and intra-regional commuter traffic and goods movement. Further, they provide land access to

large residential and commercial development sites and highway commercial sites. Town of Oakville collector and local streets provide for neighbourhood circulation and property access for a wide variety of medium and low-density land uses.

Figure 3-4 illustrates the provincial highways, regional roads and town arterial, collector and local streets within Oakville.

Figure 3-4: Existing Highway and Street Network



Last update: January 2025

3.6.2 Transit Services

Oakville Transit provides conventional and specialized transit services to the town's residents. Conventional transit services are provided within the urban boundaries of the town for a total service area of approximately 140 sq. km. These services connect with Burlington Transit to the west and MiWay (Mississauga Transit) to the east. As well, Oakville Transit connects with GO Transit's Lakeshore West train service at four different stations: Bronte GO Station, Oakville GO Station, Clarkson GO Station (Mississauga), and Appleby GO Station (Burlington). Connections with GO Transit bus services occur at these same stations with additional connections occurring at the GO Transit carpool lots at Dundas Street / Highway 407 and Trafalgar Road / Highway 407.

There are two GO rail stations in Oakville: the Oakville GO Station located southwest of Cross Avenue and at Trafalgar Road, which is the busiest GO Station outside of Union Station, and

the Bronte GO Station located west of Third Line between Wyecroft Road and Speers Road, both of which are key transit hubs. Metrolinx currently supplements its Lakeshore West GO Rail service with its Route 18 (Lakeshore West) Bus Service, which parallels the rail corridor on the Queen Elizabeth Way (QEW) and serves the GO Rail stations. Four other GO bus transit routes provide connectivity to: Hamilton GO Centre and York University (Route 40), Hamilton and Pickering (Routes 41 and 47), and Oshawa (Route 56).

Oakville Transit operates a total of 21 regularly scheduled conventional transit routes and 8 school specials. This service is operated on a fixed schedule and operates various routes throughout the entire week. Routes generally operate on 30-minute headways in the peak periods, 30 to 60 minutes headways in the mid-day, and 60-minute headways in the evening. Notably, services operating on the higher-demand corridors, including Dundas Street and Lakeshore Road West, provide 15-minute headways. The Trafalgar Road corridor is served by five routes, with a combined headway of under 10 minutes. Most routes originate from either the Oakville or Bronte GO Stations.

The route map for scheduled transit services is provided in Figure **3-5**.

Figure** 3-5: **Existing Transit System

Source: oakvilletransit.ca

In 2023, Oakville Transit launched Ride On-Demand Service, which was identified as a cost-effective way to deliver transit in areas of low transit demand without having to implement conventional fixed route scheduled transit service. Ride On-Demand is designed to be more flexible by providing a shared-ride service for customers who can request a trip, on demand, using a Ride On-Demand app, Interactive Voice Response (IVR), web booking, or by calling the transit call-centre. The Ride On-Demand service is flexible as customers can request a ride at any time during operating hours, travel from any address to another within a designated zone, or to transit hubs within the zone where they can transfer to other Oakville Transit services.

Oakville Transit currently operates the following Ride On-Demand services:

- Ride On-Demand North Oakville
- Ride On-Demand Southeast Oakville
- Ride On-Demand Falgarwood
- Ride On-Demand Palermo West/Bronte

- Ride On-Demand Late Night Service

Care-A-van, also operated by Oakville Transit, is a door-to-door service for registered customers who have a disability that prevents them from using conventional transit. The service is provided by fully accessible transit vehicles, which are supplemented by taxis. The service operates within the municipal boundary of Oakville and provides cross-boundary connections with Burlington Handi-Van and Peel TransHelp.

As of May 2023, Oakville Transit began offering free transit for youth under 19 and seniors 65 and over. As of May 1, 2025, Oakville Transit will be offering free transit to all registered care-A-van customers. All customer wishing to partake in the free transit initiatives can do so with a valid PRESTO card.

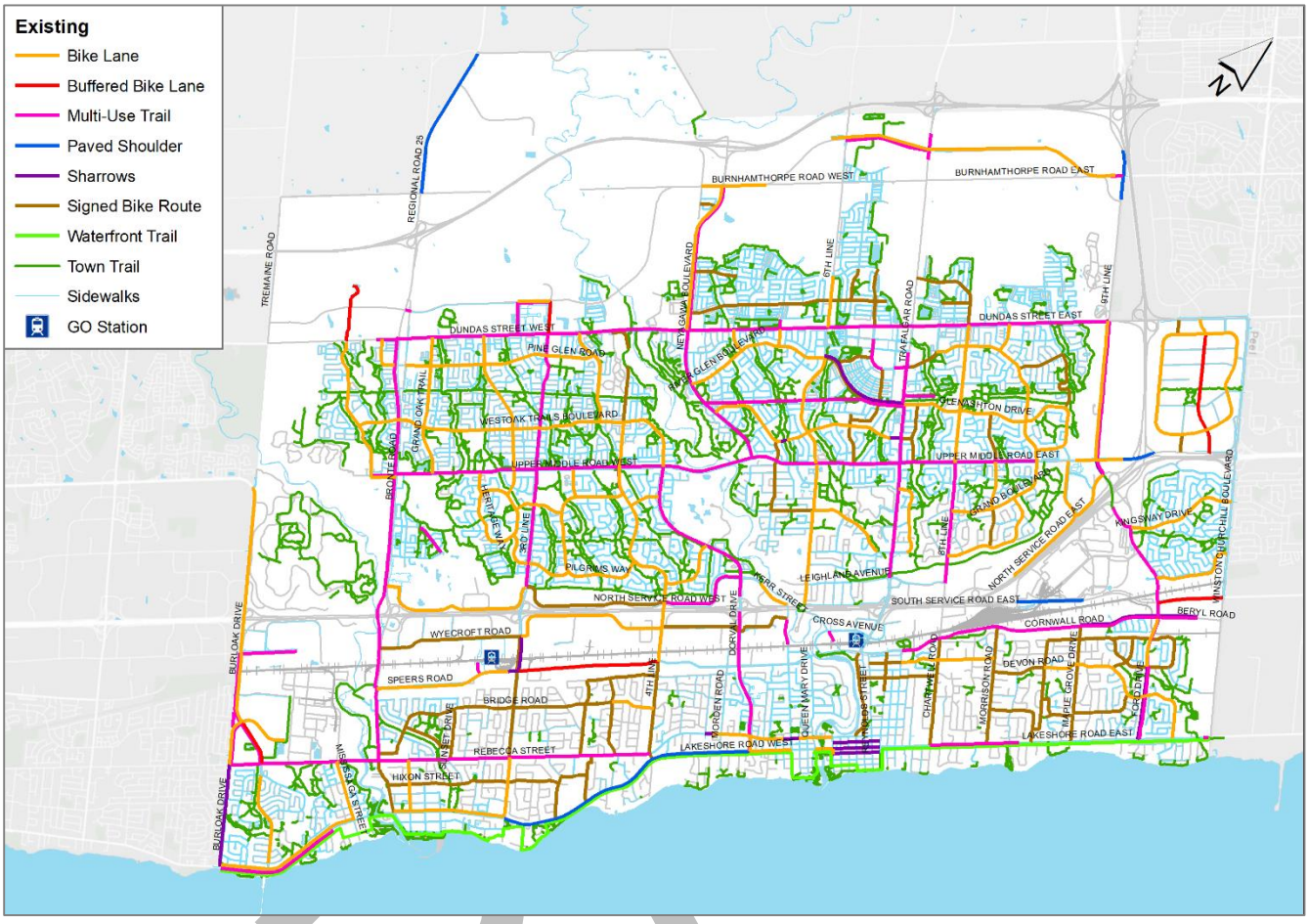
3.6.3 Active Transportation

The Town of Oakville is responsible for the accommodation of active modes of travel on town roads, town parks, town trails and open spaces, and within the boulevard of Halton Region roads. The town has five types of existing facilities to accommodate the travel of pedestrians and cyclists, which include:

- Concrete sidewalks (off-road, pedestrian-use only)
- Asphalt multi-use trails (off-road, in boulevard)
- Granular major trails (off-road, parks and open space)
- Cycle lanes (on-road, cycle-use only)
- All public roadways (with the exception of provincial highways)

The town's major off-road trail system includes the North-South Bronte, Sixteen Mile and Joshuas Creek Trails, as well as the east-west Waterfront Trail and Crosstown Trail. The Waterfront Trail along Lake Ontario is a major provincial facility that extends across Oakville. It is facilitated primarily as a signed cycling route on Lakeshore Road with sections of parallel off-road trails associated with Bronte Harbour, Coronation Park, Oakville Harbour and occasionally within Lakeshore Road boulevards. The existing active transportation network is shown in Figure 3-6.

Figure 3-6: Active Transportation Network



Last update: March 2025

Oakville's walking network is generally well built out, with sidewalks on both sides of many residential streets and regional roads. South of the Queen Elizabeth Way (QEW), the network is more disconnected, with neighbourhoods and service roads that lack sidewalks on either side of the road, owing to their older age, narrower road widths and older rural drainage cross-sections. Oakville residents also benefit from an extensive trail network with easy access to forested areas and connections between communities across the ravine system.

Cycling infrastructure is located primarily along Oakville's major arterial or collector roads and less so on local streets. A large portion of the cycling network along town roads is made up of signed routes or sharrows rather than physical infrastructure that separates cyclists from vehicular traffic. Cyclists can also use much of the trail system, which contributes to the overall connectivity of the cycling network.

The viability of walking and cycling as practical modes of travel is a function of the town's urban form affecting the connectivity and directness of routes. There are barriers that divide the town, limiting cycling and pedestrian crossings. The spacing of opportunities to cross QEW / Highway 403 and Sixteen Mile Creek ranges from 1.2 to 3.5 km.

3.7 Travel Characteristics

3.7.1 Data Sources

Travel behaviour data sets were utilized that allow insight into current travel and trends. Data sources include traditional sources including traffic counts, Canadian Census, Transportation Tomorrow Survey (TTS) data, and population and employment data and forecasts. It is noted that the 2016 TTS data provide conditions unaffected by the Covid-19 Pandemic and may be more aligned with the long-term travel behaviour than the more recent 2022 TTS data. These data sources allowed for an understanding of existing travel behaviour including the amount of traffic generated, modal choice, origin-destination patterns, trip purpose and temporal variations in demand.

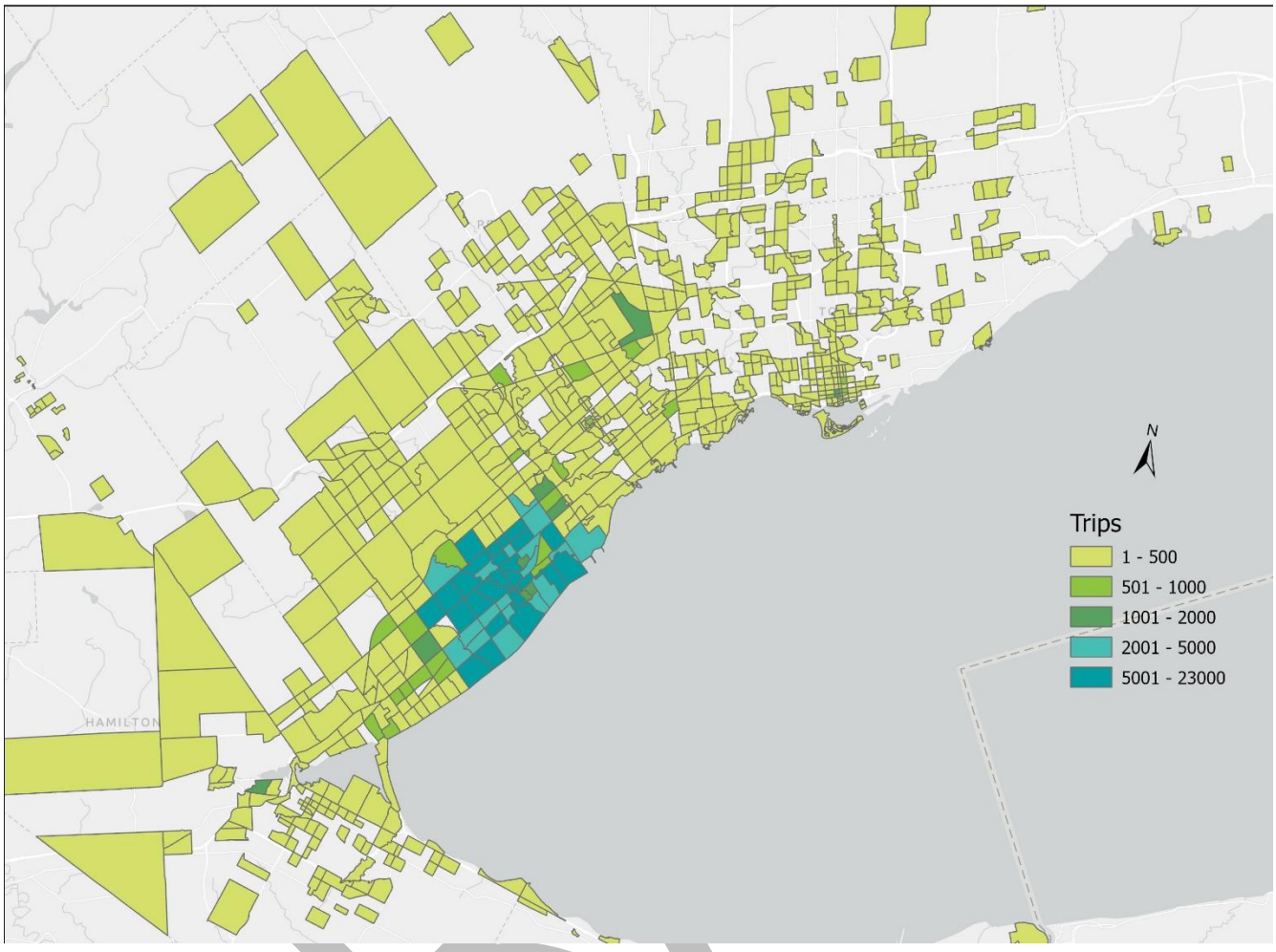
To provide a more robust assessment of travel demand, the transportation master plan has utilized “Big Data” privacy compliant sources including mobile / location-based data. The following data platforms were used: StreetLight (more discrete origin-destination data), Strava (cyclist trip data), PRESTO (GO station access data), Open Data (travel destinations, community profiles) and Environics Analytics (neighbourhood population profiles, social vulnerability).

The following sections provide a summary of travel characteristics. More details can be found in **Appendix D**.

3.7.2 Current Travel Behaviour

Oakville generates over 400,000 trips daily, with an additional 170,000 trips originating from other parts of the Greater Toronto and Hamilton Area (GTHA) heading towards Oakville. Among the trips originating from Oakville, approximately 58% remain within the town, while the remaining 42% travel outward to other areas of the GTHA, resulting in a relatively balanced flow of trips entering and leaving the town. Figure 3-7 illustrates the daily trip density originating from Oakville and extending to various destinations across the GTHA.

Figure 3-7: Trip Destinations from Oakville

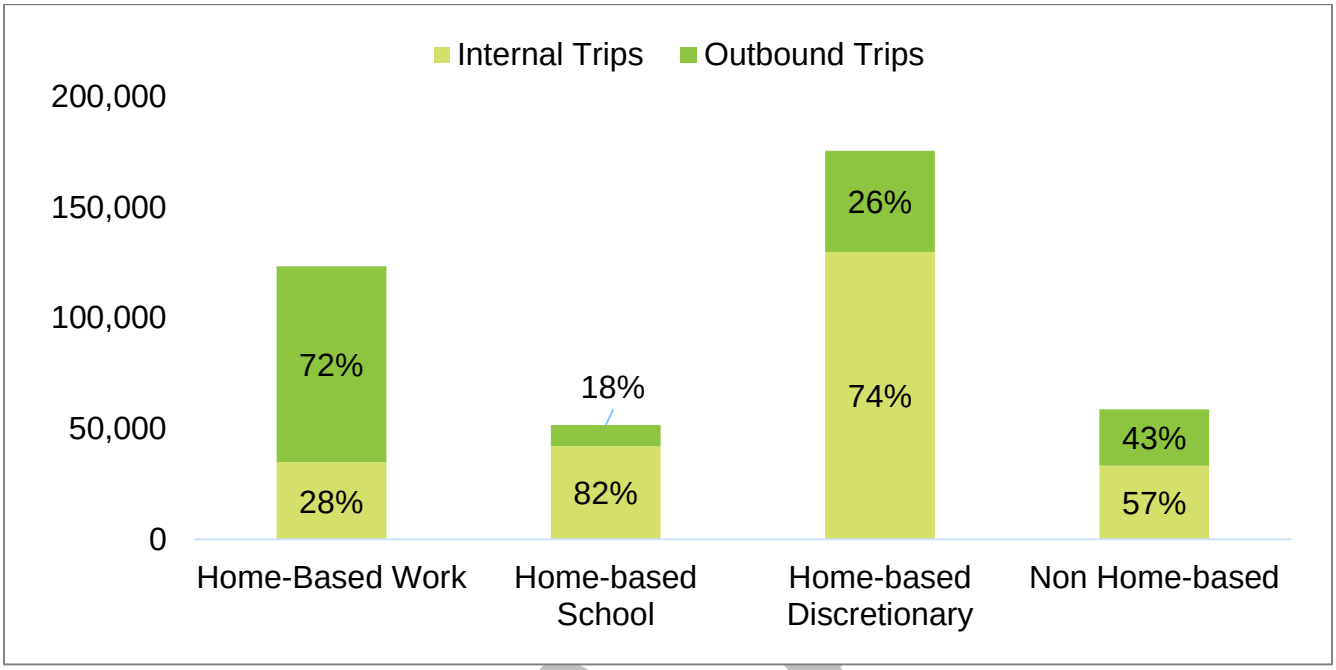


Source: Transportation Tomorrow Survey, Data Management Group, 2016

Through the use of StreetLight data, higher frequency short-distance (less than 3 km) vehicle trip patterns were identified, including trips in the downtown, Kerr Village and Iroquois Ridge North (south of Dundas Street and east of Trafalgar Road). These patterns are important in assessing needs and opportunities given their potential for mode share shifts from the auto driver mode to more sustainable modes of travel.

An assessment of trip purpose offers valuable insights into the frequency and trip destination types (i.e., school, leisure, work) within Oakville and its surrounding region. Figure **3-8** illustrates that the majority of trips originating from Oakville are for discretionary activities, school, or other non-home-based (e.g., recreation, errand) purposes, rather than home-to-work (home-based work) commutes.

Figure 3-8: Trip Purpose in Oakville

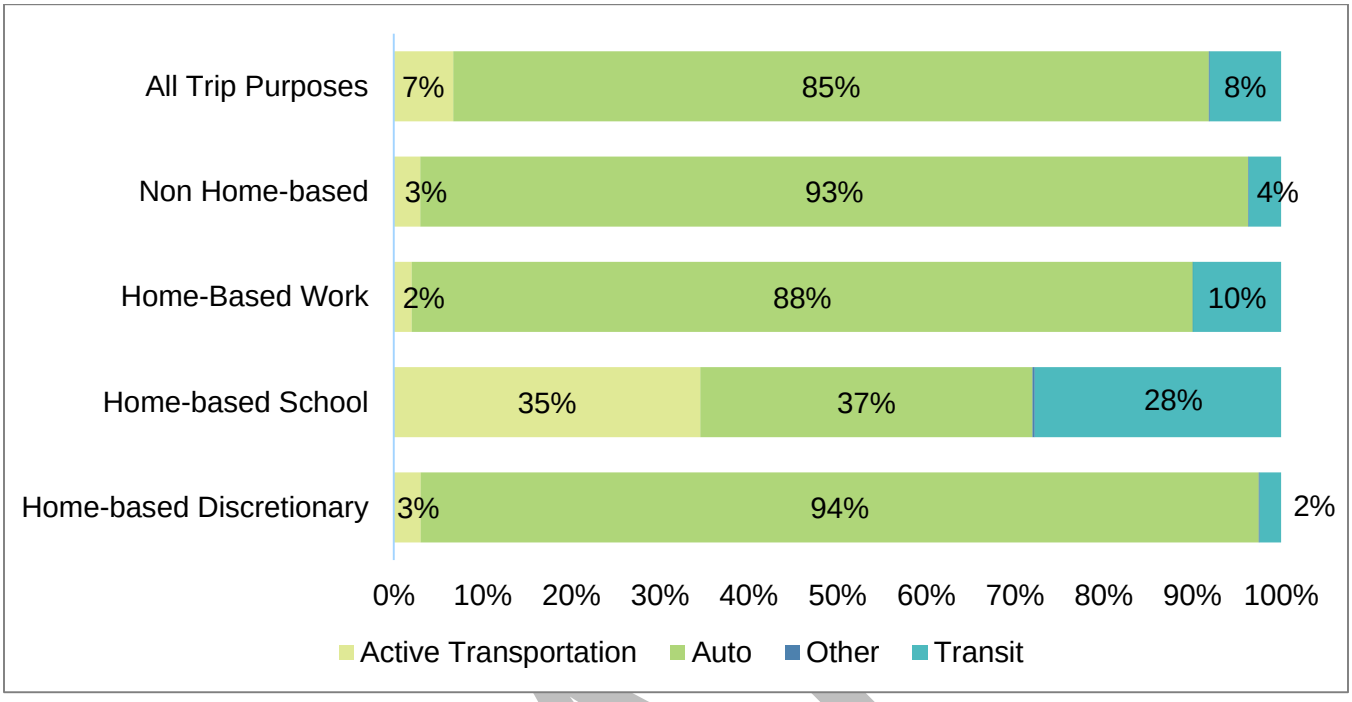


Source: Transportation Tomorrow Survey, Data Management Group, 2016

Approximately 50% of travel distances are between 15 to 20 km, supporting the viability of sustainable transportation modes in Oakville. Vehicle trips, however, are the chosen mode for most trips during peak hours (85%) whereas transit (regional and local) makes up 8% of the trips and active transportation represents 7% of travel. Figure 3-9 shows the distribution of mode choice based on travel purpose for all trips generated in Oakville. The results indicate a preference for personal vehicles for longer trips and that active transportation may be a viable option for shorter trips.

The trip percentage by mode of travel during the morning peak hour has been changing during recent years, in part because of the COVID-19 pandemic. Prior to the pandemic, transit mode share reached 9% of morning peak period trips. During the pandemic, walk trips reached 11%. The non-auto trips remained consistent at approximately 23%.

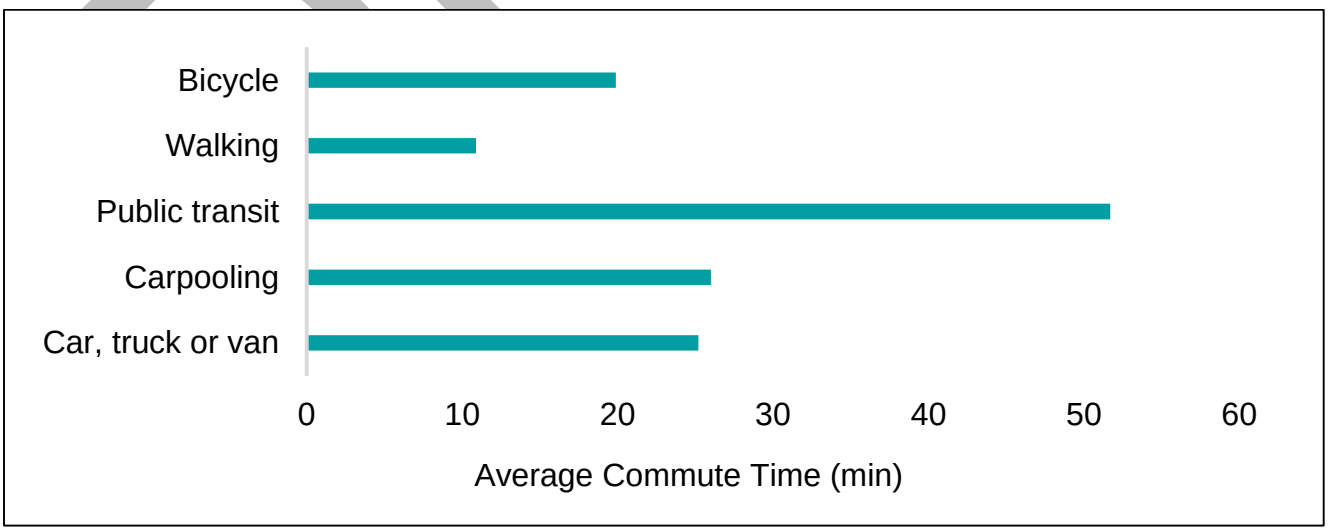
Figure 3-9: Trip Purpose by Travel Mode



Source: Transportation Tomorrow Survey, Data Management Group, 2016

The 2021 Census provides insight into the home-to-work commute travel times by mode as shown in Figure 3-10. The data indicates that the average commute time by transit is 55 minutes, which is approximately double that of private vehicles (27 minutes). Average cycling and walking trips are shorter (20 minutes and 10 minutes respectively). The longer travel time for transit is a limitation to adopting transit as a main mode of commute for residents who have travel time constraints and underscores the importance of addressing transit efficiency.

