The Corporation of the Town of Milton

Report To:	Council
From:	Barbara Koopmans, Commissioner, Development Services
Date:	August 24, 2020
Report No:	DS-028-20
Subject:	Milton Mobility Hub Study
Recommendation:	**THAT the Milton Mobility Hub Study, dated May 2020, attached as Appendix A to Report DS-028-20 be received;** **AND THAT Staff prepare a Policy Directions Report regarding the study for Council's consideration at a subsequent meeting.** **AND THAT a Notice of Study Completion for the Area Transportation Plan be issued to initiate a 30-day review period, in accordance with the requirements for a Municipal Class Environmental Assessment.**

EXECUTIVE SUMMARY

This report presents the 'Milton Mobility Hub Study' (The Study), for information and discussion only. Based on The Study, Staff will prepare a Policy Directions Report for Council's consideration at a subsequent meeting. Secondary and other planning processes will follow.

The Study makes important recommendations to shape the 'uptown' core of Milton. It focuses on the area within a 10-minute walk from Milton GO Station. This area is a major civic destination. It has tremendous potential for transit supportive development and enhancement of the public realm.

Consideration of the Study findings is timely. The area is already transforming. With several higher density residential developments either built, under construction, approved or in planning stages. As this transformation gathers pace, a new framework is necessary. This framework will ensure that development is coordinated to create a livable and walkable neighbourhood.

The recommended planning framework provides flexibility for many approaches. Implementation of the plan to full build-out will likely take place over a period of at least 30 years. As such, it will be very different to the growth Milton has experienced in the greenfields.

The Study includes a Demonstration Plan to show one way that the area may ultimately develop. The Study Area may not develop in quite the manner illustrated in the Demonstration Plan. Nevertheless, it illustrates the scale of development required to achieve the density target mandated by the Province.

Although the Study presents a vision which may ultimately be optimal for the area, implementation of its findings will need to consider the realities Milton faces from service demand and budgetary perspectives. Financial impacts were not fully evaluated at this level of study. Through secondary planning or other processes, Staff will assess any variation to the service levels and the related financial implications.

REPORT

Background

In 2017, Regional Council agreed to fund studies of the area around the Milton GO Station (PW-03-17/LPS-13-17). Town Council awarded the contract for The Study at its meeting on April 9, 2018 (PD-017-18).

The Study Team are R.E.Millward & Associates Ltd with Sajecki Planning Inc. (Planning); DTAH (Urban Design); WSP (Transportation and Servicing); N. Barry Lyons Consultants Ltd. (Land Economics); and, LURA Consulting (Community Engagement).

Discussion

WHAT IS A MOBILITY HUB?

Metrolinx identified Mobility Hubs in its Regional Transportation Plan: 'The Big Move' (2008). Mobility Hubs integrate transit, active transportation and intensification. Intensification at stations is important to support two-way, all-day ridership on GO Regional Express Rail service.

WHY A MOBILITY HUB STUDY?

Milton’s Mobility Hub is changing. Extensive parking lots and low-rise commercial buildings dominated the area. Very few people lived here. More recently, the area has experienced an uptick in development and investment. As this change gains pace, Milton

needs a local planning framework that is fit for purpose. Otherwise, intensification will continue in a disjointed and haphazard way. The Study provides the necessary guidance and recommendations for a new planning framework.

WHERE IS THE MOBILITY HUB STUDY AREA?

The Study focused on the area around the Milton GO Major Transit Station Area (MTSA) - see Figure 1 below.

Figure 1: Milton Mobility Hub Study Area(Data Sources: Halton Region, 2015; Town of Milton, 2018; Ontario Open Data, 2018)

The Province defines an MTSA as the area within 500 to 800 metres of a station, about a 10-minute walk. Analysis of existing conditions, opportunities and constraints informed the delineation of detailed boundaries for the Milton Mobility Hub.

As shown on Figure 1, the Study Area has three parts:

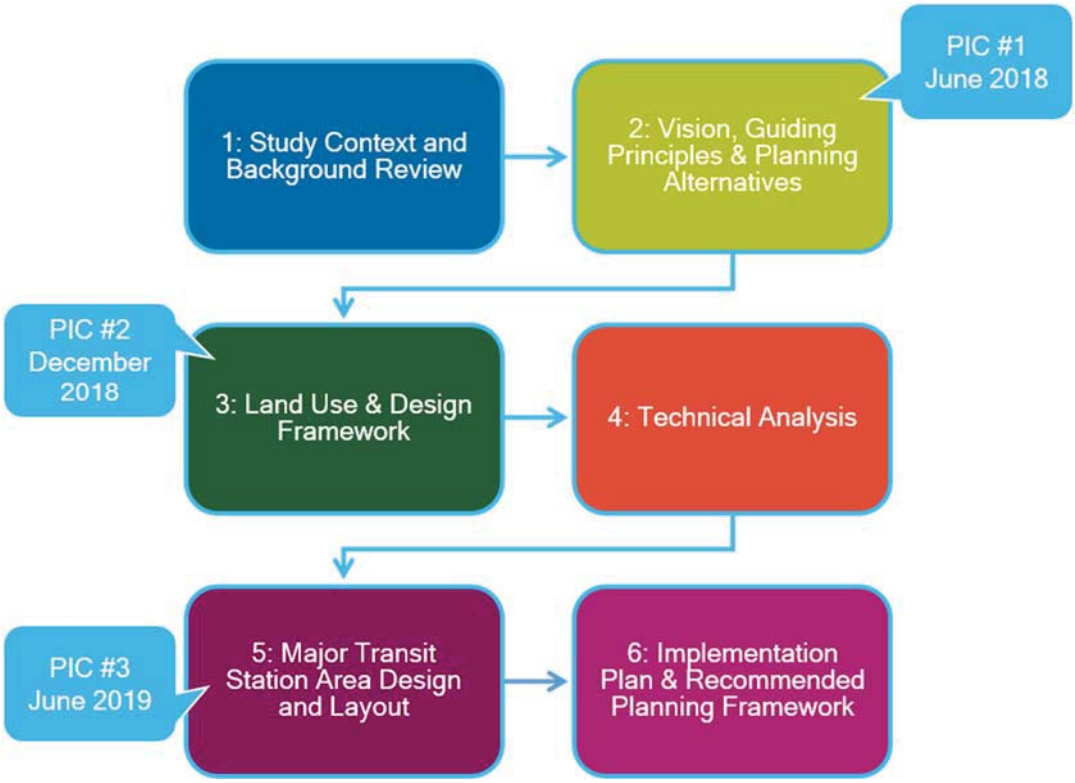
1. The Primary Zone is the area closest to the Milton GO Station (planned location). It is wholly within the Downtown Milton Urban Growth Centre (UGC). This Zone includes three major properties: the Milton Mall; Metrolinx; and Milton Commons. As such, it is the area with the most potential for intensification.

2. The Secondary Zone forms a belt around the Primary Zone. Here, redevelopment opportunities transition down in scale towards the surrounding neighbourhoods. It covers the rest of the developable UGC, outside the floodplain and areas of heritage value.

3. The Tertiary Zone has little potential for intensification. However, it offers opportunities to enhance first and last mile connections and amenities.

WHAT WAS THE STUDY PROCESS?

Figure 2 below illustrates the Study Process.



Town staff, Regional agencies, Metrolinx, other landowners and the general public provided inputs. For details of the community consultation, please refer to Section 3.4 and Appendix H of the Study.

WHAT ARE THE KEY FINDINGS AND RECOMMENDATIONS?

The Study provides recommendations for the long-term development of the Milton Mobility Hub. Key takeaways are set out below:

Intensification

A primary goal for Milton's Mobility Hub is to achieve the density target for the Downtown Milton Urban Growth Centre (UGC). The Growth Plan prescribes a density target for the UGC of at least 200 people (residents and jobs) per hectare, by 2031 or earlier. The existing density in the Downtown Milton UGC is about 40 people per hectare. The density target is measured across all lands within the UGC. The lands within the Downtown Milton UGC amount to a total area of 137 hectares. This equates to a UGC population target of at least 27,400 (i.e. 137 multiplied by 200).

West of Ontario Street, the floodplain and built heritage limit opportunities for growth in the UGC. The estimated existing population of residents and jobs in this area is 1,600 (approx.). Intensification is not expected to occur in this part of the UGC outside the Mobility Hub. As such, the target population for the part of the UGC within the Mobility Hub

is about 25,800 (i.e. 27,400 less 1,600) residents and jobs, by 2031. The part of the UGC identified as Mobility Hub has a land area of 105 hectares. Therefore, the target population density for the MTSA is 245 residents and jobs per hectare (i.e. 25,800 divided by 105).

The Study includes a Demonstration Plan. The Demonstration Plan is for illustrative and testing purposes only. It is not the only potential outcome of the recommendations. The recommended planning framework provides flexibility for many approaches. Implementation of the plan to full build-out will likely take place over a period of at least 30 years. The Study Area may not develop in quite the manner illustrated in the Demonstration Plan. Nevertheless, it gives some idea of the scale of development required to achieve the Provincially mandated density target.

The Study found that the area may eventually (beyond 2050) accommodate 25,114 residents with 4,137 jobs. The population projections are not an exact science. As mentioned above, this area will take decades to build out fully. Initial projections were based on early modelling and analysis. These were further refined through the Demonstration Plan, which illustrates just one way that the area might build out over time. Many different factors will influence the actual numbers and the proportion of people living or working in the area.

Character and Built Form

The Study divides the Primary and Secondary Zones into five sub-areas, or 'Precincts'. Each 'Precinct' would have a distinct character and built form. The five 'Precincts' are:

1. Main Street East
2. Station Precinct
3. Ontario Corridor
4. Thompson Corridor
5. Transitional Area

Main Street East

The Region has identified Main Street East as a Mobility Link (bus priority in mixed traffic). Recommended improvements include queue jump lanes and priority signals for buses.

A mid-rise built form would predominate along Main Street East. To frame views of the Escarpment, buildings would be set back from the public right of way. On the south side, the tower portion of taller buildings would be further stepped back from the building base.

At street level, active uses and building entries would give life to the sidewalks. Street trees, wide sidewalks, benches and patios would add to the pedestrian experience. Piazzas would mark key nodes at Thompson Road, Ontario Street and Drew Centre.

Station Precinct

Metrolinx identified Milton GO Station as an "Anchor Hub". Anchor Hubs have strategic importance due to their relationship with UGCs. They have significant potential to attract and accommodate new growth and development.

The Station is a major civic destination and a focal point for the Town. The Study found that the tallest buildings should be along the rail corridor. Especially around the Station itself. Here, tall buildings would not impose on the main thoroughfares or surrounding neighbourhoods.

A network of connections would provide physical and visual links to station plazas. These connections include pedestrian retail streets. The station plazas would become centres of activity and gathering places. As such, a true hub of the community.

Ontario Corridor
Ontario Street is a planned Regional bus priority route. Recommended improvements include bus lanes and bus priority signals.

Two major opportunities influence the recommended character for Ontario Street. The Region's masterplan for the Allendale campus already envisages a mid-rise built form. For the Milton Mall, the Study suggests that buildings step-up in height. Taller, landmark buildings being at the Main Street intersection. The Study identifies this intersection as a "gateway" to the Mobility Hub.

Landscape setbacks and active frontages would characterize the street. Setbacks would make room for street trees, patios and other public realm improvements. Wider sidewalks, protected cycle lanes and safer crossings would benefit pedestrians and cyclists.

Thompson Corridor
Like Ontario Street, the Study recommends an enhanced pubic realm for Thompson Road. Thompson is an important interface with Lions Park. Connections from the Park to the Station Precinct would have a green character. Improved pedestrian crossings would provide safer access to the park, school and library.

The Main Street intersection forms another "gateway". Significant buildings and features would set off the library and its pedestrian forecourt. These features would highlight the sense of entry to the Mobility Hub.

On the west side of Thompson Road, building podiums would form a mid-rise character. The tallest buildings would be at Drew Center, by the rail corridor. Heights would step down towards Main Street and towards the south.

Transitional Areas

The Transitional Areas would blend with the nearby residential neighbourhoods. Lower rise buildings would provide a sensitive transition to adjacent homes. Opportunities to thread connections through to surrounding streets would improve walkability.

Urban Greening and Publicly Accessible Open Space

To make the Mobility Hub a better place to live and do business, the study identifies opportunities for urban greening. There is a particular interest in more greenery in the area to improve air quality and adapt to climate change.

The distribution of publicly accessible open spaces is conceptualized in the Demonstration Plan. It is based on earlier analysis and consultation around two options. The principle is to create a chain of open spaces throughout the area. This chain of publicly accessible spaces would add greenery and offer breaks in the urban environment for people to gather. The Study team used a 10% rule of thumb to determine the amount of public open space.

The priority will be to deliver developer funded and privately owned public space in the near term. The delivery of Town owned parks, whether within or outside the Study Area would be in accordance with the Town's policies in effect at the time.

Transportation

Integrating transportation and land use is a key feature of Mobility Hub planning. UGCs should accommodate and support regional transit by providing connecting points. While MTSAs should support transit and multi-modal access to stations and nearby destinations. The aim is to improve modal choice for people living within walking distance of the transit hub.

The recommended planning framework supports a gradual transformation to a walkable uptown destination. This will in turn stimulate investment in facilities and services, including regional transit.

The Study recommends ways to offer more access choices and to make the area more walkable. Recommended improvements include:

- creating a more porous network of complete streets and mid-block connections;
- re-imagining Main Street East as a pedestrian friendly, tree-lined boulevard with transit priority;
- configuring Nipissing Road so it becomes a more direct link to Ontario Street South.

The Study's recommendations aim to make it easier to walk, cycle or use transit. Without such moves, car dependency and congestion will worsen as the town grows. Auto-oriented sites, with a lot of parking, may only redevelop in full once the shift to less car use occurs.

The biggest contributor to peak hour single occupancy car trips is the GO Station itself. Metrolinx' Station Access Plan and the changes recommended by The Study will ease some access difficulties. The Town is currently advocating for a second GO Station near the intersection of Derry Road and Trafalgar Road. If built, this station will likely be the preference for many park and ride commuters, while the existing station will become a better choice for access by other ways of travel.

Servicing

As noted, the Demonstration Plan represents the highest and best use of the area consistent with achieving the target density and other transit supportive planning and design objectives. In this higher density urban context, land extensive stormwater management (SWM) ponds may inhibit or prejudice meeting those objectives. For this reason, the Servicing Report lists sustainable urban drainages systems that could potentially be used, such as wet ponds, super pipes, underground storage & low impact development standards (LIDSs). The Town typically does not support super pipes or underground storage. Therefore, the preferred approach will be determined at detailed design when site information, such as ground conditions and site grading, will be available to determine the most feasible solution.

Implementation

Study recommendations for implementation include the following:

- Early Solutions and Interventions
- Area Specific Plans and Policies
- Zoning Updates
- Urban Design Guidelines and Built Form Performance Standards
- Alternative Town Standards
- Other Programs and Incentives (including Partnerships)
- Phasing and Finance

Early Solutions and Interventions
The Study identifies several ways to get quick wins and test possible improvements. The promotion of quick, cost-effective and easy wins would need a coordinated effort. This may involve partnership working between public and private sectors. A joined up approach could look at existing programs, budgets and resources. Then it could consider how they best align with the Study recommendations.

Area Specific Plans and Policies

The Study recommends a new Milton Mobility Hub Secondary Plan. The Secondary Plan would establish permitted uses, densities, heights and other requirements. However, unlike other such Plans, it would chart the course for a gradual evolution over the decades. Therefore, it needs to set a clear place-making vision, while also being a pro-active, flexible and innovative Plan.

The Study also recommends consideration of a Community Improvement Plan (CIP). The primary goals of a CIP would be to:

- direct investments in infrastructure and facilities that support mixed use intensification;
- coordinate public realm improvement projects;
- enhance economic development opportunities; and,
- promote land assembly and site remediation.

Halton Region staff support the Town bringing forward an official plan amendment with a policy framework to address the development pressures on the Mobility Hub lands that are within the Town's Urban Growth Centre. The planning horizon for this would to 2031. The Region would review the amendment to ensure conformity with the current in effect ROPA 38 and Provincial Plans. This would represent an interim position pending the Regional Municipal Comprehensive Review.

Zoning Updates

The Study also notes the need to update the Zoning By-Law in line with the proposed Secondary Plan. Zoning updates may include:

- prescribed development densities;
- building heights, setbacks and step-backs;
- permitted uses; and,
- alternative parking standards.

Staff may also consider recommending a Community Planning Permit System (CPPS). The CPPS provides an alternative to the current planning approval process. It combines Zoning By-law Amendments, Minor Variances, and Site Plans, into one process. A CPPS identifies permitted uses and development standards like a Zoning By-Law. However, a CPPS can also set built-form standards with extra conditions for varying from them. Conditions might include infrastructure requirements, community benefits, and environmental impact mitigation among others.

Urban Design Guidelines and Built Form Performance Standards

The Study recommends the adoption of Urban Design Guidelines. Recommended Urban Design Guidelines form part of the Study. The Study also recommends built form performance standards for transit oriented development.

Alternative Town Standards
Regional policy requires alternative design standards for Arterial Roads through intensification areas. These would maintain the function of the road. However, the standards would also promote transit, walking and cycling facilities. The Urban Design Guidelines provide guidance for alternative road standards.

Regional policy also encourages lower parking standards to promote active transportation and transit.

The Official Plan sets parkland standards for the Town as a whole. The Study recommends consideration of a new parkland dedication rate for intensification areas. The Town would need to conduct a separate study to determine an appropriate approach. Informal urban spaces are not currently classed as active parkland as required by the Town's standards. Therefore, parkland would be below Town standards in the Mobility Hub. To maintain current standards, the Town would need to make up the deficit outside the Study Area.

Other Programs and Incentives (including Partnerships)
Through the Study and associated projects, Staff has developed a good rapport and working relationships with major landowners and stakeholders such as Metrolinx. Moving forwards it will be important for the Town to foster partnerships with key stakeholders to deliver transit supportive developments and community benefits.

Phasing and Finance
As the Mobility Hub continues to absorb more growth, consideration will need to be given to the level of municipal investment required to manage the resulting impacts and to support a reasonable quality of life for people living and working in and around the area. To some extent, these costs will be offset by an uplift in property values and revenue from property assessment.

A financial impact analysis will be undertaken as part of a future Secondary Plan process. The Milton Mobility Hub Study report will be used as a supporting study in the development of the Town's development charge background study and fiscal impact analysis. As such, the study provides a high-level estimate of the capital costs associated with growth. The lifecycle and service delivery costs required to operationalize the infrastructure will also need to be considered prior to any construction or acquisition of such infrastructure.

It is worth noting that much of the infrastructure including roads, mid-block connections and pathways, and publicly accessible open spaces would be situated on private property. These elements would be developer funded and either privately owned and maintained as common elements of a condominium or assumed by the Town through developer agreements. The Study has already served to boost investment confidence in transit-

oriented development. As a result, Metrolinx and other major landowners have indicated a willingness to sponsor and implement key infrastructure projects.

Financial Impact

Consideration of the financial implications of development is essential in the management of growth to ensure Milton's long-term financial sustainability. The rate and pace of growth has a significant financial impact to the Town, as demonstrated through prior financial studies, the pressures identified through the annual budget process and the Town's existing infrastructure deficit. The most recent comprehensive fiscal impact study was presented to Council through CORS-062-17, and considered further growth in the Mobility Hub area. The study assumed the expansion of existing service levels to new growth areas. The results suggested that for the period 2017 to 2036 a town-wide capital investment of $2.0 billion would be required as well as an average annual tax rate increases of 5.26%.

The 5.26% projected tax rate increase is required to support overall growth in the community including existing secondary plan areas and is not necessarily reflective of the cost of growth specifically in the Mobility Hub. The densities and types of development within each secondary plan influence the financial pressures on the tax rates, as well as the capital investments and the extent of non-residential development activity that can occur concurrent with residential growth. Development of the Mobility Hub area can be expected to differ from the Town's past experience in greenfield areas and will take decades to progress.

As noted in the report above, further financial analyses of the Mobility Hub area will be undertaken through future planning processes where further detail is available. The Milton Mobility Hub Study report will also be used as a supporting study in the development of the Town's development charge background study and fiscal impact analysis.

Respectfully submitted,

Barbara Koopmans, MPA, MCIP, RPP, CMO
Commissioner, Development Services

For questions, please contact:	David Twigg, Senior Policy Planner	Phone: Ext. 2205

Attachments

Appendix A – Milton Mobility Hub Study – May 2020

CAO Approval
Andrew M. Siltala
Chief Administrative Officer

APPENDIX 1
DS-028-20

Milton Major Transit Station Area & Mobility Hub Study

Final Report | May 2020

Acknowledgments

Main Street East

Town of Milton

Region of Halton

Metrolinx

Halton Region Conservation Authority

Halton District School Board

Conseil Scolaire Viamonde

MonAvenir Catholic School Board

Milton Hydro

Union Gas

Canadian Pacific Railway

Halton Catholic District School Board

R.E. Millward + Associates Ltd.

Sajecki Planning Inc.

DTAH

WSP

LURA Consulting

N. Barry Lyons Consultants Ltd.

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Executive Summary

The Milton Mobility Hub (Mobility Hub) will be an innovative, transit-oriented and pedestrian-friendly vibrant destination where people can live, work and play. The Mobility Hub will include a mix of land uses and an engaging and animated public realm. Uses will complement and embrace the natural and historic character of nearby Downtown Milton while featuring design excellence throughout.

Introduction

The Milton GO Station and its surrounding area are designated as a Major Transit Station Area (MTSA) and Mobility Hub in the Regional Official Plan. Mobility hubs are places of connectivity with significant planned transit service and development potential.

The Milton Mobility Hub Study aims to guide the transformation of the Mobility Hub into a vibrant pedestrian-friendly, mixed use destination and focal point, providing a transportation hub for both locals and visitors.

The objectives of the Study are to:

- Establish a long-term vision for the redevelopment of the Milton GO Station and surrounding lands, with an emphasis on improving circulation while prioritizing active transportation;
- Ensure that intensification achieves provincially mandated density targets; and
- Provide direction related to land use and transportation policy, infrastructure investment, community facilities, urban design and public realm improvements, and implementation and phasing tools.

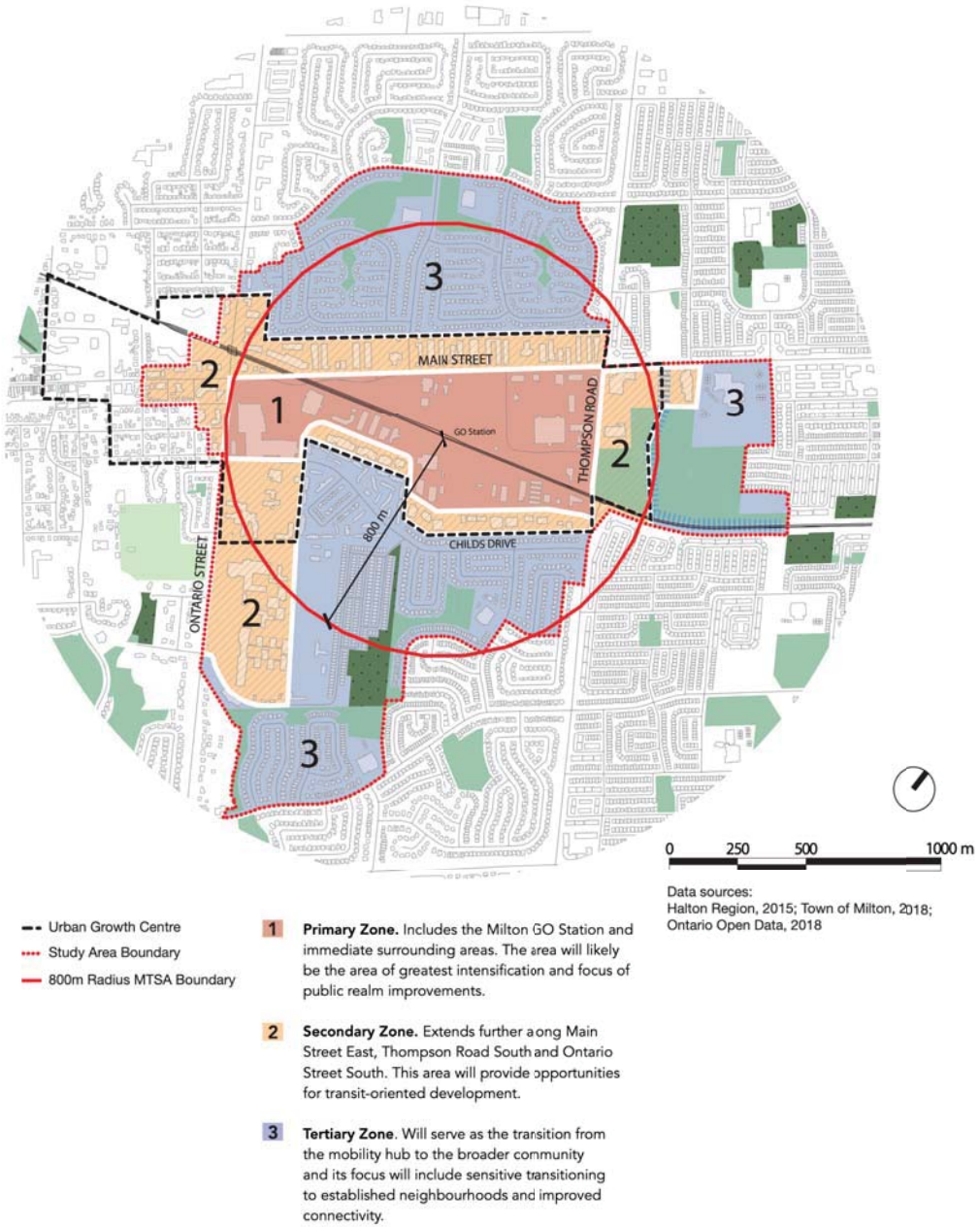


Figure 1: Milton Mobility Hub Study Area

Basis for the Plan

Study Area

The Mobility Hub Study Area includes a Primary, Secondary and Tertiary Zone as illustrated in Figure 1.

Policy Framework

The policy framework is supportive of mixed use intensification and transit-oriented development while giving priority to active transportation modes, pedestrian-oriented streetscapes and public realm improvements. Plans for the Mobility Hub are guided by provincial, regional and municipal policies and other relevant studies and master plans (refer to Section 2.3).

Market Overview

The Town of Milton is one of the fastest growing communities in Canada with its population more than tripling to 110,000 people since 2001. Milton's growth can in part be attributed to its strategic location in the Greater Golden Horseshoe midway between Toronto, Hamilton and Waterloo, its proximity to major employment centres such as Pearson International Airport, and its strong transportation linkages. Demand for high-density housing has grown in Milton due to declining affordablity in the low-density market and increasing demand from singles, seniors and empty nesters. For a comprehensive overview of the market analysis, refer to Section 2.5 of this Report and Appendix B - Market Brief.

Existing Conditions

The Study Area is generally bounded by Thompson Road to the east and Ontario Street to the west. Predominant building types include auto-oriented one- and two-storey retail and commercial buildings with large surface parking lots and low-rise stable residential neighbourhoods comprising the northern and southern Study Area boundaries.

A series of key opportunities for redevelopment were identified and have been summarized below (refer to Section 2.6 for additional details).

Connectivity

- Improve north-south connections across the rail corridor;
- Develop Main Street East as a mixed-use green corridor connecting the cultural district (east) to the historic downtown (west);
- Establish new streets and a finer-grain block structure that supports pedestrians, cyclists, public transit and privately-owned automobiles;

Built Form

- Plan for a mix of uses throughout the Study Area to support transit service;
- Encourage partnerships between Metrolinx and the development community to replace surface parking with compact, mixed use and transit-oriented developments;

- Plan for a mid-rise built form with active building frontages along Main Street East; and
- Improve the GO Station building and associated facilities.

Public Realm

- Provide infrastructure and modal separation to encourage safe pedestrian and cyclist movement;
- Improve green space connections through a network of privately owned public spaces (POPS);
- Enhance the public realm along Main Street East through widened sidewalks, cycling infrastructure and active building frontages; and
- Maintain and enhance views of the Escarpment, the future GO Station, Lions Sports Park, and other key destinations.

Transforming the Milton Mobility Hub

Development within the Mobility Hub will be informed by the following nine (9) Guiding Principles.

Seamless Mobility

1. Balanced, Safe and Efficient Mobility
2. Strong Visual and Physical Connectivity
3. Walkable, Inviting Streets and Publicly Accessible Open Spaces

Placemaking

4. Intensification at an Appropriate Scale and Form
5. Mix of Uses within the Primary and Secondary Zones
6. Design Excellence

Successful Implementation

7. Realistic and Achievable Plan for Growth
8. Strategic and Holistic Approach to Parking Supply
9. Partnerships and Innovative Solutions

Key Directions & Recommendations

Big Moves

Seven key directions for the Mobility Hub have been developed to support the creation of a complete community. These include:

1. Mixed-Use Mid-Rise Green Corridor (Main Street East)

Main Street East should serve as a green corridor prioritizing cyclists and pedestrians. Wider boulevards with trees, street furniture, wide sidewalks, space for patios, consistent paving treatment and ground floor activation will encourage pedestrian movement and activity. Mid-rise buildings along Main Street East should step back to promote a pedestrian scale and support sensitive transitions to residential neighbourhoods to the north.

2. Frame Views to the Escarpment and Throughout the Study Area

Important public views to the Niagara Escarpment should be framed through the appropriate siting of buildings. A network of streets, mid-block connections, open spaces and active transportation connections should provide strong visual and physical connectivity across the Study Area.

3. Focus Density Along the Rail Corridor

The highest intensity of uses should be located along the rail corridor. An enhanced public realm where Ontario Street, Thompson Road and Main Street East intersect with the rail corridor should be provided to improve north-south pedestrian connectivity.

4. Mixed-Use Intensification at an Appropriate Scale and Form

Intensification should be focused along the rail corridor, Main Street East and the existing Real Canadian Superstore and Milton Mall. Buildings along Main Street East should include active frontages.

5. Pedestrian-Focused Retail Street

A new east-west street is proposed north of the GO Station, connecting Drew Centre to Thompson Road. This pedestrian-focused retail street should feature special paving and be designed for enhanced flexibility for programming and activation for public use. Similarly, the new Nipissing Road extension through Milton Mall should be a pedestrian-focused retail street.

6. Bus Loop

The new bus loop should enhance connections to the GO Station facilitating safer, efficient pedestrian connections. The bus terminal and associated facilities should include weather-protection encouraging a comfortable passenger experience. Seamless connections should be provided including clear wayfinding and signage.

7. Public Realm Improvements Along Ontario Street and Thompson Road

Improvements to the public realm along Ontario Street and Thompson Road should include planters, landscaping (e.g. landscape buffers and street trees), street furniture, active transportation connections and flexible open spaces that can accommodate various types of temporary uses and programming (e.g., vendor stands, play areas, public art).

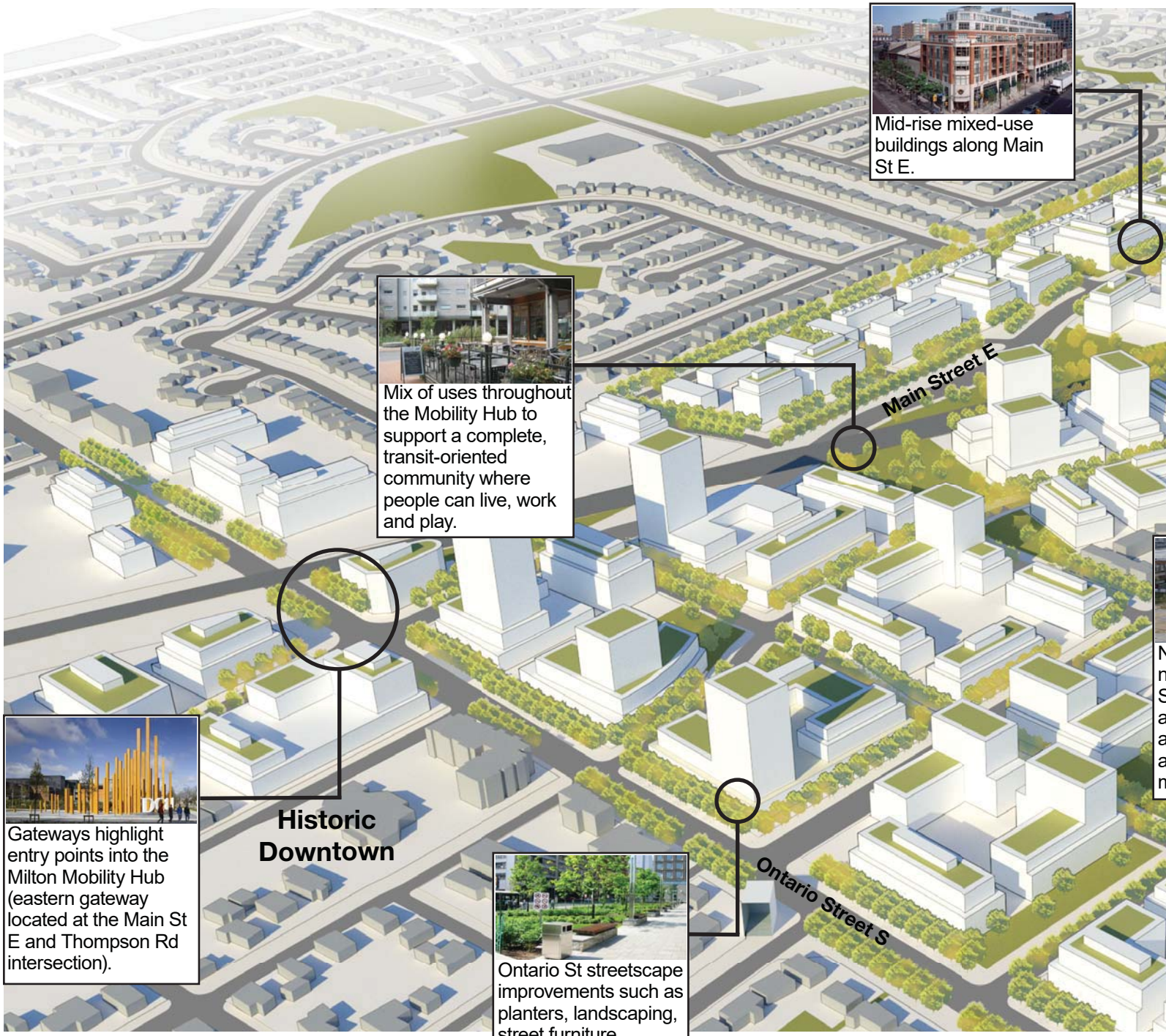
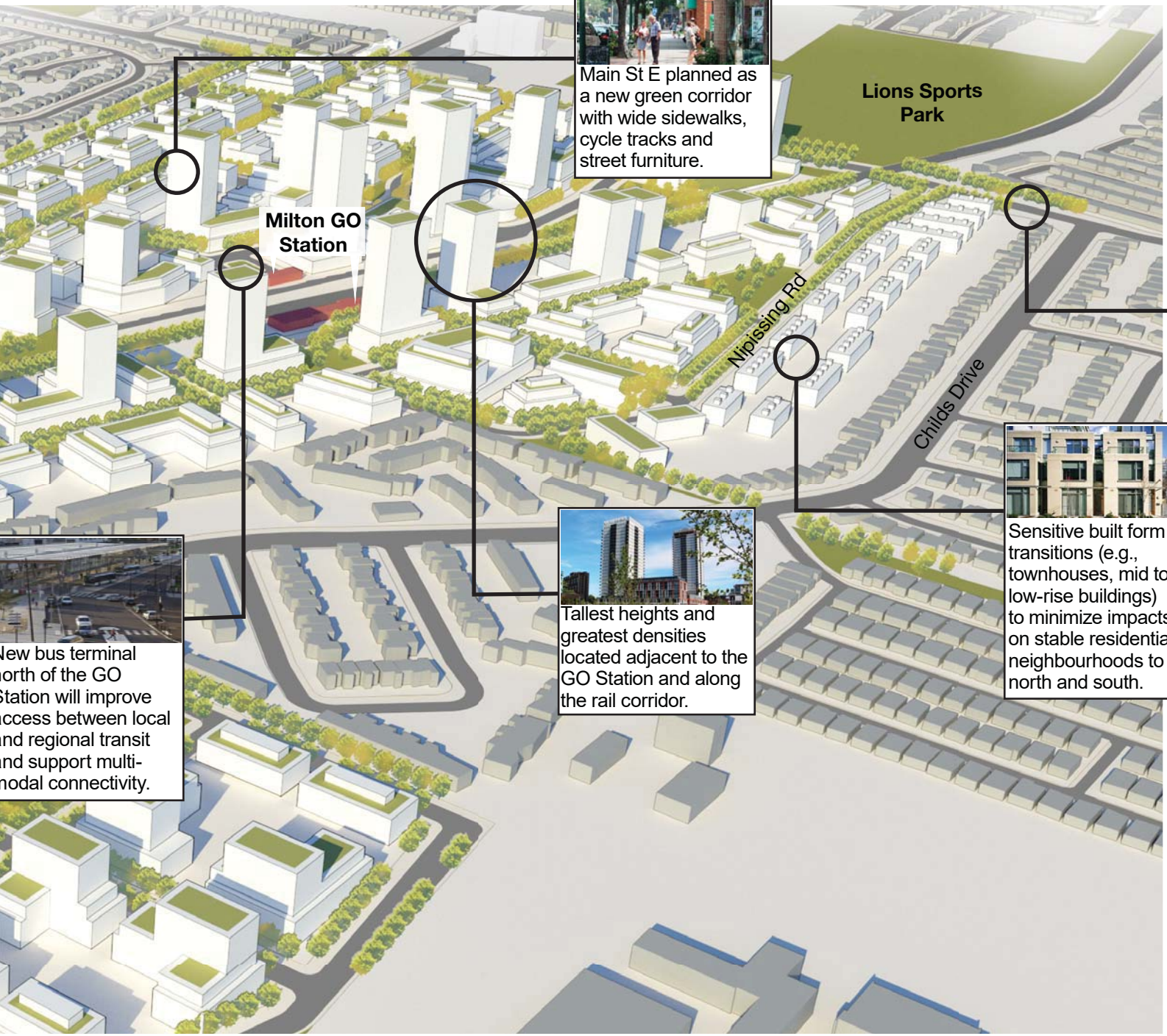


Figure 2: Demonstration Plan Summary



Main St E planned as a new green corridor with wide sidewalks, cycle tracks and street furniture.

Improvements to the streetscape on Thompson Rd include street planters, landscaping, street furniture, cycling and pedestrian connections, etc.

Sensitive built form transitions (e.g., townhouses, mid to low-rise buildings) to minimize impacts on stable residential neighbourhoods to the north and south.

Tallest heights and greatest densities located adjacent to the GO Station and along the rail corridor.

New bus terminal north of the GO Station will improve access between local and regional transit and support multi-modal connectivity.

Planning and Development Framework

The Planning and Development Framework provides direction for the following items:

1. Land Uses;
2. Streets and Blocks;
3. Transportation Network;
4. Publicly Accessible Open Spaces;
5. Building Heights; and
6. Density.

Land Uses

Land uses are predominantly mixed use with some institutional and residential only permissions (refer to Figure 3).

Streets and Blocks

The Planning and Development Framework reduces block sizes and increases the number of streets throughout the Study Area providing a finer-grain street network that improves permeability and connectivity (refer to Figure 4).

Publicly Accessible Open Spaces

The Planning and Development Framework includes a series of smaller publicly accessible open spaces north and south of the GO Station. Approximately 10 percent of the developable area will be dedicated to new publicly accessible open space. The intent is to develop an approach that is viable for development and supports the creation of a livable, walkable and sustainable neighbourhood. In addition, the Project Team has looked at ways to design streetscapes and the public realm so they function as public open space and linkages (refer to Figure 5).

Building Heights and Density

The tallest buildings are concentrated on the immediate north and south sides of the rail corridor. Tall buildings are also encouraged along the east side of Ontario Street and south of Main Street East. The intersection of Ontario Street and Main Street East is intended to serve as a gateway node into the Study Area.

Main Street East is envisioned as the spine of the Mobility Hub and a landmark street with wide sidewalks, street trees, store-front patios and active building frontages. Mid-rise buildings are permitted on the north side of Main Street East with low-rise townhouses along the Study Area's northern edge. Through a mix of mid- and low-rise buildings, the Secondary Zone provides a transition to established residential neighbourhoods.

At full build out, the planning and development framework as visualized in the Demonstration Plan has a projected density of 221 people and jobs per hectare in the Primary and Secondary Zones. This results in a total of 25,114 residents and 4,137 jobs.

Demonstration Plan

The Demonstration Plan represents one possible development scenario for the Study Area, based on the recommended planning and development framework (refer to Figures 2, 8 and 9). The Demonstration Plan is presented for illustrative purposes and is one of many potential outcomes of the Study recommendations.