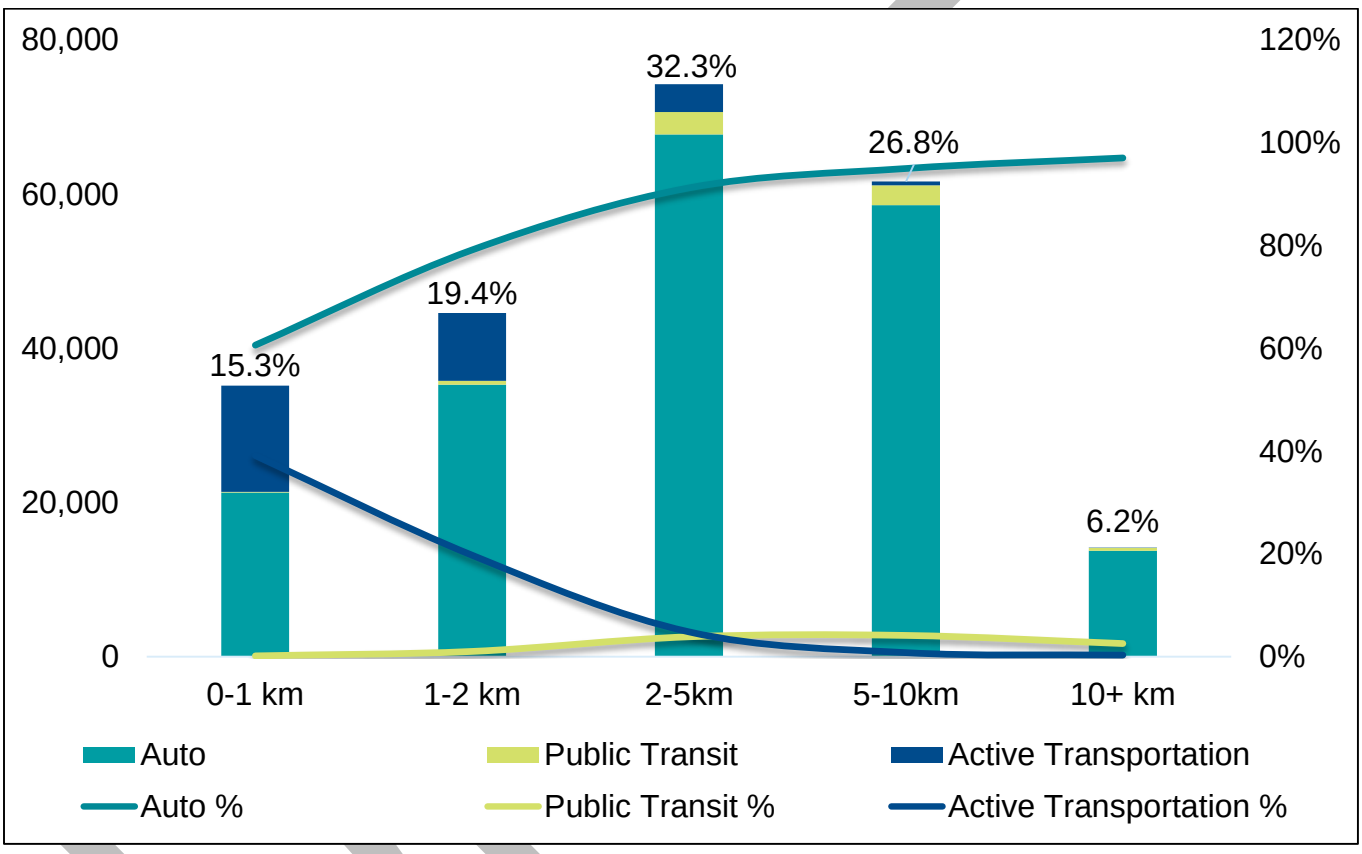
Figure 3-10: Average Commute Time by Mode



Source: Census, Statistics Canada (2021)

Focusing on trips from Oakville to destinations within the town, two-thirds of the trips are 5 km or less. Figure 3-11 illustrates the trip distance for internal trips within Oakville categorized by mode share, irrespective of travel purpose. This suggests a significant opportunity to encourage active transportation modes such as walking and cycling through targeted infrastructure improvements and awareness campaigns. By prioritizing enhancements that facilitate pedestrian and cyclist safety and accessibility, Oakville can work towards a more sustainable transportation landscape and reduce reliance on cars.

Figure 3-11: Trip Distance by Mode for Internal Oakville Trips



Source: Transportation Tomorrow Survey, Data Management Group, 2016

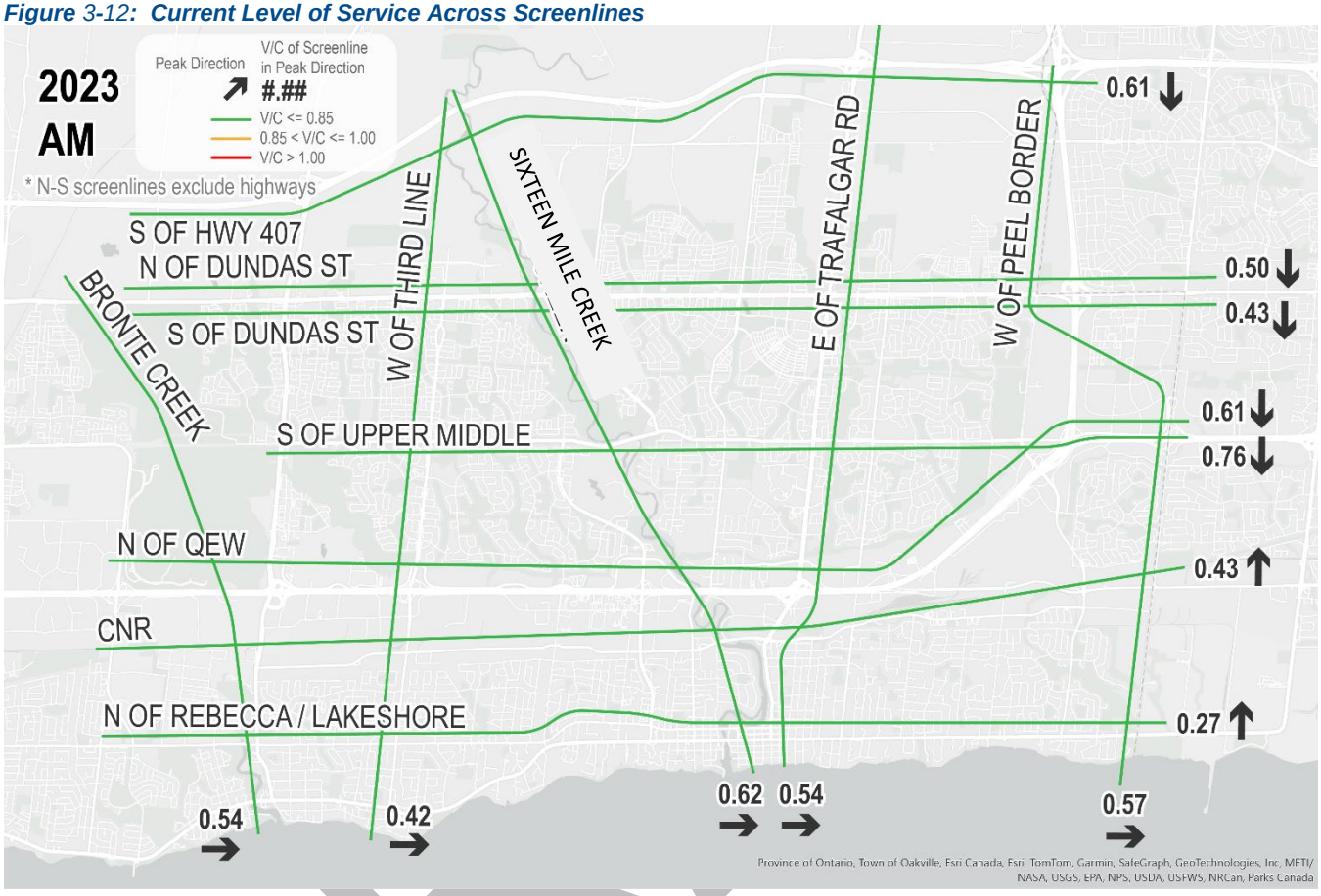
3.8 Existing Transportation Service

3.8.1 Transportation Capacity Needs

Current transportation capacity needs were assessed quantitatively based on road capacity analysis utilizing traffic counts and current road infrastructure. The assessment of current transportation needs was based on a review of morning peak hour traffic volumes and capacities for the street network. The analysis was conducted using a travel forecasting base model (developed for 2016) provided by Halton Region, refined to reflect the existing town-level network and updated to a 2023 horizon year.

Figure 3-12 illustrates the ratio of the volume of traffic to the existing capacity of the road network across major barriers (screenlines) including rail corridors, major roadways, creeks and municipal boundaries.

Figure 3-12: Current Level of Service Across Screenlines



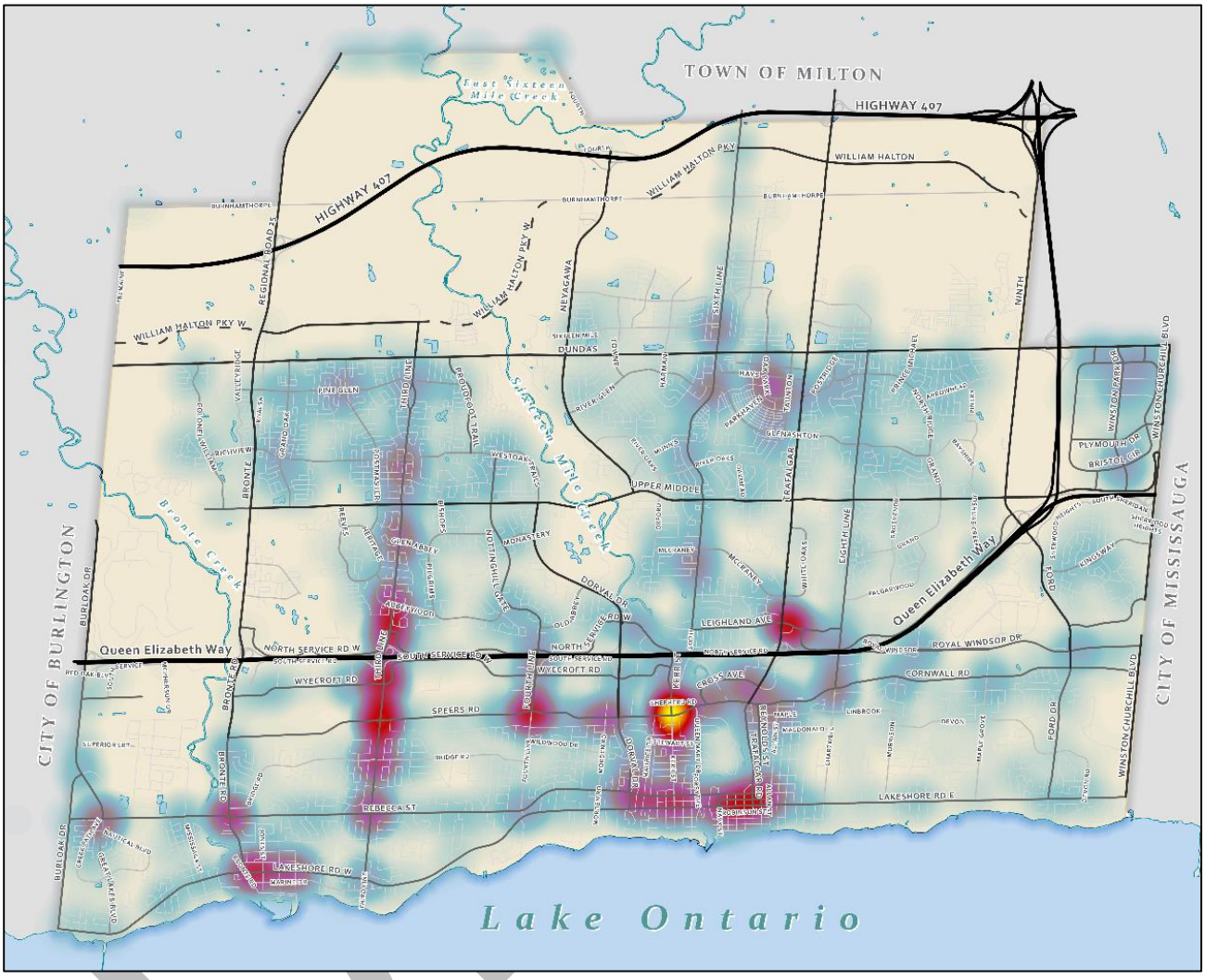
The colours indicate the percentage of capacity that is used during the morning peak hour. Green indicates volumes less than 85% of capacity (averaged across the screenline) and orange indicates volumes less than 100% but more than 85% of capacity (averaged across the screenline). It is important to note that individual roads within the screenline may have reached or exceeded their capacity. Therefore, while screenlines provide a general overview, it may not reflect specific conditions on each road. Overall, the current conditions review indicates volumes approaching capacity on roads crossing Sixteen Mile Creek, the Peel Region boundary and Upper Middle Road.

3.8.2 Transportation Safety

Collision data on town roads (i.e., roads under the town's jurisdiction) was assessed between January 2014 to December 2022. There were 4,972 collisions on town roads over the 9-year period. The largest percent of collisions (40%) have occurred along town-owned arterial roads.

Just over one-third of the collisions occur along local roads. Approximately 10% of the collisions have resulted in injury. The geographic location of collisions on town roads are illustrated on heat maps on Figure 3-13.

Figure 3-13: Collision Frequency Heat Map Along Town Roads



Source: Collision data (January 2014 to December 2022)

As shown, the locations of higher collision frequency are situated in high activity areas such as the Downtown, Kerr Village, Bronte Village, and along some road corridors such as Third Line, Speers Road and Trafalgar Road. There are, however, many local road collisions that have occurred within established residential neighbourhoods.

High traffic speeds can affect the environment of the adjacent land uses and perceived safety of neighbourhoods. High traffic speeds can also directly contribute to the frequency and severity of collisions. Where speeds are inconsistent with the ability of drivers to perceive and respond to roadway environment including points of conflict, sightlines and geometry of roadway elements, higher collision frequencies may ensue. Pedestrians, especially the elderly,

become increasingly susceptible to the likelihood of a fatality in a vehicle-related collision travelling along a roadway with higher operating speeds.

Using the surveyed speed data provided by the town, roadways with 85th percentile speeds that were measured in excess of 10 km/h above the posted speed limit were identified. Collision rates were calculated along these roadways with higher surveyed speeds. The following roads were identified to have a collision rate exceeding 1.5 crashes per million kilometers traveled, representing hotpots where the collision frequency is significant enough to warrant further study and / or mitigation measures:

- Braeside Drive between Benita Court and Morrison Road
- Kings College Drive between Playter Place and Giles Gate
- McCraney Street between Sewell Drive and Romain Crescent
- Merchants Gate between Heritage Way and Third Line
- Nottinghill Gate between North Service Road and Ridgewood Court
- Queen Mary Drive between Glenmanor Drive and Forster Park Drive
- Queen Mary Drive between Highland Road and River Side Drive
- Rebecca Street between Savannah Gate and Third Line
- River Side Drive between Queen Mary Drive and Carolyn Drive

4.0 Preparing for Growth and Livable Future

4.1 Changing Travel Demand

Understanding the destination of travel is critical in transportation master planning as it enables efficient allocation of resources, congestion mitigation, improved accessibility, enhanced safety measures, and sustainable development. By identifying where people are traveling to, the town can strategically invest in infrastructure, such as roads and public transit systems, to accommodate high-traffic routes and destinations. As Oakville grows in population and as an employment base, travel demand will increase requiring new transportation infrastructure and systems.

A growing range of data sources is available to help answer questions related to changing travel demand such as: Where are people travelling? Why are people travelling? How are people travelling? When are people travelling? Big data sources have added to traditional travel surveys as a source of information. As detailed in **Appendix D**, these sources have been used to document travel behaviour and trends as Oakville has grown

A key observation of changes in travel behaviour has been because of the COVID-19 pandemic. Data analysis shows that traffic levels declined with an increase of work-at-home and peak time traffic moved from the usual morning and evening rush hours to a more spread-out midday peak. Looking forward, while the changes seen during the pandemic might not stay as strong, it is important to consider the long-term effects of the change in working and commuting culture, such as hybrid work environments and changes to temporal travel patterns.

4.2 Travel to "Third Places"

Municipalities are increasingly recognizing third places (and third spaces) in urban and community planning. A third place refers to the social surroundings that are separate from the typical social environments of home (first place) and work (second place). Examples of third places include libraries, community centres, coffee shops, places of worship, parks, plazas, and community facilities, as locations providing opportunities for spontaneous encounters and cultural exchanges.

Streets can be transformed into public spaces and third spaces by widening the boulevard space and utilizing it for pedestrian space. Landscaping features such as benches and trees can be placed to encourage social interactions. Patio and market spaces can be created by temporarily borrowing space from the municipal right-of-way to accommodate social interactions.

The Town of Oakville Parks Recreation and Libraries Master Plan recognize libraries as serving an increasingly important role as third places. Third places may serve as alternative

work destinations within the community and can support transportation demand management objectives by creating environments that encourage people to walk and cycle.

4.3 Supporting Equity in Transportation Planning

An equitable transportation system allocates infrastructure and programs such that different populations have reasonably equal transportation benefits. Planning with an equity lens involves the consideration the different demographic and geographic characteristics and needs of the community including: access to services given the location and geographic of neighbourhoods, barriers for those with physical and cognitive disabilities, mobility and decision making limitations of elderly and very young, vulnerability of pedestrians and cyclists, financial barriers associated with lower incomes, security needs of women and other gender identities and communication needs of recent immigrants and racialized groups.

An equitable transportation strategy explicitly addresses the needs of all users within the road rights-of-way. Currently on most streets, vulnerable road users, pedestrians, and cyclists are not provided with infrastructure opportunities that are convenient and offer a high level of safety on a significant portion of town roads. Complete Streets initiatives seek to ensure that a transportation system is built for all road users regardless of age or ability.

New technologies, such as ride-sharing apps, micro-mobility such as electric scooters, e-bikes, on-demand transit and other emerging transportation technologies are disrupting traditional transportation systems and can support equity. Micro-mobility solutions can provide accessibility at a lower cost than personal automobile use. Shared mobility systems including: carshare, bikeshare, e-bikeshare and shared e-scooter programs can provide solutions for members of the public facing affordability barriers.

4.4 Social Benefits of Active Living

There are several key benefits of walking, cycling and other non-motorized forms of transportation. Active transportation contributes to improved health and well-being. According to the World Health Organization (WHO), physical inactivity is the second highest health risk in developed countries, and it is associated with high healthcare costs. Active transportation has been documented to help minimize the risk of coronary heart disease, strokes, diabetes and cancer. Research has documented the contributions that active transportation can make to lower health care costs.

Investing and supporting infrastructure for walking and cycling and promoting active transportation as a viable mode will be critical in its uptake.

4.5 Climate Change Response

Climate change refers to significant long-term changes in weather patterns, including any major variation in temperature, wind patterns or precipitation that occur over time. Global

warming describes the recent rise in the average global temperature caused by increased concentrations of greenhouse gases, including carbon dioxide, which is responsible for more than half of the level of global warming. The largest contributor of carbon dioxide is also a fuel use.

It is recognized that transportation accounts for almost half of the community-wide greenhouse gas emissions and total dollars spent on energy in Oakville. According to Transportation Tomorrow Survey (TTS, 2016) data, over 80% of transportation activity is personal vehicle use. According to Oakville's Community Energy Strategy, electric vehicle use in Oakville makes up approximately 0.1% of transportation activity, although growing. Given the scale and complexity of the transportation challenge, systemic change must be policy-driven and involve coordination and action from all levels of government.

Climate change has the potential to impact transportation infrastructure sustainability and life-cycle costs. Roads and trails are susceptible to deterioration from extreme temperature events and inadequate roadside drainage. Impacts include increased precipitation events that can result in flooding and erosion, the effects of extreme heat or freeze-thaw on pavement, extreme temperatures contributing to undesirable street temperatures (i.e., urban heat island effect) and inadequate drainage of higher precipitation can negatively affect traffic safety.

The town's Official Plan recognizes the importance of reducing greenhouse gases and plan infrastructure to mitigate and adapt to climate change. Under the policy framework, the provision of choices for mobility by linking people and places through a sustainable transportation network including roads, transit, walking, and cycling trails is one of the Official Plan's guiding principles. Connectivity and the establishment of a multi-modal transportation to enable residents to make sustainable choices are included in the general policies of the plan. Opportunities for climate change mitigation and adaptation are summarized in **Appendix E**.

5.0 Best Practices Review

5.1 Complete Streets and Multimodality

Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enable safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. They support and enhance local neighbourhood context and character as vibrant places that are effective links in a multimodal transportation network.

Applying a Complete Streets approach to street design ensures that a transportation system is built for all road users regardless of age or ability. Complete Streets provide the opportunity to build an equitable road network that allows access for all road users. A Complete Streets policy would provide direction on how to plan, design, operate and maintain roadways enabling pedestrians, cyclists, public transit users and motorists to safely move along and across roadways.

What is a Complete Streets approach?

The Complete Streets approach recognizes that the traditional method of viewing streets by designing from the centerline out is not conducive to other users, particularly those using active transportation facilities and the pedestrian realm, as explicit priority is not as well-established. Similarly, streets are noted to serve many purposes beyond facilitating movement for vehicles, which are typically not clearly defined as part of road classifications.

The elements that comprise Complete Streets are varied and implemented depending on the local context. Resulting infrastructure may include, but is not limited to, the addition of marked crosswalks, bicycle lanes, pedestrian refuge, sidewalks, streetscape elements and transit amenities. A Complete Streets approach creates more human-scale communities, with opportunities for higher-density, mixed-use development and transit supportive land uses.

Pleasant surroundings, landscaping, and integration with the natural environment can make all modes of travel more enjoyable and comfortable. Greenery and attractive scenery contribute positively to the overall experience. The public realm is a key component of Complete Streets as vibrant spaces can be incorporated into elements such as building setback zones, walking zones, centre boulevards, cycling zones, and front boulevards.

Complete Street guidelines outline an approach for street design that considers different and competing roles and reinforces the idea that streets should safely accommodate all users. Components of the Complete Street design process include:

- Identification of street typologies that establish the roles and relationships between a street with its surrounding land use.
- Establishment of right-of-way requirements including elements and preferred design dimensions.
- Evaluation of level of service for all modes of travel.
- Applying an evaluation framework for prioritizing and street elements based on the street context and typology.
- Balancing right-of-way needs and property requirements and allocating space to each design element.
- Developing a design based on the most efficient configuration of right-of-way elements.

Municipalities are moving toward managing the curb space within the street and adjacent boulevard to more effectively utilize this public space. Curb space is often underutilized. Typically, curb space is used for car parking and loading spaces, but they can be adapted to accommodate sidewalks, cafés, transit stops, pick-up / drop-off spaces, and snow storage. Flexible curbside strategies can allow for more efficient curbside management.

5.2 Active Transportation

Any form of self-propelled mode of transportation that uses human energy such as walking, cycling, jogging and rollerblading, is referred to as active transportation. These forms of mobility are viable travel modes and promote a healthy lifestyle, contribute to sustainable transportation, and reduce the impact on the environment. Promoting active transportation is explicitly supported in the Provincial Planning Statement as a means of reducing greenhouse gas emissions and preparing for the impacts of climate change.

There are numerous North American resources recognized as industry “best practices” that provide design guidance and standards on active transportation. The transportation master plan referenced the documents from the following organizations: Ontario Traffic Manual, National Association of City Transportation Officials (NACTO), Transportation Association of Canada, Province of Ontario, United States Department of Transportation and Atlanta Region Commission.

These references provide guidance for the planning, design, and implementation of cycling infrastructure. The Ontario Traffic Manual Book 18 Update completed in 2021 serves as planning and design guidelines for the development of safe and accessible cycling facilities, including bike lanes, cycle tracks, shared roadways, and multi-use paths. It also details supporting cycling infrastructure and strategies for implementation and maintenance. NACTO’s Urban Bikeway Design Guide Third Edition (2024) was completed based on input from worldwide literature and the experience of the cycling cities and documents progressive design treatments including protected intersections and transit island treatments, amongst others.

This transportation master plan incorporates all active transportation needs for the town, including the Oakville Active Transportation Master Plan (ATMP, November 2017), and trail network from the Recreation, Library, and Park Master Plan. It also considers more recent best practices and “Big Data” sources to better respond to current community needs and opportunities. It follows processes for cycling and pedestrian network assessment, route selection scoring, facility type selection, identification of needs and opportunities and development of an updated active transportation network plan, policies and support system.

5.3 Transit

To provide cost effective and operationally competitive service, transit strategies are evolving with a range of service models to address the needs of communities and individuals. Transit agencies are developing coordinated services that may include inter-regional high-order transit with conventional scheduled bus service, on-demand services and special services for seniors and students. Where feasible, these services make use of transit priority infrastructure on streets and highways.

Transit-supportive communities, that consider infrastructure conducive to operating transit services, play a key role in sustainable urban development. By integrating effective transit-oriented design principles, communities can create environments that encourage the use of public transportation, reduce dependency on personal vehicles, and promote accessibility for all. Key principles associated with transit supportive communities include appropriate transit densities, minimizing walking distance to transit, providing mixed land uses, encouraging last-mile connectivity, routing transit conveniently into the community and building user-friendly transit facilities.

Oakville Transit has already begun implementing service-related best practices, including on-demand transit, school transit and special transit services (i.e., Late Night Service, care-A-van). Free transit has also been implemented for students and seniors. Opportunities implemented in other jurisdictions include variations of the Oakville Ride On-Demand service that utilize alternative forms of micro-transit.