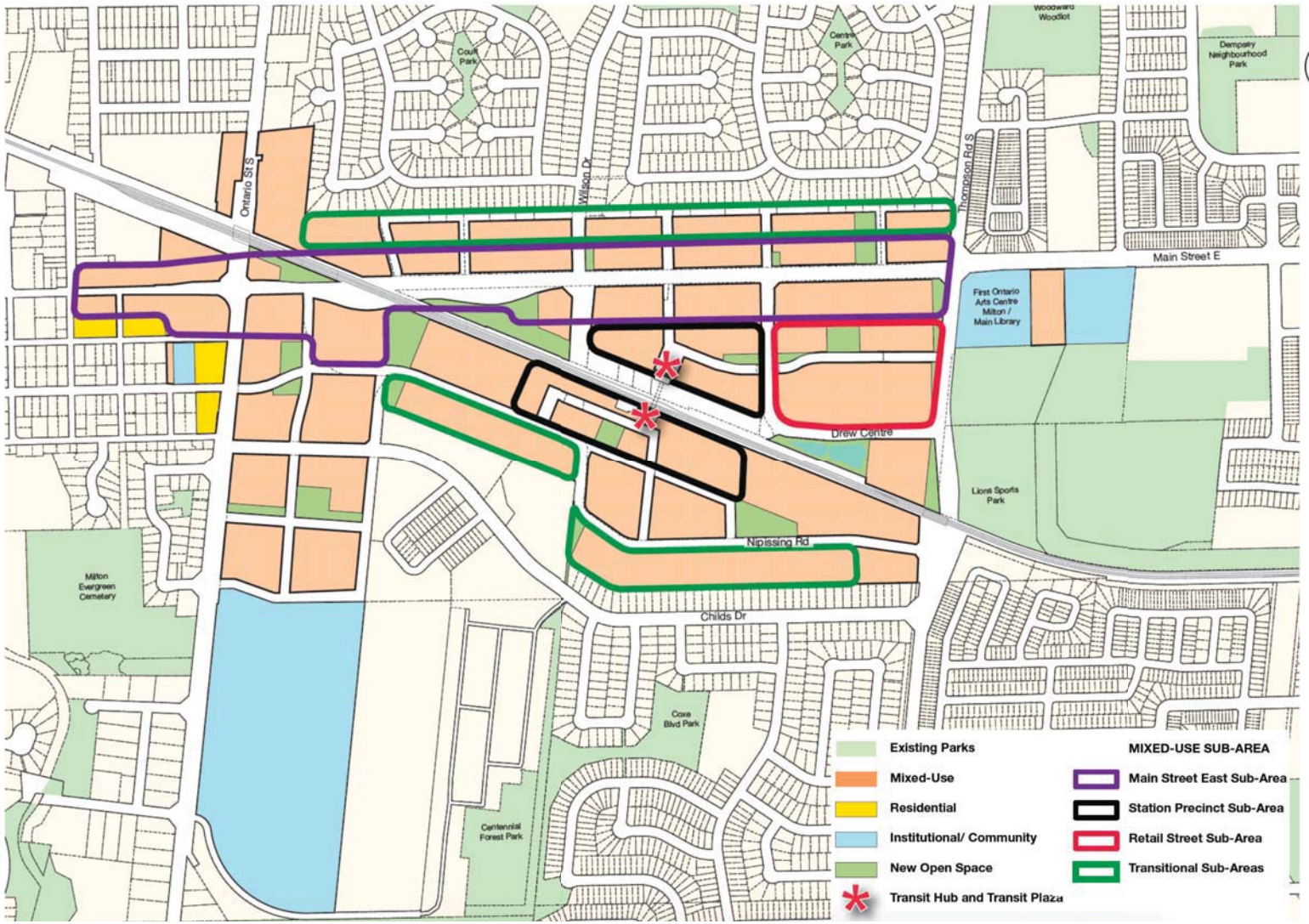


Figure 3: Land Uses

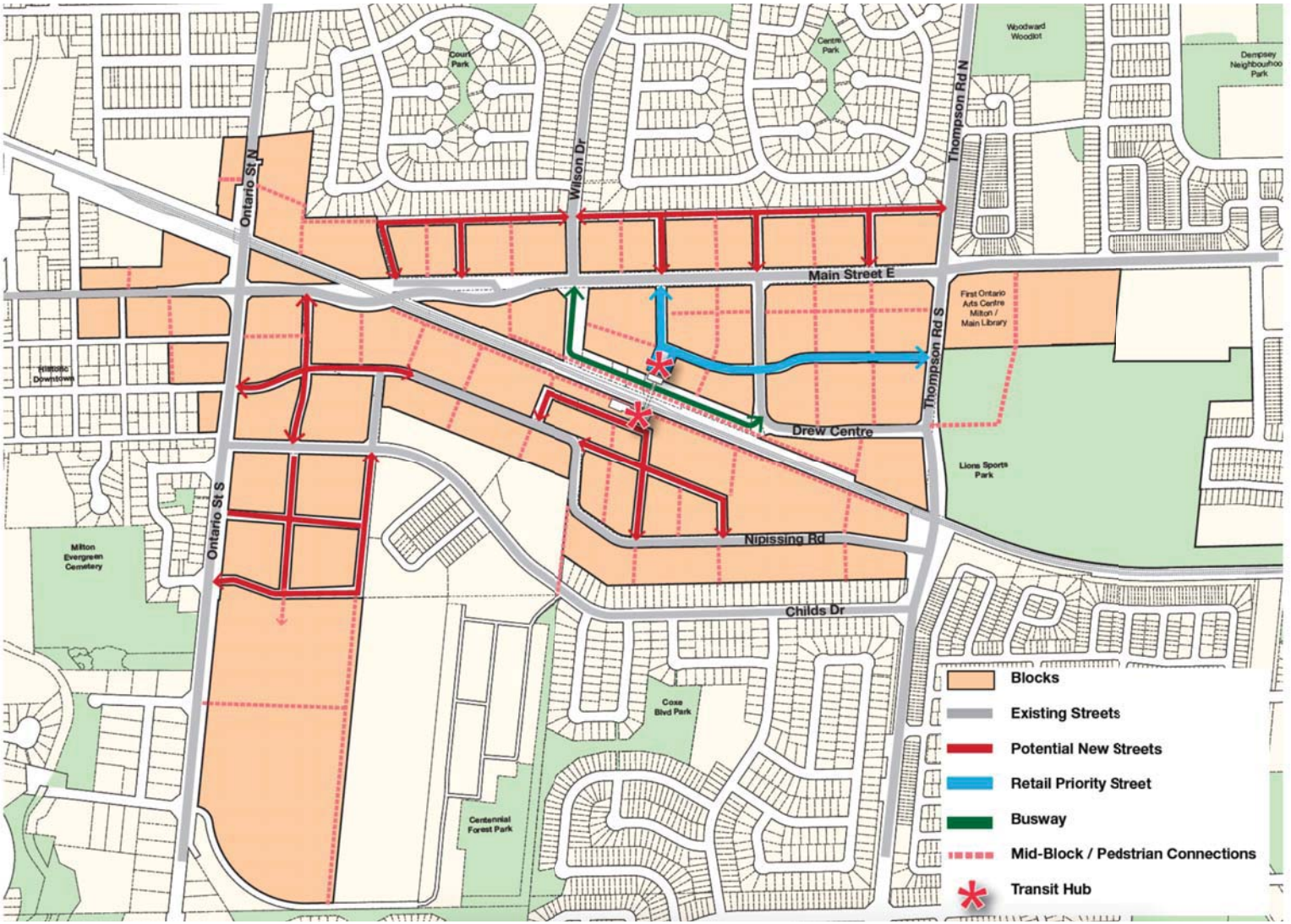


Figure 4: Streets and Blocks

Figure 5: Public Realm

* Potential Community Nodes are possible locations for community spaces, such as multipurpose spaces or schools.

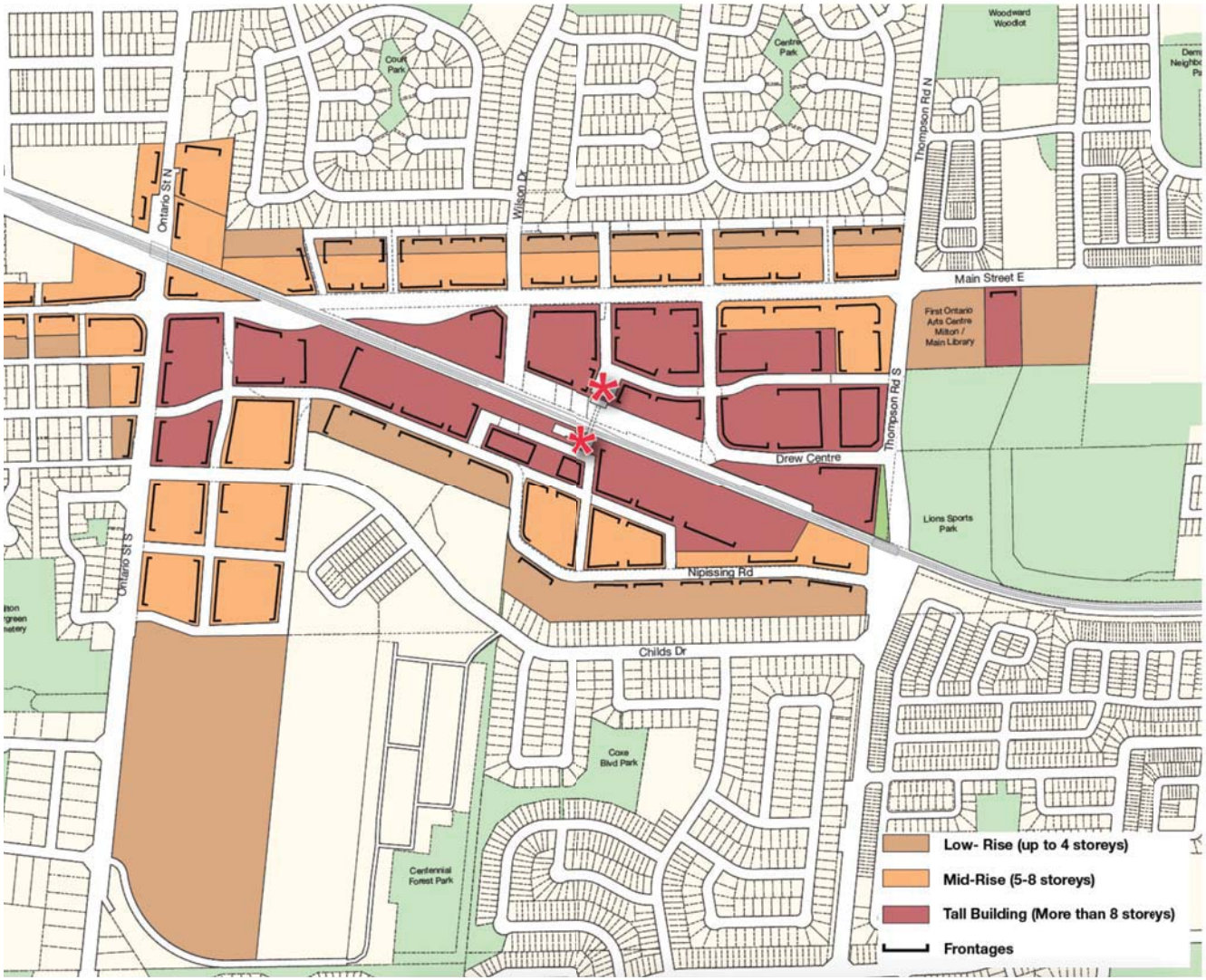


Figure 6: Building Heights

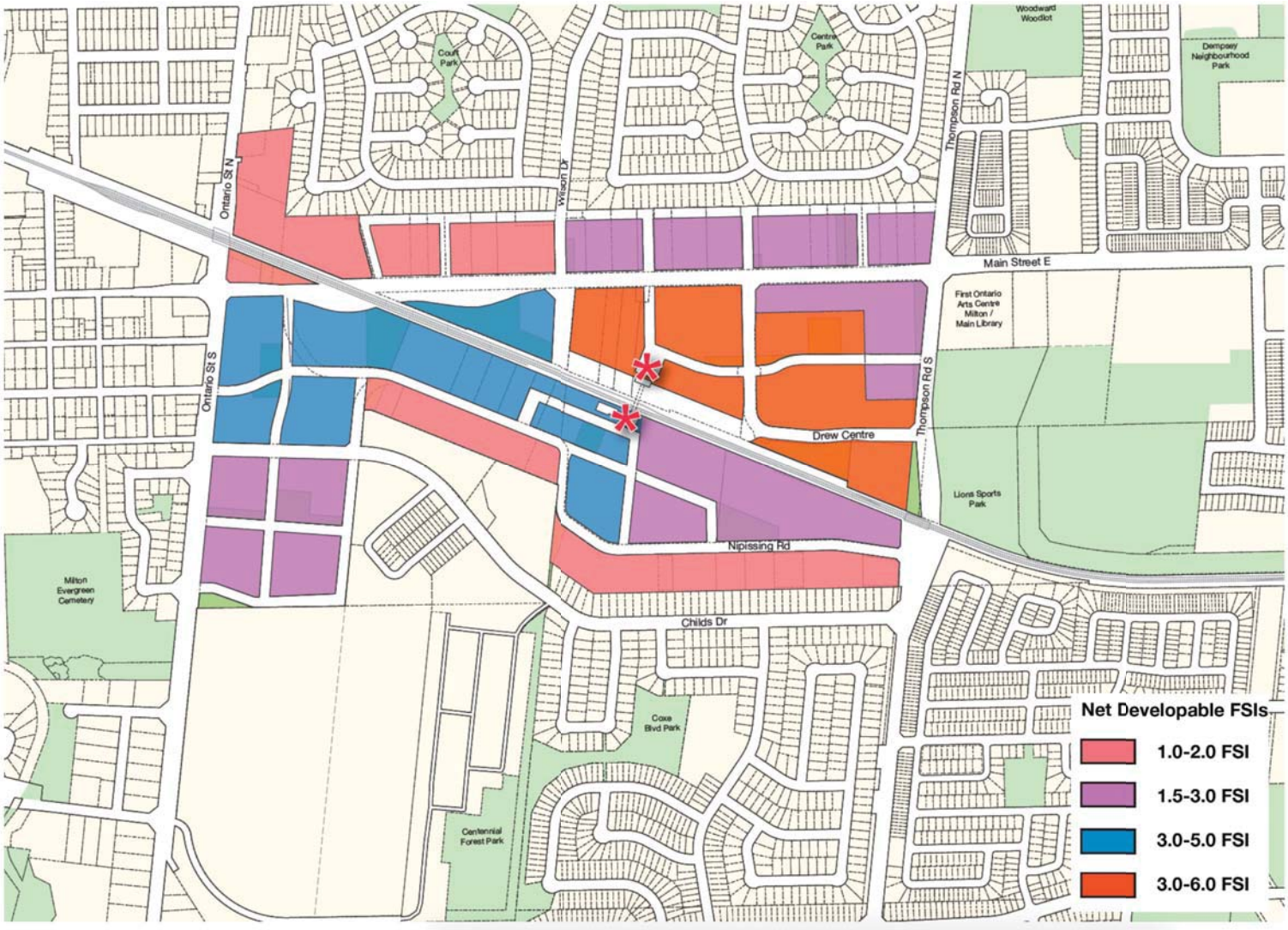


Figure 7: Density Framework

Figure 8: Demonstration Plan looking South West

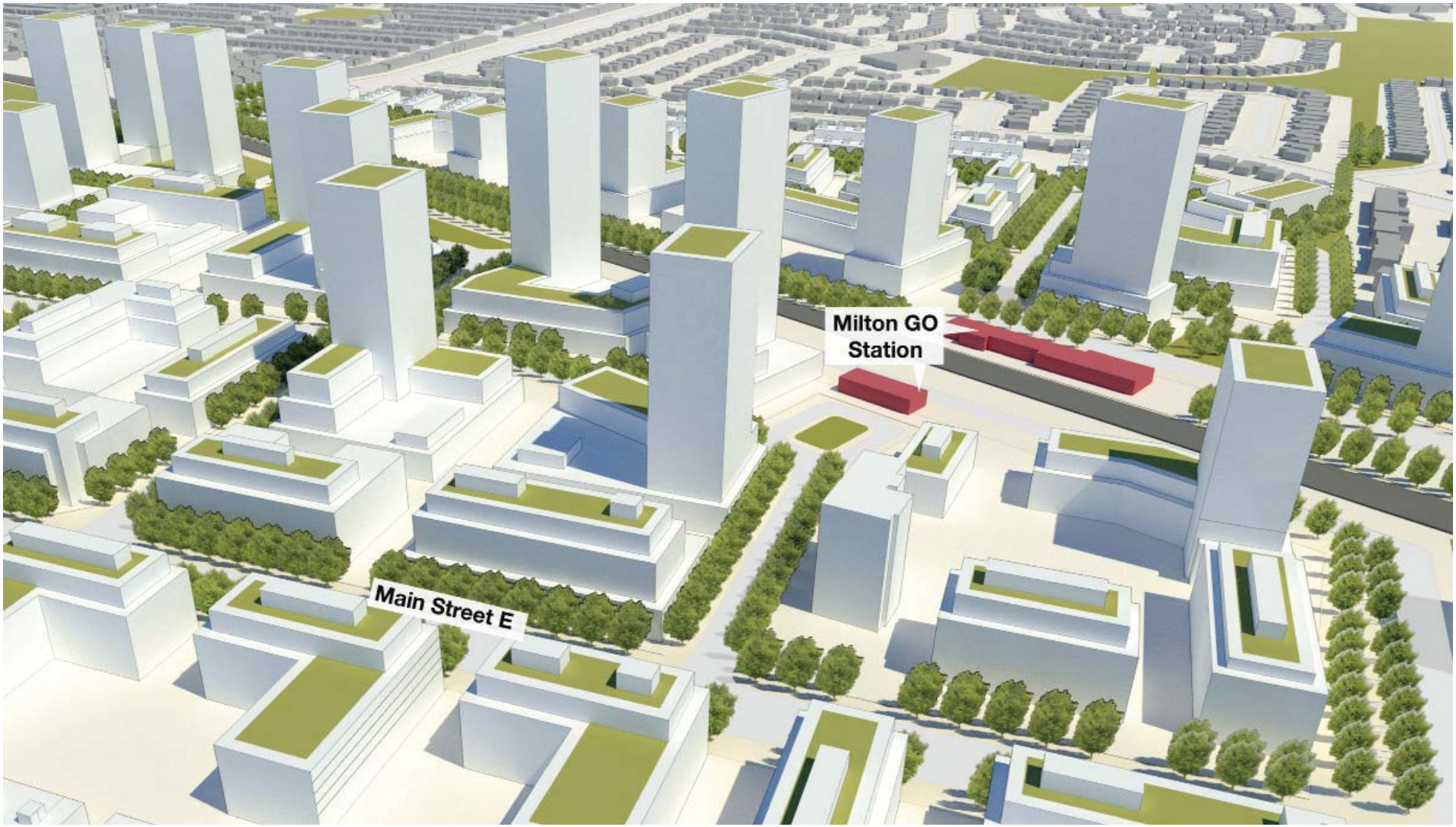


Figure 9: Demonstration Plan, Development around GO Station (looking South)

Phasing & Implementation

Phasing

Growth and development within the Mobility Hub is expected to occur over a period of 30 to 40 years. Proposed recommendations are intended to be implemented over short-term (0-5 years), medium-term (5-15 years) and long-term (15-30 years) timeframes. Table 1 identifies estimated projected population growth in the Mobility Hub in the short, medium and long-term.

The planning horizon as per the Growth Plan and the Regional Plan is to 2031 (roughly in line with the medium-term projection). Full build out is unlikely to be achieved within the 2031 timeframe.

General Timeline for Capital Improvements

Tables 2 to 5 outline the general timeline anticipated for capital improvements to the transportation network, servicing network, community services and facilities and public realm.

Transportation improvements are largely expected to be development-driven. The Town need not acquire property to build new roads or other facilities until development applications are received to redevelop lands. The requirement to build new roads will need to be determined before development applications are submitted.

Preliminary Cost Estimates (Capital Costs)

Preliminary cost estimates for the implementation of recommended transportation, servicing and community infrastructure improvements within the Mobility Hub are described in Section 5.3 of this report. Different levels of government including the Region and Town, as well as other actors (e.g. agencies, developers, non-profit organizations) are responsible for service delivery of infrastructure improvements. Infrastructure improvements are categorized into essential infrastructure required for the area to function such as roads, water, wastewater and stormwater; desirable infrastructure required to service an increased population such as community services and facilities and improved transit; and optional infrastructure that may or may not be required upon changing circumstances.

Implementation

Study recommendations can be implemented through a variety of methods including the planning and development application process (through tools such as site plan approval, plans of subdivision and condominium and consents to sever), and other methods as described in Section 5.4 of this report.

Recommended components of the implementation strategy include:

- **A Secondary Plan** to outline the goals and objectives, policies and implementation mechanisms specific to the Study Area;
- **A Zoning Update** to reflect the intended land use and built form direction for the Mobility Hub;
- **Built Form Objectives** to assist in identifying what requirements must be met in order for new buildings to achieve permitted FSIs;
- **Early Solution and Interventions** that can be achieved in the short-term to improve existing conditions and unlock the potential for sustainable growth in the Mobility Hub; and
- Other **Implementation Strategies and Considerations**, such as a monitoring program.

Table 1: Phasing - Projected Population and Jobs in the Mobility Hub Study Area (Primary and Secondary Zones)

	Short-Term: 0-5 years (2019-2024)	**Medium-Term: 6-15 years (2025-2034)**	**Long-Term: 16-30 years (2035-2049)**	**Full Build Out (expected 2055-2062)**
Population Increase (Residents)	750-1,250 (450-750 units)	4,180-5,010 (2,500-3,000 units)	9,018-13,527 (5,400-8,100 units)	5,327-11,166 (3,190-6,690 units)
Cumulative Population Increase (Residents)	750-1,250 (450-750 units)	4,930-6,260 (2,950-3,750 units)	13,948-19,787 (8,350-11,850 units)	25,114 (15,040 units)
Employment Increase (Jobs)	124-206	689-825	1,486-2,229	878-1,840
Cumulative Employment Increase (Jobs)	124-206	812-1,031	2,298-3,260	4,137
Cumulative Total	874-1,456	5,742-7,291	16,246-23,047	29,251

Table 2: Phasing Plan for Capital Improvements (Transportation)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
New Roadway Connections and Improvements		
GO Station Access (in progress)	Redevelopment of the Main Street GO facility includes the reconfiguration of parking lot layouts, bus loop and passenger pick-up/drop-offs	Short-Term
Proposed Streets (Secondary Plan, Metrolinx Plan, Regional Ontario Street Property Master Plan)	Extension of Drew Centre North, EW Street 2, EW Street 3 (i.e. Wilson Drive extension south), NS Street 5, Nipissing Road extension east, NS Street 2, EW Street 6	Mid-Term
Potential Public Streets	NS Street 3, NS Street 4, extension of street west of Thompson Nipissing Road Extension West and NS Street 1. The timing of these projects is to be coordinated with the redevelopment of the Milton Mall Site EW Street 1. Linked to redevelopment of Main Street frontage parcels. Any frontage property that redevelops will be required to provide 20m right-of-way allowance	Mid-Term Mid-Term Long-Term
Proposed Connections (Secondary Plan, Metrolinx Plan, Regional Ontario Street Property Master Plan)	Various connections within blocks north of Main Street, and within blocks south of Child's Drive and east on Ontario Street	Mid-Term
Proposed Connections (Streets, Paths, Mid-block Connections)	Various connections throughout the Study Area coordinated with redevelopment	Mid-Term
Proposed Signalized Intersection	Intersection of Nipissing extension and proposed NS Street 1 coordinated with the Nipissing Road Extension West	Mid-Term
GO Service		
GO Station (in progress)	Expanded GO Station building, additional parking, accessible connections to train and bus platforms, upgraded platforms and infrastructure to support future layovers of trains, improved pedestrian connections and bicycle storage	Short-Term
Service to Milton GO Rail Line (for further study)	Two-way all-day service or skip-stop service	Mid-Term
GO Station Stops (for further study)	Additional station stops along Milton GO Rail Line, particularly 'relief' stops east and west of Milton GO to act as alternative access/egress stations as the Town develops	Long-Term

Table 2 (cont'd): Phasing Plan for Capital Improvements (Transportation)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Public Transit		
Transit Stop Upgrades (for further study)	Shelters, next vehicle departure screens, garbage receptacles	Short-Term
Main Street East and Wilson Drive	Northbound bus-only left-turn lane with dedicated signal head and phase	Mid-Term
Other Surface Transit Priority Infrastructure (for further study)	Bus-only lanes on Drew Centre Transit-friendly curb radii	Mid-Term
Active Transportation		
Bicyle Lanes	Main Street from Wilson Drive to Thompson Road On-street bike route signage on Childs Drive Designated cycling facilities on collector and arterial roads Accommodation of cyclists in the same lane as vehicles on local roads	Short-Term
Multi-use Trails	The Wilson Drive Extension Ontario Street	Mid-Term
Related Infrastructure	Upgrade connectivity between existing active transportation network and publicly accessible open spaces through road redevelopment/boulevard repair Active transportation-only connections through blocks to enhance convenience of travel	Mid-Term
New Mobility		
New Mobility Options	Opportunity for development of new mobility options such as electric scooter or bike share programs, car sharing, ridesourcing/home-to-hub services via transportation network companies, demand responsive transit and automated vehicles	Mid-Term

Table 3: Phasing Plan for Capital Improvements (Servicing)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
New Stormwater and Waste Water Management Infrastructure and Improvements		
New Sewers	2.5 km of new sewer sections	Mid-Term
Upgraded Sewers	3 km of upgrades, with increase in diameter and/or slope of existing sewers at Nipissing Road and Childs Drive, Ontario Street, Evergreen Cemetery to Fulton Sewage Pumping Station, Thompson Road South, between Fulton Street and Ontario Street, Childs Drive upstream of Fulton Street	Mid-Term

Table 4: Phasing Plan for Capital Improvements (CS&F)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Schools		
Portables	Additional portables on both elementary and secondary school sites	Short-Term
Pedestrian/Cycling Links and Pathways	Visible and accessible pedestrian/cycling links and pathways to schools to encourage active transportation	Short-Term
New Schools/Additions	One 527-student elementary school (HCDSB) which can be in a strata development School boards will continue to monitor growth and identify future need for expansion and new development	Mid-Term
Childcare		
Child Care Centres	10 to 12 new child care centres, each with 72 spaces Study team determined that a new child care centre is triggered with approximately each 1,300 new occupied units. Ongoing monitoring as development occurs	Mid-Term

Table 4 (cont'd): Phasing Plan for Capital Improvements (CS&F)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Libraries and Cultural Services		
Library	Expand existing space A future facility may be needed (MPL Staff indicated that a new library is generally triggered with each 25,000 new residents). Ongoing monitoring as development occurs	Short-Term Long-Term
Cultural Services	Expand existing space and/or new space in community/cultural hub shared with Region Improvements to the FirstOntario Arts Centre Milton space may be needed	Mid-Term
Publicly Accessible Open Spaces and Community Recreation Centres		
Publicly Accessible Open Spaces	Improvements to existing parks A series of new smaller parks distributed throughout the Study Area; new privately-owned public spaces (POPS) through redevelopment will be the priority Parkland and recreation facilities located outside of the Study Area will be developed with consideration for Town-wide need resulting from population growth	Short-Term Mid-Term Mid-Term / Long-Term
Recreation Facilities	Adjust programming or re-purpose existing indoor spaces within all Town facilities to meet changing needs Partner with other public agencies to support the provision of multi-functional indoor or outdoor community spaces, where feasible and warranted by a business plan Expand existing indoor facilities to meet needs where feasible Addition of new higher-order outdoor tournament facilities	Mid-Term / Long-Term
Human/Social Services and Community Agencies		
Human/Social Services and Community Agencies	Affordable housing and affordable/accessible space for community service providers in new developments. Ongoing monitoring of proportion of low-income residents to evaluate need Additional adequate space for community programs and services	Short-Term Mid-Term
Emergency Services		
Police, EMS, Fire	Future facilities, personnel, equipment and services will be needed to supplement emergency response. Emergency Services will continue to monitor growth to evaluate ability to respond	Mid-Term

Table 5: Phasing Plan for Capital Improvements (Public Realm)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Streetscape Improvements		
Main Street Major Streetscape Improvement	Between Ontario Street and Thompson Road. Coordinated with right-of-way widening and in advance of redevelopment: includes the boulevard improvements, new cycle tracks, greening. Private setbacks and the south promenade constructed through redevelopment (for discussion)	Short-Term
Ontario Street Major Streetscape	Within Study Area boundaries (includes street greening). It may be beneficial for the Town to coordinate the timing of streetscape improvement with turning the curb lanes into HOV/ bus lanes on each side of the street (existing lanes re-purposed; would have one general purpose lane and one HOV/bus lane in each direction on each side of the street; does not require much change to road outside signs and line markings designating existing curb lanes as HOV/bus)	Mid-Term
Thompson Road Major Streetscape Improvement	Between Proposed EW Street 1 and Childs Drive	Mid-Term
Proposed Green Connections	Linked with individual redevelopment sites	Mid-Term
Gateway Features		
Major Gateway at the Entrance to the GO Station	Linked with Station improvements. Could include public art integrated with the Station or a stand-alone public art piece within a new plaza	Short-Term
Major Gateway at Main Street and Thompson Road	Linked with the redevelopment of the Milton Common site	Mid-Term
Major Gateway at Main Street and Ontario Street	Linked with the redevelopment of the Milton Mall site	Mid-Term
Public Space		
New Public Space Adjacent to the North and South Access of the Station Area	The single most important current project in the Mobility Hub is the improvement of the Station Area. Many of the public space projects, streets and redevelopment sites identified in this Study are directly connected to the Station. A high-quality public realm around the Station should serve as a catalyst for improving the overall pedestrian realm and the visibility and image of the neighbourhood	Short-Term

1.0
Introduction

1.1 Background

The Milton GO Station and its surrounding area are designated as a Major Transit Station Area (MTSA) and Mobility Hub. The successful build out of the Milton MTSA and Mobility Hub (hereafter referred to as the "Mobility Hub") is an important element of positioning Milton for long-term sustainable growth and investment. The Mobility Hub is strategically positioned to attract residents and jobs to areas well supported by existing and planned infrastructure including excellent regional and local public transit, active transportation facilities and community services and facilities.

1.2 Mobility Hub and Major Transit Station Areas

Mobility hubs are characterized as major transit stations and their surrounding areas. They are regionally significant due to planned transit service levels and development potential. As places where two or more regional rapid transit lines intersect, or are planned to intersect, they are intended to serve as vibrant and pedestrian-oriented centres of activity where intensification is encouraged.

Metrolinx's The Big Move Regional Transportation Plan (2008) identified the Milton Mobility Hub as an Anchor Hub, and Metrolinx's 2041 Regional Transportation Plan (2018) echoes this designation. Anchor Hubs are primarily MTSAs located within Urban Growth Centres (UGCs). UGCs are regional focus points that accommodate population and employment growth, defined through mixed-use, transit-supportive communities (Growth Plan, 2019). Planning plays an important role in achieving the Growth Plan's UGC minimum density target of 200 residents and jobs per hectare by 2031.

1.2.1 Milton MTSA/Mobility Hub

The Milton Mobility Hub is identified in Metrolinx's Regional Transportation Plan (2018) as one of 51 mobility hubs within the Greater Toronto and Hamilton Area (GTHA), while the Halton Region Official Plan (2018) identifies the area around the GO Station as a MTSA. The Milton GO Station provides access / egress to GO Transit's Milton Line and Milton Transit.

1.3 Purpose of the Study

The Milton Mobility Hub Study is intended to:

- Establish a long-term vision for the redevelopment of the Milton GO Station and surrounding lands;
- Improve movement and circulation throughout the Mobility Hub with an emphasis on active transportation;
- Ensure that intensification achieves provincially-mandated density targets while remaining context-sensitive; and
- Provide direction related to land use policy, transportation policy, infrastructure investment, community facilities, urban design and public realm improvements, and implementation and phasing tools.

1.4 Study Process

The Mobility Hub Study was divided into six (6) stages, which occurred between April 2018 and April 2020 (see Figure 10):

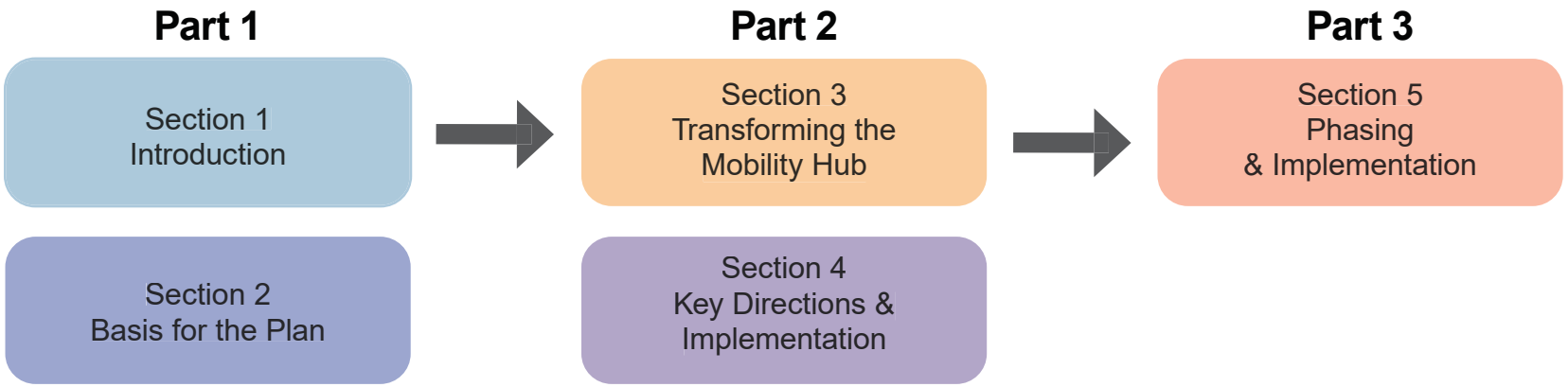
1. Study Context and Background Review
2. Vision, Guiding Principles and Planning and Development Alternatives
3. Land Use and Design Framework
4. Technical Analysis
5. Major Transit Station Area Design and Layout
6. Implementation Plan and Recommended Planning Framework

Figure 10: Study Process Chart

1.5 Report Structure

This Report is organized into the following five (5) sections and corresponding appendices:

- Section 1.0 provides an introduction, including a brief overview of the Milton Mobility Hub and the Study Purpose;
- Section 2.0 provides a description of the Study Area and surrounding context, including existing conditions, key issues and opportunities;
- Section 3.0 outlines the vision and guiding principles for the Study and includes a summary of the community consultation process;
- Section 4.0 provides policy direction related to land use planning, transportation planning, municipal infrastructure, and community services and facilities;
- Section 5.0 outlines the phasing strategy and implementation recommendations; and
- A series of Appendices include the following (among others): Community Services and Facilities Strategy, Market Brief, Area Transportation and Servicing Plans, and Urban Design Guidelines.



2.0
Basis for the Plan

2.1 Location

The Mobility Hub is centrally located within the built-up area of Milton in close proximity to a variety of neighbourhoods and community facilities. The Mobility Hub has considerable potential to accommodate new residents and jobs, improved public services, public spaces and active transportation networks that complement Milton's historic downtown and nearby residential areas, and community and cultural facilities.

Specifically, the Mobility Hub is centred around the Milton GO Station and overlaps with the Downtown Milton Urban Growth Centre (UGC) (refer to Figure 12). Development potential for the UGC outside the Mobility Hub is constrained by a flood plain* and a significant number of heritage properties.

*Conservation Halton is currently undertaking a floodplain mapping study. Updated floodplain mapping of the urban core will be available mid-March 2020

Figure 11: Context Map

2.2 Study Area

The Study Area is divided into Primary, Secondary and Tertiary Zones (refer to Figure 13). The Primary and Secondary Zones are 132 hectares comprising the GO Station lands and related parking areas, adjacent low-density commercial and industrial lands, major institutional uses and parks and open space.

The Primary Zone is bounded by Main Street East, Ontario Street, Childs Drive, Nipissing Road and Thompson Road. It offers the greatest opportunities for intensification, mix of uses and improved pedestrian and multimodal connectivity. The tallest buildings and greatest mix of uses will be located within this zone.

The Secondary Zone includes the commercial properties directly north of Main Street East, the lands around the intersection of Main Street East and Ontario Street, institutional properties south of Childs Drive, commercial and industrial properties between Nipissing Road and Childs Drive, and Town-owned lands east of Thompson Road. The Secondary Zone offers significant opportunities for transit-oriented development at a mid-rise scale and the development of direct and safe walking and cycling connections to the GO Station. This zone provides a transition between the higher density Primary and lower density Tertiary Zones.

The Tertiary Zone includes stable residential neighbourhoods generally at the limit and beyond the 800 metre radius of the GO Station, as well as community and recreation facilities east of Thompson Road. Minimal changes are expected to occur in the Tertiary Zone. It serves as the transition from the Mobility Hub to the broader zone outside of the Study Area.

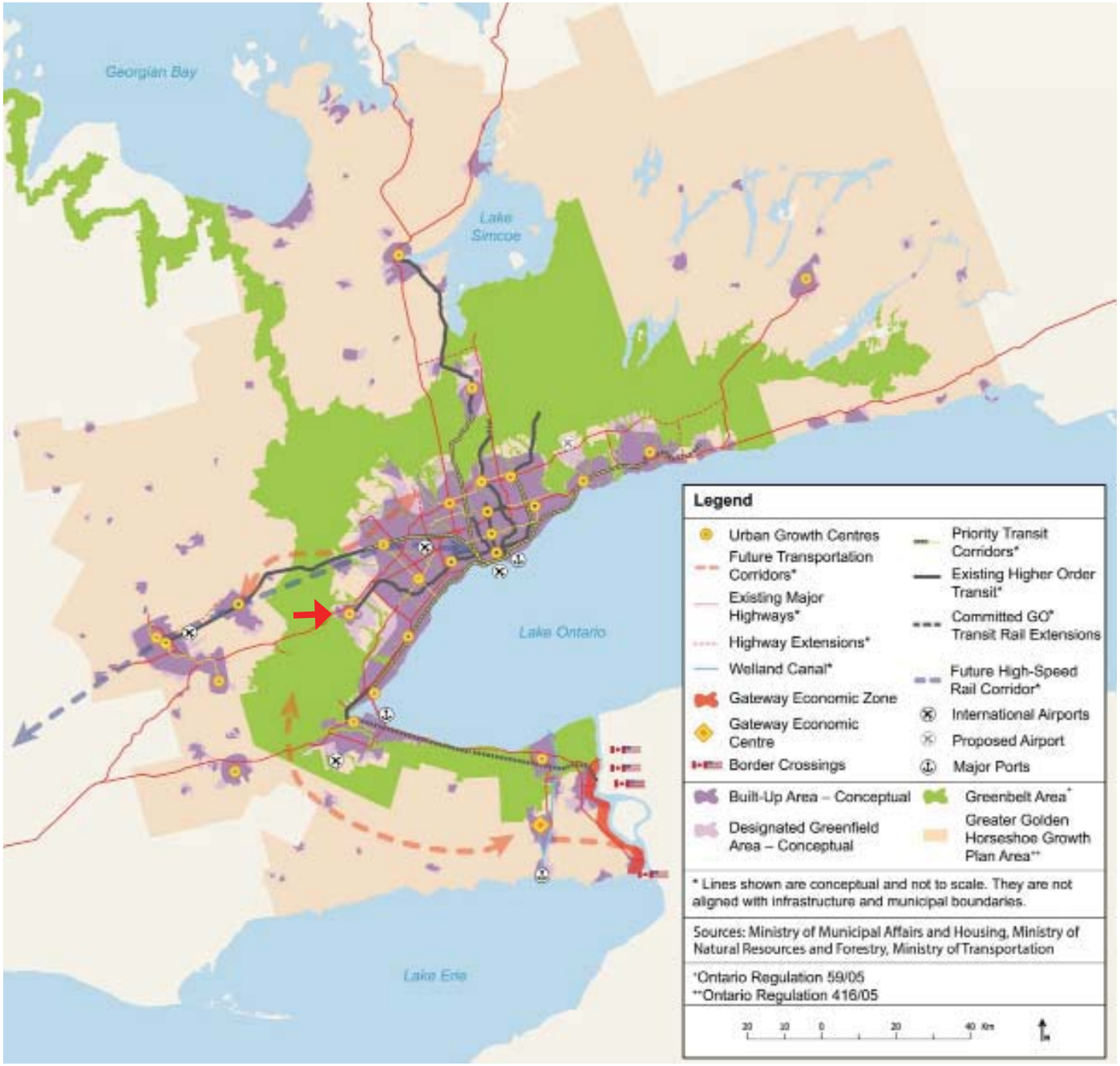


Figure 12: Milton Mobility Hub and Urban Growth Centre Areas (Schedule 2: A Place to Grow Concept - A Place to Grow: Growth Plan for the Greater Golden Horseshoe)

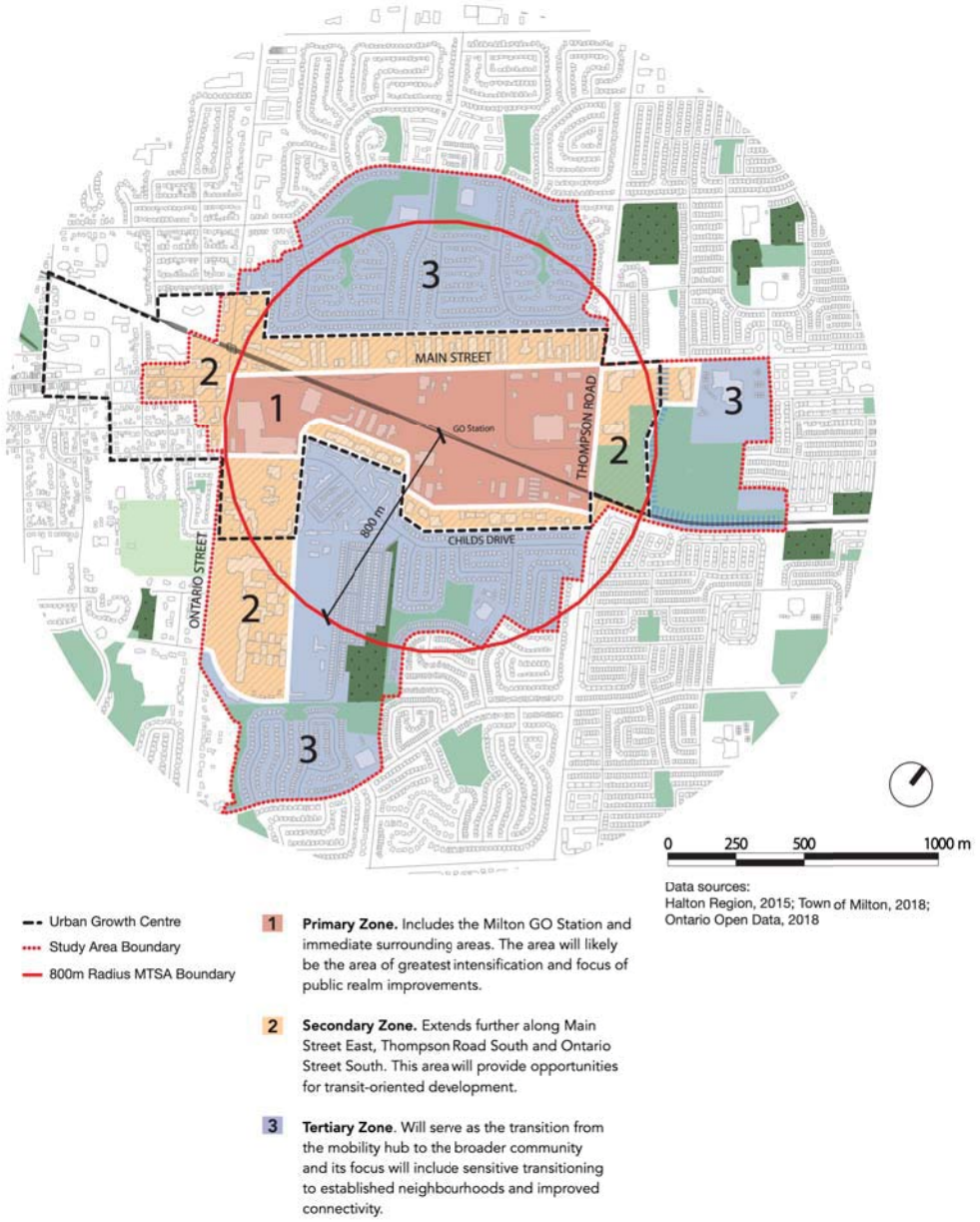


Figure 13: Milton Mobility Hub Study Area

2.3 Policy Context

Plans for the Study Area are guided by provincial, regional and municipal policies. Ontario's planning framework emphasizes planning for growth that protects the environment, promotes complete communities and supports economic prosperity. Key provincial, regional and municipal directions and policies are listed below.

2.3.1 Provincial and Regional Policy

Provincial Policy Statement (2020)

As the provincial government's long-term vision for land use planning in Ontario, the Provincial Policy Statement (2020) provides a framework for making consistent planning decisions across corresponding regions and municipalities. The document provides direction on:

- Using land and infrastructure efficiently and protecting the environment and resources (Part IV);
- Supporting a mix of housing, employment, institutional, recreational and open space uses with a range of transportation choices (Part IV); and
- Focusing growth in built-up areas through intensification and redevelopment where it can be accommodated, and promoting transit-supportive development and active transportation (1.1.3).

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)

The Growth Plan for the Greater Golden Horseshoe considers the best way to accommodate growth in the region to 2041. Key policies include:

- Designating Downtown Milton an Urban Growth Centre, a focus for investment, transit connections and growth (2.2.3; Schedule 4);
- Providing a minimum density of 200 residents and jobs combined per hectare for Downtown Milton (2.2.3.2.b); and
- Conserving natural, cultural heritage and archaeological resources (1.2.1).

Metrolinx 2041 Regional Transportation Plan (2018)

The 2041 Regional Transportation Plan (2041 RTP) sets out the plans and objectives for the multi-modal regional transportation system serving the Greater Toronto and Hamilton Area. Strategy 2 of the 2041 RTP proposes expanding the 15-minute two-way all-day GO Train services to include the Milton line. General objectives include:

- Creating an integrated system with strong connections and services that are safe, reliable and convenient;
- Supporting healthy and complete communities, high quality travel experiences and prosperous and competitive economies; and

- Integrating transportation and land use plans, especially around transit stations and Mobility Hubs.

Halton Region Official Plan (2009)

The Regional Official Plan guides land use decisions for municipal governments within the region. It also identifies the Milton GO Station as a Major Transit Station Area and Mobility Hub (recognizing designations from Metrolinx and the Growth Plan). The Regional Plan provides specific policy direction for Intensification Areas. Intensification Areas include Urban Growth Centres and Major Transit Station Areas (including Metrolinx designated Mobility Hubs). Objectives include:

- Achieving increased residential and employment densities to support transit service (III. 78(11)a);
- Achieving a mix of residential, office, institutional and commercial development (III.78(11)b);
- Providing access from various modes to the transit facility, including pedestrians, bicycles and car share (III.78(11)c);
- Promoting innovative urban design, high-quality open spaces and an urban form that transitions appropriately to adjacent areas for intensification areas (III.78);
- Requiring that Urban Growth Centres be subject to specific policies in addition to those for Intensification Areas (III.80(1));
- Requiring that MTSAs generally consist of areas within 500 m of the Major Transit Station (III.80(2));

Policies below apply to Intensification Areas:

- Directing development with higher densities and mixed uses to Intensification Areas (III.81(1));
- Requiring Local Official Plans to identify Intensification Areas with detailed boundaries (III.81(2));
- Requiring the preparation of detailed official plan policies or an Area-Specific Plan for the development of a new Intensification Area or the redevelopment of an existing Intensification Area (III.81(3));
- Area-Specific Plans for Intensification Areas must include a transportation network designed to integrate active transportation, local transit services and inter-municipal/inter-regional higher order transit services, in addition to urban design guidelines that promote active transportation and transit supportive land uses (III.81(4)a)b));
- Requiring the adoption of alternative design standards for Arterial Roads through Intensification Areas to promote active transportation, pedestrian-oriented development and transit-friendly facilities that maintain the function of the Major Arterial Road (III.81(5));
- Requiring the proper integration of Intensification Areas with surrounding neighbourhoods through pedestrian walkways, cycling paths and transit routes, etc. (III.81(6));
- Requiring the inclusion of Official Plan policies and adoption of Zoning By-laws to meet intensification and mixed-use

objectives, with minimum development densities (III.81(7)a) b));

- Prohibiting site-specific Official Plan or Zoning By-law amendments to reduce development density unless it is part of a municipal comprehensive review or a review of the Area-Specific Plan, and promoting development densities that support existing and planned transit services (III.81(7)c)d));
- Encouraging the implementation of a development permit system for development approvals (III.81(7.1));
- Considering development of Intensification Areas as the highest priority of urban development within the Region and implement programs and incentives, including Community Improvement Plans, ensuring that these areas are development-ready (III.81(7.2-7.3 a)b));
- Encouraging the adoption of parking standards and policies that promote active transportation and public transit; to consider planning approval, financial and other incentives to promote development; and to direct Regional services and facilities to Intensification Areas (III.81(8-10)); and
- Requiring the location of major office, retail and appropriate major institutional development to Urban Growth Centres, Major Transit Station Areas, areas with existing frequent transit services or existing/planned higher order transit services; and monitoring the performance of Intensification Areas in achieving the regional goals and objectives and implementing the policies and targets of the Region (III.81(10.1-11).