Higher order transit initiatives are being planned, including electrification of the Lakeshore West GO rail service and bus rapid transit along Dundas Street, Trafalgar and along Highway 407. The Town of Oakville is coordinating and advocating other agencies (MTO, Metrolinx, Halton Region) on variety of transit initiatives (e.g. Fare and Service Integration, Halton Transit Priority Corridor Operationalization Study. Oakville GO Station expansion, Dundas BRT etc.).

The town is also planning for transit supportive communities. Strategic growth areas within the town include designated densities that will support transit. New transit terminals (e.g., Palermo) and vehicle electrification have been initiated by the town. Initiatives identified in the Oakville Transit Five-Year Business Plan include design elements such as: far-side bus stop placement, minimum stop spacing of 400 m for major corridors and local routes, bus stop infrastructure and amenities including a 9 m landing pad, bus stops connected to the active

transportation network and bus priority measures such as signal priority and queue-jump lanes.

Appendix F summarizes the state of the practice for transit and the current and potential initiatives for Oakville Transit.

5.4 Emerging Technologies

The transportation sector is undergoing tremendous change. New technologies and approaches, such as clean energy vehicles including electric vehicles (EV), connected and autonomous vehicles (AV), micro-mobility including e-scooters, and mobility-as-a-service (MaaS), are poised to transform a mobility paradigm that has existed for decades. The form these technologies will take, when they will emerge, and their ultimate impacts are currently unclear. **Appendix G** summarizes the state of the practice for emerging technologies and the relevant status is summarized below.

Ontario launched a program to allow driverless automated vehicles on Ontario's roads under certain conditions. Requirements include informing impacted municipalities, proper signage on the read of the tested vehicles, acceptance of full liability by the company testing, declaration that the technology is safe, and provision of a "work zone and first responders action plan" to ensure that the vehicle will not impact emergency operations or endanger construction crews.

Ontario launched a pilot program in January 2020, that allows municipalities to choose where and how e-scooters may be used within their boundaries. In April 2023, MTO proposed to regulate micromobility vehicles, including e-scooters, under a single pilot regulation, to collect more consistent data, and better communicate the rules for these vehicles to municipalities and to the public. The e-scooter pilot program has been adopted in Hamilton, Cambridge, Waterloo Region, Oshawa, Durham Region, Ottawa, among others. Toronto City Council decided unanimously not to opt into the program.

Municipalities across Canada have implemented EV charging stations and fleet as part of clean vehicle initiatives. In 2020, the Government of Canada, Government of Ontario and the Town of Oakville announced joint funding of $48.6 million through the Investing in Canada Infrastructure Program (ICIP) to support the electrification of Oakville Transit's fleet. Oakville began receiving zero-emission battery-electric buses in January 2023 for care-A-van and Ride On-Demand transit services. The town has also implemented an EV charging station at the Uptown Core bus terminal for buses, as well as chargers at recreation centres and within downtown Oakville for public use.

Oakville Town Council approved a Digital Strategy aimed at making Oakville the most digitally connected community in the Greater Toronto Area. It includes creating pilot projects to test out smart technologies and engaging partners to help find new applications and benefits of smart technologies. To develop a plan for the transportation landscape through to 2051 that is

flexible, adaptable, and responsive to this uncertain future, an assessment of the current landscape of emerging technologies is necessary.

5.5 Goods Movement

The provincial, regional, and local freight movement plans, studies, current truck regulations bylaws and past studies provide guidance on goods movement. The Provincial Planning Statement (PPS) 2024 provides policy direction on land use planning for the province. The PPS has several policies relevant to goods movement that emphasize the long-term protection of goods movement facilities, corridors and adjacent employment areas.

The PPS directs planning authorities to protect employment areas in proximity to major goods movement facilities and corridors for employment uses that require those locations. It also directs that major goods movement facilities and corridors shall be protected for the long term.

The Town of Oakville's Traffic Control By-law 1984-001 permits heavy traffic on authorized truck routes displayed on highways. The by-law prohibits heavy traffic where authorized signs are displayed on highways or segments by segment, time-of-day, and Registered Gross Vehicle Weight. The restrictive approach generally prohibits heavy vehicle traffic around residential areas without restricting access to key commercial corridors (such as the Queen Elizabeth Way, North Service Road, and South Service Road) that serve employment lands. Many jurisdictions have a permissive truck route regulation, identifying where heavy vehicles are permitted.

Best goods movement practices recognize effective goods movement as an important element in support of economic development. Best practice initiatives for goods movement include the following: permissive truck regulations, consolidation of goods movement and truck generating land uses around 400-level highways, strategically providing lands for truck parking, utilizing truck time-of-day restrictions, integrating commercial loading zones into curbside management strategies, introduction of neighbourhood loading zones and pick up points and promotion of off-peak deliveries.

Appendix H outlines the state of the practice and opportunities for goods movement in Oakville.

5.6 Transportation Demand Management

Transportation Demand Management (TDM) is the use of strategies and measures to inform and encourage travelers to make choices that maximize the efficiency of transportation systems. This leads to improved mobility, reduced congestion, fewer single-occupancy vehicle (SOV) trips, and lower vehicle emissions and related greenhouse gas impacts. TDM programs offer information, encouragement, and incentives to help people try alternative transportation modes, such as cycling, walking, carpooling, public transit, or teleworking. By encouraging

these alternatives, TDM aims to maximize the use of existing infrastructure, reducing the need for building more roads or parking and allowing for other uses of street spaces.

A jurisdictional scan of TDM plans and policies from municipalities across Canada have identified progressive initiatives. The state of the practice includes the following initiatives:

- Employer transit subsidies
- Vehicle parking management and pricing strategies
- Bicycle parking and cycling support facilities
- Active travel to school programs
- Sustainable transportation support platforms (e.g., app) for promotion and information
- TDM incentives / requirements (e.g., carshare, bike amenities) for new developments
- Shared mobility programs (bike-share, e-scooter)
- Car-share promotion

These initiatives are commonly a combination of municipally initiated and fund infrastructure or programs and partnerships with non-government organizations, developers or businesses.

6.0 The Future Outlook for Oakville

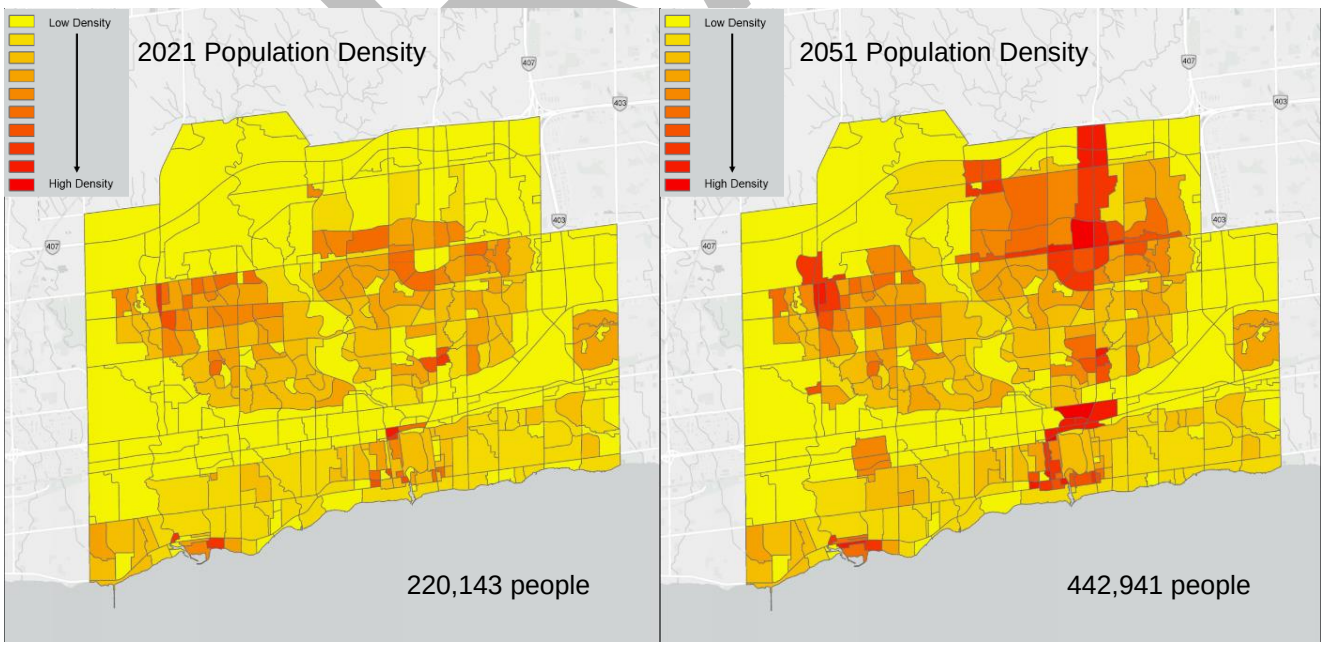
6.1 Planned Growth

Changes in land use type and distribution directly contribute to the level of activity including transportation demand within the Town of Oakville. An understanding of anticipated growth in population and employment is important in assessing future transportation needs, opportunities and preferred solutions.

In 2023, the Halton Region initiated a review of land use forecasts for the period of 2021 to 2051 referred to as the Joint Best Planning Estimates (Joint BPE) in consultation with local municipalities, including the Town of Oakville. The Joint BPEs reflect the allocation of growth from the Regional Official Plan Amendment (ROPA) No. 48, ROPA No. 49, the Municipal Housing Pledges as adopted by each Local Municipality, and localized growth priorities as informed by each Local Municipality. The Joint BPEs are to be used for infrastructure planning purposes as 2051 growth estimates are expected to be conservative.

The Joint BPEs provide population and employment estimates for the town as a whole and for specific policy areas as defined in **Appendix I**. The Joint BPEs allocate at least 72% of Oakville's future population growth between 2021 and 2051 to Strategic Growth Areas. The balance of future population is allocated to greenfield development in North Oakville (19%), and through other opportunities for gentle density in the town's established neighbourhoods (9%), through secondary suites and accessory dwelling units. Figure 6-1 illustrates the location of growth in population density.

Figure 6-1: Population Density Growth



With respect to employment growth, 55% of Oakville's future employment growth between 2021 and 2051 is being directed towards Strategic Growth Areas. Almost one quarter (22%) will be accommodated within North Oakville with the remainder being accommodated within the rest of Oakville (23%).

A note about population forecasts:

The population estimate used in this report is based on the 2023 Joint Best Planning Estimate of 442,941 residents by year 2051. A population review undertaken in 2024 led to a revised population estimate of 388,000 by 2051. As the new number is a preliminary estimate that requires more detailed analysis, the town will use a minimum and maximum population of 388,000 to 443,000 for long-term planning purposes.

Recognizing that there are many factors that may impact the pace of growth in Oakville, the master plan uses population thresholds rather than specific years as references for identifying growth-related capital requirements. This means that master plan implementation may be delayed should Oakville grow slower than the current population forecasts suggest or may occur quicker should growth and growth-related funding be accelerated. Mitigation strategies and phasing options may also be required should there be funding shortfalls for growth-related requirements.

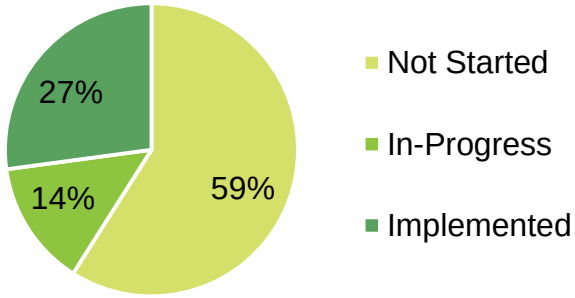
6.2 The Previous Master Plans and Planned Improvements

The town has planned for and committed to many transportation improvements through previous town master plans. A total of 317 infrastructure improvements were identified for implementation through to the year 2031 from previous (2013 and 2018) Transportation Master Plans and the (2017) Active Transportation Master Plan to meet growth needs at the time of the study. The previously proposed improvements have since been:

- Implemented,
- In-progress (i.e., studies underway and / or funding allocated), or
- Not started.

The status of such improvements is shown in Figure **6-2**. As shown, almost one-third of previously proposed improvements under the town's jurisdiction have been implemented, and more than half (59%) have yet to be funded or started.

Figure 6-2: Status of Previously Proposed Town Infrastructure Improvements



Similarly, the Halton Region and Metrolinx have identified improvements through master plans and capital plans and the Ministry of Transportation (MTO) has identified future planned infrastructure through environmental assessments and the Transportation Plan for the Greater Golden Horseshoe.

The previous TMP and ATMP improvements address the growth needs over the next ten years and are referred to as “business as usual”. There is a question as to whether these improvements are sufficient to address further growth to 2051 and facilitate current policy objectives of the town. This “Business as Usual” (BAU) scenario is an alternative considered in this transportation master plan; it includes road, transit and active transportation improvements. The BAU alternative is equivalent to the “do nothing” alternative identified in the Class Environmental Assessment (EA) process.

“Business as Usual” street improvement projects include those that have been committed through previous transportation master plans, capital plans and provincial or municipal EA and preliminary design reports. This includes capacity grade separations of the Metrolinx rail corridor, widening of Halton Region roads, widening of Town of Oakville roads and new road links associated with town strategic growth areas. The “Business as Usual” improvements for streets are summarized in **Appendix J**. It is noted that some localized road improvements are not listed such as internal street connections within localized study areas.

There are a number of major planned street improvements within Midtown Oakville that are required to meet town-wide transportation needs, guided by the 2014 Midtown Transportation EA, and concurrently being reviewed under the Midtown Implementation Program. These preliminary recommendations are still subject to the ongoing Midtown Oakville Transportation Plan and therefore, may change from the time that this study is released. It should also be noted, however, that some projects that were identified in past studies may not proceed, such as the ramps at the Trafalgar / QEW interchange, due to subsequent studies.

Implementing the BAU solution means carrying forward all the previously proposed active transportation improvements that have not yet been completed identified from the Oakville 2017 Active Transportation Master Plan (ATMP), as listed in **Appendix J**. The active transportation improvements identified from the previous ATMP were reconfirmed as part of

this study through a review of the route selection criteria. The justification criteria were compared against those used for this study to ensure alignment.

The BAU Transit improvements include the Provincial 407 Transitway, Metrolinx Regional Transit Plan (including regional express rail service), Halton Region's Defining Major Transit Requirements (DMTR) study that is focused on priority infrastructure in support of transit priority and Oakville Transit's Five-Year Business Plan that identifies new transit routes within the next five years. **Appendix J** summarizes business as usual transit improvements.

6.3 Technical Assessment of Needs and Opportunities

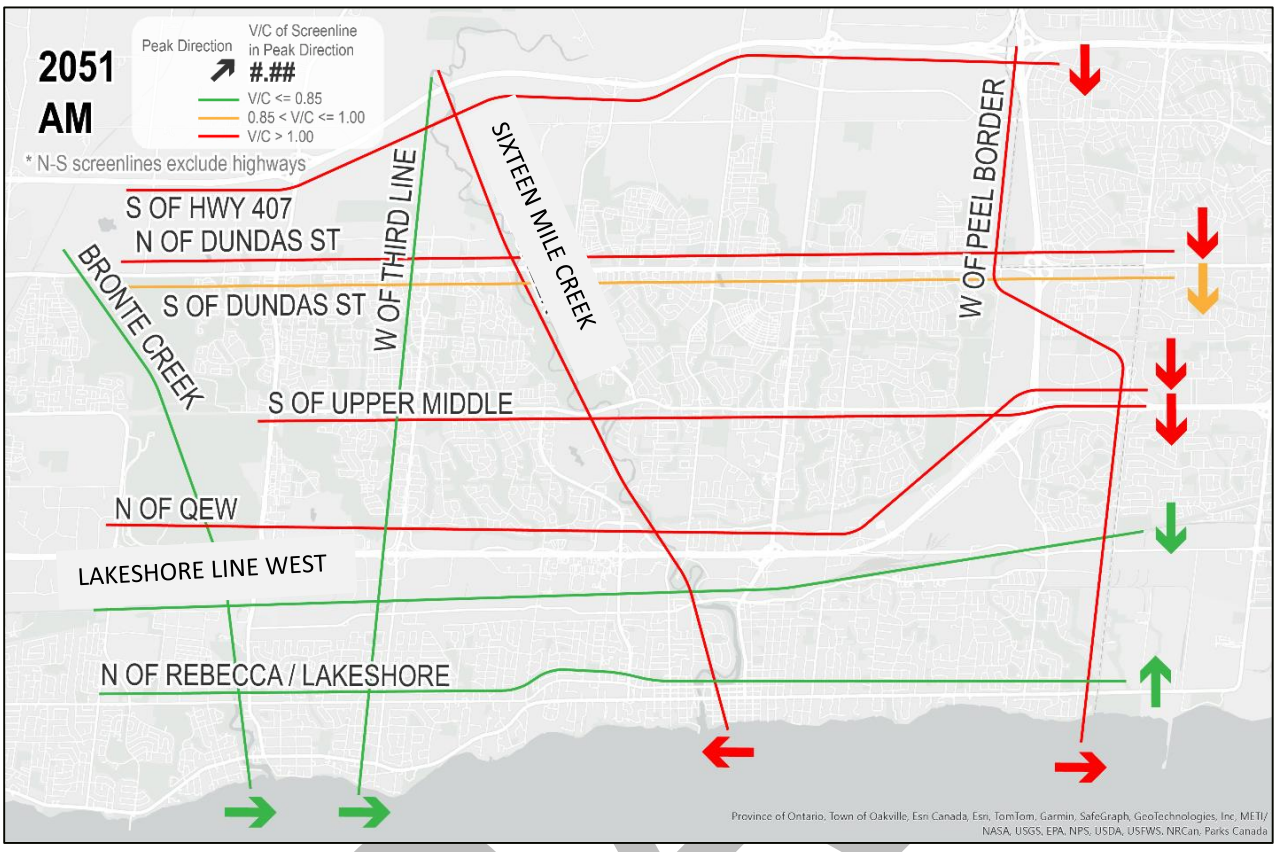
The following sections identify operational needs and opportunities to achieve town policy objectives. These needs and opportunities may form the basis for alternatives to be tested and evaluated, leading to preferred alternatives and recommendations in later sections.

6.3.1 Street Needs

Future transportation needs were assessed quantitatively based on road capacity analysis utilizing an Oakville sub-area EMME travel demand model derived from Halton Region's transportation forecasting model. A subarea version of the Halton Region transportation model for the town was validated to travel survey data and count data from 2016 and traffic count data from 2023. To forecast future travel demand, population and employment forecasts from the Joint Best Planning Estimates at the planning zone level, were used to provide input to the model and estimate growth in traffic from current conditions. The model development process is summarized in **Appendix K**.

To forecast future transportation capacity, the model included the capacity of currently planned and committed transportation infrastructure. The model was used to project future traffic volumes on provincial, regional and town roads. The assessment of future transportation needs, to the year 2051, was based on a review of forecasts of traffic volumes and capacities for the street network. Figure 6-3 illustrates the ratio of the forecasted volume of traffic to the future capacity of the road network across major barriers (screenlines) including rail corridors, major roadways, creeks and municipal boundaries.

Figure 6-3: Future 2051 Level of Service Across Screenlines



The colour illustrated indicates the percentage of capacity that is used during the morning peak hour, where:

- Green indicates that less than 85% of capacity is expected to be used.
- Orange indicates that less than 100%, but more than 85% of capacity is expected to be used.
- Red indicates demand is expected to exceed capacity and there are additional transportation capacity or service needs.

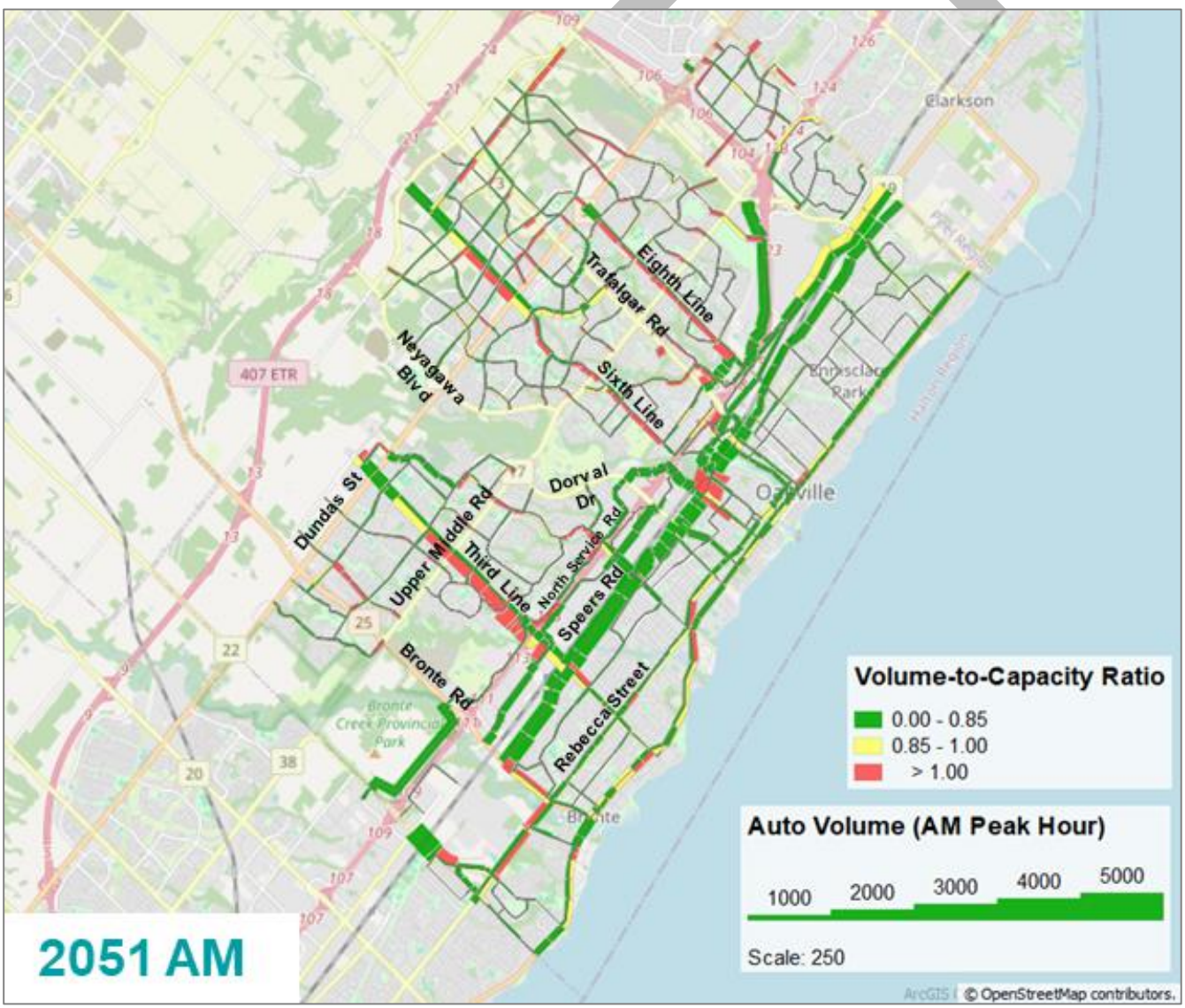
Overall, the forecasts indicate transportation capacity needs during the peak periods east-west across Sixteen Mile Creek and west of the Peel Region boundary as well as north-south through Oakville from north of the QEW to the town's north boundary.

Congestion is anticipated on most of the provincial freeway network (QEW, Highway 403) within the town and several north-south and east-west road links. These conditions indicate the need for future capacity improvements on the provincial freeway network and along many segments of Halton Region roads. At the time of this study, the Halton Region Integrated Master Plan is assessing the transportation needs and solutions associated with the regional road system and provincial highway system.

Figure 6-4 illustrates the ratio between the 2051 forecasted volume of traffic and the capacity of the road network along town roads, with consideration for planned lane widenings. The width of the line reflects the relative volume of traffic, and the colour indicates the percentage of capacity that is used during the morning peak hour.

This study recognizes, however, that road widenings may not always be the most suitable option to address these capacity needs, especially considering locations where improving vehicular traffic could negatively affect the environment and other transportation modes. In some cases, a trade-off is required to ensure fair investment across various transportation modes and align with the surrounding land use context. For instance, more densely populated, compact, and walkable neighborhoods are better suited for investment in transit and active transportation.

Figure 6-4: Future 2051 Level of Service on Town of Oakville Roads



The majority of town roads will operate with sufficient capacity. There are, however, sections of Third Line, Sixth Line, Eighth Line, Rebecca Street and North Service Road where volumes are forecasted to reach capacity by 2051 during peak periods.

The need for “Business as Usual” road projects, including those that have been planned through previous transportation master plans, capital plans and provincial or municipal EA and preliminary design reports have been confirmed. Town BAU street improvements are detailed in **Appendix J**.

Transportation needs on regional roads will be addressed through the Halton Integrated Master Plan, where widening of many regional road links in Oakville to six lanes are justified. Most of these corridors will be identified as future reserved bus lane (RBL) corridors with four general purpose lanes (GPL) and two RBLs. To address capacity and operational needs, the town will need to collaborate on the timing of the conversion of lanes from GPL to RBL based on transit use and operational need.