Policies below apply to Urban Growth Centres:

- Requiring Urban Growth Centres to serve as focal areas for investment in institutional and regional public services, commercial, recreational, cultural and entertainment uses; accommodating major transit infrastructure; serving as high density major employment centres; and accommodating a significant share of population and employment growth (III.81.1(1-4));
- Requiring a minimum density development target for Urban Growth Centres of 200 residents and jobs combined per gross hectare (by 2031) (III.81.3(1)); and
- Requiring Local Official Plans to show how the development density target can be met (III.81.3(2)).

2.3.2 Municipal Policy

Town of Milton Official Plan (2008) as amended by OPA 31

The Milton Official Plan sets out guidelines for growth in Milton and delineates a clear separation between developed and rural areas. Key Official Plan policies relevant to this Study include:

- Encouraging transit-oriented development with design, density and mix of uses that support public transit, rail/interregional travel, pedestrian and bicycle transportation (2.6.3);
- Accommodating higher density mixed-use development and residential intensification (including major office, retail and major institutional development) (3.5.1.2);

- Supporting major transit infrastructure and multi-modal access to the GO Station through active transportation infrastructure and connections to key destinations such as community facilities (3.5.1.2.a);
- Leveraging high density major employment to attract provincially, nationally and internationally significant employment uses (3.5.1.2.b);
- Accommodating a significant share of population and employment growth and achieving a minimum development density of 200 residents and jobs per gross hectare by 2031 or earlier, within the UGC (3.5.1.2.c);
- Creating a vibrant high density, mixed use regional centre supported by a full range of public and complementary services and major transit infrastructure (2.1.3.2); and
- Preserving and enhancing built and natural heritage, as well as views to the Escarpment. Enhancing gateway areas as entry points (2.8.3).

Lands within the Study Area are primarily designated **Urban Growth Centre Mixed-Use Sub-Area** in Official Plan Schedule C - Central Business District Land Use Plan. Outside of the Central Business District, the Mobility Hub Study Area includes Residential, Institutional and Natural Heritage System lands.

Comprehensive Zoning By-law 016-2014 regulates land uses for Milton's Urban Area. Most lands in the Mobility Hub Study Area are zoned **Urban Growth Centre Mixed-Use 1 or 2**.

Other Relevant City Plans and Initiatives (among others):

- Downtown Study (2017); Future Urban Structure Map (2017); Milton's First Principles of Growth (2017); Mid-Rise/Tall Building Guidelines (2018).

2.4 Existing Conditions

2.4.1 Character

Built Form

The built form immediately surrounding the Milton GO Station is generally comprised of one- and two-storey auto-oriented commercial buildings with parking lots between building frontages and the street. Stable residential neighbourhoods are located along the northern and southern edges of the Study Area. A number of recent and active development applications within the Study Area are adding density to the Mobility Hub and providing a new sense of animation.

Streets and Blocks

The street network is typical of post-WWII suburban development featuring a modified grid of residential local streets set within arterial streets. Arterial roads (Main Street East, Thompson Road and Ontario Street) are typically between four and five lanes wide, especially near major intersections. Residential areas north of Main Street East are laid out via cul-de-sacs with limited through connectivity. Main Street East and Thompson Road South both have grade separations across the rail corridor. Existing barriers to pedestrian movement include rail, busy roads, discontinuous or disrupted sidewalks, grade

changes and large areas of surface parking.

Parcel Fabric

The Mobility Hub is defined by large and irregular blocks designed for automobile-oriented retail and commercial uses. Properties along the north side of Main Street East are characterized by their deep parcel fabrics. Larger parcels south of Main Street East are associated with commercial, institutional and open space uses.

Prevailing Land Uses

The Milton GO Station and associated parking area is a dominant land use within the Study Area. Other primary uses include single-storey retail, commercial and industrial uses. Low-rise residential areas are situated north of Main Street East and south of Nipissing Road and the Milton GO Station, accompanied by some low-rise institutional uses. To the northeast are major recreational, institutional and open spaces, including the Milton Leisure Centre, Milton Memorial Arena, FirstOntario Arts Centre, Main Library and Lions Sports Park. Downtown Milton is located southwest of the Study Area and is characterized by a mix of main street commercial and residential buildings (refer to Figure 14).

The Milton Mall is located at the southeast corner of Main Street East and Ontario Street. It consists of a one-storey building surrounded by large surface level parking providing poor street level animation. Another large site is occupied by the Real Canadian Superstore grocery store (Choice Properties), located along Drew Centre and directly adjacent to the GO Station. This block includes various restaurants and services such as banks, fast food establishments,

Existing land uses in the Mobility Hub include low-rise retail, commercial and industrial uses.

restaurants and miscellaneous retail shops surrounded by large surface parking lots.

Density

According to the 2016 census, there are 3,141 jobs and 2,572 residents in the 132 hectare Primary and Secondary Zones. This results in a density of 43 residents and jobs per hectare. The Downtown Milton UGC currently has 2,280 residents and 3,361 jobs in its 139 hectare area, resulting in a density of 41 residents and jobs per hectare.

The Growth Plan density targets apply to all lands within the UGC, which include the portion of lands within the Study Area. UGC lands within the Milton Mobility Hub have significant opportunities for added density while intensification of the UGC lands outside the Study Area are tightly constrained by the flood plain and heritage buildings.

The Primary Zone includes one new residential development at 716 Main Street East (Jasper Condos). Recent applications for residential developments have been approved including Art on Main Condos at 1050 Main Street East and a highrise residential project at 130 Thompson Road and Drew Centre.

Employment densities vary across the Mobility Hub with the majority of existing employment located in the Primary Zone. At the time of this Study, 2001 jobs were identified in the Primary Zone, resulting in 36.6 jobs per hectare. In the Secondary Zone, 1841 jobs were identified (25.9 jobs per hectare) (Halton Employment Survey, 2015). Only 434 jobs were found in the Tertiary Zone, which is primarily comprised of low-rise, stable residential uses.

Heritage

The existing fine-grained grid network and cluster of heritage buildings to the west of the Study Area provide a transition to the historic downtown. No listed or designated heritage buildings are located within the Study Area.

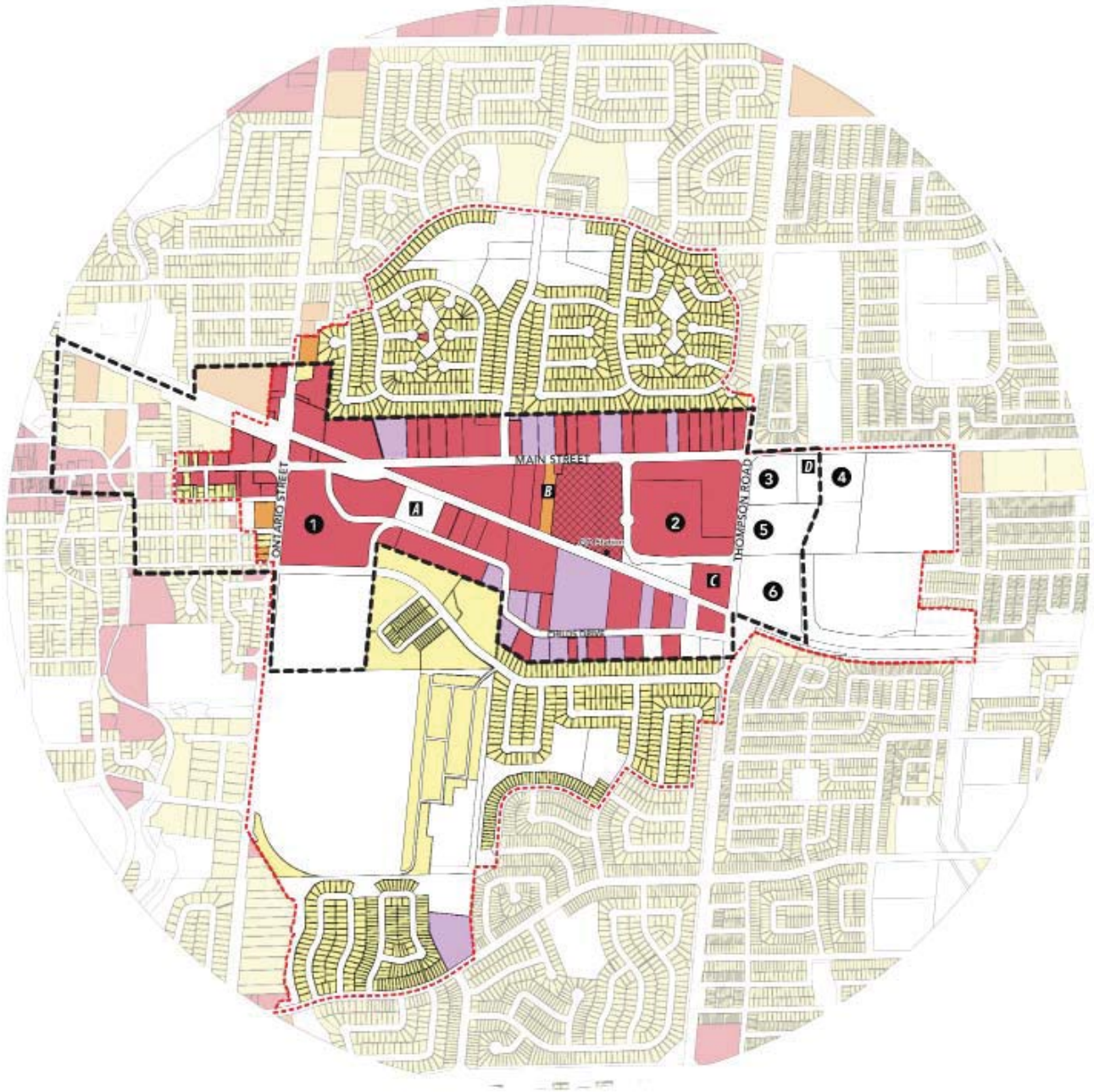
Views

Landmark views include those to the Niagara Escarpment looking eastward along Main Street East and from the GO Station. The Mobility Hub also includes views of Lions Sports Park and Centennial Forest Park. Future development provides an opportunity to frame and enhance landmark views (refer to Figure 15).

Main Street East Character

Main Street East is an important and defining road within the Study Area. Between Ontario Street and Thompson Road, Main Street East is characterized by commercial buildings without a direct relationship to the street (they are either set back behind surface parking lots or have large landscaped frontages). The streetscape generally lacks features such as pedestrian lighting, street furniture and sidewalk-related buildings that would contribute to a more pedestrian-friendly environment.

West of Ontario Street, towards the historic downtown, Main Street East becomes a more intimately scaled and pedestrian-oriented street.



Urban Growth Centre

Study Area Boundary

Milton GO Station Parking Lot

Commercial

Industrial

Stable Residential Neighbourhoods

Multi-Residential

* Certain lands, such as Town lands, places of worship, parks and schools, are not shown in this map.

Key Destinations

1 Milton Mall
2 Real Canadian Superstore
3 FirstOntario Arts Centre Milton/Main Library
4 Milton Leisure Centre
5 Milton Memorial Arena
6 Lions Sports Park

Active Development Applications

A Fernbrook Homes, 101 Nipissing Rd
B Jasper Condos, 716 Main St E
C 130 Thompson Rd S
D Art on Main, 1050 Main St E

0 250 500 750 1000 m

Data sources:
Halton Region, 2015; Town of Milton, 2018

Figure 14: Existing Land Uses

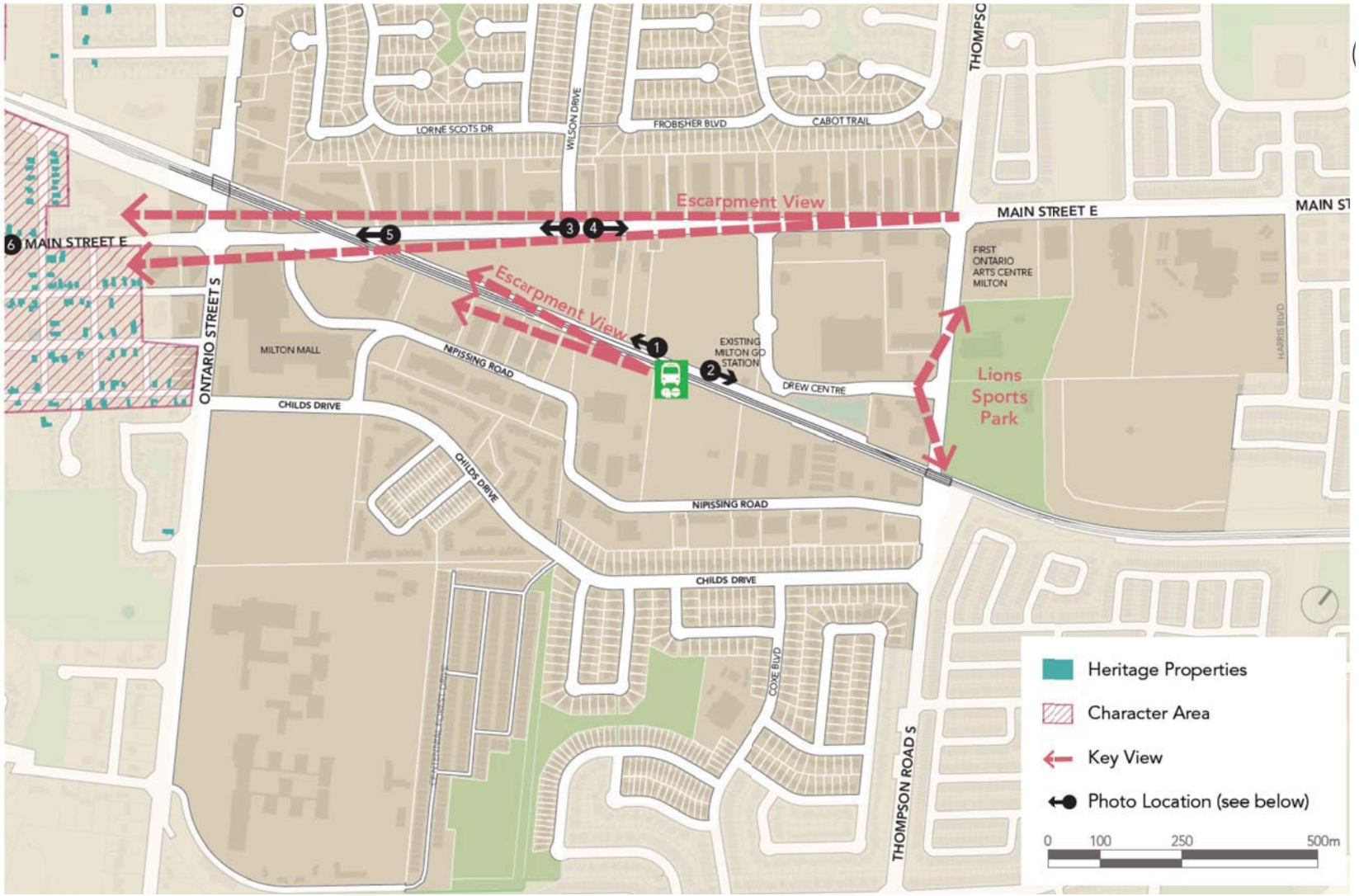


Figure 15: Heritage and Views

2.4.2 Publicly Accessible Open Spaces and Natural Heritage

The majority of existing publicly accessible open spaces are located in the Tertiary Zone and around the periphery of the Study Area (refer to Figure 16).

The Primary Zone contains no parkland, while the Secondary Zone contains one district park (the western portion of Lions Sports Park). The Tertiary Zone contains two district parks (Kinsmen Park and the eastern portion of Lions Sports Park); six neighbourhood parks (Baldwin Park, Centre Park, Coulson Park, Court Park, Coxe Boulevard Park and Sam Sherratt Park); one village square (Beaver Court Park) and one linear park (Sam Sherratt Trail Park). Together, this results in approximately 31.8 hectares of parkland.

Lions Sports Park, a major recreation destination, is located at the eastern edge of the Study Area. The pedestrian forecourt of the First Ontario Arts Centre and Library marks the junction of Thompson Road and Main Street East, helping to provide an “entryway” into the Study Area.

2.4.3 Community Services and Facilities

Community services and facilities (CS&F) are a building block of complete communities. They include schools, libraries, child care providers, parks and recreation facilities, human services and emergency services.

The CS&F Catchment Area encompasses a broader 1.6 kilometre catchment extending beyond the Study Area to encapsulate a range of CS&F available within the “first mile” and “last mile” of the Milton GO Station.

Within the Catchment Area there are fifteen schools, sixteen child-care providers, one library, twenty-nine parks, three recreation/sports centres, twelve human services and two emergency services stations. Several places of worship are also found in the Study Area, offering additional community gathering spaces and services. Many of the facilities are located in the Secondary Zone. Very few community facilities exist in the Primary Zone.

Figure 17 identifies community services and facilities within the Study Area and within the greater 1.6 km Catchment Area. Refer to sections 4.8 and 5.3 of this Report and Appendix D for further information on existing and recommended Community Services and Facilities.

2.4.4 Transportation Infrastructure

Transit

Milton Transit

At the time of this Study, Milton Transit operates public transit services in a hub-spoke pattern with connections to the Milton GO Station and five Secondary Schools from 5 a.m. to 11 p.m. on weekdays and 7 a.m. to 8 p.m. on Saturdays. There is no service on Sundays. Supplementary services include Trans-Cab for passengers in areas with reduced travel demand and Milton access+, which is the Town’s specialized transit program for persons with disabilities.

Milton Transit service utilization is increasing. Ridership has been

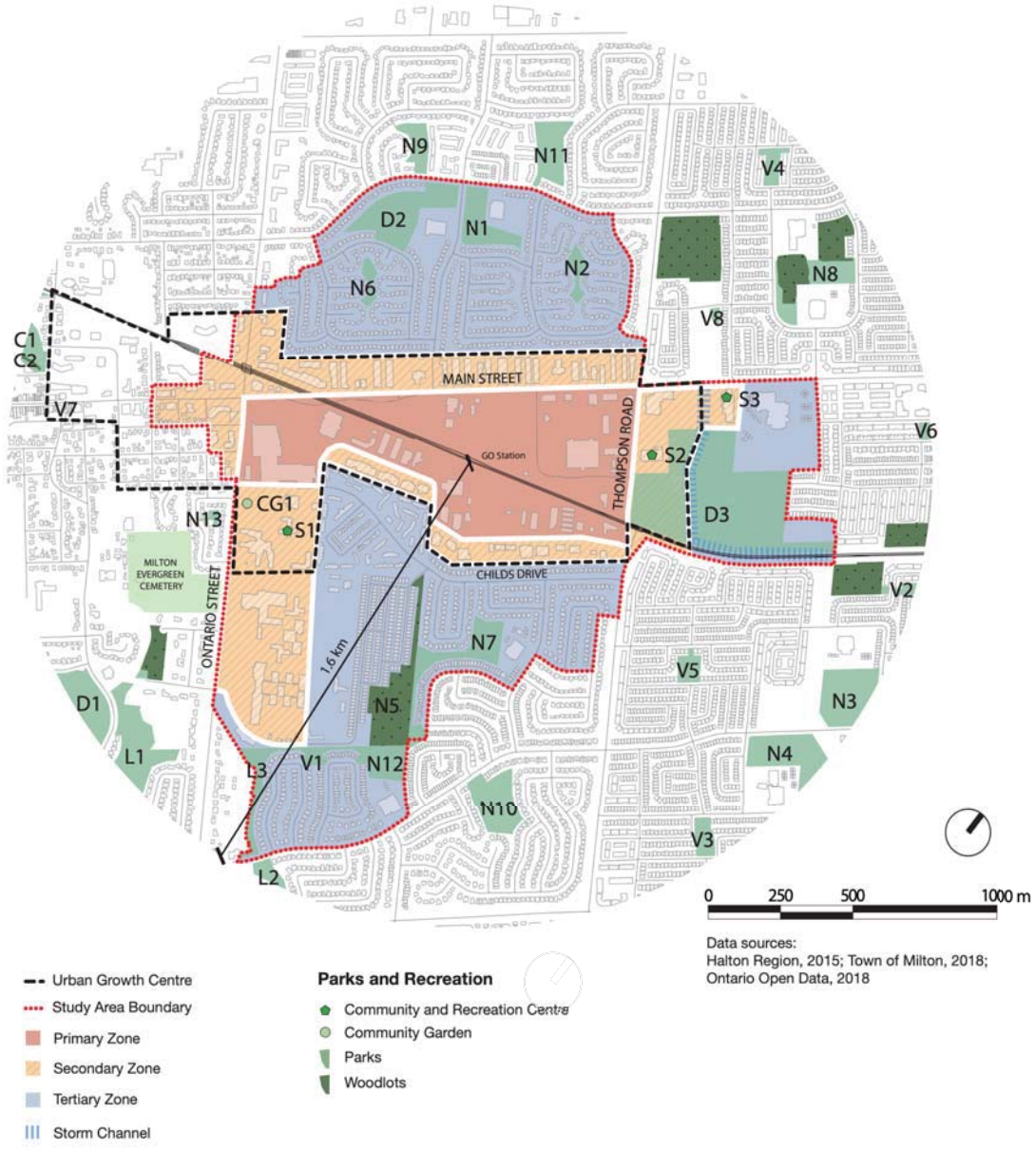
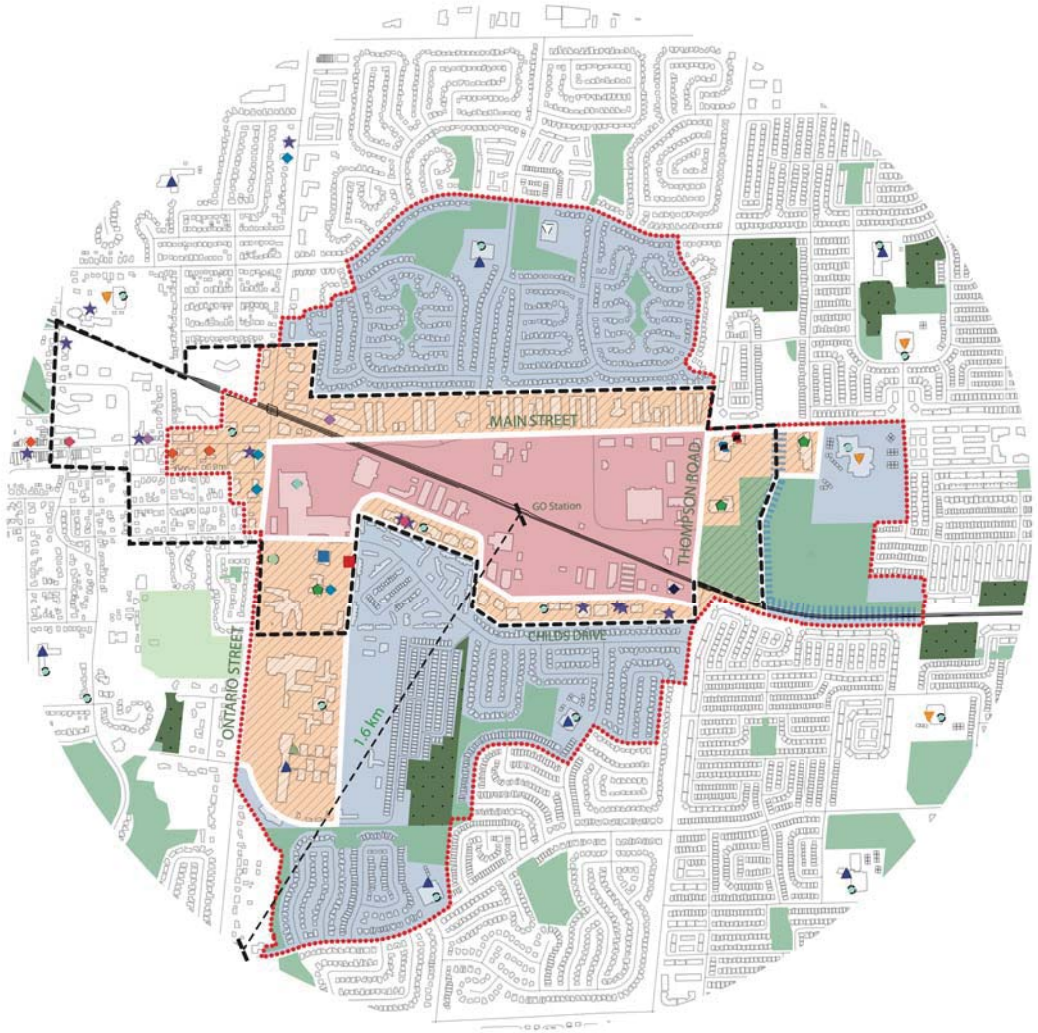


Figure 16: Existing Publicly Accessible Open Spaces



Community Services and Facilities

Schools
- Conseil Scolaire de District Catholique
- Halton Catholic District School Board
- Halton District School Board
- E.C. Drury School for the Deaf

Human/Social Services
- Child and youth services
- Community food services
- Individual and family services
- Vocational rehabilitation services
- Community housing services
- Services for persons with disabilities

Emergency Services
- Paramedic
- Police

Child Care
- Licensed child care provider

Libraries
- Milton Public Library - Main Library

Parks and Recreation
- Community and Recreation Centre
- Community Garden
- Parks
- Woodlots

Places of Worship
- Place of worship

Cultural Services
- Cultural Services

Data sources:
Halton Region, 2015; Town of Milton, 2018;
Ontario Open Data, 2018

Figure 17: Existing Community Services and Facilities

steadily growing with a nine per cent increase between 2016 and 2017, and a five per cent increase between 2017 and 2018. Milton access+ has also seen a seven per cent growth in ridership between 2017 and 2018.

GO Transit

The Milton GO Station is serviced by GO Trains during peak morning and afternoon times, with GO Bus services at all other times.

Milton GO Station is a terminus station on Metrolinx's Milton line, which runs between the Milton GO Station and Union Station. The Milton line has the third highest level of ridership among current operating GO Transit rail corridors. Ridership on the Milton GO line is forecast to increase by 53 percent between 2011 and 2031 with a 30 percent increase in ridership occurring over the next five years. Average existing daily ridership for the Milton GO Station is 2400 boardings and alightings (Metrolinx Ridership Performance Year to Date, April 2019 to July 2019). Projected ridership will vary dependent on whether all-day two-way service is implemented and the potential impact of the proposed new station at Agerton (based on Metrolinx 2016 Station Access Plan data, the Milton GO should expect a ridership between 4,001-8,000 people/day in 2031). In addition, all-day two-way GO Train services are being advocated as part of regional transportation improvements (subject to extensive review and negotiation by Metrolinx and associated stakeholders).

In addition to GO passenger service, the Milton rail corridor includes freight services operated by the Canadian Pacific Railway (CPR). Freight service operates on a 24-hour basis with train frequencies established by CPR.

Metrolinx Proposed Station Access Improvements

Plans for redevelopment of the Milton GO Station include a new expanded station building, additional parking, reconfiguration of parking lot layouts, bus loop, passenger pick-up/drop-offs, accessible connections to train and bus platforms, upgraded platforms and infrastructure to support future layover of trains, improved pedestrian connections and bicycle storage. Station construction is expected to begin mid-2020. A proposed GO Station is also identified for Derry Road and Trafalgar Road, the construction of which would primarily serve new development associated with the Trafalgar Secondary Plan and the Agerton Secondary Plan but would impact ridership and relieve congestion at the Milton GO Station.

Parking Lots

The Study Area includes a significant amount of automobile-oriented development with parking lots located between the front of buildings and the street or within shopping plazas. The Milton GO Station currently has 1,472 surface parking spaces provided in surface parking lots. An additional 850 parking spaces are to be added to the south side of the tracks as part of the proposed GO Station improvements for a total capacity of 2,322 parking spaces.

Active Transportation (Modal Split, Pedestrians, Cyclists)

The active transportation network in the Study Area is limited and primarily consists of sidewalks, on-road cycle lanes and multi-use trails that run parallel to roadways. Sidewalks and multi-use trails vary in width from 1.5-3 metres. Physical separations between sidewalks and multi-use trails are limited, other than boulevard buffer spaces that vary from 0-3 metres in width. High traffic roads

and intersections along the Study Area's arterials do not provide a comfortable environment for pedestrians and cyclists while grade separation along the rail corridor creates a physical barrier for the movement of pedestrians and cyclists.

Marked bicycle lanes are available on Main Street East, between Wilson Drive and Ontario Street. East of the Station, there are multiple off-street trails to support the Lions Sports Park and the Milton Memorial Arena.

2.5 Market Analysis

Growth in Milton should be guided by a land use policy environment that aligns with market forces to encourage intensification within the Study Area (refer to Appendix B for full Market Brief).

Key findings and recommendations from the market analysis report include:

- Demand for high-density housing has grown due to declining affordability in a low-density housing market and increasing demand from singles, seniors and empty nesters;
- There is less evidence supporting demand for office employment. The opportunity for office development will depend on pre-leasing activity and the ability to secure anchor tenants. Office development is most likely to occur as part of mixed-use developments located near the GO Station;
- Apartment development is supported through the Official Plan from a market and financial feasibility perspective;
- Policy that relaxes height restrictions could stimulate investment, but should only be considered within a broader planning and urban design context that addresses the area's present and future character;
- Investment interest in the Study Area may be affected by rail corridor activity and private motor vehicle traffic related to existing auto-oriented uses. To improve conditions for investment, planning and design considerations should be explored (e.g., a year-round pedestrian oriented public realm plan, a finer-grain street and block framework, and ground floor retail focused in pedestrian heavy areas);
- The market is the best determinate of necessary parking spaces. A minimum parking ratio is not necessary while a maximum parking ratio should be mandatory;
- While the industrial lands directly to the south of the rail corridor offer strong opportunities for intensification, challenges are associated with the relocation of existing businesses. It is expected that the redevelopment of low density commercial-retail uses to more intensified uses is more likely to occur alongside the physical depreciation of existing assets or as retail spaces adapt to future consumer trends.
- It is beneficial from a market perspective to protect what already makes the Study Area desirable such as its proximity to the historic core and 400-series highways (Hwy 401 and 407), along with views of the Escarpment; and
- A framework of financial incentives through a Community

Improvement Plan may help prioritize and attract greater investment.

Please note that the Province has announced legislative changes through Bill 108 that could affect many aspects of development costs, with some already in effect. Bill 108 proposes to change existing rules related to the use of development charges. Many items such as parks, child-care, libraries and recreation facilities are intended to be financed through a new tool called the Community Benefit Charge. At the time of writting this Report, details for the Community Benefit Charge have not yet been developed.

2.6 Key Issues and Opportunities

As part of the existing conditions analysis and policy review, a range of opportunities and challenges were identified by the Town and Consultant Team and through input from the public, land owners and a technical advisory committee. These are summarized below and identified on Figure 18. The Study Area boundary illustrated in Figure 18 reflects the draft boundary included in diagrams from earlier phases (i.e., Public Open House 2, December 2018).

1. GO Station

- Opportunity to become a destination and focal point within Milton providing a transportation hub for both locals and visitors to the Town through cycling and pedestrian paths, Milton Transit Services, and GO Train and GO Bus services; and by offering an entryway to the Town's public, retail, commercial and entertainment attractions.

2. Main Street East

- Opportunity to connect the community and cultural district (east) to the historic downtown (west);
- Opportunity to become a landmark street and central focus for the Mobility Hub, with large street trees, widened sidewalks, cycling infrastructure and active building frontages; and
- Grade change/rail overpass on Main Street East provides a challenge for developing a comfortable pedestrian connection between the Mobility Hub and Downtown Milton.

3. Rail Corridor

- Creates a barrier to connectivity; and
- Opportunities exist to improve new north-south connections through bridges or underpasses, east-west cycle connections and increased greening.

4. Metrolinx Lands

- As the largest land owner within the Study Area comprised primarily of surface parking, there is a significant opportunity to work with the development community to create plans to replace surface parking with compact, mixed-use and transit-oriented developments.

5. Publicly Accessible Open Spaces

- Opportunities for green space connections to surrounding

Main Street East, west of the Study Area

parks, and to secure new network of parks, privately owned public spaces (POPS), plazas and streetscapes through redevelopment.

6. Trails

- Opportunities to connect the existing trail system and provide improved connections to Main Street East, publicly accessible open spaces, transit and amenities.

7. Street Network

- Opportunity to improve pedestrian connectivity and support redevelopment through a finer-grain network of new pedestrian and cycle-friendly streets and paths.

8. Current and Existing Developments

- Recent developments add a broader mix of uses and provide an opportunity to activate the public realm.

9. Existing Neighbourhoods

- Have their own sense of character and identity and are unlikely locations for intensification; and
- Opportunity for strengthened connections to Main Street East and GO Station.

10. Transition

- Deep lots (70-120 metres) adjacent to existing stable

residential neighbourhoods provide opportunities for built form to seamlessly transition to existing neighbourhoods. A sense of transition can be provided through building heights that are gradually reduced from within the Primary Zone towards the residential neighbourhoods located in the Tertiary Zone to help ensure the character of residential neighbourhoods are protected.

11. Redevelopment

- Existing large underutilized properties, Main Street East frontage properties and publicly-owned land provide opportunities for redevelopment and infill; and
- Finer-grain ownership on north side of Main Street East creates challenges for redevelopment.

12. Storm Water Management

- Opportunity to integrate low-impact storm water management techniques into the design of new buildings, streets and publicly accessible open spaces.

13. Views

- Opportunity to frame key views to the Escarpment, the future GO Station, Lions Sports Parks and the historic downtown.

14. Community Facilities

- Opportunity to enhance connections to existing facilities and create new community destinations through redevelopment.

15. Industrial Uses

- The cement plant south of the existing GO Station is designated as an “Industrial Site - Open” in the “Urban Area Sites of Potential Contamination,” creating challenges to redevelop the lands into the anticipated residential/office sub-area.

2.6.1 Additional Opportunities and Challenges

The following subsection identifies additional opportunities and challenges as they apply to various themes and objectives for the Study Area.

Redevelopment and Growth

Opportunities

- Development interest in converting existing properties into medium- and high-density residential or mixed-use developments; and
- Existing built form consists of mainly low-rise buildings surrounded by large parking lots, providing plentiful opportunity to redevelop the building stock and create a new and cohesive sense of place.

Challenges

- Potential environmental contamination of industrial sites;
- Existing residents are likely to have concerns (i.e. building

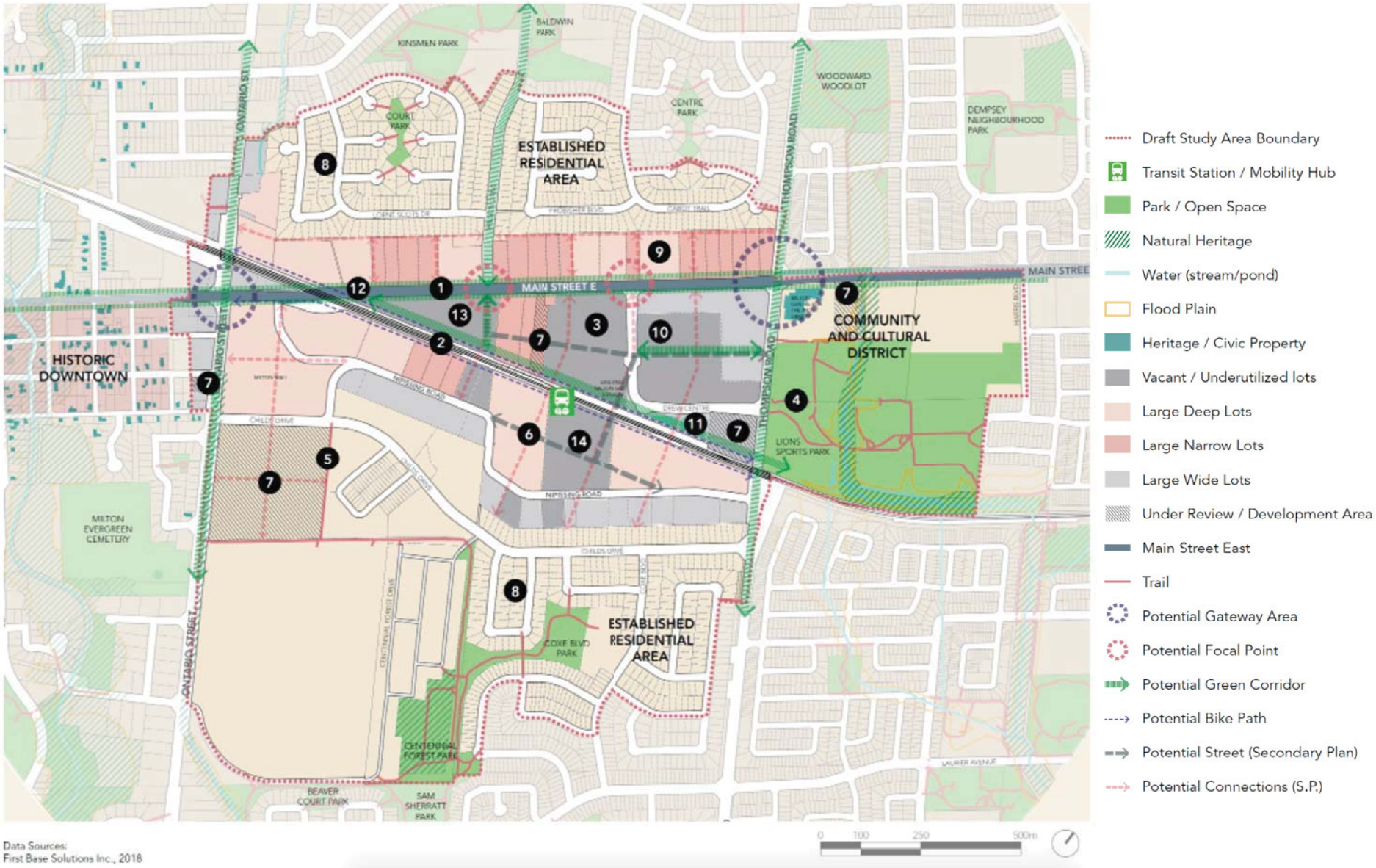


Figure 18: Opportunities and Challenges

* NOTE: Opportunities and challenges were developed prior to the creation of the Planning and Development Alternatives, and informed the delineation of the Final Study Area

heights, privacy, etc.);

- Costs of underground parking can be prohibitive; and
- Industrial businesses on Main Street East may experience changes in customer base and/or relocation.

Natural Environment and Open Spaces

Opportunities

- Expand and connect the Town's open space system through a series of POPS; and
- Utilize sustainable paving materials and low impact development in new parking areas / paved surfaces.

Challenges

- Rehabilitate contaminated sites;
- Allocate lands for active recreation uses; and
- Create spaces that will be able to sustain plantings in a dense urban environment.

Pedestrian-Friendly Development

Opportunities

- Development of a walkable environment that encourages active transportation;
- Improve public transportation options for Milton residents;
- Provide walking trails and other pedestrian connections throughout the hub; and
- Provide infrastructure and modal separation to encourage safe pedestrian movement.

Challenges

- Ensure the visibility and safety of pedestrians; and
- Overcome design constraints due to existing infrastructure (e.g., rail corridor).

Connectivity

Opportunities

- Enhance local connectivity by adding and improving pedestrian and cycling paths;
- Build north-south connections across the rail tracks, including new connections to neighbourhoods to the south to further increase connectivity;
- Connect old and new “downtowns” and promote existing neighbourhoods; and
- Establish new streets and blocks and improve existing streets for all users (pedestrians, cyclists, public transit and privately-owned vehicles).

Challenges

- Create connections across the rail tracks;
- Coordinate with property owners and developers to create connections to adjacent neighbourhoods;
- Connect the Study Area with “old” downtown and ensure that growth is complementary and not competitive; and
- Allow redevelopment to influence development outside of the Study Area to promote more holistic and integrated changes throughout Milton.

Traffic, Transportation and Transit

Opportunities

- Disperse traffic (active and vehicular) by providing access to the GO Station from both the north and south sides of the tracks;
- Encourage the development of a multimodal GO Station, coordinated with Metrolinx and Milton Transit;
- Build a high-density community around the GO Station to maximize transit usage;
- Potential to shift car borne commuters to new Station at Derry and Trafalgar; and
- Establish Milton GO Station as a departure point for transit and active transportation commuters.

Challenges

- Address current and future vehicular congestion;
- Connect the trail systems (will be difficult due to configuration of the existing trails and transportation network);
- Improve integration between Milton Transit and Metrolinx (will require a high degree of coordination); and
- Balance parking needs and transit access (e.g., parking is in high demand, transit users currently park in other locations such as the Real Canadian Superstore).

A Mix of Uses

Opportunities

- Encourage the provision of morning and evening activities and services through a mix of uses;
- Create opportunities for the provision of new and improved community services, amenities and facilities through future development; and
- Use Metrolinx surface parking lots for alternative uses.

Challenges

- Provide active at-grade frontages that are not only retail; and
- Provide a mix of uses in the appropriate locations.

Retail, Commercial and Service Uses

Opportunities

- Provide convenient services and retail (e.g., banks, grocery, daycare, coffee shops);
- Redevelop the existing Real Canadian Superstore and Milton Mall into a mixed-use, high-density community;
- Create finer-grained retail opportunities; and
- Cater to seniors' needs by providing seniors' services near the GO Station.

Challenges

- Provide and maintain a healthy retail supply in light of e-commerce; and
- Incorporate community uses into mixed use buildings.

Create a Sense of Place

Opportunities

- Create a strong core along Main Street East and adjacent to the GO Station each with their own unique identity;
- Consider the heritage context of the historic downtown and frame important public views of historic landmarks; and
- Encourage the development of POPS, public art and gateway features.

Challenges

- Ensure the visibility of the GO Station from Main Street East; and
- Enable wayfinding throughout the Study Area.

Integration with Existing Communities

Opportunities

- Encourage development that will complement and transition to existing communities (e.g., historic downtown and stable residential communities).

Challenges

- Ensure that the scale of new development fits the community.

Drew Centre at Thompson Rd, looking west

Commercial plaza, north east of the Milton GO Station


Train platform, Milton GO Station


Surface parking lot, Milton GO Station

Land Ownership

Opportunities

- Utilize substantial amount of publicly-owned lands; and
- Redevelop publicly owned lands and single ownership sites first.

Challenges

- Certain properties expected to maintain their current use (foreseeable future); and
- Many developments are owned by numerous property owners (north of Main Street East). Redevelopment of these sites will require property consolidation.

Stormwater Management and Servicing

Opportunities

- Include low-impact development features that manage stormwater and beautify the area; and
- Update existing servicing (e.g., sewers).

Challenges

- Expand servicing capacity (e.g., water, sanitary and stormwater); and
- Consider cost of publicly-owned infrastructure redevelopment (e.g., parks, roads and underground stormwater management).

Auto service uses along Main St E, north of Milton GO Station

Childs Drive looking east, south of Milton GO Station

Thompson Rd looking north east towards First Ontario Arts Centre Milton and Milton Main Library

Storm water pond along the northern side of the railway tracks, east of Milton GO Station

3.0
Transforming the Milton Mobility Hub

3.1 Basis for Transformation

The Mobility Hub will function as a complete transit-oriented community. Intensification will be context-sensitive, supporting the Town's growth as a safe, sustainable and livable community. This section outlines the Vision and Guiding Principles for the transformation of the Mobility Hub, and summarizes the community consultation completed throughout the duration of the Study.

3.2 Vision

The Mobility Hub will be an innovative, transit-oriented and pedestrian-friendly, vibrant destination where people can live, work and play. Leveraging its central location as the Town's core urban centre, the Mobility Hub will offer a mix of land uses, including an engaging and animated public realm. The proposed intensified mix of uses will complement and embrace the natural and historic character of Downtown Milton while featuring design excellence throughout.

3.3 Guiding Principles

Development within the Mobility Hub will be informed by nine (9) Guiding Principles, which are based on public and stakeholder input. The Principles are organized into the following categories: Seamless Mobility, Placemaking and Successful Implementation.

Seamless Mobility

1. Balanced, Safe and Efficient Mobility

Safely and efficiently accommodate all ages and abilities, with priority given to the most vulnerable users. Movement throughout the Mobility Hub will be characterized by seamless connectivity between all transportation modes and barrier-free accessibility.

2. Strong Visual and Physical Connectivity

Provide strong visual and physical connections to the GO Station and key destinations, including:

- Downtown Milton;
- Main Street East;
- Lions Sports Park;
- Milton Leisure Centre;
- Milton Memorial Arena;
- FirstOntario Arts Centre Milton / Milton Public Library;
- Allendale Long Term Care Home;
- Milton Mall; and
- E.C. Drury School for the Deaf.