6.3.2 Growth Area Street Needs

To comply with the Ontario Provincial Planning Statement (PPS) and planning legislation, the Town of Oakville must address growth targets. To meet these objectives, the town has identified an urban structure that includes growth areas to provide intensification and required housing targets. The transportation infrastructure and services for these growth areas are an integral part of the Oakville Transportation Master Plan.

Midtown Oakville is a growth area bounded by the QEW to the north, Cornwall Road to the south, Chartwell Road to the east and Sixteen Mile Creek to the west. Town Council adopted the Midtown Oakville Official Plan Amendment (OPA) on February 18, 2025. Traffic forecasts indicate that traffic levels will reach capacity by 2051 on sections of Trafalgar Road and Speers Road / Cornwall Road, supporting the needs for transportation improvements previously identified through the 2014 Midtown Oakville Transportation and Stormwater Class Environmental Assessment. The Transportation Plan for Midtown Oakville is under development at the time of this study, it will include revised transportation improvements to support the approved OPA. This TMP will recommend the various transportation improvements in and surrounding Midtown to address overall townwide transportation needs including Royal Windsor full interchange, new N-S link including grade separation, and new improvements including the Argus Road – Davis Road connection under Trafalgar Road.

Neyagawa Urban Core is a strategic growth area at the intersection of Neyagawa Boulevard and Burnhamthorpe Road West. Town Council adopted the Neyagawa Urban Core Official Plan Amendment (OPA) on March 3, 2025. The OPA addresses density, scale and built form in the context of the town’s urban structure for the approximately 70 ha of land south of Highway 407 in the vicinity of Fourth Line and the future Highway 407 transit terminal. Neyagawa Boulevard (regional road) is planned to be extended to the north into the Town of Milton as a James Snow Parkway (regional road) extension. The Fourth Line will function as a

north-south town road serving the growth area and is anticipated to require improved street capacity to address the transportation needs of the area.

The Town of Oakville completed or is currently conducting Growth Area Reviews for the other town strategic growth areas: Bronte GO MTSA (adopted by Council through OP 41 on November 1, 2021), Bronte Village, Downtown, Hospital District, Kerr Village, Palermo Village, and Uptown. Transportation studies may be undertaken associated with the development of the secondary plans, Official Plan Amendments and the town's Official Plan review. These studies may identify additional local requirements for street, transit and active transportation needs and opportunities.

6.3.3 Street-Rail Grade Separation Needs

Four locations for street-rail grade separation were identified as part of the previous studies, one of which (Burloak Drive at Lakeshore West rail corridor) is currently under construction. These proposed grade separations had previously met the exposure of street and rail traffic conflict criteria to warrant the recommendation.

The Transport Canada Grade Separation Assessment Guidelines involves the use of an exposure-based warrant, also referred to as the exposure index, which is a cross-product of the average daily traffic and the average daily number of trains. The exposure index, in effect, measures the level of interaction and conflict. The Transport Canada cross-product threshold to meet the need for grade separation is 1 million. The MTO Inventory Manual approach to considering grade separation uses a threshold of 200,000. A reassessment of warrants was conducted based on recent and projected future (2051) traffic volumes and Metrolinx GO train schedules to confirm the need for the grade separations. The resulting cross-product of the proposed street-rail crossings are summarized in Table 6-1. It is noted that there is also other safety performance, vehicle delay, queuing and level of service criteria thresholds that may be met for grade separations.

Table 6-1: Cross Products at Proposed Rail Grade Crossings

Rail Crossing At	Cross Product Based on Current Conditions [1]	Cross Product Based on Future (2051) Conditions [2]
Chartwell Road	155,000	1,237,000
Fourth Line	718,000	2,834,000
Kerr Street	807,000	3,178,000

Note:

1. Current conditions based on recent (2023) traffic count data and Metrolinx GO train schedules, current as of January 2025
2. Future (2051) conditions based on model output from this study, the ongoing Midtown Oakville TMP and the planned Regional Express Rail (RER): all-day two-way 15-minute GO Rail Service

The planned widening and grade separation of Chartwell Road was assessed relative to a new proposed link extending the planned new North-South Road to Cornwall Road across the rail corridor. A new North-South grade separation is preferred to a Chartwell Road grade separation as part of the preferred solution by 2051.

The cross products for Fourth Line and Kerr Street at the rail corridor are currently approaching and are projected to exceed the Transport Canada threshold (cross product of 1 million) for a grade separation. Both grade separations should be implemented prior to the electrification of the Lakeshore West rail line, which aims to provide an all-day, two-way, 15-minute GO Transit service. The Kerr Street grade separation provides an important link to connect residents to the Oakville GO Station, supporting the planned growth in ridership and increased service levels for GO Rail. Delayed implementation of these grade separations will have repercussions, such as:

- Increased safety risks to vehicle and pedestrian traffic at the level crossing due to high train volumes.
- Impeded access to the Oakville GO station.
- Redistribution of traffic to other corridors and infiltration into neighbourhoods.
- Increased project costs due to future increases in construction pricing.

6.3.4 Transit Opportunities

Transit opportunities have been developed that serve existing or latent demand, but also broader planning objectives by connecting growth areas and other major travel generators coordinated with the town's housing strategy. Transit-supportive communities play a key role in sustainable urban development. By integrating effective transit-oriented design principles, communities can create environments that encourage the use of public transportation, reduce dependency on personal vehicles, and promote accessibility for all. This has been the strategy of broader inter-regional transit plans, regional initiatives and town priorities.

Metrolinx 2041 Regional Transportation Plan identifies an inter-regional transit strategy including high-order "spine" transit routes. The need and justification for Metrolinx business-as-usual transit routes include Regional Express Rail service on the Lakeshore West Rail Line (with electrification and less than 15-minute service) and the Provincial 407 Transitway with a Trafalgar Road station, Bronte Road station and a Town of Oakville planned Neyagawa Boulevard station.

Metrolinx's long-term plan for the Greater Toronto and Hamilton Area envisions a 48-kilometer Bus Rapid Transit (BRT) system along Dundas Street, stretching from Highway 6 in Hamilton to Kipling Transit Terminal in Toronto, passing through Burlington, Oakville, and Mississauga. A Municipal Class Environmental Assessment in Halton (and studies in Hamilton and Mississauga) have explored street improvement projects that could potentially facilitate the introduction of a shared high occupancy vehicle or bus-only lane.

A Trafalgar Road BRT has also been identified in the Metrolinx 2041 Regional Transportation Plan (RTP) and an environmental assessment has been completed as part of the development of a Frequent Rapid Transit Network across the GTHA to provide high-quality transit to more people in more places. The Trafalgar Road BRT as identified in the RTP, is a rapid transit corridor between Midtown Oakville and Highway 407 that forms part of a greater network of moving people efficiently by transit in a region with multiple major population and employment concentrations, where travel demand patterns are increasingly dispersed and not simply focused on one central core.

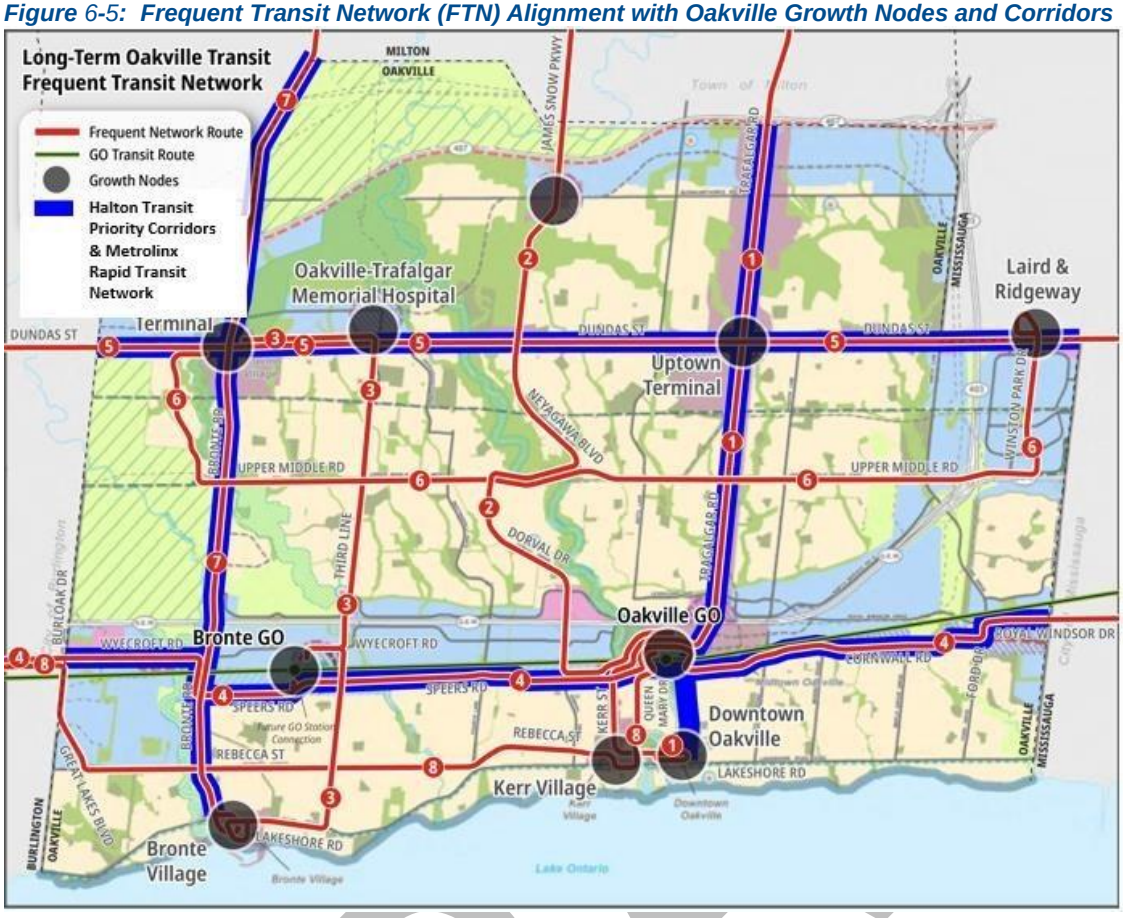
The Halton Region identified needs and opportunities associated with transit priority on regional roads and town arterial streets through the Transit Priority Corridor Operationalization Study. The Halton Region's 2019 Defining Major Transit Requirements in Halton Study identified Preliminary Recommended Transit Priority Corridor networks for 2031 and 2041, including Dundas Street, Speers Road / Cornwall Road, Trafalgar Road and Bronte Road. Each transit priority corridor offers the opportunity to implement transit supportive infrastructure such as Transit Signal Priority, queue jump lanes, bus shelters, and other transit stop improvements.

Oakville Transit recently updated their Five-Year Business Plan for the future Oakville Transit Family of Services 2025 – 2029 transit network. The development of this network will extend beyond 2029, including a long-term Frequent Transit Network (FTN), ensuring the ongoing integration of the 2025-2029 Family of Services route network with the provincial, regional, and local planning efforts, aiming for consistency and alignment across all levels of transit network and infrastructure.

The Town of Oakville previously presented seven key transit initiatives that included projects listed above. In addition, the seven key projects included construction of the Palermo Transit Terminal (anticipated in 2030 to 2032), enhanced and expanded on-demand transit services and Oakville Transit Fleet Electrification. It is noted that the Bronte GO Major Transit Station Area (MTSA) Transportation Study has also identified new internal street connections within its study area to support Bronte GO as a transit hub. These improvements form part of the planned business-as-usual (BAU) network.

The FTN as identified in the Five-Year Business Plan recommended a network of long-term major transit routes, the that align with regional and Town of Oakville plans. The FTN illustrated in Figure 6-5 will serve the corridors outlined in provincial, regional, Metrolinx, and Halton Region's Transit Priority Corridors, along with major corridors and growth nodes identified in Oakville's Urban Structure Plan and Transportation Master Plan 2024.

Figure 6-5: Frequent Transit Network (FTN) Alignment with Oakville Growth Nodes and Corridors



Transit opportunities are recognized given the unprecedented changes occurring through the rise of the sharing economy and EcoMobility hubs. These hubs are single-point service areas for e-scooters and e-bikes, parking and charging stations for car sharing, and pick-up / drop-off areas for ride sharing, on-demand, or conventional transit services. Other town opportunities include service and fare coordination (e.g., connections to Milton, coordination with MiWay in Winston Park), scheduled fixed route service to North Oakville as the street network is built, improved bus stop guidelines, improved connectivity between growth centres, incentive pricing and utilization of the QEW for express routes.

6.3.5 Active Transportation Opportunities

The opportunities associated with the business-as-usual for active transportation includes consideration of all the previously proposed active transportation improvements identified from the Oakville 2017 Active Transportation Master Plan (ATMP) and trails plan under the previous Recreation, Library and Parks Master Plan that have not yet been completed and identifying new potential connections and support systems. Opportunities were explored with a new lens in recognition of the 2021 update to Ontario Traffic Manual Book 18 (Cycling Facilities) and on-going strategies for Complete Streets through this Transportation Master Plan.

The active transportation improvements identified from the previous ATMP were reconfirmed as part of this study through a review of the route selection criteria. The justification criteria were compared against those used for this study to ensure alignment. The identification of additional opportunities was refined from the previous ATMP, with the overarching guiding principle of safety.

Opportunities include making walking and cycling safer on local streets through street speed management measures, short connecting cycling facilities and improved sidewalk connectivity within neighbourhoods. Improvements to connectivity between neighbourhoods were considered, including dedicated cycling facilities along select town collector streets and multi-use path connections across barriers and upgraded cycling facility types along existing corridors. Opportunities for long-distance cycling and walking trips were identified, including dedicated facilities along or connecting to major corridors or natural features and connections to regional transit hubs. Active transportation opportunities are detailed in **Appendix L.**

6.3.6 E-Scooters Opportunities

E-scooters are growing in popularity as they can be a sustainable, affordable and convenient form of recreation or commuting, especially to serve first / last mile travel. With the growing interest in e-scooters, the Province established an e-scooter pilot program (which had recently been extended by five years to 2029) that allows municipalities to revise their traffic by-laws to permit e-scooters to operate on multi-use trails or in bike lanes.

The Provincial pilot program defines an electric kick-scooter (e-scooter) as a mobility device that has: two wheels and brakes, a maximum speed of 24 km/h on a level surface, a maximum weight of 45 kg, a maximum power output of 500 watts, a maximum wheel diameter of 17 in, a horn or bell and at least one white light on front, one red light on rear. E-scooters must not have pedals, a seat or a basket.

Ontario's Highway Traffic Act (HTA) regulations do not permit e-scooters to be used on sidewalks, multi-use trails, bike lanes, or roadways, unless a municipality has opted in to the pilot program. Oakville's by-laws do not permit e-scooters to be used on park trails. Regardless of the regulations, many individuals own and use e-scooters.

Notwithstanding the lack of regulations that permit the use of e-scooters, there is increasing use and implementation of regulations in adjacent municipalities (including Mississauga and Brampton) that is raising public expectation for permitting e-scooters in Oakville; approximately half of those surveyed during this study supported allowing e-scooters. Furthermore, e-scooters and other similar micro-mobility options may serve as part of the transportation solutions as documented in **Appendix G**.

There is a need for e-scooter readiness initiatives that should be implemented before a discussion of the e-scooter pilot with town Council. These initiatives include:

- launching an educational campaign on the e-scooter for targeted audiences and locations,

- proactively planning / building an e-scooter-friendly network that can connect to key destinations, and
- pursuing partnerships and funding opportunities with the Province and Region.

6.3.7 Emerging Technology Needs and Opportunities

These next 25 years will be an era of opportunity for leveraging technology to meet the town goals and aspirations for transportation strategies. For Oakville to be future ready, the town will need to establish regulatory frameworks to manage and implement solutions from emerging technologies. Furthermore, specific initiatives should be identified and initiated with timelines that are appropriate for each of the following technological developments: autonomous and connected vehicles (CAV), adoption of decarbonization and use of electric vehicles (EV), shared mobility / mobility-as-a-service (MaaS) and intelligent transportation systems (ITS), as summarized below and detailed in **Appendix G**.

Significant changes in the planning and operations of the transportation system for **connected and autonomous vehicles** are not anticipated within the short term. The town, however, can continue to engage with the Province on policies related to autonomous connected, and vehicles as part of the Ontario Smart Mobility Readiness Forum, to ensure that the town is prepared for changes associated with CAV and that provincial policy considers the specific needs and objectives of the Town of Oakville. There may be opportunities for the town to utilize future funding to initiate autonomous transit pilot projects. The town tracking of CAV goods movement initiatives will allow the town provide input on operational issues related to pilot projects within the town.

Given that the federal government passed legislation mandating 100% of car sales to be **electric vehicles** by 2035, there is a need to require, incentivize and contribute to the adoption of EVs. This includes EV charging in new developments, continuing to transition town maintenance and transit fleet vehicles to EVs, working with other levels of government on permitting EVs in HOV lanes and parking incentives for EVs. The town may work with other levels of government to support goods movement initiatives particularly for first / last mile needs. There may be opportunities for funding from other levels of government to implement EV programs.

Opportunities for **shared mobility** have been demonstrated through initiatives of other municipalities. There is an opportunity for the town to reduce vehicle ownership and use through regulations that encourage developers to include car share early in the development application process as part of their proposed mitigation measures within the required transportation demand management (TDM) / transportation impact study. Well established bike share technology and programs could be implemented in Oakville providing a lower cost alternative for short trips and last mile solutions. Solutions such as micro-transit, vanpooling and transit-on-demand present opportunities, however, the greatest opportunities will build upon recent successes of Oakville Transit for on-demand transit. For goods movement shared

mobility options include electric cargo bikes and robots and drones. This range of shared mobility options can be coordinated through physical infrastructure in the form of mobility hubs that include provisions for connections to car sharing, ride hailing, and bike / scooter share.

There are efficiency opportunities for **intelligent transportation systems** to improve operational efficiency, including adaptive traffic control signals. The town may test pilot projects that could lead to a commitment to infrastructure and system support implemented over time. The town may need to consider the opportunities and challenges associated with big data and smart city applications and be prepared to address issues associated with privacy and accountability. Oakville may also benefit from sharing information through open data sources to accommodate applications that can support more informed travel.

6.3.8 Goods Movement Needs and Opportunities

The Town of Oakville has investigated many goods movement strategies / concepts through past studies. Opportunities for implementation include initiatives from the 2016 Goods Movement Strategy (GMS) report and concepts identified in other reports (Metrolinx Goods Movement Study, 2011 The Road to Change Halton Region TMP) that have yet to be implemented. Since the completion of the 2016 GMS there have been significant changes in business affecting goods movement.

The past decade has seen a significant progression of online shopping and e-commerce has changed in recent years. These trends include retail shopping (e.g., Amazon) and food delivery (e.g., Lyft, DoorDash, and UberEats). Prior to 2001, online retail sales accounted for only 1.3% of the retail market share, but this had increased substantially to 14.2% by 2019 and seen a year-over-year double-digit market growth since 2019. This shift from brick and motor stores to online retailed directly impacts the volume of last-mile goods movement and deliveries. As e-commerce continues to increase, the rise of micro-fulfillment centers, known as micro warehousing, has also risen to meet increased local demands. This has resulted in smaller but more frequent delivery vans and trucks.

Future trends will further disrupt goods movement. Corporations and even governments have invested in automated delivery services and legislation is being developed to support these trends. Delivery drones and robots are being employed in the last-mile delivery of groceries, meals, and even medical supplies. For example, Drone Delivery Canada is currently conducting a pilot program to test the delivery of time-sensitive medical supplies between Milton District Hospital and Oakville Trafalgar Memorial Hospital. Automated trucks are being used for middle-mile deliveries between rail intermodal yards, distribution centers, and warehouses.

Goods movement initiatives have been identified in this transportation master plan from the 2016 GMS and in response to the implications of the changing goods movement landscape. Goods movement opportunities considered to support both the town vision and foster economic development policy are listed below.

- Congestion solution opportunities such as off-peak deliveries, designated truck routes, Commercial Loading Zones (CLZs) to reduce illegal parking, concentrated location of goods movement and pick-up points (community pick up) and consolidation hubs
- Truck route network opportunities including a permissive instead of a restrictive truck network, avoidance of further truck restrictions, network connectivity (direct routing) and network continuity (avoiding gaps)
- Coordination with other levels of government for opportunities to leverage 400-series highways, including: fulfillment centers, multi-tenant facilities, suburban consolidation centers, and multimodal facilities concentrated near highways
- Reference to the Ministry of Transportation (MTO) report 'Freight-Supportive Guidelines'
- Multi-modal goods movement including coordinating with nearby freight facilities beyond town limits, developing relationships (e.g., Ports of Toronto and Hamilton) and identifying manufacturing potential to support the CN Milton logistics hub
- Encouraging large retailers to consider regional pickup points built on smaller plots of land for local customers to pick-up online orders
- Encouraging off peak deliveries to occur outside of rush hour to decrease delivery times
- Supporting express deliveries and more e-commerce front door loading with on-street loading in front of businesses and front-in / front-out (continuous) circulation loading for individual sites
- Introducing commercial loading zones (CLZ) half block (60 m) of businesses to reduce center lane loading
- Developing Complete Streets for multi-modal use including express delivery and other goods movement
- Mitigating multi-modal conflicts between transit, cyclists and express delivery by working with delivery companies and other municipalities to mitigate conflicts with a "menu of safety options" and consider how cargo gets moved over bike lanes
- Developing neighbourhood loading zones that have designated parking for express delivery, service, or moving vehicles
- Managing e-commerce in residential areas
- Developing pick up points where consumers can pickup packages from various online retailers from a street level mailbox or local business
- Implementing traffic calming measures to slow down truck traffic for pedestrian safety
- Using data collection to inform policy for goods movement, including monitoring effectiveness of commercial or residential loading zones

Based on best practices, other goods movement opportunities include supporting on-line shopping and e-commerce traffic, development of curbside management that accommodates goods movement and technology implementation (e.g., ITS systems, telematics and GPS location services for freight, real time traffic data, transponders to expedite toll and weigh station stops, truck priority detection and variable messaging signs).

6.4 Identification of Alternative Solutions

The Oakville Urban Mobility & Transportation Strategy, which highlighted the need for the prioritization of non-auto modes, was considered in assessing transportation solutions. Through the Oakville Transportation Master Pan, however, it was recognized that there was a need to address transportation capacity and service levels of all modes to address livability, economic sustainability and modal choice given the magnitude of growth anticipated.

Strategies will be developed to maintain and increase the non-auto mode share from the current 23% during weekday peak period conditions. A 31% non-auto target may be feasible, which includes increasing transit share to 12% (which is beyond pre-pandemic levels), achieve walking trip percentages of up to 11% (which occurred during the pandemic) and increasing other modes such as micromobility.

In addition to the Business-as-Usual alternative, three alternative strategies were considered to achieve the project purpose of developing an equitable, sustainable, accessible, and connected transportation system that supports growth to 2051. The alternatives considered reflect the type or destination of trips that the town will focus additional investment. The alternatives are not explicitly trying to change travel behaviour but rather facilitate more mobility options and provide infrastructure or improvements for streets, active transportation and transit. The alternative strategies are listed below and summarized in the following sections:

1. Focus on Travel Within Neighbourhoods
2. Focus on Travel Between Oakville Neighbourhoods
3. Focus on Travel Through Oakville and to Adjacent Municipalities

6.4.1 Alternatives for Street Improvements

Strategies were developed related to addressing street safety and capacity needs based on Alternative 1 (Focus on Travel Within Neighbourhood), Alternative 2 (Focus on Travel Between Oakville Neighbourhoods) or Alternative 3 (Focus on Travel Through Oakville and to Adjacent Municipalities). The alternatives are described below and the list of infrastructure and operational initiatives identified (in addition to the BAU) are detailed in **Appendix M**.

Alternative 1 street improvements will be developed at the neighbourhood level with details of improvements through neighbourhood planning studies. The key neighbourhood areas were identified and prioritized based on the highest opportunity for improvement, established based on existing collisions on town streets and potential for active transportation connections to neighbourhood destinations.

Alternative 2 street improvements focus investment on travel between Town of Oakville neighbourhoods. Improvements focus on connectivity between neighbourhoods and accommodating town residents commuting to work destinations within the town. Specific town major streets will be studied further to create operational improvements for a balance between the needs of local and inter-community travel. Types of improvements include intersection improvements such as turn lanes, new traffic control devices, signal timing and optimization improvements, separated active transportation facilities from street capacity and other safety related improvements.

Alternative 3 street improvements focus on travel through the town and from the town to the broader metropolitan area. On-going town Council efforts to advocate for identified freeway, rail grade separations and regional road improvements with higher levels of government are considered business as usual. This alternative represents improvements to high-capacity streets, including the widening or extensions of town arterial streets not currently planned or town investment in capacity improvements for roadways under the jurisdiction of the province and Halton Region.

6.4.2 Alternatives for Active Transportation

Strategies were developed to make cycling and walking trips more convenient, safe and viable for the community based on: Alternative 1 (Focus on Travel Within Neighbourhood), Alternative 2 (Focus on Travel Between Oakville Neighbourhoods) or Alternative 3 (Focus on Travel Through Oakville and to Adjacent Municipalities). The alternatives are described below and the list of infrastructure and operational initiatives identified (in addition to the BAU) are detailed in **Appendix M**.

Alternative 1 active transportation improvements focus on making walking and cycling safer and more viable through speed management measures, providing sidewalk connectivity, providing new local cycling connections and allocation of street space for cycling to accommodate short trips within the neighbourhood.

Alternative 2 active transportation improvements focus on facilities that support convenient and safer cycling and walking trips between neighbourhoods. This includes dedicated cycling facilities along select town collector streets and multi-use path connections between neighbourhoods. It considers progressive cycling facility design approaches. The projects were identified based on opportunities to improve route continuity, connect to key trip generators and centres, serve short origin-destination routes, integrate with transit service, accommodate areas with identified safety issues and meet equity needs.

Alternative 3 active transportation improvements focus on facilities that support long-distance cycling and walking trips. This includes dedicated cycling facilities along or connecting to major corridors or natural features. It includes facilities and support systems through creek valley lands, along utility corridors or connections to regional transit hubs.

6.4.3 Alternatives for Transit

Strategies were developed related to improving transit service and making transit a more competitive mobility choice based on: Alternative 1 (Focus on Travel Within Neighbourhood), Alternative 2 (Focus on Travel Between Oakville Neighbourhoods) or Alternative 3 (Focus on Travel Through Oakville and to Adjacent Municipalities). The alternatives are described below and the list of service initiatives identified (in addition to the BAU) are detailed in **Appendix M**.

Alternative 1 transit improvements are services that make short trips more convenient. This alternative includes an investigation of opportunities to enhance Ride On-Demand service for greater coverage and first / last mile connections to GO stations.

Alternative 2 transit improvements are services that make travel between neighbourhoods and employment areas within the town more convenient and viable. This alternative includes a more frequent grid of service along major Oakville Transit routes. This alternative includes implementing the long-term frequent transit network as identified from the Oakville Transit Five-Year Business Plan.

Alternative 3 transit improvements are services that focus on improved service for inter-municipal transit trips. This alternative includes partnerships with or implementation by other transit agencies, with a focus on regional initiatives such as the Regional Express Rail (RER): all-day two-way 15-minute GO Rail service and transit priority projects along Trafalgar Road and Dundas Street. This reflects the town commitments beyond advocacy with higher levels of government.

6.5 Evaluation of Solutions

An evaluation of the alternative solutions was undertaken based on established evaluation criteria and associated measures that addressed: public concerns, town sustainability and climate change mitigation objectives and typical measures associated with the environmental assessment process. The evaluation assessment criteria are summarized in Table 6-2.

Table 6-2: Evaluation Criteria

Criterion	Indicators
Transportation Service	• Improves capacity • Reduces delay • Supports connectivity • Improves safety

Criterion	Indicators
Transportation Equity	• Benefits equity-seeking groups • Improves access to transit • Accommodates active transportation • Protects vulnerable road users
Climate Change Mitigation and Natural Environment	• Reduces Greenhouse Gas (GHG) Emissions • Minimizes impact to environmental features • Supports "Clean Energy" initiatives • Supports sustainable (future-ready) solutions / resilient to the effects of climate change
Growth and Economic Development	• Supports existing and / or future businesses / employers • Attracts future businesses / employers • Supports transit hubs
Livability	• Supports vibrant, social spaces • Supports healthy living • Offers diverse and viable mobility choices
Cost	• Minimizes town capital expenditures • Minimizes town operating and maintenance costs

The evaluation was undertaken in consultation with the public through input at public information centres and stakeholder surveys. The evaluation process assessed each alternative solution by mode of infrastructure and service: streets, active transportation and transit. The detailed evaluation is provided in **Appendix M**.

It is noted that measures of equity and economic development are qualitative measures associated with the convenience of the service provided by the alternatives. It is anticipated that increased access of sustainable modes of travel (walking, cycling and transit) provides higher levels of equity and can support economic activity and desirability for development.

The analysis includes forecasts of the potential for modal shift of the alternative strategies from auto travel to transit and active transportation travel. These forecasts inform the measures of climate change. Overall, the preferred solution is a combination of the alternatives identified in Table 6-3.

Table 6-3: Evaluation Summary

		Business-as-Usual Improvements	Alternative #1	Alternative #2	Alternative #3
	Street Network	✓	✓	✓	Not preferred
	Active Transportation Network	✓	✓	✓	✓
	Transit Network	✓	✓	✓	Not preferred

The preferred solution includes all "business-as-usual" improvements, meaning all currently planned improvements to address growth needs over the next ten years are included as part of all alternative strategies.

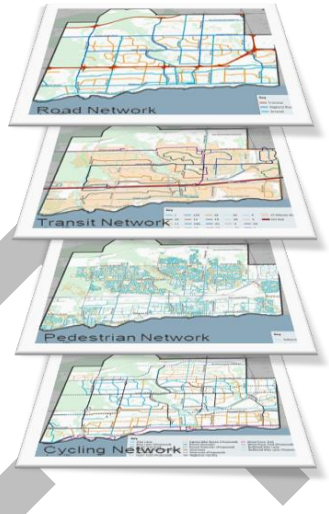
The preferred solution is also supported by policy and program solutions to address transportation demand management, goods movement and emerging technology needs.

It should be noted that for the transportation service analysis indicated capacity constraints on the provincial highway system and the Halton Region road system for all alternatives. However, improvements along regional roads are being addressed through the Halton Region Integrated Master Plan. It is anticipated that the strategy will be coordinated between Halton Region and the Town of Oakville such that the timing of the conversion of general-purpose lanes to reserve bus lanes will be implemented based on appropriate thresholds of transit ridership to maintain desirable service levels.

7.0 Implementation

The Transportation Master Plan process has identified areas of existing and future transportation needs within the town associated with accommodating growth and meeting the policy objectives of the Town of Oakville, Halton Region and Province of Ontario. Recommendations have been identified for a range of transportation issues and opportunities, including: street networks, active transportation infrastructure and programs, transit system, goods movement strategies, emerging technologies (including micro-mobility, mobility as a service) and travel demand management, as illustrated in Figure 7-1.

Figure 7-1: Transportation Network Elements



7.1 Phasing Plan

The Transportation Master Plan includes a significant number of town infrastructural and policy or program-related recommendations. These projects were identified to accommodate the town's transportation needs to the future horizon year of 2051. To guide future decision-making and budgeting, a phasing strategy was established to inform their prioritization and timing for implementation.

The recommendations from the Transportation Master Plan were phased and grouped into the following timeframes:

Short Term Projects	2026-2035
Medium Term Projects	2036-2041
Long Term Projects	2041-2051

Projects identified for the short term are recommended for inclusion in the town's 10-Year Capital Plan.

The phasing strategy was informed by the following:

- **Approved Capital Plans:** The latest town Capital Plan released at the time of this study included transportation projects proposed over the next ten years (2024-2033), which

would be classified as short-term projects under this study. Phasing of these projects remain consistent with the Capital Plan.

- **Midtown Oakville Transportation Study:** At the time of this study, Midtown Oakville was concurrently undergoing a separate assessment to update the previous (2014) Environmental Assessment. Phasing recommendations will be based on Midtown Oakville Transportation Study recommendations.
- **Previous Master Plans:** The previous (2018 and 2013) TMP and 2017 ATMP proposed improvements that had not yet been implemented and were therefore carried forward into this TMP update. The previous short, medium and / or long-term phasing recommendations, relative to the year that the respective plan was initiated, were reassessed as part of this study. The exception is projects that underwent a separate environmental assessment study that made updated recommendations including phasing that is still current, in which case the environmental assessment phasing is applied.
- **Travel Demand Forecasting:** Phasing of new road improvements identified from this study were informed by future travel demand forecasts.
- **Active Transportation Criteria:** The active transportation criteria established through this study (i.e., continuity, connectivity to key trip generators, network capacity, network integration, prioritization of safety and user needs, transportation equity) and used to identify route opportunities include a scoring system to prioritize the need for new connections. This scoring system was used to assign and inform the phasing of new active transportation improvements to the short, medium and long term.
- **Transit Plans:** The Oakville Transit Five-Year Business Plan (2024) was completed prior to this study. The phasing of short- and long-term improvements carried forward into this study remain consistent with the Five-Year Business Plan.
- **Budget Balancing:** To ensure that capital funding is balanced over the next few decades, projected should be planned and phased such that their anticipated costs are spread over the short, medium and long term.

7.2 Preferred Solution and Recommendations

The Oakville Transportation Master Plan proposes a number of different types of recommendations, including infrastructure, programs, policies, actions, and studies, as defined below.

- **Infrastructure improvements** – construction of a new bike lane facility or sidewalk, travel lanes, new roads, grade separation, etc.
- **Service level enhancements** – transit service enhancements (new routes, increased frequency)
- **Policy development** – Input to the Official Plan, Zoning By-Law or traffic by-law
- **Program development** – Related Transportation Demand Management (TDM), education, consultation, e-scooters, bike share, pilot programs

- **Studies** – subsequent studies that will follow this plan, in which further research and analysis will be conducted to confirm the feasibility and details of the design/program/policy/service level change.

7.2.1 Recommendations for Streets

The recommended solution confirmed the need for street widening, street extension and street-rail grade-separation business-as-usual (BAU) projects. Town BAU street improvements are summarized in Table **7**-1.

Table 7-1: Business as Usual Street Projects

No.	Road	From	To	Improvement	Phasing
S1	Cross Avenue Extension and Realignment	Trafalgar Road	Royal Windsor Drive	Road Extension / New Road	Short
S2	Iroquois Shore Road	Trafalgar Road	Eighth Line	Road Widening (5 Lanes)	Short
S3	Sixth Line	Threshing Mill Boulevard	William Halton Pkwy	Road Widening (4 Lanes)	Short
S4	Wyecroft Road	Bronte Road	Third Line	Road Widening (5 Lanes)	Short
S5	Burloak Drive at Lakeshore West rail corridor (currently under construction)			Grade Separation	Short
S29	Kerr Street at Lakeshore West rail corridor			Grade Separation	Short
S30	Kerr Street	Speers Road	Wyecroft Road	Road Widening (4 Lanes)	Short
S31	Kerr Street	Wyecroft Road	North Service Road	Road Widening (4 Lanes)	Short
S32	N-S Road (QEW Crossing)	Iroquois Shore Road	Cross Avenue	Road Extension / New Road	Short
S38	South Service Road	Cranberry Court	Fourth Line	Road Widening (3 Lanes)	Short
S40	Wyecroft Road	Fourth Line	Weller Court	Road Widening (3 Lanes)	Short
S41	Wyecroft Road	Weller Court	Sinclair Road	Road Widening (3 Lanes)	Short
S42	Argus / Davis Connection and Underpass (formerly Trafalgar Underpass)			Road Extension / New Road	Medium
S43	Fourth Line at Lakeshore West rail corridor			Grade Separation	Medium

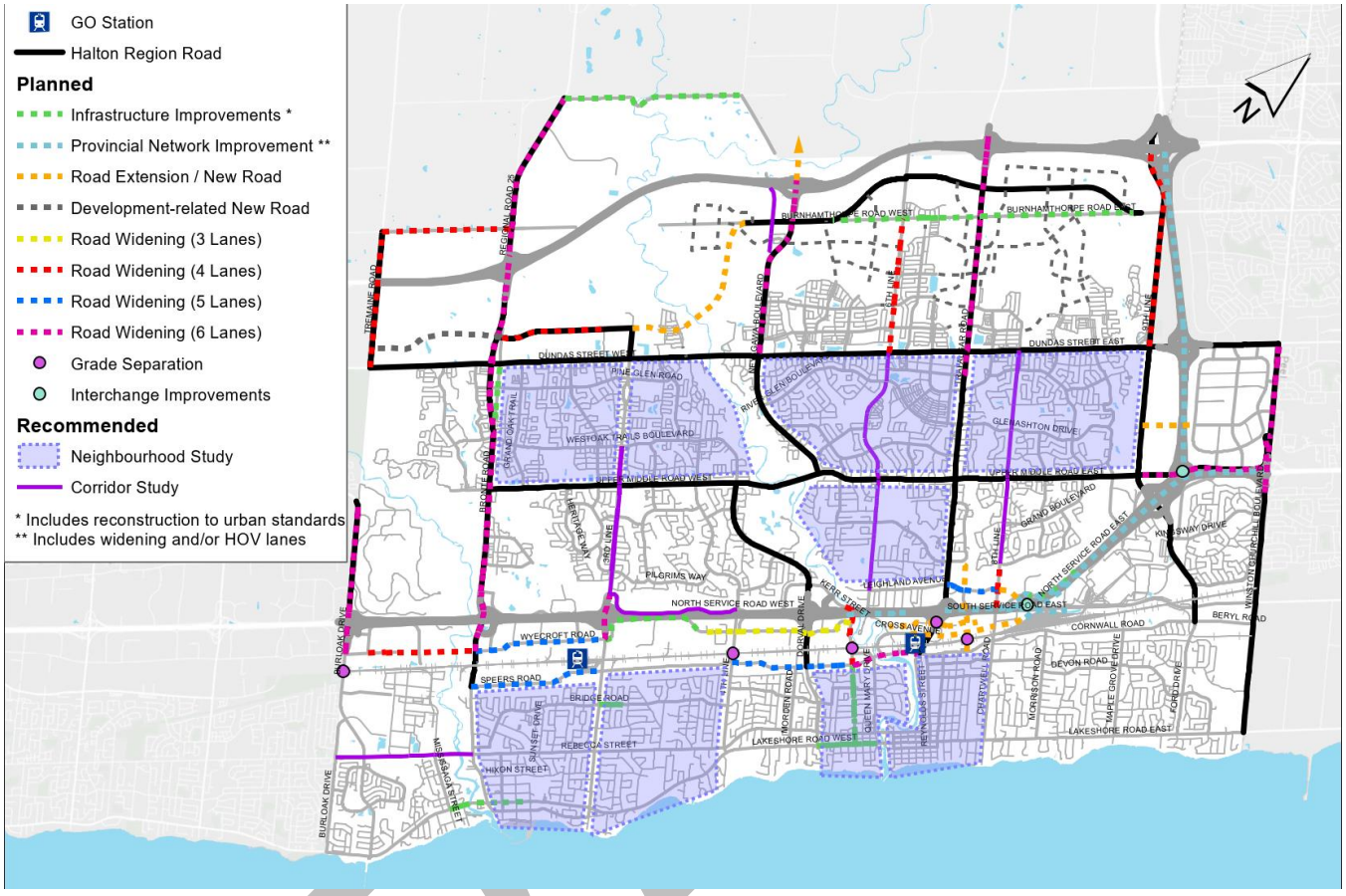
No.	Road	From	To	Improvement	Phasing
S44	Highway 403 Crossing	Ninth Line	Bristol Circle	Road Extension / New Road	Medium
S45	Speers Road	Fourth Line	Kerr Street	Road Widening (5 Lanes)	Medium
S47	Speers Road/Cornwall Road	Kerr Street	Trafalgar Road	Road Widening (6 Lanes)	Medium
S48	Third Line	North Service Road	Wyecroft Road	Road Widening (6 Lanes)	Long
S49	Burnhamthorpe Road	Tremaine Road	Bronte Road	Road Widening (4 Lanes)	Long
S50	Eighth Line	Iroquois Shore Road	Falgarwood Drive	Road Widening (4 Lanes)	Long
S51	Eighth Line	North Service Road	Iroquois Shore Road	Road Widening (4 Lanes)	Long
S52	Iroquois Shore Road	Eighth Line	North Service Road	Road Extension / New Road	Long
S53	North Service Road	Burloak Drive	Bronte Road	Road Extension / New Road	Long
S54	N-S Road (QEW Crossing)	White Oaks Boulevard (South Leg)	Iroquois Shore Road	Road Extension / New Road	Long
S55	Speers Road	Bronte Road	Third Line	Road Widening (5 Lanes)	Long

The preferred street network includes the BAU projects listed above, along with new recommendations from this transportation master plan, including:

- **Neighbourhood studies**, whereby localized safety and active transportation connections will be identified at the neighbourhood planning level and, upon Council approval, will be incorporated into capital and operating budgets.
- **Corridor studies**, whereby specific town major streets will be studied further (i.e., through environmental assessment studies and preliminary designs) to establish operational improvements such as turn lanes, new traffic control devices, signal timing and optimization improvements, separated active transportation facilities from street capacity and other safety-related improvements.
- **Safety assessments** for streets not within neighbourhood study areas that were identified to experience collision rates that were significant enough to warrant further study and / or mitigation measures.
- Additional improvements identified from the Midtown Oakville Transportation and Stormwater Class Environmental Assessment Study Report and Draft Midtown Oakville OPA.

All street network recommendations are illustrated in Figure **7**-**2**. New recommendations, beyond the BAU projects, are listed in Table **7**-2.

Figure 7-2: Street Network Recommendations



Notes: ***1. The map illustrates the ultimate network and includes improvements under the jurisdiction of the town, Halton Region, province (denoted as 'Provincial Network Improvement') and developer (denoted as 'Development-related New Road').***

2. Facilities along Halton Region roads are subject to further refinement based on the Region's Integrated Master Plan.

Table 7-2: Street Network Recommendations

No.	Road / Neighbourhood	From	To	Improvement	Phasing
S56	Neighbourhood Study Area #1	Area bounded by Dorval Drive, Speers Road, Sixteen Mile Creek, Lake Ontario		Neighbourhood Study	Short (2026/2027)
S57	Neighbourhood Study Area #2	Area bounded by Sixteen Mile Creek, Upper Middle Road, Trafalgar Road, Leighland Avenue		Neighbourhood Study	Short
S58	Neighbourhood Study Area #3	Area bounded by Sixteen Mile Creek, Cornwall Road,		Neighbourhood Study	Short

No.	Road / Neighbourhood	From	To	Improvement	Phasing
		Chartwell Road, Lake Ontario			
S59	Neighbourhood Study Area #4	Area bounded by Bronte Road, Speers Road, Third Line, Lake Ontario		Neighbourhood Study	Short
S60	Neighbourhood Study Area #5	Area bounded by Neyagawa Boulevard, Dundas Street West, Trafalgar Road, Upper Middle Road		Neighbourhood Study	Short
S61	Neighbourhood Study Area #6	Area bounded by Third Line, Speers Road, Fourth Line, Lake Ontario		Neighbourhood Study	Short
S62	Neighbourhood Study Area #7	Area bounded by Bronte Road, Dundas Street West, Third Line, Upper Middle Road		Neighbourhood Study	Short
S63	Neighbourhood Study Area #8	Area bounded by Trafalgar Road, Dundas Street East, Ninth Line, Upper Middle Road		Neighbourhood Study	Short
S64	Neighbourhood Study Area #9	Area bounded by Third Line, Dundas Street West, Sixteen Mile Creek, Upper Middle Road		Neighbourhood Study	Short
S65	Eighth Line	Dundas Street	Falgarwood Drive	Corridor Study	Short (2026/2027)
S66	Fourth Line	North End (near Highway 407)	South End (near Neyagawa Boulevard)	Corridor Study	Short (2026/2027)
S67	North Service Road	Third Line	Fourth Line	Corridor Study	Short (2026/2027)
S68	Rebecca Street	Burloak Dr	Bronte Road	Corridor Study	Short (2026/2027)
S69	Sixth Line	Dundas Street	Leighland Avenue	Corridor Study	Short (2026/2027)
S70	Third Line	West Oak Trails Boulevard	North Service Road	Corridor Study	Short (2026/2027)
S74	N-S Road (QEW Crossing)	Cross Avenue	Cornwall Road	Road Extension / New Road	Medium

No.	Road / Neighbourhood	From	To	Improvement	Phasing
S75	N-S Road at Lakeshore West rail corridor			Grade Separation	Medium
S76	Kings College Drive	Playter Place	Giles Gate	Safety Assessment Study	Long
S77	Merchants Gate	Heritage Way	Third Line	Safety Assessment Study	Long
S78	Nottinghill Gate	North Service Road	Ridgewood Court	Safety Assessment Study	Long

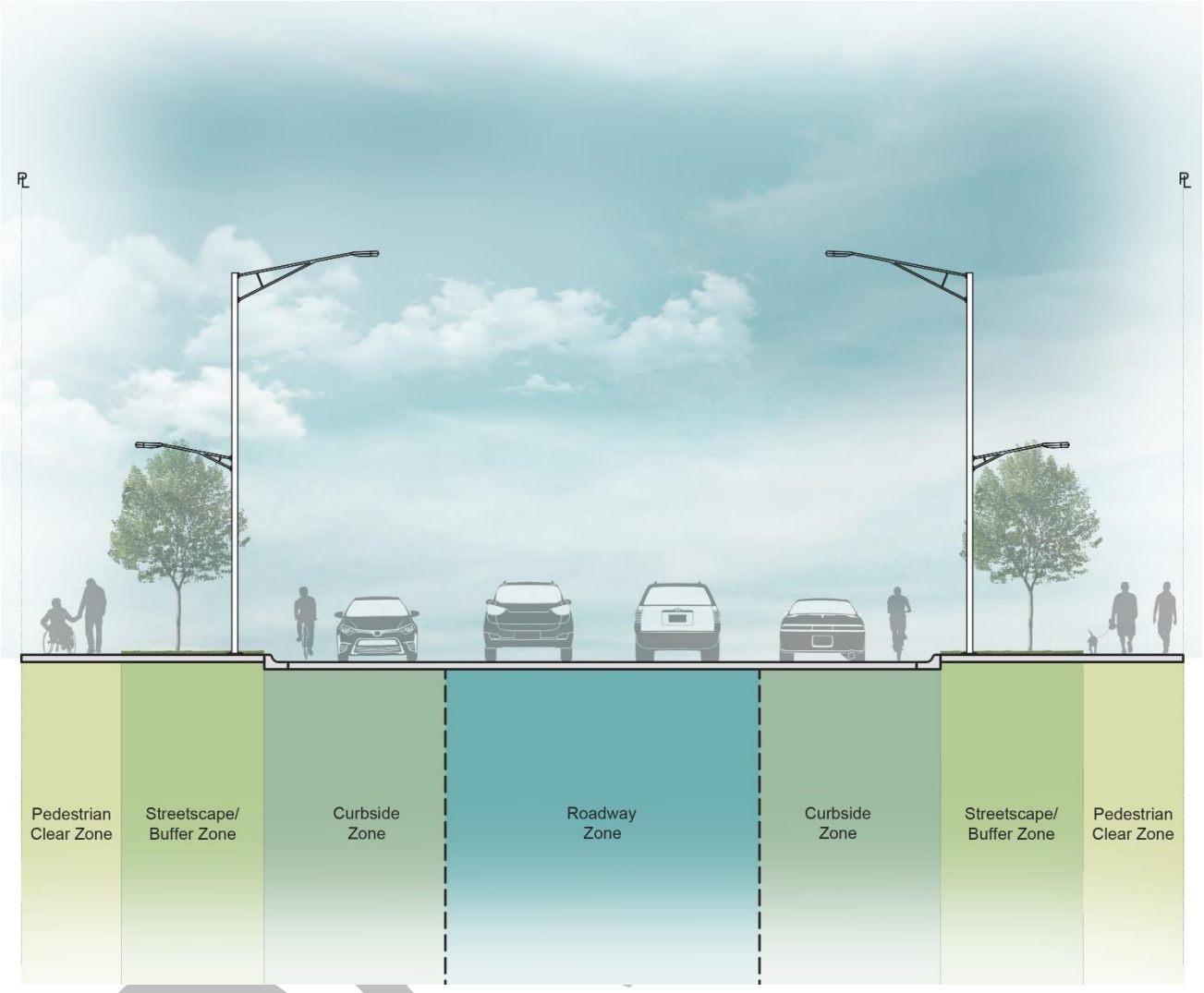
Business-as-usual initiatives related to advocacy with the Ministry of Transportation Ontario should continue to promote early implementation of planned provincial highway projects, including:

- General purpose lanes along Highway 403 between Dundas Street and Winston Churchill Boulevard
- HOV lanes along QEW between Trafalgar Road and Ford Drive
- HOV lanes and general-purpose lanes along QEW between Ford Drive and Winston Churchill Boulevard
- HOV lanes and general-purpose lanes along Highway 403 between Ford Drive and Dundas Street
- QEW and Highway 403 interchange improvements
- QEW and Royal Windsor Drive interchange improvements
- QEW and Trafalgar Road interchange improvements

7.2.2 Recommendations for Design and Complete Streets

The town's existing road classifications were used as a base to develop proposed Complete Street typologies for town roads (Halton Region roads not included). The current road classifications will continue to be used in the Official Plan. Design guidance for the typical elements within the road right-of-way were developed using various sources and best practices. Figure **7-3** illustrates the typical cross-sectional zones of a Complete Streets typology.

Figure 7-3: Cross-Section Zones



The proposed Complete Streets typologies are summarized in Table 7-3, along with the existing road classification it serves.

Table 7-3: Proposed Complete Streets Typologies

Road Classification	Typology	Right-of-Way (ROW) Width	Function
Multi-purpose arterials	Mobility Link	35 m	Support a high degree of mobility and corridor efficiency through the provision of major transit and active transportation facilities
	Urban Thoroughfare	35 m	Support a medium to a high degree of mobility and commercial access

Road Classification	Typology	Right-of-Way (ROW) Width	Function
Minor Arterials / Transit Corridors	Transit Corridor	26 m	Support a medium-to-high degree of mobility through the provision of localized transit facilities and dedicated active transportation infrastructure
	Main Street	26 m	Support businesses and walkability through provision of streetscaping / placemaking elements and enhanced pedestrian realm
Industrial Arterials / Commercial Collectors	Industrial Street	26 m	Support and facilitate access for moderate volumes of traffic moving within and through employment / industrial districts
Major Collectors & Avenue / Transit Corridor (North Oakville)	Commercial Collector	24 m	Support and facilitate access for low to moderate volumes of traffic moving through retail / commercial areas
	Suburban Collector	26 m	Support low to moderate volumes of traffic to connect to higher order road classes
Minor Collectors & Connector / Transit Corridor (North Oakville)	Residential Collector	19-20 m	Support low volumes of intra-community traffic
Local Roads	Neighbourhood Street	18-20 m	Support neighbourhood access and traffic calming
Lane	Public Laneways	7.5-12 m	Typically used to provide rear access to properties, garages, and loading spaces, laneways can offer variability in function through the provision of retrofit street elements to enhance the town's public realm and provide safe access for vulnerable road users. Laneways within urban settings especially can minimize motor vehicle traffic and improve local access.