Provide a network of streets, parks, paths and open spaces to form a convenient and inviting public realm that seamlessly connects with the GO Station, local transit routes and key community destinations.

New pedestrian pathways will link the north and south sides of the rail corridor to further enhance connectivity.

3. Walkable, Inviting Streets and Publicly Accessible Open Spaces

Create a green, safe and attractive place with public parks, boulevards, high-quality streets and POPS that are designed to promote walking and support a range of local, social and recreational activities. Among other features, the Mobility Hub will include active street frontages, comfortable spaces for people to sit and socialize, and mid-block connections.

Placemaking

4. Intensification at an Appropriate Scale and Form

Promote compact built form to achieve a critical mass that supports transit and the efficient use of land by meeting minimum density targets. Focus intensification within the Primary Zone (refer to Section 4.0), particularly adjacent to the GO Station, along the rail corridor, and the existing Real Canadian Superstore and Milton Mall. Provide appropriate built form and public realm transitions to minimize impacts on stable residential neighbourhoods to the north and south. The Mobility Hub will include a variety of building types including townhouses and mid-rise and tall buildings.

5. Mix of Uses within the Primary and Secondary Zones

Provide a mix of uses to create a vibrant complete community that supports existing and future planned conditions, transit infrastructure, community services and facilities, as well as employment, commercial and residential uses.

6. Design Excellence

Ensure that all new public and private sector development, including buildings, infrastructure, streetscapes and open spaces, are high-quality in design and incorporate low-impact development practices (e.g., permeable paving and bioswales). At all stages of planning, design and implementation, consideration will be given to new mobility technologies (e.g., autonomous and electric vehicles, ride-sharing applications and wayfinding) and Vision Zero principles (e.g., tools and strategies to reduce traffic-related injuries).

Successful Implementation

7. Realistic and Achievable Plan for Growth

Plan for realistic and achievable growth, as well as the physical, economic and regulatory constraints of the Mobility Hub, by using a flexible framework that responds to shifting conditions and opportunities. Incorporate both phasing strategies to accommodate long-term growth and changes in market demand, and measures for evaluating and monitoring implementation progress.

8. Strategic and Holistic Approach to Parking Supply

Provide enough parking to meet the needs of users while also incentivizing transit use and prioritizing pedestrian safety. Encourage reduced parking and maximize opportunities for shared parking. Carefully integrate any parking structures into the overall built form and design them with future adaptability in mind (including bike parking and storage facilities). Minimize surface parking and incorporate parking configurations that can transition to other uses over time.

Outdoor public engagement session with Milton Transit

Public realm precedent for Main Street East

An example of Privately Owned Public Space (POPS)

Mixed use and built form inspiration for Main Street East

9. Partnerships and Innovative Solutions

Advance new development by seeking public-private partnerships and identifying partnership structures that can ease consolidation of commercial condominium properties along Main Street East. Explore innovative approaches for building, stormwater management, publicly accessible open spaces, community services and facilities, transportation technology, and urban design and public realm features.

3.4 Summary of Community Consultation

An initial Visioning Workshop was held in May 2018 to formally launch the project. The workshop brought together key internal team members and external stakeholders including Metrolinx, Halton Region, Conservation Halton and the Halton District School Board. The workshop provided a project overview and sought feedback on the strengths, weaknesses and opportunities of the Mobility Hub. Following the workshop, three Public Information Centre (PIC) sessions were held in June 2018, December 2018 and June 2019 (refer to Appendix G for full Public Consultation Summaries).

PIC #1 informed existing conditions and provided feedback on community priorities for the Study Area. These priorities then set a basis for the Study's key directions. Subsequently, PIC #2 informed the refinement of Draft Planning Alternatives; while feedback from PIC #3 helped further refine the Preferred Planning Framework.

3.4.1 PIC #1: Open House and Visioning Workshop (June 2018)

Participants were asked to provide feedback on the following themes: Community Features; Getting Around (Transportation); Buildings and Private Spaces; Public Spaces; and Other (What Else). Key feedback included:

1. Community Features:
    a. Improve pedestrian connections to existing community features;
    b. Locate a daycare and a 24-hour community centre near the GO Station; and
    c. Upgrade arts and recreation spaces.
2. Getting Around:
    a. Improve traffic congestion and poor traffic flow;
    b. Create north-south connections across tracks for pedestrians and cyclists; and
    c. Add transit services and redesign parking around the Station to promote transit use.
3. Buildings and Private Spaces:
    a. Increase density to support transit and commercial development through attractive mixed-use development (including housing, office space and ground-floor retail);

b. Concentrate taller heights around the GO Station to minimize impacts on adjacent neighbourhoods;

c. Locate a gateway feature at the intersection of Main Street East and the road leading to the GO Station; and

d. Animate the streetscape through public art, patios and ground-floor retail.

4. Public Spaces:

a. Maintain views of the Escarpment from existing public spaces;

b. Provide public amenities (e.g., seating, public washrooms and lighting); and

c. Promote active transportation through a pedestrian and cycling bridge over the rail corridor and through non-vehicular connections (e.g., an underground path network).

5. Other (What Else):

a. Appreciation for the community feel of the neighbourhood; and,

b. Dislike for the significant amount of concrete throughout the Study Area, lack of safe active transportation options and large underutilized properties.

3.4.2 PIC #2: Open House – Planning and Development Alternatives (Dec 2018)

Participants were asked to consider three Guiding Principles associated with each of the following themes: Seamless Mobility; Placemaking; and Successful Implementation. Key recommendations included:

Seamless Mobility

Guiding Principles 1 & 2: Balanced, Safe and Efficient Mobility & Strong Visual and Physical Connectivity

Concerns related to the GO Station parking lot, including speeding vehicles and congestion. Suggestions for improvements focused on reliable transit, pedestrian and cycling connections and relocating parking off busy streets. Suggestions for visual connections included paths over and along the rail corridor and additional entry points into the Study Area.

Guiding Principle 3: Walkable, Inviting Streets and Publicly Accessible Open Spaces

Suggestions for improvements included public spaces that host seasonal events, increased densities to create safer pedestrian-friendly streetscapes, and networks of small parks and green walkways.

Placemaking

Guiding Principle 4: Intensification at an Appropriate Scale and Form

Generally supported intensification in the form of tall buildings along Main Street East. There was also general support for intensification along the rail corridor and Ontario Street, and preference for "stepping down" of density for appropriate transitions to adjacent residential neighbourhoods.

Guiding Principle 5: Mix of Uses within the Primary and Secondary Zones

Supported a mix of uses to help create a complete community. Suggestions included high-end retail, entertainment, housing and employment along Main Street East, as well as amenities and services (e.g., medical offices, daycares and grocery stores).

Guiding Principle 6: Design Excellence

Defined design excellence as "design that is bold and unique, not mediocre" that accommodates all seasons (e.g., gateway features and covered waiting areas).

Successful Implementation

Guiding Principle 7: Realistic and Achievable Plan for Growth

Noted infrastructure and services to support growth: emergency services, high-end restaurants along Main Street East, public plazas and parks/green corridors.

Guiding Principle 8 & 9: Strategic and Holistic Approach to Parking Supply & Partnerships and Innovative Solutions

Most participants drive to the GO Station but would prefer to walk, bike or take transit. Participants suggested innovative parking options (e.g., east-end parking for the existing Community Centre and Arena and using empty parking lots for events), and supported the use of public-private partnerships to provide public accessible spaces (e.g., POPs).

3.4.3 PIC #3: Open House and Pop-Ups – MTSA Design and Layout (June 2019)

Display boards set up in the Milton Mall included: Study Context, Process and Objectives; Existing Conditions; Vision and Guiding Principles; Urban Design Framework; and the Preferred Planning and Design Framework. Participants were invited to read the boards and answer the following key questions: "What do you like about the proposed plan?"; "What concerns do you have, or what would you change about the proposed plan?".

Following the open house, three pop-up sessions were held at the Milton GO Station and various community locations.

Refinements to the design (planning framework) of the Preferred Alternative as well as the Phasing and Implementation strategy were informed by the feedback received during PIC #3. The following subsection identifies key inputs, in black font, and associated refinements to the Study, in bolded font, for both the Preferred Alternative as well as the Phasing and Implementation strategy. Please refer to Section 4.0 and Section 5.0 for more information on the Preferred Alternative and Phasing and Implementation strategy.

Planning Framework Recommendations

Welcoming, Safe and Integrated Multimodal Mobility Options

- Create a welcoming space for pedestrians and cyclists (e.g., the widening of Main Street East and more seating along streets).
    - **Proposed increased right-of-way width along Main Street East to include wide sidewalks, street trees and planters, as well as cycle tracks and curb side activities to support adjacent land uses.**
- Increase accessibility for pedestrians and cyclists through improved connections to transit and the GO Station (e.g., fare-free GO rail crossings for pedestrians).
    - **Proposed underground north-south pedestrian connection across rail corridor, in addition to mid-block and pedestrian connections throughout the Study Area (including safe pedestrians connections to existing parks).**

Green and Inviting Open Spaces throughout the Study Area

- Protect Escarpment views and improve green space throughout Study Area (e.g., trees, flowers and shrubs).
    - **Proposed stepping down in building heights along Main Street East to protect views to the Niagara Escarpment, and proposed POPS and street greening throughout Study Area.**
- Create central public spaces near transit for events and commuter waiting areas.
    - **Proposed pedestrian-oriented transit hub adjacent to bus terminal and bus loop.**

Main Street East Improvements

- Widen Main Street East to create more welcoming and functional spaces.
    - **Proposed increased right-of-way width along Main Street East.**
- Increase pedestrian and cycling connections to and from Main Street East.
    - **Main Street East Precinct proposes green character along street, including cycle tracks, street furniture, street trees, etc.**

Balanced Growth

- Prioritize mixed-use buildings where people can live, work and shop.
    - **Proposed mix of uses throughout the Study Area.**
- Concentrate the highest densities along Main Street East and the rail corridor and ensure new developments provide good access to public transportation.

- **Proposed highest densities located along the rail corridor and south of Main Street East.**

- Protect Milton's historic charm by prescribing height limits and locate high-rises away from residential areas.

  - **Proposed Transition Area Precinct to accommodate appropriate transitions in height and built form for the residential neighbourhoods to the north and south.**

Design Excellence

- Ensure buildings along the north side of Main Street East are human-scaled.

  - **Proposed predominantly mid-rise built form with step backs along Main Street East, defined by a pedestrian-scaled street wall.**

Plentiful, Accessible and Safe Mobility Options

- Encourage cycling by providing connections and facilities along the rail corridor.

  - **Proposed multi-use trail on the north side of the rail corridor from Ontario Street to Thompson Road.**

- Improve vehicular traffic capacity within and outside the Study Area.

  - **Proposed shorter blocks along Main Street East and new street to connect Main Street East to the GO Station, bus loop relocation, and proposed transit improvements (see Section 4.5).**

Phasing and Implementation Recommendations

Design Excellence

- Ensure all development and design is accessible.

  - **Proposed accessible design for built form and public realm that promote active transportation and transit supportive land uses (see Appendix C, Urban Design Guidelines).**

Necessary Infrastructure and Parking Supply

- Provide a Stormwater Management Plan, and plan all infrastructure for projected growth (stormwater, road, school and community infrastructure).

  - **Proposed phasing plan for servicing, transportation, community services and facilities (see Appendices and Section 5.0).**

- Create multi-level parking garages to meet parking needs, while also redeveloping surface parking lots for mixed-use

developments.

- **Proposed parking strategy that prioritizes active transportation (e.g., bike parking) and the location of underground parking in new mixed use developments.**

Plentiful, Accessible and Safe Mobility Options

- Improve regional and local transit service by implementing all-day GO service, enhancing the frequency and connectivity of service between Milton Transit and GO Transit, and create dedicated bus lanes and additional GO Bus stops in Milton.
    - **Proposed transit recommendations that prioritize public transit and active transportation users (see Section 5.0).**

Partnerships and Innovative Solutions

- Coordinate with Metrolinx's plan for Milton.
    - **Proposed coordination with Metrolinx plans (see Section 5.0, Table 6).**

4.0
Key Directions & Recommendations

4.1 “Big Moves”

The Milton Mobility Hub will include two station plazas (north and south side of the tracks), strong pedestrian connections, parks, POPS, new public and private streets, mid-block connections, active street frontages, new community services and facilities, excellent public transit and a mix of uses. New north-south streets and paths will connect the GO Station to the overall Study Area, creating a cohesive and vibrant neighbourhood. The Mobility Hub will predominantly be a mixed-use neighbourhood with higher densities in key locations. These densities will transition down in areas adjacent to established residential neighbourhoods.

Seven key directions for the Mobility Hub have been developed to support the creation of a complete community. The key directions can be understood as “Big Moves” applicable throughout the Study Area:

1. Mixed-Use Mid-Rise Green Corridor (Main Street East)

Main Street East should serve as a green corridor that provides priority to cyclists and pedestrians. Wider boulevards with trees, street furniture, active transportation infrastructure, patio space, consistent paving treatment and ground floor activation will encourage pedestrian activity. Climate change mitigation should also be considered, such as the inclusion of low impact development (LID) features within the municipal right-of-way (e.g., porous pavers, green roofs, rain gardens, etc.).

Protected cycling tracks should be included to support efficient and safe active transportation and connect with the existing cycle network to the east of Thompson Road north and west of Wilson Drive.

The Official Plan recommends widening the right-of-way of this segment of Main Street East to 35.0 metres to accommodate an 18.4 metre travelway and 8.3 metre wide boulevards on both sides.

Heights and densities along Main Street East should step back to promote a pedestrian scale and sensitive transitions to the residential neighbourhood to the north (refer to Appendix C, Urban Design Guidelines).

2. Frame Views to the Escarpment and Throughout the Study Area

Important public views to the Niagara Escarpment should be framed through the appropriate placing of density and building heights. A network of streets, mid-block connections, open spaces and active transportation connections should provide strong visual and physical connections across the Study Area. Connections should lead to the following key destinations:

- Downtown Milton;
- Main Street East;
- Lions Sports Park;
- Milton GO Station;
- Milton Leisure Centre;

- Milton Memorial Arena;
- First Ontario Milton Centre for the Arts/Milton Public Library;
- Allendale Long Term Care Home;
- Schools;
- Milton Mall; and
- E.C Drury School for the Deaf.

3. Focus Density Along the Rail Corridor

The highest intensity of uses should be located along the rail corridor. An enhanced public realm, particularly where Main Street East, Ontario Street and Thompson Road intersect with the rail corridor should be provided to improve north-south pedestrian connectivity. Public realm improvements could include street lighting, benches, wider sidewalks and weather protection features such as awnings or canopies.

4. Mixed-Use Intensification at an Appropriate Scale and Form

Compact mixed-use buildings support sustainable transportation, efficient use of land and density targets. Intensification should be focused along the rail corridor, Main Street East and the existing Real Canadian Superstore and Milton Mall.

Buildings along Main Street East should include active frontages* with residential uses above. The definition of active frontages is generally consistent with OPA 46 and Zoning By-law 016-2014.

Retail activity should be promoted along pedestrian-focused retail streets and adjacent to the GO Station. Appropriate built form and density transitions will minimize impacts such as privacy, sun and shadow and traffic on stable residential neighbourhoods to the north and south.

5. Pedestrian-Focused Retail Streets

A new east-west street is proposed north of the GO Station, connecting Drew Centre to Thompson Road. This pedestrian-focused retail street should feature special paving and be designed for enhanced flexibility. Similarly, the new Nipissing Road extension through Milton Mall should be a pedestrian-focused retail street.

6. Bus Loop

The new bus loop should enhance connections to the GO Station facilitating safer and more efficient pedestrian connections. Cyclists should be required to dismount when approaching the terminal to minimize conflict with pedestrians in this high-traffic area.

The bus terminal should include weather-protection encouraging a comfortable passenger experience. Seamless connections should include clear wayfinding and signage.

* As per Zoning By-law 016-2014, an active frontage is “an area that should contribute to the interest, life and vibrancy of the public realm. This is achieved by providing a pedestrian oriented façade and uses at street level.”

7. Public Realm Improvements Along Ontario Street and Thompson Road

Improvements to the public realm along Ontario Street and Thompson Road should include planters, landscaping (e.g. landscape buffers and street trees), street furniture, active transportation connections, flexible open spaces, etc.

4.2 Precincts

To successfully respond to distinct environments throughout the Study Area, the Mobility Hub has been divided into five key Precincts (refer to Figures 19 and 20):

1. Main Street East;
2. Station Precinct;
3. Ontario Corridor;
4. Thompson Corridor; and
5. Transition Areas.

The following section provides a comprehensive overview of the Precincts, outlining area-specific strategies that support the overall vision for the Mobility Hub.

Parking lots between property frontages and sidewalk

Automobile-oriented Main Street East with limited street tree planting and pedestrian amenities

Figure 19: Precincts

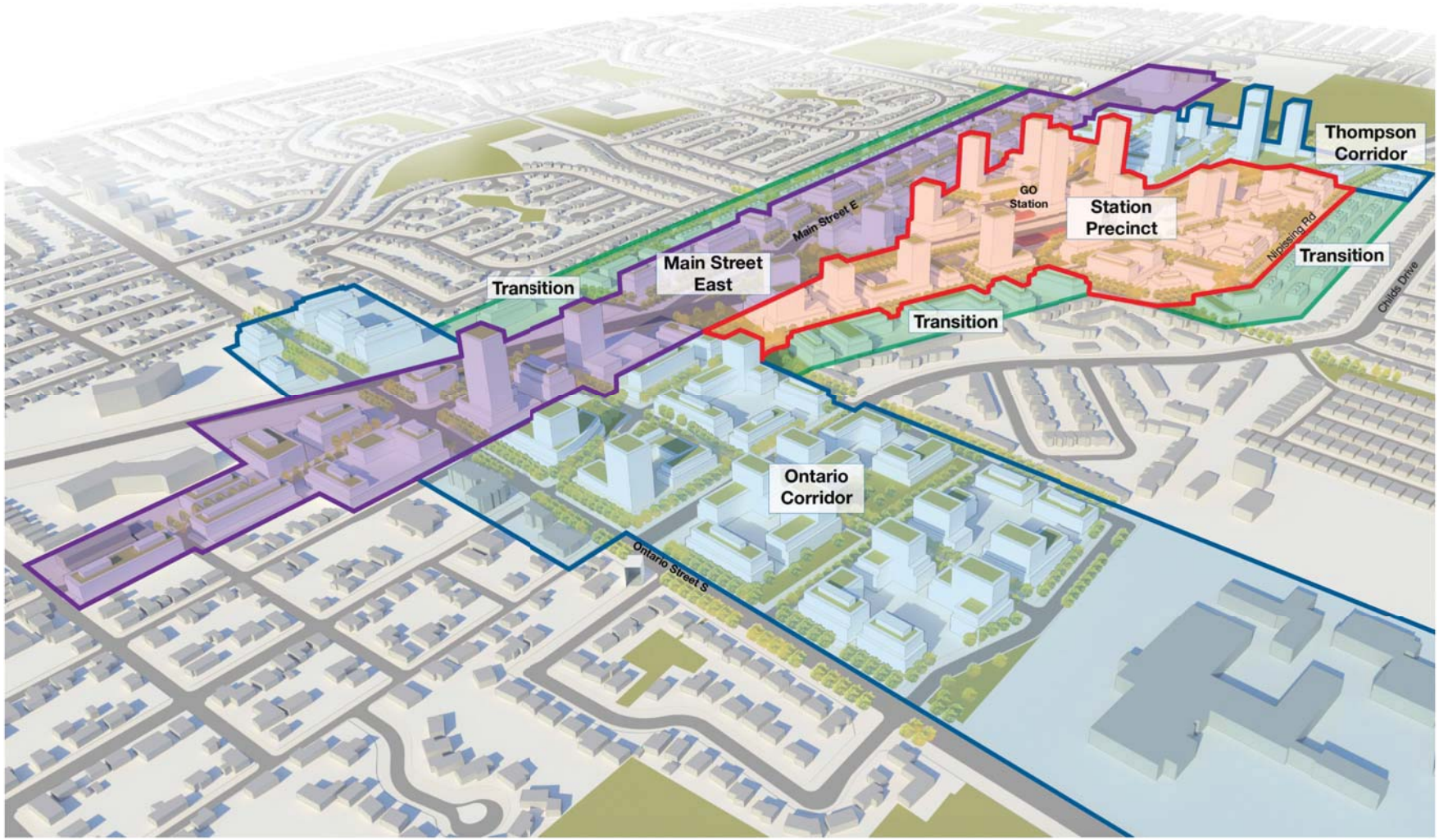


Figure 20: Precincts Demonstration Plan

4.2.1 Main Street East

Existing Conditions

Main Street East is an important and defining feature of the Mobility Hub. With its large setbacks and surface parking fronting the street, Main Street East within the Study Area differs from the active streetscape and grade related uses of Main Street East in Downtown Milton. The automobile-oriented streetscape lacks features such as pedestrian lighting, street trees and sidewalk-related buildings that would contribute to a pedestrian-friendly environment. Deep parcel fabrics characterize the north side of Main Street East, with larger commercial, institutional and parking uses to the south (e.g., auto services, recreational facilities, offices, strip plazas and GO Station Parking).

Two new developments at Main Street East and Thompson Road include an 11-storey condominium (Jasper Condos) and a 12-storey condominium with at-grade retail (Art on Main Condominium Residences).

Built Form Objectives

New buildings along Main Street East should be predominantly mid-rise, defined by a pedestrian-scaled street wall (e.g., shorter pedestrian-scaled blocks with breaks in the buildings). Active frontages, generally consistent with the definition found in OPA 46, should be required along both sides of Main Street East to reinforce the character of these areas as lively, pedestrian oriented, and interactive street fronts.

Specific locations should be punctuated by taller buildings along the south side of Main Street East. New buildings should architecturally frame views to the Station, while maintaining and enhancing existing views to the Escarpment. Taller buildings will include substantial stepbacks above the podium, as per the Urban Design Guidelines (Appendix C). Entrances to the Mobility Hub should be marked through gateways to the east and west at Ontario Street and Thompson Road (e.g., public art and architecturally significant buildings).

Shorter blocks, new streets and mid-block connections should create a finer-grain street grid and block pattern, more similar to that of Milton's historic downtown. A new street should connect Main Street East to the GO Station (Station Precinct).

Green Corridor and Public Realm Objectives

Main Street East should serve as the Mobility Hub's principal avenue. Urban plazas should act as gateways at the intersections of Main Street East with Thompson Road and Ontario Street.