Note that the town is responsible for improvements on public laneways, but treatments along privately-owned laneways and Privately Owned Publicly Accessible (POPs) spaces can also be encouraged as part of policies for new developments.

The elements and spacing requirements developed for each Complete Streets typology were determined based on a review of industry best practice guidelines and municipal standards. The details are provided in **Appendix N**.

Implementing Complete Streets designs and policies will require the recommended town-led actions listed in Table **7**-4.

Table 7-4: Recommendations to Support Complete Streets

No.	Type	Recommendation
S79	Policy and Planning	Adopt supporting Complete Streets Official Plan policies as detailed in **Appendix N**
S80	Policy and Planning	Update the Standard Drawings manual to incorporate Complete Streets typologies
S81	Policy and Planning	Adopt Multi-Modal Level-of-Service (MMLOS) requirements, as detailed in **Appendix N**, as part of the Transportation Impact Assessment (TIA) guidelines
S82	Study	Develop a Curbside Management Strategy
S83	Study	Complete a town-wide screening to identify pilot locations for Flex Streets
S84	Policy and Planning	Consider the traffic safety treatments toolbox detailed in **Appendix N** as part of the review of existing corridors with identified safety concerns, new developments and capital projects

7.2.3 Recommendations for Transit

The Town of Oakville is poised to maximize the benefit of the range of priority transit projects being implemented, either by the town, Region, or Province. The Oakville Transit Five-Year Business Plan includes proposed bus routing and service frequencies to gradually ramp-up towards the proposed Bus Rapid Transit (BRT) services in the Dundas and Trafalgar corridors, which will in-turn attract ridership and further emphasize these corridors as key transit linkages until the BRT facilities are implemented. The proposed route structure will serve the proposed Palermo Bus Terminal, connecting it to key bus routes on both the Metrolinx-identified Frequent Transit Network (FTN) and local bus networks.

Midtown Oakville will remain a major focus for bus transit in the proposed network, recognizing the Oakville GO Station hub, increased service on the Lakeshore West GO Line, and area intensification, through proposed increases in bus service frequency and additional routes to serve developing areas. The existing approach of introducing service to developing or low-

demand areas of the town through the application of on-demand services is proposed to continue (notably in the developing northern-Oakville areas) as a cost-effective means of serving the community and gradually growing ridership.

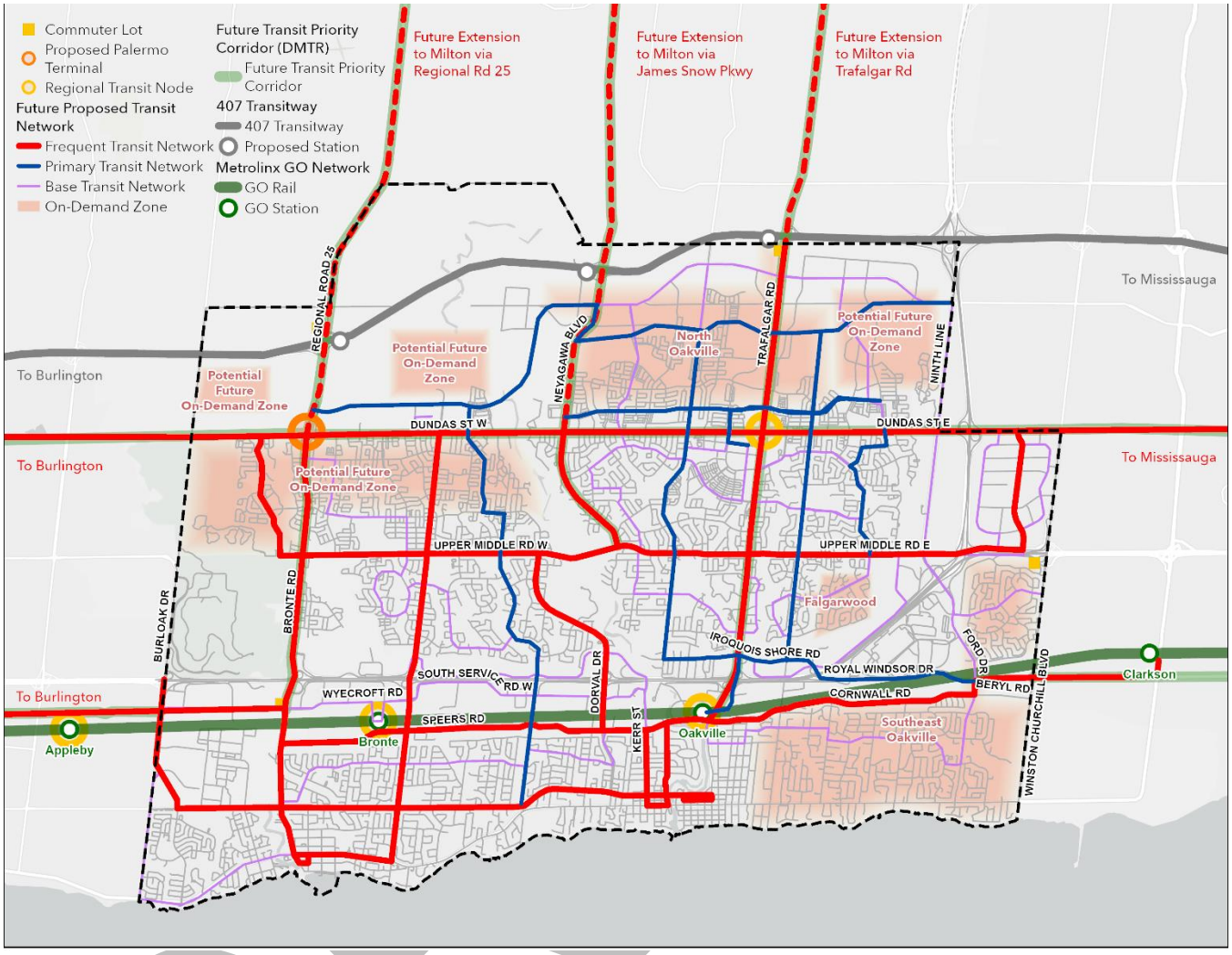
A Neyagawa transitway station was originally included in the draft plan for the 407 Transitway and then removed in the final version. The Town of Oakville continues to plan for the Neyagawa station on the proposed 407 Transitway. This will require careful coordination between the town and MTO (currently ongoing) and will likely trigger further revisions to the bus network, including increased service to the proposed Neyagawa Station and Secondary Plan Area. It is likely that the costs of the additional station may need to be shared between the town and MTO, and as such, the town should consider the potential costs in future capital budgeting. The costs of the station and potential timing of implementation are yet to be confirmed.

By implementing the recommended near-term (five-year) and long-term transit improvement plan identified in the Five-Year Business Plan, the town and Oakville Transit will be well-positioned to take advantage of the key priority transit projects planned below:

- Trafalgar Bus Rapid Transit (BRT)
- Dundas BRT
- Palermo Transit Terminal:
- Midtown Oakville (including Oakville GO modifications)
- Enhanced and Expanded On-Demand Transit Services
- Regional Express Rail (RER) on the Lakeshore West GO line
- Electrification of Oakville Transit Bus Fleet

The recommended long-term transit network is illustrated in Figure **7**-**4**. Supporting policies and actions are listed in Table **7**-5.

Figure 7-4: Recommended Transit Network



Notes: *1. The map illustrates the ultimate network and includes improvements under the jurisdiction of the town, Halton Region, and Metrolinx.*

2. Future Transit Priority Corridors are subject to further refinement based on the Region's Integrated Master Plan.

Table 7-5: Actions and Policies to Support the Recommended Transit Network

No.	Type	Recommendation
T1	Action	With support of the Ministry of Transportation, expand park and ride facilities and transit service to these facilities
T2	Policy and Planning	Adopt improved Oakville Transit bus stop guidelines on existing and new routes
T3	Action	Collaborate with Halton Region to implement the Trafalgar BRT corridor
T4	Action	Collaborate with Metrolinx to implement the Dundas BRT corridor

No.	Type	Recommendation
T5	Action	Support Metrolinx to implement the Lakeshore West Regional Express Rail (RER) service
T6	Infrastructure	Implement the proposed Palermo Transit Terminal
T7	Action	Continue implementing fleet electrification of Oakville Transit
T8	Action	Collaborate with MTO to implement the proposed 407 Transitway, including stations at Neyagawa, Bronte and Trafalgar
T9	Study	Investigate opportunities to enhance on-demand service to serve more areas and improve first/last mile connections to GO stations
T10	Service Levels	Building on the Five-Year Business Plan, implement the long-term vision of transit improvements (to 2051) to expand the Frequent Transit Network, Primary Transit Network, and Ride On-Demand services
T11	Action	Investigate and support infrastructure improvements for the expansion of key transit terminals (Oakville GO, Bronte GO, Oakville Uptown Core terminal, Palermo terminal, future Neyagawa transit station) to support frequent transit service
T12	Action	Continue to collaborate with other transit agencies, Halton Region, MTO and Metrolinx to improve fare and service integration outside of Oakville
T13	Action	Investigate federal funding opportunities based on Transit Investment and Housing Strategy coordination
T14	Action	Establish an Inter-Municipal Service Coordination Committee (including Metrolinx, Oakville Transit and transit agencies of adjacent municipalities) to improve interconnectivity between transit systems
T15	Action	Continue to undertake a review of the transit network at regular intervals (via the Oakville Transit Five-Year Business Plan) to ensure that the system keeps up with changing needs and growth
T16	Action	Continue to maximize transit costs as part of Development Charges

7.2.4 Recommendations for Active Transportation

In the past decade, policy makers have recognized the increasing need for sustainable mobility options. There are also clear advantages of cycling in promoting public health, improving environmental conditions, and boosting local economies. As a result, numerous local and national governments, including Oakville, are striving to elevate the proportion of journeys undertaken by cycling, aiming to foster more livable and sustainable urban environments.

Since the completion of the 2018 Transportation Master Plan and 2017 Active Transportation Master Plan, new growth objectives and land use forecasts to 2051 have been identified. In response to this growth, new initiatives were identified to accommodate growth in a

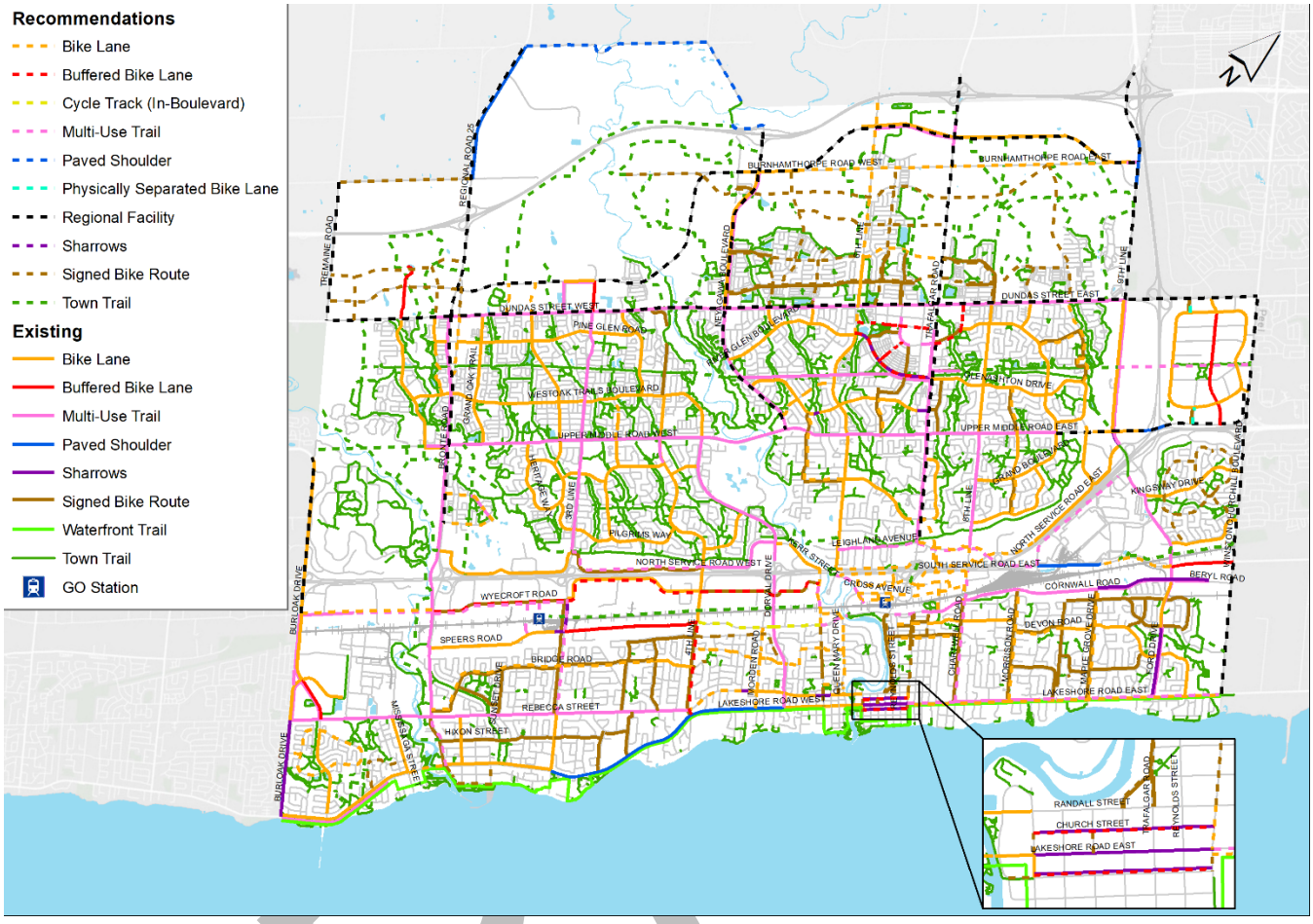
sustainable manner by enhancing the town's active transportation network and support systems.

The preferred active transportation network includes previously planned active transportation facilities, along with new recommendations from this transportation master plan, including:

- **Neighbourhood studies**, whereby localized safety and active transportation connections will be identified at the neighbourhood planning level.
- **Corridor Retrofit Study**, to assess opportunities to upgrade existing active transportation facilities.
- **Sidewalk Feasibility Study,** to assess the feasibility of sidewalk connections identified from this study in greater detail using criteria related to traffic volume, road conditions (grading, sightlines, horizontal curves), illumination, existing sidewalk condition, trail access and others.

The recommended active transportation and pedestrian network is illustrated in Figure **7**-**5** and Figure **7**-**6**, respectively, this includes BAU projects carried forward from previous ATMP/Trail Plan. New recommendations, beyond the BAU projects, are listed in Table 7-6, with supporting policies and actions identified in Table **7**-7. Planned and new sidewalk connections that are subject to a Sidewalk Feasibility Study are summarized in Table 7-8.

Figure 7-5: Recommended Active Transportation Network

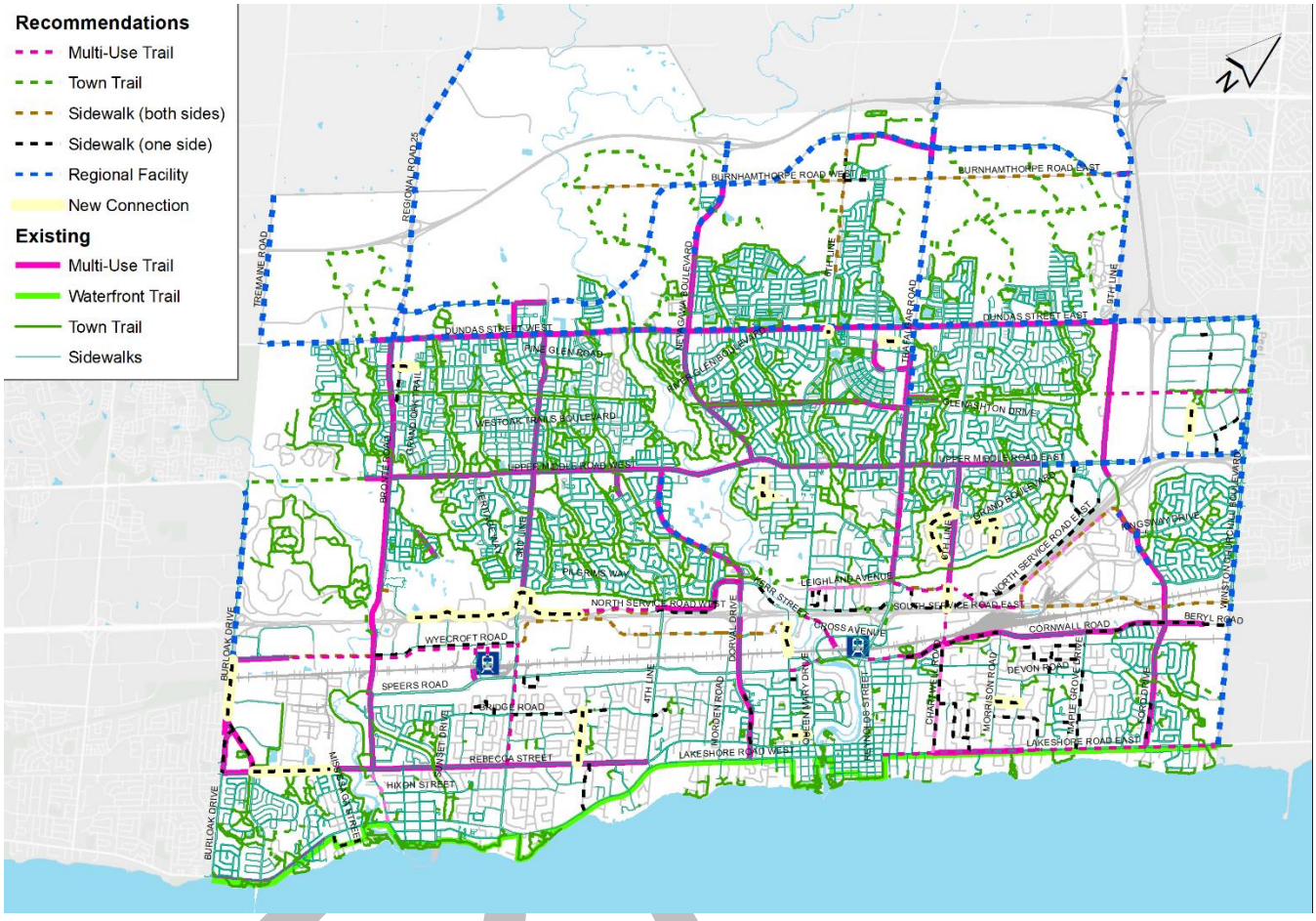


Notes: ***1. The map illustrates the ultimate network and includes improvements under the jurisdiction of the town, Halton Region and developer (in the case that it is new facility located in a development area). The town is responsible for the accommodation of active modes of travel on town roads, town parks, town trails and open spaces, and within the boulevard of Halton Region roads.***

2. Active transportation facilities along Halton Region roads, including those identified as 'Regional Facility' in the map above, are subject to further refinement based on the Region's Integrated Master Plan.

3. New town facilities are subject to subsequent feasibility studies undertaken at a corridor level to confirm that the level of separation and facility type is appropriate for site-specific conditions, right-of-way space constraints, and / or safety concerns, and that the removal of a vehicle lane is not required. The recommendations may undergo refinement; however, these changes shall not compromise the cohesiveness of the network.

Figure 7-6: Recommended Pedestrian Network



Notes: ***1. The map illustrates the ultimate network and includes improvements under the jurisdiction of the town, Halton Region and developer (in the case that it is new facility located in a development area). The town is responsible for the accommodation of active modes of travel on town roads, town parks, town trails and open spaces, and within the boulevard of Halton Region roads.***

2. Active transportation facilities along Halton Region roads are subject to further refinement based on the Region's Integrated Master Plan.

3. All new sidewalks identified within existing built out areas are subject to a Sidewalk Feasibility Study. Implementation and phasing will be coordinated with asset management.

Table 7-6: Recommended New Active Transportation Improvements

No.	Road	From	To	Improvement	Phasing
AT1	Buckingham Road	Bristol Cir	Upper Middle Road	Physically Separated Bike Lane	Short (2026/2027)
AT2	Hyde Park Gate	Dundas Street	Bristol Cir	Physically Separated Bike Lane	Short (2026/2027)
AT3	Joshuas Creek Drive	Bayshire Drive	Upper Middle Road	Bike lane	Short (2026/2027)
AT4	Maple Avenue	Reynolds Street	Allan Street	Bike Lane	Short (2026/2027)
AT5	North Service Road	Trafalgar Road	Sixth Line	Bike Lane	Short (2026/2027)

No.	Road	From	To	Improvement	Phasing
AT6	Oakmead Blvd	River Oaks Blvd	Upper Middle Rd	Bike Lane	Short (2026/2027)
AT7	Bloomfield Drive	West Oak Trails Boulevard	Upper Middle Road	Bike Lane	Short
AT8	Cross Avenue	New N-S Local Road west of Trafalgar Road	Chartwell Road	Bike Lane	Short
AT9	Fourth Line	Lower Base Line	End (cul-de-sac)	Paved Shoulder	Short
AT10	Hays Boulevard	Sixth Line	Trafalgar Road	Buffered Bike Lane	Short
AT11	Mary Street / Wildwood Drive	Maurice Drive	Fourth Line	Bike Lane	Short
AT12	Maurice Drive	Stewart Street	Mary Street	Bike Lane	Short
AT13	Meadowridge Drive	Dundas Street	Arrowhead Road	Bike Lane	Short
AT14	Nautical Boulevard / Creek Path Avenue	Great Lakes Boulevard	Great Lakes Boulevard	Bike Lane	Short
AT15	Lakeshore Road	Forsythe Street	Wilson Street	Bike Lane	Short
AT16	Lakeshore Road	Wilson Street	Kerr Street	Bike Lane	Short
AT17	Parkhaven Boulevard	Glenashton Drive	Oak Park Boulevard	Buffered Bike Lane	Short
AT18	Postridge Drive	North Ridge Trail	Dundas Street	Buffered Bike Lane	Short
AT19	Stewart Street	Queen Mary Drive	Maurice Drive	Bike Lane	Short
AT22	The Canadian Road	Near Ford Drive	Royal Windsor Drive	MUT	Short
AT23	Valley Ridge Drive	High Valley Road	Richview Boulevard	Bike Lane	Short
AT25	Argus/Davis	New N-S Local Road (west of Trafalgar Road)	New N-S Local Road (east of Trafalgar Road)	Bike Lane	Medium
AT26	Charles Cornwall Avenue	Saw Whet Boulevard	Bronte Road	Bike Lane	Medium
AT27	Cross Ave	New N-S Local Road near Sixteen Mile Creek	New N-S Local Road west of Trafalgar Road	Bike Lane	Medium
AT31	George Savage Avenue	Sixteen Mile Drive	North Park Boulevard	Signed Bike Route	Medium
AT32	New Trail	Existing Trail from Baronwood Drive	Khalsa Gate	Off-Road Trail	Medium
AT34	Morden Road	Lakeshore Road	Speers Road	Bike Lane	Medium
AT35	Munn's Avenue	Sixth Line	Neyagawa Blvd	Bike Lane	Medium
AT36	New Trail	Bronte Rd	Existing Trail from Stonecutter Drive	Off-Road Trail	Medium

No.	Road	From	To	Improvement	Phasing
AT37	New Trail	Existing Trail from Fourth Line	Existing Trail from Neyagawa Boulevard	Off-Road Trail	Medium
AT38	New Trail	Fourth Line	William Halton Parkway	Off-Road Trail	Medium
AT39	N-S Road	Cross Avenue Extension/near Davis Road (East end)	Cornwall Road	Bike Lane	Medium
AT40	Post Road	Dundas Street	Wheat Boom Drive	Signed Bike Route	Medium
AT43	Preserve Drive	Dundas Street	Existing Trail	Signed Bike Route	Medium
AT44	Saw Whet Boulevard	Bronte Road	Charles Cornwall Avenue	Bike Lane	Medium
AT45	New Trail	Existing Trail from Laurelwood Drive	Existing Trail from Grenville Drive	Off-Road Trail	Long
AT46	New Trail	Existing Trail from Royal Windsor Drive	Existing Trail from Gate 3 Ford Oakville Assembly	Off-Road Trail	Long
AT47	New Trail	Existing Trail from Stanfield Drive	Sandlewood Road	Off-Road Trail	Long
AT48	New Trail	Existing Trail from Warminster Drive	Existing Trail from Wood Place	Off-Road Trail	Long
AT49	New Trail	Kerr Street	Existing Trail from Sixth Line	Off-Road Trail	Long
AT50	New Trail	Marvin Avenue	Existing Trail from Fowley Drive	Off-Road Trail	Long
AT51	New Trail	Third Line north of North Service Road	Existing Trail from Brays Lane	Off-Road Trail	Long
AT52	New Trail	Upper Middle Road east of Highway 403	Bristol Circle	Off-Road Trail	Long
AT53	New Trail	Existing Trail from Silverthorn Drive	Hixon Street	Off-Road Trail	Long
AT54	New Trail	Existing Trail system north of Bronte Creek National Park	Dundas Street	Off-Road Trail	Long
AT55	New Trail	North Service Road	Charles Cornwall Avenue	Off-Road Trail	Long

No.	Road	From	To	Improvement	Phasing
AT56	New Trail	Existing Trail from Saw Whet Boulevard	Upper Middle Road W	Off-Road Trail	Long
AT57	Leighland Ave	Trafalgar Road	Sixth Line	MUT	Long
AT58	New Trail	Royal Windsor Drive east of rail yard	Winston Churchill Boulevard near rail line	Off-Road Trail	Long
AT59	New Trail	Existing Trail from Lakeshore Road	Rebecca Street	Off-Road Trail	Long
AT60	New Trail	Burloak Drive at Bronte Creek	Rebecca Street at Bronte Creek	Off-Road Trail	Long
AT61	New Trail	Bronte GO Station near rail line	Kerr Street near rail line	Off-Road Trail	Long
AT62	New Trail	Existing Trail from Eighth Line	William Halton Parkway	Off-Road Trail	Long
AT63	Wavecrest Street	Creek Path Avenue	Burloak Drive	Bike Lane	Long

Note: ***Active transportation facilities along Halton Region roads are not included in the table as they are subject to further refinement based on the Region's Integrated Master Plan.***

Table 7-7: Recommended Active Transportation Policies and Actions

No.	Type	Recommendation
AT62	Infrastructure	Design and implement planned and newly proposed active transportation routes as shown in Figure **7-5**
AT63	Study	Conduct a town-wide Corridor Retrofit Study
AT64	Study	Initiate an updated Sidewalk Feasibility Study to review new sidewalk connections as shown in Figure 7-6 and listed in Table 7-8
AT65	Action	Continue to collaborate with Metrolinx to implement the planned rail grade separations at Burloak Drive (which is currently underway), Fourth Line, Kerr Street, Chartwell Road and other rail grade separations being studied as part of the ongoing Midtown Oakville Official Plan Amendment (OPA), all of which are located along corridors with existing or proposed active transportation facilities and therefore continue to accommodate such facilities to connect to the overall network
AT66	Policy and Planning	Establish grade separation guidelines at highways, creeks and regional roads
AT67	Action	Collaborate with the MTO and Halton Region to establish a design standard for safety design features and/or treatments to accommodate active transportation users near highways

No.	Type	Recommendation
AT68	Action	Collaborate with Halton Region to establish a design standard for protected active transportation crossings at regional and town intersections
AT69	Policy and Planning	Update engineering standards to incorporate a toolbox for active transportation safety design treatments
AT70	Policy and Planning	Establish multi-use trail (MUT) design standards to be incorporated as part of the engineering guidelines
AT71	Study	Establish standard operating procedures and monitoring program for the implementation of Quick-Build projects
AT72	Policy and Planning	Review and update the town's summer and winter maintenance service levels for all types of cycle facilities, including multi-use paths
AT73	Policy and Planning	Update engineering standards to incorporate mandatory use of swept path analysis software to ensure all proposed solutions work with current and proposed town fleets
AT74	Action	Continue to install and allocate funding for bicycle parking and amenities at public locations throughout the town
AT75	Infrastructure Support	Install destination signage with time / distance to major destinations by walking and cycling, e.g., Waterfront Trail, parks, etc.
AT76	Action	Implement bike valet for special event permits
AT77	Action	Work with Oakville Transit to ensure that bus stops are equipped with secure and convenient bike parking
AT78	Program	Establish a subsidy program for the provision of public bike parking and amenities (on-street bike corrals, public bike racks, repair / fix-it stations) as part of private developments
AT79	Action	Allocate funding for a comprehensive marketing and communications campaign based on the ATMSCAP and ATIP
AT80	Action	Continue to distribute Cycling Handbooks, cycle maps, etc. at community events and consider integrating educational components into the event (e.g., tips on helmet safety and fittings, bike safety, rules of the road, and children's bike rodeo)
AT81	Action	Expand school engagement through the Halton ASST Hub to more schools and continue to engage in broad active school travel initiatives (using tools and guidance on School Travel Planning from Green Communities Canada), in partnership with local school boards and transportation consortia
AT82	Action	Continue to implement the town's Pedestrian Safety Program, including the candidate pedestrian crossing locations identified through the study

No.	Type	Recommendation
AT83	Program	Consider initiating active transportation focus groups and design charettes as part of the project design stage and compile an ongoing mailing list of residents and stakeholders that are interested in participating
AT84	Policy and Planning	Update Schedule D of the current Livable Oakville Official Plan to reflect the updated active transportation map shown in Figure 7-5 and consider incorporating the additional policies identified in **Appendix L**
AT85	Infrastructure	Consider reconfiguring sidewalks, where possible, to multi-use trails, inclusive of a widening to acceptable standards per Book 18 of the Ontario Traffic Manual
AT86	Policy and Planning	Update the town's Zoning By-law to incorporate proposed updates identified in **Appendix L** to incorporate bicycle amenity requirements for new developments
AT87	Action (Previous ATMP)	Consider the ATMP recommendations prior to proceeding with all applicable works projects including road resurfacing, widening or rehabilitation projects, and new major trail projects
AT88	Action (Previous ATMP)	Maintain and update annually the Geographic Information System (GIS) based Network management Tool developed as part of the ATMP and use this tool to assist in planning for the implementation and management of active transportation infrastructure
AT89	Policy and Planning (Previous ATMP)	Update the Pedestrian Circulation Plan Terms of Reference to include considerations for linkages that connect users to and from all modes of transportation (e.g., transit to pedestrian, cyclist to pedestrian, etc.)
AT90	Policy and Planning (Previous ATMP)	Update the Parking Study Terms of Reference to include: • Circulations for reductions and / or factors related to multi-modal levels of service • Identification of locations and access routes to interior storage and locker room facilities in parking plans
AT91	Policy and Planning (Previous ATMP)	Recommendations included in the Transportation Impact Analysis should be considered in the Urban Design Brief and Urban Design Brief for Subdivisions and the Terms of Reference should be updated to reflect the need for these recommendations to be linked
AT92	Action (Previous ATMP)	Continue to identify projects that can be funded by existing programs established by various service areas within the town

No.	Type	Recommendation
AT93	Action (Previous ATMP)	Continue to explore external funding sources and partnerships to help fund the proposed "enhancements" as well as other programs and promotional initiatives
AT94	Action (Previous ATMP)	Continue to identify opportunities to coordinate large-scale capital projects to achieve economies of scale and build the costs for cycling facilities into those budgets

Table 7-8: Sidewalk Connection Recommendations (Subject to a Feasibility Study)

Road	From	To	Improvement
Avon Crescent	Duncan Road	near Baldwin Drive	Sidewalk
Bomorda Drive	Leighland Avenue	Germorda Drive	Sidewalk
Bond Street	Kerr Street	Chisholm Street	Sidewalk
Braeside Drive	Morrison Road	Cairncroft Rd	Sidewalk
Bridge Road	Third Line	Sherin Drive	Sidewalk
Bridge Road	Sherin Drive	Lees Lane	Sidewalk
Bristol Circle	Winston Park Drive	near Hyde Park Gate	Sidewalk
Bristol Circle	Winston Park Drive	near London Lane	Sidewalk
Buckingham Road	Plymouth Drive	Bristol Circle	Sidewalk
Burgundy Drive	Levender Lane	Lakeshore Road	Sidewalk
Burgundy Drive	Levender Lane	near Crestview Street	Sidewalk
Burloak Drive	South of Superior Court	Wyecroft Road	Sidewalk
Burnhamthorpe Road	West End	William Halton Parkway	Sidewalk
Burnhamthorpe Road	William Halton Parkway (West End)	Sixth Line	Sidewalk
Burnhamthorpe Road	Sixth Line	Post Road	Sidewalk
Burnhamthorpe Road	Eternity Way	William Halton Parkway (East End)	Sidewalk
Chartwell Road	Lakeshore Road	Cornwall Road	Sidewalk
Constance Drive	Wedgewood Drive	Maple Groove Road	Sidewalk
Duncan Road	Maple Groove Road	Avon Crescent	Sidewalk
Eighth Line	North Service Road	Iroquois Shore Road	Sidewalk
Ford Drive	Lakeshore Road East	Devon Road	Sidewalk
Gainsborough Drive	Grosvenor Street	East of Ingledene Drive	Sidewalk
Germorda Drive	Leighland Avenue	Sixth Line	Sidewalk

Road	From	To	Improvement
Grand Boulevard / Holton Heights Drive	Eighth Line (north leg)	Falgarwood Drive	Sidewalk
Grosvenor Street	Grange Road	Falgarwood Drive	Sidewalk
Hillhurst Road	Cardinal Drive	Morrison Road	Sidewalk
Iroquois Road	Eighth Line	North Service Road	Sidewalk
Joshuas Creek Drive	North Service Road	Upper Middle Road	Sidewalk
Kerr Street	Wyecroft Road	Rail Line	Sidewalk
Kerr Street/North Service Road West	near Dorval Drive	near QEW	Sidewalk
Khalsa Gate/Old Bronte Road	near Greenwich Drive	near Portree Crescent	Sidewalk
Kingsway Drive	Sherwood Heights Drive	Ford Drive	Sidewalk
Lakeshore Road	Third Line	Solingate Drive	Sidewalk
Levender Lane	Poplar Drive	Burgundy Drive	Sidewalk
Lyons Lane	Cross Avenue	QEW south side	Sidewalk
Mansfield Drive	Richmond Road	Oxford Avenue	Sidewalk
Maple Grove Drive	Lakeshore Road	Devon Road	Sidewalk
North Service Rd	Eighth Line	1 km East of Invicta Dr	Sidewalk
North Service Road	East of Bronte Road (near Halton Police Board)	Near Oakville Volkswagen Access	Sidewalk
North Service Road East	Ironoak Way	Approx. 1000m east of Invicta Drive	Sidewalk
North Service Road East	Trafalgar Road	Kent Avenue	Sidewalk
North Service Road West	near Fourth Line	near Progress Court	Sidewalk
North Service Road West	Bronte Road	near Halton Regional Police Service	Sidewalk
Oak Walk Drive	East of Oak Park Boulevard	Taunton Road	Sidewalk
Parkside Drive	Fourth Line	near Glen Oak Drive	Sidewalk
Pine Glen Road	Khalsa Gate	Bronte Road	Sidewalk
Pine Glen Road	Old Bronte Road / Khalsa Gate	West of Grand Oak Trail	Sidewalk
Pinewood Avenue	Chartwell Road	Poplar Drive	Sidewalk

Road	From	To	Improvement
Poplar Drive	Pinewood Avenue	Lavender Lane	Sidewalk
Prince Charles Drive	Bartos Drive	Kerr Street	Sidewalk
Rebecca Street	Great Lakes Boulevard	Mississauga Street	Sidewalk
Royal Windsor Drive	Winston Churchill Boulevard	The Canadian Road	Sidewalk
Sandwell Drive	Rebecca Street	Lakeshore Road	Sidewalk
Saxon Road	Seabrook Drive	Trafford Crescent	Sidewalk
Seabrook Drive	Saxon Road	Seaton Drive	Sidewalk
Seaton Drive	Bridge Road	Seabrook Drive	Sidewalk
Seneca Drive	West River Street	West Street	Sidewalk
Sixth Line	Threshing Mills Boulevard	Burnhamthorpe Road West	Sidewalk
Sixth Line	Burnhamthorpe Road West	North of Loyalist Trail	Sidewalk
Sixth Line	North of Loyalist Trail	South of William Halton Pkwy	Sidewalk
Sixth Line	Trail Access (approximately 75 m south of Dundas Street West)	Dundas Street	Sidewalk
South Service Road West	Redwood Square	Third Line	Sidewalk
The Canadian Road	Ford Drive	Royal Windsor Drive	Sidewalk
Trafford Crescent	Saxon Road	Bridge Road	Sidewalk
Trelawn Avenue	Wedgewood Drive	Cardinal Drive	Sidewalk
Truman Avenue	Leighland Avenue	North Service Road East	Sidewalk
Wallace Road	Speers Road	York Street	Sidewalk
Warminster Drive	Rebecca Street	Bridge Road	Sidewalk
Warren Drive	Maple Grove Drive	near Colchester Drive	Sidewalk
Wedgewood Drive	Devon Road	Constance Drive	Sidewalk
West Street	Lakeshore Road	Seneca Drive	Sidewalk
Westminister Drive	Hixon Street	Lakeshore Road	Sidewalk
Winston Park Drive	Portland Drive	Brighton Road	Sidewalk
Winston Park Drive	Bristol Circle	Upper Middle Road	Sidewalk

Road	From	To	Improvement
Woodhaven Park Drive	Hixon Street	Lakeshore Road	Sidewalk
Wyecroft Road	Bronte Road	Third Line	Sidewalk
Wyecroft Road	Fourth Line	Dorval Drive	Sidewalk
Wyecroft Road	Dorval Drive	Kerr Street	Sidewalk
Wyecroft Road / South Service Road	Third Line	Fourth Line	Sidewalk
Wyecroft Road Extension	Bronte Road	Near Mcpherson Road	Sidewalk
York Street	Speers Road	Wallace Road	Sidewalk

Note: Sidewalks along Halton Region roads are not included in the table as they are subject to further refinement based on the Region's Integrated Master Plan.

7.2.1 Recommendations for Emerging Technologies

The transportation sector is undergoing tremendous change. New technologies and approaches, such as clean energy vehicles, autonomous vehicles (AV), micro-mobility, and mobility-as-a-service (MaaS), have the potential to transform mobility choices and systems.

While a lot remains to be learned about these emerging technologies, their potential impacts as both individual solutions and units of a greater transportation system should be considered when planning for the town's future. For example, the expansion of the town's electric vehicle (EV) charging network and electrification of vehicles, trucks, and transit could increase commuter comfort, road congestion, and efficiency; while also setting the foundation for infrastructure, policies, and third-party partnerships for electrified and/or shared micro-mobility solutions, like bike-share, e-bikes and e-scooters. In turn, shared micro-mobility programs could be integrated in transit and cycling network and mobility hub plans and improvements as first/last mile and short-distance travel modes, with potential of also being incorporated in MaaS and smart city initiatives in the future, given their ability to collect rich data. Lastly, longer-term improvements like new traffic signaling technologies and AVs could be incorporated in smart cities and the transportation network in general to improve operational efficiency and capacity without physical infrastructure expansion.

Recommendations were identified to incorporate these evolving trends as part of the transportation master plan, as summarized in Table **7**-9.

Table 7-9: Recommendations for Emerging Technologies

No.	Type	Recommendation	Phasing
E1	Action	Continue to advance the electrification of Oakville Transit's fleet.	Short – Medium
E2	Action	Continue to engage with the Province as part of the Ontario Smart Mobility Readiness Forum.	Short
E3	Action	Explore incentive programs to support electric vehicle and truck adoption.	Short

No.	Type	Recommendation	Phasing
E4	Policy and Planning	Set requirements / incentives for the inclusion of car sharing vehicles in new developments.	Short
E5	Action	Develop a bike share pilot program for a location with high potential for demand and available cycling infrastructure.	Short
E6	Action	Proceed with e-scooter readiness initiatives to prepare the town to opt into the Provincial pilot program: • Proactively plan and build an e-scooter-friendly network that can connect to key destinations • Confirm the town's regulatory approach to e-scooters and prepare materials and resources to support both internal and external partners • Develop an amended bylaw to regulate e-scooter use • Launch an educational campaign on the e-scooter for targeted audiences and locations • Pursue partnerships and funding opportunities with the Province and Region	Short
E7	Action	Consider the facilitation or incentivization of privately run van-pools.	Short
E8	Action	Partner with a major delivery carrier to trial e-cargo bikes in certain parts of Oakville.	Short
E9	Study	Commission an Autonomous and Connected Vehicle (CAV) readiness strategy or tactical plan.	Medium
E10	Study	Study the future needs of EV charging to meet Provincial and Federal regulations and town commitments and develop an implementation plan to build out EV charging network within the town.	Medium
E11	Action	Pilot small-scale neighbourhood mobility hubs.	Medium
E12	Infrastructure Support	Pilot adaptive signals under a variety of conditions.	Medium
E13	Action	Consider / pilot the use of autonomous transit on short distance off-road routes.	Long
E14	Action	Expand Open Data offering through the implementation of Smart City technology. Trial independent technologies on a smaller scale in key urban areas to avoid public scrutiny and criticism.	Long

The development of a bike share pilot can be developed through a partnership with a service provider to manage risk such as cost overruns, accidents, maintenance, and staffing of operations. The system can be privately owned and operated, publicly owned and operated, or publicly owned but privately maintained. A pilot at a location where there is documented cycling demand (e.g., major institution such as Sheridan College campus) and existing cycling facilities would be recommended first phase of implementation.

7.2.2 Recommendations for E-Scooters

The town has the option of opting into the Ontario e-scooter pilot. Opting into the pilot means abiding by all e-scooter and operator requirements as set out by the Ontario e-scooter pilot program. However, there are e-scooter implications and risks that the town will need to address, such as regulations to address safety, operations, helmet requirements, and age

requirements, prior to opting into the pilot. As part of the pilot, e-scooters may be permitted on dedicated cycling facilities and multi-use trails but prohibited from use on the sidewalk. Parking restrictions should also be considered to be put into effect, to prevent the scooters blocking sidewalk traffic.

In preparation to opt into the Provincial pilot program, it is recommended that the town adopt and / or amend their bylaws to regulate e-scooter use, including but not limited to the town's Parks By-law, Transit By-law and Traffic By-law. To plan and carry out the pilot, the town will need to implement e-scooters in areas where benefits are maximized and risks minimized, which can include areas of higher ridership uptake and appropriate infrastructure.

The town should also consider pursuing partnerships (multiple partners to reduce the risk associated with termination of services) with other organizations or specialists in the micromobility / e-scooter industry to develop a comprehensive program and process mapping, which includes governance models, definition of ownership of devices (e.g., the town or the vendor), vendor services (e.g., a vendor to provide services only or also sell vehicles), types of data to be collected from vendor (e.g., collision data, complaints, etc.), pricing model for users, and profitability / revenue generation. A monitoring program is recommended to address ridership, reported incidents, and public concerns and inform annual progress reports.

It is recommended that the town implement the following phasing strategy to support a successful rollout of the e-scooter program. Details of the strategy are further outlined in **Appendix O**. The timelines for each step should be determined based on community feedback and community readiness, but the general recommended approach is as follows:

E-Scooter Readiness Plan	**Ongoing**	Proactively plan and build an e-scooter-friendly network that can connect to key destinations.
	Year 1	Confirm the town's regulatory approach to e-scooters and prepare materials and resources to support both internal and external partners. This includes an infrastructure readiness evaluation, outreach efforts, promotion of the injury code and Service Oakville category and the hiring of a micromobility specialist to support these efforts. Develop an amended bylaw to regulate e-scooter use, including but not limited to the town's Parks By-law, Transit By-law and Traffic By-law. Launch an educational campaign on the e-scooter for targeted audiences and locations. Pursue partnerships and funding opportunities with the Province and Region.
	Year 2	Confirm the town's position on the Ontario e-scooter pilot, considering the amended bylaw and associated implications related to safety, right-of-way and street clutter and cost
	Year 3	If approved: • Implement e-scooters in areas where benefits are maximized and risks minimized, which can include areas of higher ridership uptake and appropriate infrastructure. • Establish a strategy to monitor ridership, reported incidents, and public concerns to inform annual progress reports.

7.2.3 Recommendations for Goods Movement

- The support of goods movement is recognized as an important element of economic sustainability and development, and a component of this transportation master plan. Recommendations were identified that address the current needs of businesses, the trends of e-commerce and the need to mitigate the impact of goods movement on neighbourhoods. It is recommended that the town transition to a permissive truck network illustrated in Remove restrictions on Rebecca Street between Bronte Road and Great Lakes Boulevard to better connect parallel truck routes.

- Assign Provincial highways as dangerous goods routes (to be coordinated with the province / MTO).
- Future updates to truck networks should coordinate with provincial, regional and adjacent municipal governments to create cross compatibility with other transportation networks.

Strategies recommended to facilitate effective goods movement in support of economic development and help mitigate the impact of goods movement issues on residential areas are listed in Table **7**-10.

Figure **7**-**7**. A permissive truck network identifies routes that trucks can travel, and a blended approach can maintain existing truck restrictions. The proposed permissive truck network includes the following changes:

- Provincial and Regional Highways serve as the primary network.
- Additional road under Town of Oakville stewardship that service commercial and industrial zones along the 400-level highways.
- Remove restrictions on Rebecca Street between Bronte Road and Great Lakes Boulevard to better connect parallel truck routes.
- Assign Provincial highways as dangerous goods routes (to be coordinated with the province / MTO).
- Future updates to truck networks should coordinate with provincial, regional and adjacent municipal governments to create cross compatibility with other transportation networks.

Strategies recommended to facilitate effective goods movement in support of economic development and help mitigate the impact of goods movement issues on residential areas are listed in Table **7**-10.

Figure 7-7: Proposed Permissive Truck Network

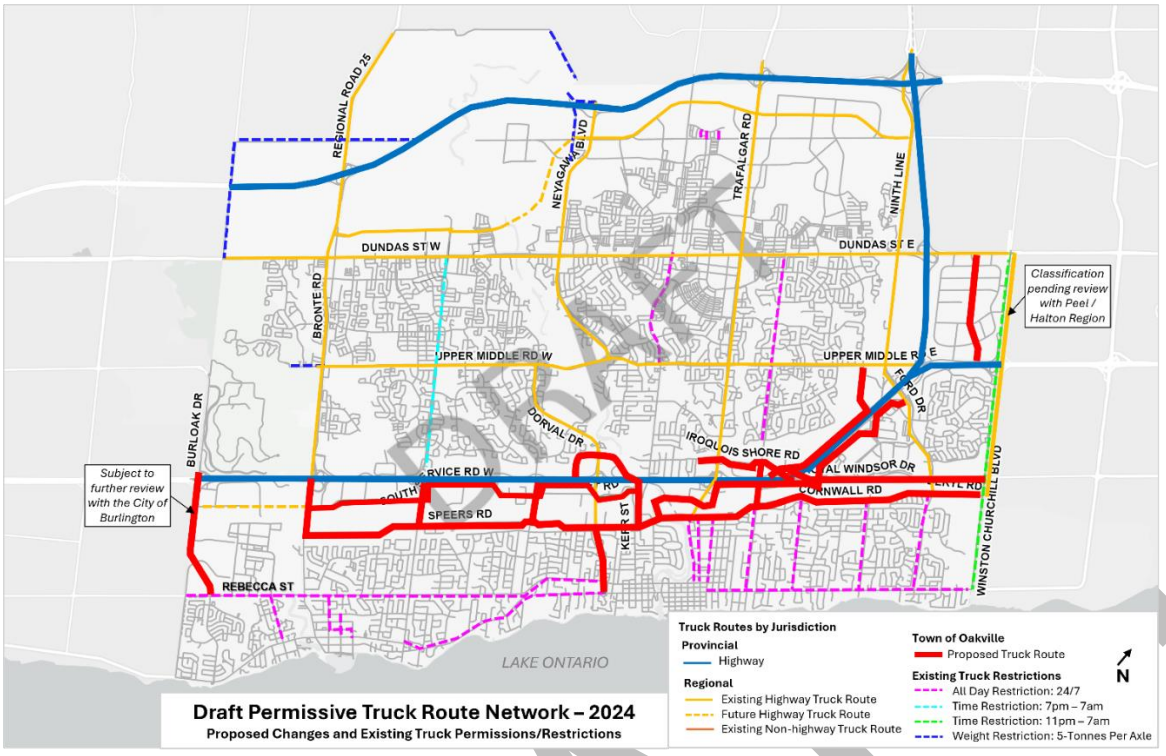


Table 7-10: Recommendations to Support Goods Movement

No.	Type	Recommendation	Phasing
G1	Policy and Planning	**Truck Time-of-Day Restrictions**: Review and implement proposed changes to time-of-day restrictions and monitor and enforce time of day restrictions.	Short
G2	Policy and Planning	**Curbside Management**: • Increase the number of Commercial Loading Zones in areas with high commercial truck traffic. • Engage with businesses about expanding the availability / location of CLZs, such as through an application process where businesses can apply to have a CLZ added. • Explore opportunities to implement dynamic curbside management to improve utilization and flexible of Oakville's curbsides, especially in busy areas. • Develop a policy for on-street and/or on-site loading zones for new development.	Short
G3	Study	**Neighbourhood Loading Zones**: • Assess the merits of neighbourhood loading zones and e-commerce pick-up locations in area traffic studies. • Consider implementing a dynamic loading / visitor parking approach for new communities / developments.	Short
G4	Action	**Off Peak Deliveries**: Consider implementing an Off-Peak Delivery (OPD) pilot program to test the feasibility / reaction of OPDs.	Short
G5	Policy and Planning	**Goods Movement and Street Design**: • Where on-street loading zones exist, locating bicycle lanes between the curb and load zone.	Short

No.	Type	Recommendation	Phasing
		• Right-size streets and lane widths to improve pedestrian comfort and encourage speed compliance. • In locations where street widths exceed minimum requirements, consider road diets and more focused delineation of modes. • Restrict large and oversized delivery vehicles through travel on narrow streets and in sensitive residential areas.	
G6	Action	**Goods Movement task force**: Establish a goods movement task force including the town, the Region, and neighbouring municipalities to address challenges and opportunities for implementing, expanding, and / or improving the town's truck network; and aligning with goods movement initiatives outside of Oakville.	Short
G7	Policy and Planning	**Traffic Calming**: Consider opportunities to design / re-design streets to slow traffic speeds, while still maintaining through capabilities for trucks and delivery vehicles.	Short
G8	Policy and Planning	**Planning Near Major Trip Generators**: Through the upcoming Employment Lands study, review policy frameworks to encourage major freight generators to develop around the 400-level highways to reduce future truck volumes within Oakville.	Medium / Long
G9	Action	**Truck Parking**: Oakville can coordinate with the province to identify lands for truck parking.	Medium / Long
G10	Action	**Pick Up Points**: • Engage with major retailers and e-commerce businesses to identify ways to support more efficient deliveries within Oakville, including the expansion of delivery lockers to reduce first-last mile delivery trips. • Consider reserving space in new / existing communities for delivery lockers.	Medium / Long
G11	Policy and Planning	**Planning Near Major Transit Station Areas**: • Consider truck needs when planning major transit station areas, keeping delivery and truck activities separate from primary active transportation / transit routes where possible, incorporating best practices from MTO's Freight Supportive Guidelines. • Consider centralized loading and delivery areas in major transit station areas to enable truck traffic to be focused in a single corridor / area and reduce the overall number of loading bays required.	Medium / Long
G12	Policy and Planning	**Green Fleets**: • Building from the town's own Sustainable Green Fleet Procedure, the town should explore encouraging similar policies for trucking operators / delivery companies that operate within their jurisdiction to further improve the sustainability of goods movement in the town. • Identify the Green Fleet related provincial and federal funding programs and lead / support with the education of businesses in Oakville to support the proliferation of Green Fleets.	Medium / Long

7.2.4 Transportation Demand Management Plan Summary

Transportation demand management initiatives involve the consolidation of components of the Transportation Master Plan recommendations. The TDM strategy is summarized in **Appendix P** including an Action Plan. The Town of Oakville's TDM Action Plan serves as a guiding roadmap to achieve the goals outlined in the TDM and Transportation Master Plans. This action plan identifies tools and strategies aligned with the plan's five core themes and overarching goals to drive meaningful change in transportation behavior and infrastructure.

The Action Plan is organized by theme, with specific tools and strategies detailed in Table **7**-11 to
Table **7**-15 providing clarity on how each action supports the TDM goals. Each table highlights the action items, associated goals, recommended timelines for implementation, and organizational responsibility.

The themes of the TDM Plan include:

Theme #1 (T1): Parking and Curbside Management

Theme #2 (T2): Changing Travel Characteristics

Theme #3 (T3): Supporting Sustainable Modes

Theme #4 (T4): Changing the Development Review Process

Theme #5 (T5): Developing a Culture

The goals of the TDM Plan are to:

1. Reduce single-occupancy vehicle (SOV) use
2. Incentivize sustainable transportation modes (public transit, walking, and cycling)
3. Support the development of livable and healthy communities
4. Improve job quality and foster economic development
5. Improve public health and wellbeing
6. Leverage new technologies to enhance TDM initiatives
7. Ensure collaboration with the Region and other local municipalities on TDM initiatives

Table 7-11: Town of Oakville TDM Action Plan (Theme 1 – Parking and Curbside Management)

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
T1A	Develop and implement curbside	1, 6	Conduct a curbside management strategy to manage competing needs for curb space	Short	Town

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
	management strategy		including adapting to future needs such as e-scooter and micromobility parking		
T1B	Implementing demand-based pricing	1 2	Review the implementation of dynamic pricing for parking to manage peak hours demand by varying costs based on time of day, location, or demand levels.	Short	Town
T1C	Expand the town's real-time monitoring of paid parking stalls to other growth areas	6	Leverage the eleven-X technology that is currently implemented in Downtown Oakville, expand the monitoring to other areas to help inform future curbside strategies.	Medium	Town
T1D	Adjust curb typologies	3 6	Develop curb typologies to accommodate the seasonality of demand. User demands on the curb may change throughout the year depending on season.	Long	Town
T1E	Develop zone-based parking requirements	1 2	Review parking requirements on existing zones (parking geographies) outlined in the town's two zoning by-laws.	Long	Town

Table 7-12: Town of Oakville TDM Action Plan (Theme 2 – Changing Travel Characteristics)

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
T2A	Develop and promote Smart Commute and employer-based TDM initiatives	1 4	Through Smart Commute, continue to collaborate with the largest employers in the town to implement workplace TDM programs, such as ride-sharing and flexible commuting options. In addition, promote the use of town community centres as a viable remote working space for employees.	On-going	Town, Employers, Smart Commute,
T2B	Promote Carpooling	1	Through Smart Commute, continue to launch campaigns to promote carpooling as a practical and sustainable commuting option, reducing traffic and parking demand.	On-going	Town, Employers, Smart Commute,
T2C	Promote flexible Work Hours (Facilitate peak spreading) as part of Smart Commute	3 5	Through Smart Commute, continue to encourage travel outside peak hours by promoting flexible work arrangements and peak spreading programs.	On-going	Town, Employers, Smart Commute,
T2D	Reduce work-related trip frequency	1 3	Through Smart Commute, continue to encourage for telecommuting and hybrid work policies to decrease commuting frequency and reduce transportation demand and support broader TDM goals.	On-going	Town, Employers, Smart Commute,

		4 5			
T2E	Develop a carpool lot strategy	1 7	Develop a Carpool Lot Strategy in collaboration with Halton Region and MTO to designate carpool lots in strategic locations.	Short	Town, Halton Region, MTO
T2F	Transit travelling training programs	1 2	Develop educational programs for transit usage to encourage transit ridership.	Short	Town

Table 7-13: Town of Oakville TDM Action Plan (Theme 3 – Supporting Sustainable Modes)

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
T3A	Support integrated planning	1 2 3	Align land use and transportation planning to ensure that destinations are within easy reach of transit, walking, and cycling, fostering sustainable travel habits that are essential to successful TDM.	On-going	Town
T3B	Bike Friendly Communities	1 2 3 5	Continue to sustain the silver award status through the Bicycle Friendly Communities (BFC) award program.	On-going	Town
T3C	Initiate community outreach programs	1 2 3	Educate the community on active transportation benefits and how to use related facilities like repair kits and wayfinding systems.	Short	Town
T3D	Enhance trip end facilities	1 2 3 5	Improve facilities such as bike racks, showers, shelters and lockers at town owned facilities to make these options more attractive and practical. Providing bike repair station at major points of interest, such as community centres and transit stations.	Short	Town
T3E	Improve digital and physical wayfinding	1 2 3 6	Enhance information accessibility through updated bike maps, online resources, and on-site signage through a wayfinding strategy for the town.	Short	Town

Table 7-14: Town of Oakville TDM Action Plan (Theme 4 – Changing the Development Review Process)

T3F	Bike Friendly Communities	1 2 3 5	Strive for the gold award status by building cycling infrastructure and implementing engagement programs that enhance the town's BFC application.	Medium	Town
T3G	Plan for Active Transportation and micromobility amenities at mobility hubs	1 2 5 6	Investigate opportunities to integrate active transportation amenities and emerging technologies (e.g., bike parking, bike repair stations, real time transit information displays, etc.) at mobility hubs.	Medium	Town
T3H	Develop a Bike Hub Integration Program	1 2 5 7	Develop a Bike Hub Integration Program at Oakville's GO Stations (in partnership with Metrolinx) and Sheridan College. This program will support multi-modal commuting by making cycling a more accessible and practical first- and last-mile option.	Medium	Town, Metrolinx, Sheridan College
T3I	Investigate high-quality bike parking for the town right-of-way	1 2 3	Expand availability of high-quality bike parking across the town in the road right-of-way.	Medium	Town
T3J	Investigate and initiate partnerships with businesses and stakeholders for high-quality bike parking	1 2 3	Expand availability of high-quality bike parking across the town in growth areas.	Medium	Town
T3K	Establish enhanced maintenance standards	1 2 3 5	Establish a stronger winter maintenance policy for priority bicycle routes, especially trails to key commuter destinations, to ensure that they are cleared with the same priority as arterial streets.	Medium	Town
T3L	Initiate performance evaluation and reporting on cycling investments	1 2 3	Leverage the funding for AT studies to develop a State of Cycling Report for the town to show how cycling investments are providing value over time.	Medium	Town
T3M	Develop a sheltered outdoor bike parking strategy	1 2 3	Develop a sheltered outdoor bike parking strategy that identifies locations to place bike lockers or sheltered outdoor bike parking in town facilities, municipal parking lots, and in the road right-of-way.	Medium	Town

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
T4A	Development Checklist for TDM	All	Introduce TDM guidelines / checklist for new developments and include criteria such as trip end amenities and bicycle parking.	Short	Town
T4B	Review parking standards in the Zoning By-law	1 2 3 6	Update zoning by-laws to reduce parking minimums, introduce parking maximums, electric vehicle charging regulations, car share requirements, increase bicycle parking requirements, and promote transit-oriented development.	Medium	Town
T4C	Incorporate car-sharing provisions into Zoning by-law	1 2 3	Set requirements / incentives for the inclusion of car sharing vehicles in new developments to reduce private vehicle dependency.	Medium	Town
T4D	Develop bicycle parking design standards	1 2	Develop a bicycle parking design standard that conforms with APBP Guidelines to enhance the BFC application.	Medium	Town
T4E	Adopt Multi-modal Level of Service (MMLOS) standards	1 2 3	Develop MMLOS measures and transit from auto-centric LOS use in TIS requirements. Require developments to identify infrastructure, facilities and routing to support developments that are accessible via public transit, walking and cycling.	Medium	Town

Table 7-15: Town of Oakville TDM Action Plan (Theme 5 – Developing a Culture)

No.	Tool / Strategy	Goal(s)	Description	Timeline	Responsibility
T5A	Establish employer-focused agreements for sustainable commuting programs	1 4 7	Through Smart Commute, continue to pursue opportunities to partner with Oakville-based businesses to initiate and incentivize employee carpool programs and transit use.	On-going	Town, Employers, Smart Commute
T5B	Initiate community outreach campaigns	2 3 5	Continue to develop public campaigns that promote active transportation and transit options, services, and programs in ways which are culturally appropriate and accessible.	On-going	Town
T5C	Conduct pop-up bike shop workshops	2 3 5	Conduct pop-up bike shop workshops leveraging existing Town-run events to provide cycling education to the broader public.	Short	Town

T5D	Advisory committee creation and stakeholder engagement	2 4	Establish an Active Transportation Advisory Committee to formalize partnerships between the town and key stakeholders (e.g., for events like Bike Month).	Short	Town
T5E	Develop tourism-focused and visitors' campaigns	2 3 5	Develop public campaigns and initiatives that encourage tourists and visitors to use sustainable modes. Focus efforts on larger events such as Canada Day celebrations.	Short	Town
T5F	Initiate school engagement programs	2 3 5	Encourage active transportation at a young age by implementing School Streets, Safe Routes to School Projects, and cycling educational workshops targeted towards students	Short	Town, HDSB, HCSB
T5G	Facilitate or encourage Walking or Cycling School Bus programs	2 3 4 7	The town should collaborate with the Halton Active Sustainable School Transportation Hub to facilitate or encourage more Walking or Cycling School Bus programs.	Short	Town, Halton Active Sustainable School Transportation Hub
T5H	Implementation of School Streets	2 3 4 7	The town should explore the implementation of the School Streets pilot program.	Short	Town, HDSB, HCSB
T5I	Conduct targeted school engagement and collaboration	2 3 5 7	Expand school engagement through the Halton Active Sustainable School Transportation Hub to more schools. Continue to engage in broad active school travel initiatives (using tools and guidance on School Travel Planning from Green Communities Canada).	Medium	Town, Halton Active Sustainable School Transportation Hub
T5J	Online platforms and digital content for sustainable transportation education	2 3 5	Explore virtual mechanisms and alternative formats for annual educational initiatives.	Medium	Town
T5K	Digital platform development to support sustainable travel	2 6	Investigate the development of an Oakville mobility app or website to host a range of digital sources of travel information (parking,	Medium	Town

			wayfinding, active transportation facilities, parking availability, etc.).		
T5L	Cycling skills training programs and partnerships	2 3 5	Continue to enhance local capacity to deliver cycling skills education by reintroducing CAN-Bike training opportunities for potential instructors.	Medium	Town

7.3 Delivery Work Plan

7.3.1 Organizational Collaboration Plan

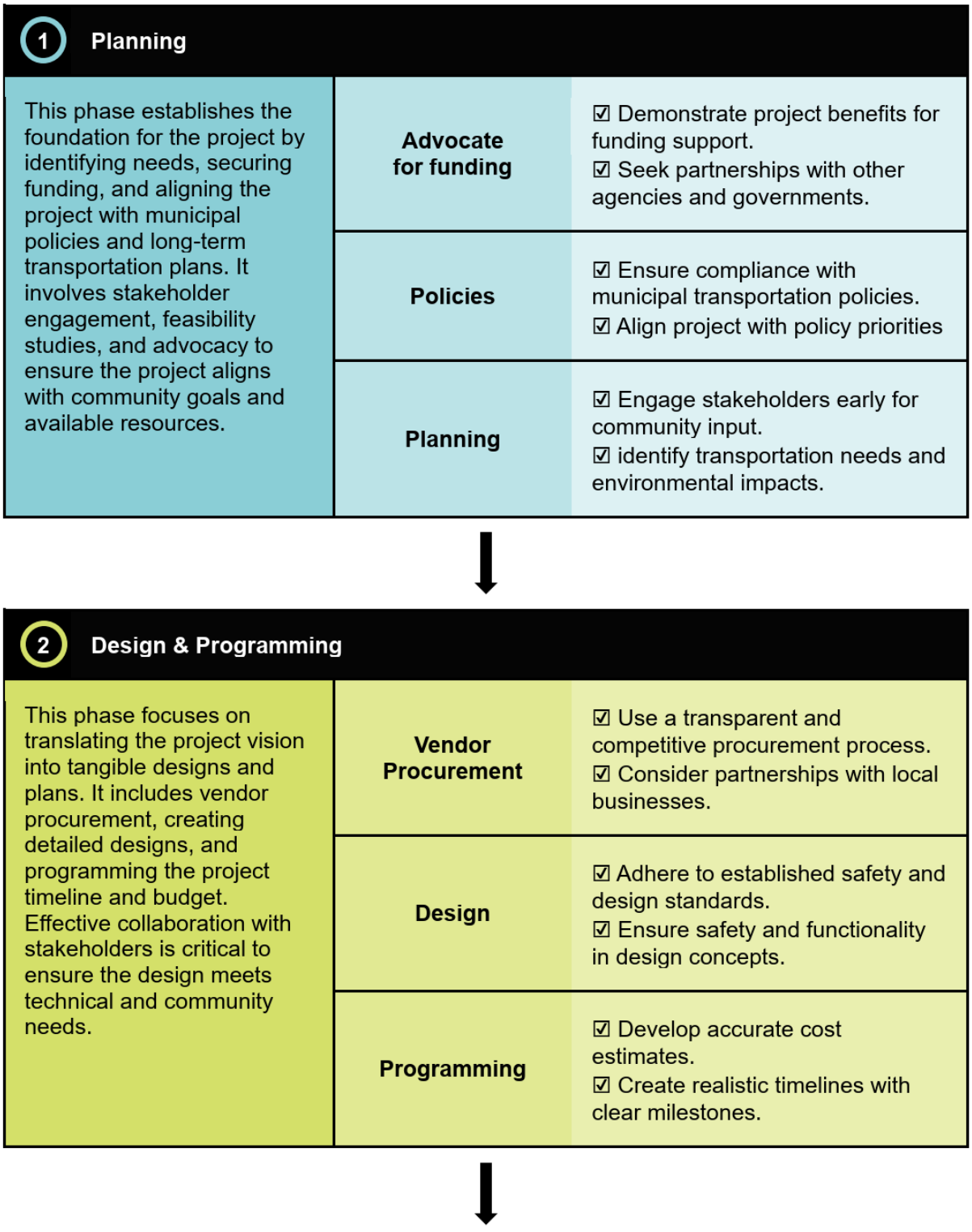
There are several key steps and resources required to carry out the recommendations from this Transportation Master Plan. The success of project delivery will rely on a clearly defined process for implementation, starting from project initiation through to the ongoing monitoring stages of the project. A delivery process map was developed and shown in Figure **7-8** to distinguish key stages of a project or program, along with its expected responsibilities and scope. A clearly defined role helps set expectations and provide a direction to assure efficient delivery. The same delivery process map was used to develop the roles and responsibilities matrix.

The Transportation Master Plan has recommended numerous follow-up studies, programs and initiatives to support the policy framework and deliver / operate network improvements. The success of these recommendations relies on a pragmatic implementation plan that prescribes the required staff resources to deliver or procure / manage consultancy services.

The study team held three workshops with town staff across various departments to consult, collectively review, and establish clear roles and responsibilities for each type of project improvement proposed as part of the Transportation Master Plan.

Appendix Q details the outcome of these efforts in the form of roles and responsibilities table, which highlights key components of the project lifecycle and the lead and supporting department or group that will “champion” the efforts in each phase, including the procurement of additional staff resources or consultant services. Supporting agencies and partners are also identified. Other stakeholders not identified on the list may arise as resources. It is understood that the lead agency would consult and collaborate with supporting agencies and partners.

Figure 7-8: Delivery Process Map



3 Implementation		
This phase involves project construction and coordination of operational works to assure integration with the transportation network. It can also involve promoting the project to encourage public use and ensure its benefits are realized. Effective coordination between contractors, town staff, and stakeholders is essential to minimize disruptions and assure execution quality.	**Construction**	☑ Ensure construction meets safety and design standards. ☑ Monitor progress, manage budgets and address issues.
	Operations	☑ Plan operations, staffing, and maintenance schedules. ☑ Implement routine inspections for ongoing compliance.
	Promotion	☑ Launch public awareness campaigns for new facilities. ☑ Partner with and engage community groups.

4 Monitoring		
This phase ensures the project delivers long-term benefits through performance monitoring, maintaining infrastructure, and enforcing regulations. Data collection and analysis are critical to evaluating success and identifying areas for improvement. Documentation is equally important to ensure traceability and accountability.	**Key Performance Indicators**	☑ Collect data to inform project performance. ☑ Monitor data for continuous project improvements.
	Maintenance	☑ Ensure compliance with municipal regulations. ☑ Create and schedule routine maintenance plans.
	Enforcement	☑ Ensure compliance with regulations and bylaws. ☑ Implement further enforcement measures if needed.

7.4 Financial Implications

7.4.1 Capital Costs

Incorporating the costs of transportation improvements into budget plans will be key in ensuring the implementation and delivery of proposed projects. Capital costs associated with the additional improvements and studies from the preferred solution (Combination of Alternatives), not including previously planned and / or budgeted improvements from the BAU, were estimated as input for the town's budget planning needs.

Benchmark costs, in 2024 dollars, were developed from various sources (development charges studies and bid documents) to inform the unit capital cost of the recommended improvements. Costs associated with utilities relocation / replacement, engineering / design work, environmental assessments (EAs) / studies, contingencies of roadwork projects, and staffing were also accounted for. Table 7-16 provides a capital cost breakdown of recommendations from this TMP to 2051 by improvement type (Streets, AT, Transit) and phasing. The phasing of each project was categorized as short (2026 – 2035), medium (2036 – 2041), and long (2041 – 2051) term projects. Costing details are provided in **Appendix R**.

Table 7-16: Capital Cost Summary

Period	Streets	Active Transportation	Transit	Total
Short Term (2026-2035)				
Medium Term (2036-2041)				
Long Term (2041-2051)				
Total				

The costs provided reflect estimates only and will vary subject to more detailed studies and potential property acquisitions required for construction. The cost estimates are also subject to the following caveats and assumptions:

- Phasing of projects were categorized under the short (by 2035), medium (by 2041), and long (by 2051) term, based on the anticipation of existing and future needs. However, timelines may vary depending on subsequent studies or further assessment and to help balance capital costs and funding strategies.
- The costs shown are incurred by the town only. For studies or projects that require collaboration with and / or approval from the Region, MTO and / or Metrolinx, it is assumed that a cost sharing agreement will be established based on jurisdictional ownership of the infrastructure proposed for improvement. Similarly, any infrastructural improvements triggered by growth will allow the town to recover some costs through development charges.
- Studies may trigger further improvements that will need to be costed and budgeted.

- Active transportation costs were estimated based on the proposed network. It includes a preliminary recommended route type based on corridor characteristics and road user needs. These routes, however, will need to be 'ground proofed' to confirm cost and environmental feasibility and to confirm the appropriate facility type.

7.4.2 Maintenance and Operating Cost Implications (TBD)

7.5 Key Performance Indicators

The key performance indicators (KPIs) help monitor the town's transportation services, infrastructure, and programs. These indicators can be used to identify issues in the town's services following the transportation master plan, so that improvements can be made to better service the residents. Table 7-17 summarizes the KPIs for the proposed streets, active transportation, transit, and transportation demand management projects developed through the transportation master plan.

The performance metric are qualitative and quantitative ways to track progress and evaluate the effectiveness and success of the transportation master plan. The corresponding targets of each performance metric are used to measure the success of the plan. Each metric should be monitored with each update (assumed to be every five years) to the transportation master plan.

Table 7-17: Key Performance Indicators Summary

Performance Metric	Indicator of Success	Target	Data Collection Method
Streets			
Average trip length		Reduce average trip length by 5% for Light-Duty Vehicles to support climate change objectives by 2041.	Statistics Canada Transportation Tomorrow Survey
Use of electric vehicles		Increase electric share of light-duty vehicles to 30% and heavy-duty vehicles to 10% to support climate change objectives by 2041.	Provincial vehicle registration databases
Efficiency of vehicles		Increase efficiency of gas / diesel vehicles by 36% and electric vehicles by 20% to support climate change objectives by 2041.	Natural Resources Canada (NRCan) and Open Government Portal (OGP) have fuel efficiency reports and tools
Active Transportation			
Percent of travel by walking and cycling		Increase the share of passenger kilometers traveled (PKT) by walking	Transportation Tomorrow Survey

Performance Metric	Indicator of Success	Target	Data Collection Method
		and cycling to 10% to support climate change objectives by 2041.	
Bicycle counts in vicinity of transit stop or station	↑	Increase bicycle trips near transit stops / stations by 20% by 2051 to support sustainable modes and mode integration.	Cycling counts
Stop / station-level bicycle boarding/alighting	↑	Achieve a 20% increase in bicycle boarding/alighting by 2051 to support sustainable modes and mode integration.	Oakville Transit, Metrolinx
User patterns and perceptions	-	Ongoing monitoring and adjustments required based on public feedback	Municipal user surveys Community engagement reports
Bike mode share in the vicinity (zone) of transit stops	↑	Increase bike mode share in the zone of Oakville Transit bus stops and care-A-van and on-demand transit services by 20% by 2051 to support sustainable modes and mode integration.	Transportation Tomorrow Survey
Bike parking utilization	↑	Achieve 50% utilization rate for public bike parking facilities by 2041 to support sustainable modes	Bike counts / surveys
Number of new sign-ups and / or renewals for secure bike parking facilities	↑	Increase new sign-ups / renewals for secure bike parking by 40% by 2051 to support sustainable modes.	Municipal records
Public interest in bike / transit websites	↑	Increase town website visits related to bike / transit access by 50% by 2041 to support sustainable modes and mode integration.	Website analytics
Transit			
Trips by bus	↑	Increase the share of passenger kilometers traveled (PKT) by bus to 10% to support climate change objectives by 2041.	Oakville Transit, CUTA Canadian Conventional Transit Statistics
Trips by GO Train	↑	Increase the share of PKT by GO Train by 15% to support climate change objectives by 2041.	Metrolinx
Transportation Demand Management			
Mode shares	↑	Increase the non-auto mode share to 31% for the weekday peak period by	Transportation Tomorrow Survey

Performance Metric	Indicator of Success	Target	Data Collection Method
		2051 to support mode share objectives and sustainable travel.	
Number of community engagement activities (e.g., bike workshops, commuter program websites)		Increase the number of community engagement activities by 30% by 2041 to support sustainable mode shifts.	Municipal records, website analytics
Smart Commute Halton Municipalities utilization		Increase Smart Commute Halton Municipalities membership by 50% by 2051 to support sustainable mode shifts.	Smart Commute program records

Note: The streets, active transportation and transit key performance indicators may also be used to measure the success of the transportation demand management (TDM) initiatives.

8.0 Conclusion

The Oakville Transportation Master Plan update outlines a long-term strategy that integrates infrastructure, services, and policies to accommodate future growth. It presents a transportation system that responds to this growth in a way that is environmentally, operationally, and financially sustainable.

The plan highlights long-term transportation system needs and offers a comprehensive recommendation based on the transportation master plan's vision and goals, while also considering the town's policy objectives. It was developed in coordination with ongoing plans, including the Midtown Oakville Transportation Plan and Halton Region's Integrated Master Plan.

Future transportation needs were evaluated across all modes of mobility, focusing on policy goals related to transportation efficiency, equity, and environmental sustainability. Various alternative strategies were explored, focusing on solutions that prioritize travel within, between and beyond the town. Considering the scale of planned growth, climate change commitments and public input, a combination of alternatives was identified as the preferred solution.