As the Mobility Hub develops, Main Street East will transition from an automobile-oriented street to a green corridor, supporting seamless movement between all modes of transportation and placing special priority on accessibility and safety for both pedestrians and cyclists. Within its 35 metre right-of-way, Main Street East should adopt a strong green character (e.g., wide sidewalks, street trees and planters), that includes cycle tracks and curb side activities to support adjacent land uses.

Beyond the public right-of-way, buildings should be set back to incorporate additional landscaping, street furniture and patios that promote places to gather. Cafés and other sidewalk uses should

be introduced along the street further animating the public realm throughout the day and evenings.

4.2.2 Station Precinct

Existing Conditions

Buildings immediately surrounding the Milton GO Station include one- and two-storey automobile-oriented retail commercial buildings with parking lots between the property frontages and streets. The street network caters to GO Transit commuters parking their cars for the day as well as adjacent commercial operations.

Built Form Objectives

The highest densities within the Station Precinct should be located adjacent to the GO Station and along the rail corridor to minimize impacts on existing residential neighbourhoods north and south of the Study Area. These higher density mixed-use areas should serve as the hub for local and regional transit connections and services and should prioritize safe and efficient movement of pedestrians and cyclists.

The public spaces around the GO Station should be the focus of activity in the Station Precinct. As such, the quality of materials, amenities provided, active at-grade uses and pedestrian environment (including signage and safe connections to and from the Station) are critical to the success of the Station Precinct. Uses that are likely to attract trips into the Study Area during the day should be encouraged.

Streets and Connections Objectives

The Station Precinct should generate the highest intensity of traffic across all modes of transportation (vehicular, pick-up and drop-off, transit, cycling, and walking). Drew Centre should provide direct access from the GO Station to Thompson Road, enhancing key connections to support the Station and helping to alleviate vehicular traffic from Main Street East. Drew Centre should also provide the main connection to Lions Sports Park from the Station Precinct. A green character should mark all east-west streets connecting to the park, including the bus promenade and the multi-use path from Main Street East to the GO Station identified in Metrolinx Plans.

Infrastructure provided within the Station Precinct should facilitate cycling and walking. Dismount zones for cyclists should be provided in areas immediately adjacent to the GO Station entrances and at the Bus Terminal. The Station Precinct should also provide dedicated cycling facilities along Drew Centre eastwards towards Lions Sports Park.

4.2.3 Ontario Corridor

Existing Conditions

Ontario Street is a four-lane multi-purpose arterial with sidewalks on both sides. Grade separations at the tracks create psychological barriers to pedestrian movement to the north of the Ontario Street and Main Street East intersection (e.g., traffic and noise implications). Childs Drive is a two-lane collector (west of Nipissing) and a local road (east of Nipissing) with sidewalks on both sides.

The eastern portion of Ontario Street consists of various institutional

Main Street East Visualization

Station Precinct Visualization

Main Street East and Ontario Street intersection, looking south along Ontario Street

uses (EC Drury School for the Deaf and the Halton District School Board) and emergency services (Halton Regional Police and Halton Region EMS). The north-east portion of the Ontario Corridor Precinct is occupied by the Milton Mall (south-east corner of the Main Street East and Ontario Street intersection), with low- to mid-rise residential and institutional uses (Milton Christian School) located on the north-west.

Built Form Objectives

Buildings along Ontario Street should include mid-rise along the east side near the GO Station and lower buildings along the west side. Mid-rise buildings should be set back from the street to mitigate shadow and privacy concerns, with the highest densities adjacent to the Ontario Street and Main Street East intersection.

The Ontario Corridor should permit mixed use buildings, accompanied by existing residential, institutional and community uses to the west. Commercial uses should be encouraged at the Ontario Street and Main Street East intersection. Gateway features should be located at the intersection of Ontario Street and Main Street East, signifying transitions into the Mobility Hub (east) and into Downtown Milton (west).

Streets, Connections and Public Realm Objectives

The major intersection within the Ontario Corridor is located at Main Street East and Ontario Street. Safe pedestrian and cycling crossings should be prioritized at this location. A second significant intersection is Ontario Street and Childs Drive, which should provide access to the Station Precinct and GO Station. The Ontario Corridor should be characterized by large green setbacks and active frontages ensuring an attractive streetscape for pedestrians and cyclists.

4.2.4 Thompson Corridor

Existing Conditions

Thompson Road is a four-lane north-south minor arterial road with partial bike lanes, sidewalks on both sides and signalized crosswalks. Drew Centre is a three- to four-lane service road with sidewalks on both sides and a multi-use path along the south side (180 metres in length). Large surface parking and grade separations at the tracks create psychological barriers to pedestrian movement due to noise and traffic implications.

Thompson Road South, looking east towards Drew Centre

Major recreational, institutional and open space uses are located east of Thompson Road. These include the Milton Leisure Centre, Milton Memorial Arena, FirstOntario Arts Centre Milton and Lions Sports Park. The Precinct lacks safe pedestrian connections to Lions Sports Park.

Built Form Objectives

Buildings along Thompson Road should consist of mid- to high-rise developments along the west side of Thompson Road and open space along the east. Tall buildings should punctuate areas around the GO Station and rail corridor. Commercial and institutional uses will be encouraged at the Thompson Road and Main Street East intersection.

Building podiums along the west side of Thompson Road should create a mid-rise streetwall. Gateway features at the intersection of Thompson Road and Main Street East should highlight the transition from large blocks east of the Study Area to the fine-grain mid-rise character of Main Street East. Built form transitions should provide a buffer to the stable residential neighbourhoods south of the rail corridor.

Streets, Connections and Public Realm Objectives

The major intersection within the Thompson Corridor Precinct is located at Thompson Road and Main Street East. The Drew Centre and Thompson Road intersection should support circulation in and out of the Station Precinct, with expected increased levels of traffic generated by commuters during weekday peak rush-hour.

As a feeder route to the Station Precinct, Thompson Road should provide access through Drew Centre (north) and Nipissing Road (south) to the north and south entrances of the GO Station. Improved pedestrian crossings should provide safe connections to Lions Sports Park. Frontages along Thompson Road should include green features such as street trees, public furniture and pedestrian and cycling amenities.

4.2.5 Transition Areas

Existing Conditions

The Transition Area along the south side of Nipissing Road includes large parcels occupied by low-rise commercial and industrial uses such as supermarkets, auto services and a religious establishment

(St George And St Abanoub Coptic Orthodox Church).

The Transition Area identified along the northern edge of the Study Area includes the rear half of the deep parcels fronting Main Street East. These parcels are occupied by low-rise commercial uses such as auto services, recreational facilities and offices.

Built Form Objectives

Buildings and land uses in the Transition Areas along the northern and southern boundaries of the Mobility Hub should be mid- to low-rise residential to provide sensitive transitions to adjacent stable existing residential neighbourhoods and to mitigate shadow and privacy concerns.

Streets, Connections and Public Realm Objectives

Transition Areas should include street trees and sidewalks. Blocks will be broken up by mid-block connections (e.g., pedestrian and cycling paths and new local streets).

4.3 Planning and Development Framework

The Planning and Development Framework combines aspects of both Planning and Development Alternatives and is informed by feedback from Milton residents and key stakeholders (refer to Appendix A for details on Planning and Development Alternatives 1 and 2).

This section provides a description of the framework for the following plans:

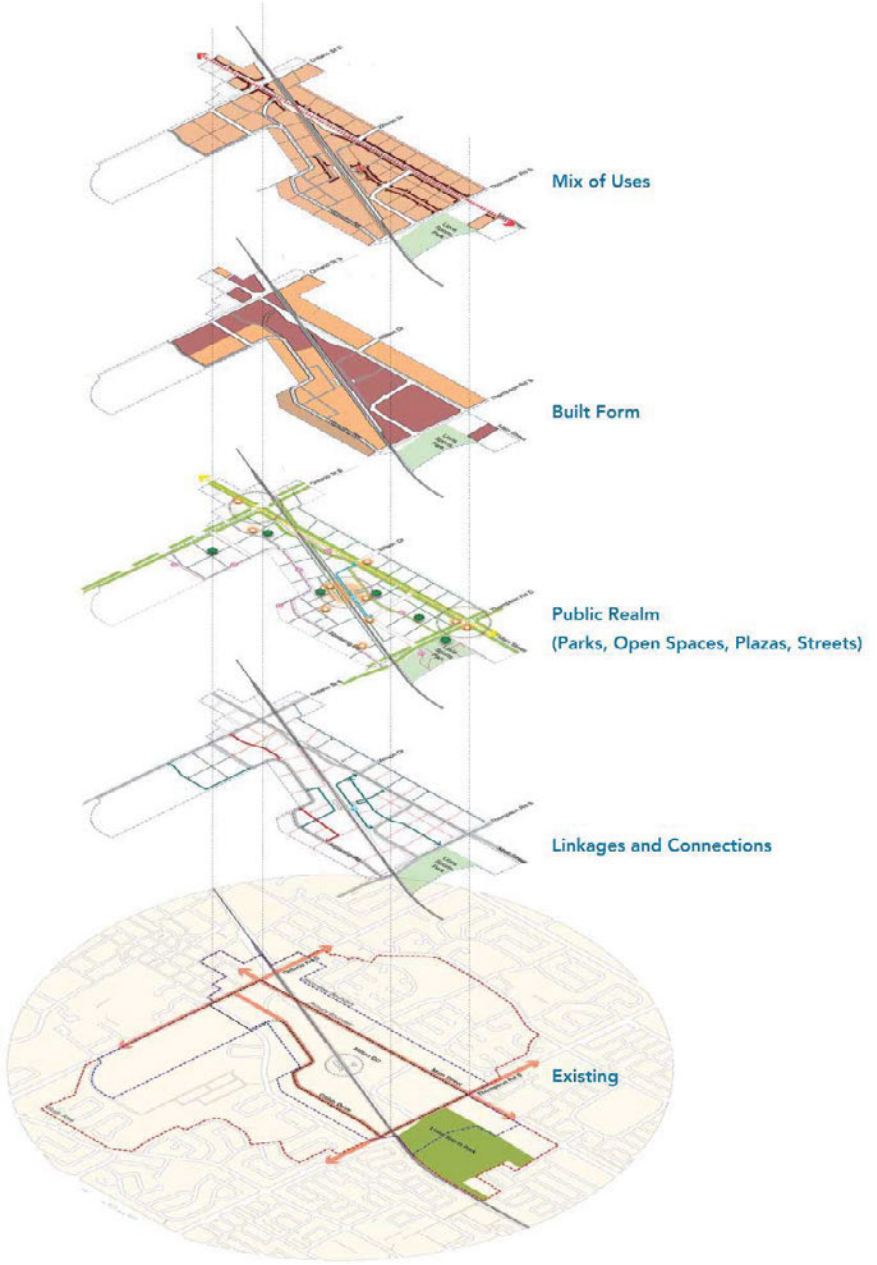


Figure 21: Axonometric Drawing - Planning Frameworks

1. Land Uses;
2. Streets and Blocks;
3. Transportation Network;
4. Publicly Accessible Open Spaces;
5. Building Heights; and
6. Density.

More detailed directions are provided following the description of the Preferred Planning and Development Alternative.

Land Uses

Recommended land uses are predominantly mixed use with some institutional and residential only permissions. Active frontages should be required near the rail corridor and along Ontario Street, Main Street East and Thompson Road (refer to Figure 22).

Streets and Blocks

The planning and development framework reduces block sizes and increases the number of streets throughout the Study Area providing a finer-grain network that will improve permeability and connectivity. Smaller blocks provide opportunity for integrated pedestrian walkways, linear green spaces and breaks in the building façade informing the scale and rhythm of new development. The proposed street and block pattern are closer to the historic fabric of Downtown Milton. It includes mid-block connections, which have flexible locations and can be in the form of new streets or paths.

The street and block pattern within the Metrolinx lands adopt Metrolinx's proposed surface parking and street layout, but is designed to phase out surface parking and replace it over time with alternative uses. A bus transit plaza will be located along the northern edge of the rail corridor. Pedestrian crossings are also incorporated throughout the site to improve permeability and connectivity. The GO Station lands including a new north-south pedestrian connection below the rail corridor are consistent with Metrolinx plans for the area (refer to Figures 23-24).

Setbacks

Figure 25 identifies recommended setbacks for the road network within the Study Area. This includes a setback of 6.0 m along the south side of Main Street East and 3 m setbacks along the north side of Main Street East and portions of the east side of Ontario Street and the west side of Thompson Road. Required setbacks are intended to facilitate wider sidewalks, bicycle lanes, landscaping for planting and furnishing zones, patio spaces and other public realm improvements. Setbacks are also intended to protect views to the Escarpment.

As identified on Figure 25, the GO Station Area and Retail Priority setbacks are intended to allow for an enhanced public realm that is both safe and accessible for pedestrian movement. Specifically, the setbacks along the Retail Priority Street accommodate a flexible street design for occasional and seasonal use through a 2.4 metre Flex Zone (i.e. space for parking that can be transitioned for pedestrian uses), thus creating a pedestrian focused retail environment with ample space for removable planters, street furniture and patio fences.

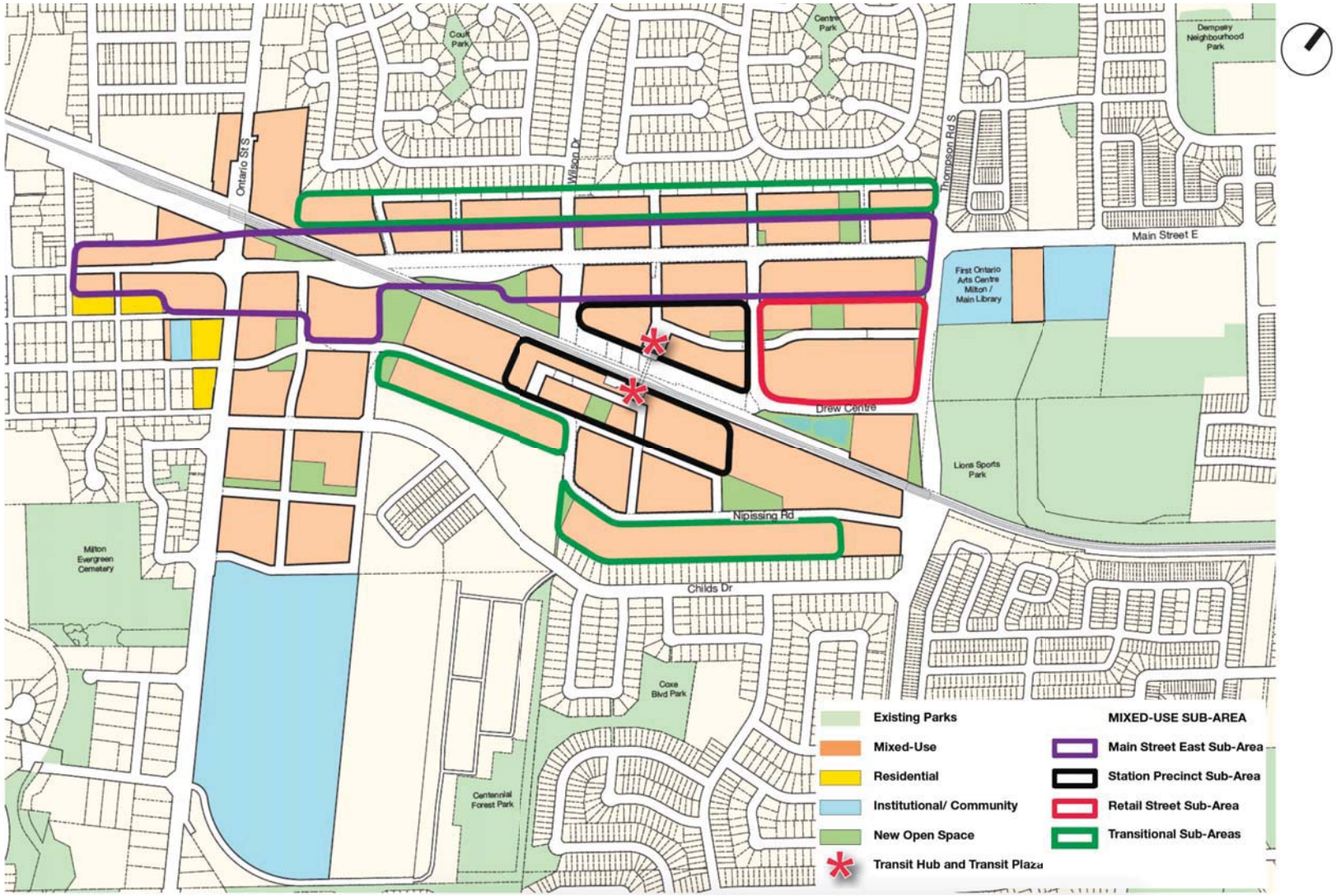


Figure 22: Land Uses

The Internal Street setbacks (including neighbourhood streets, Drew Centre and Nipissing Road) intend to create an enhanced pedestrian environment with tree planting and greening and accommodate a mix of uses within the public right-of-way. As an active transportation connection to and from the GO Station, Nipissing Road is to accommodate uses such as active and residential uses at grade, in addition to sidewalks, tree planting, on-street cycling and bus lanes within its 26 metre right-of-way. The setbacks for neighbourhood streets accommodate an enhanced pedestrian environment with tree planting and greening in addition to street parking and on-street cycling. These internal streets will accommodate slow moving vehicular traffic.

See Urban Design Guidelines (Appendix C) for additional information on guidelines and standards as they relate to recommended setbacks.

Transportation Network

The transportation network includes new local street connections to Main Street East, Ontario Street and Thompson Road. A proposed parallel road north of Main Street East runs from Thompson Road to just east of the rail corridor. Nipissing Road is proposed to extend through to Ontario Street.

A new street is proposed south of the GO Station connecting to Nipissing Road. A Wilson Drive extension is additionally proposed from Main Street East west of the GO Station. The extension creates a direct busway from the station area and connects to a new east-west pedestrian-priority street.

Publicly Accessible Open Spaces

The Planning and Development Framework includes a series of publicly accessible open spaces north and south of the GO Station. Approximately 10 per cent of the developable area should be dedicated to publicly accessible open spaces. The opportunity exists for each open space to have a distinct character and programming that complements adjacent development. These sites will be suitable for passive outdoor use.

The priority will be to deliver developer funded and privately owned public spaces in the short term. Opportunities for Town parks will be implemented in accordance with Town policies, where appropriate.

The framework provides better access to existing parks through improved connectivity and public realm improvements (refer to Figure 26). POPS are intended to augment and complement the existing public parks and open spaces. Privately owned and maintained, POPS provide safe, attractive and lively public spaces for residents and visitors in the Study Area.

Potential POPS for the Mobility Hub vary in size and include urban plazas, courtyards and mid-block connections, and are generally located adjacent to active ground floor uses (including retail and employment uses) and at key locations within the Study Area.

The Demonstration Plan illustrates 23 publicly accessible open spaces distributed across the Study Area. The intent is that most POPS, if not all, would be developer funded and maintained. It is recommended that, where feasible, the Town consider acquiring 1-2 small public parks in the Primary/Secondary Zone through the Planning Act.

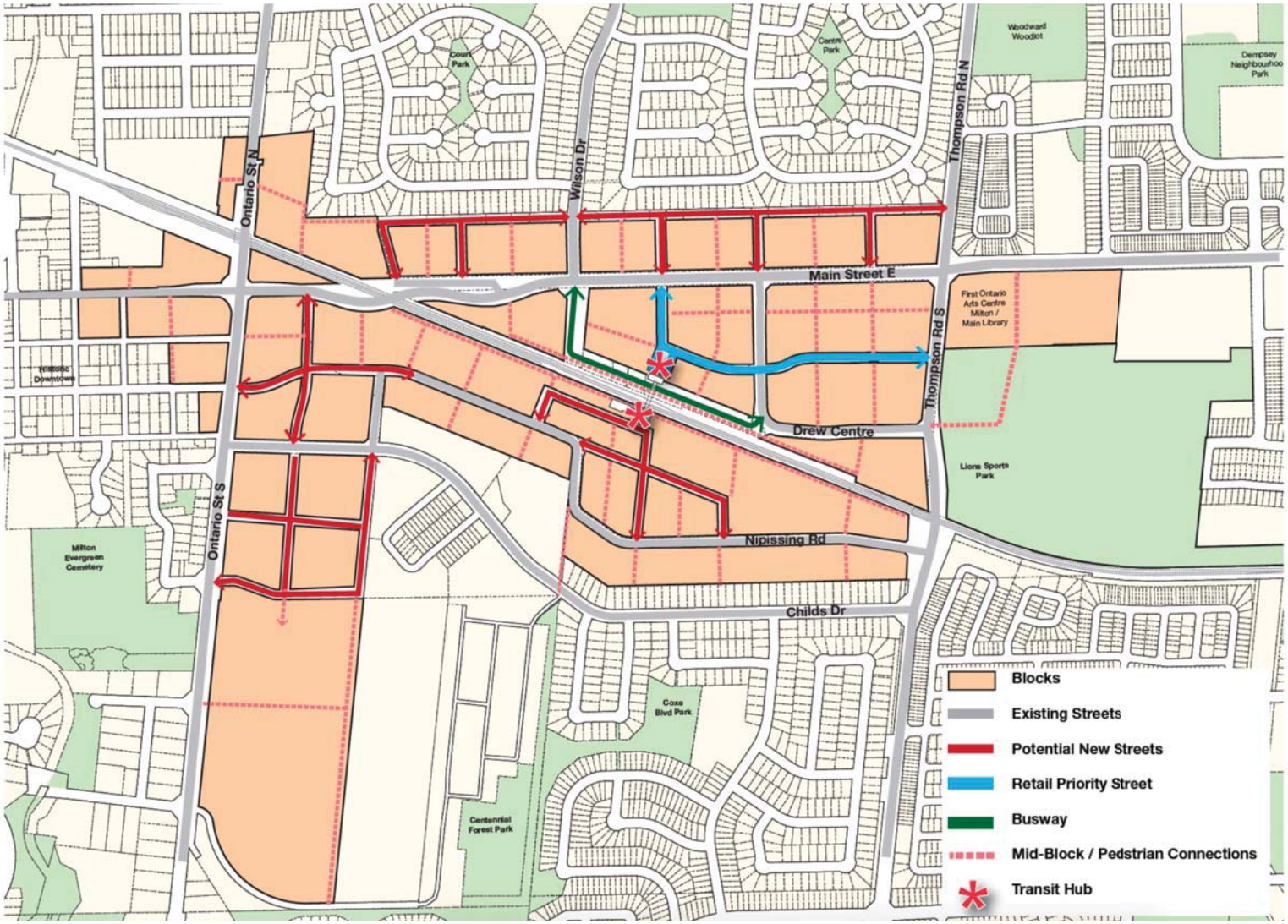


Figure 23: Streets and Blocks

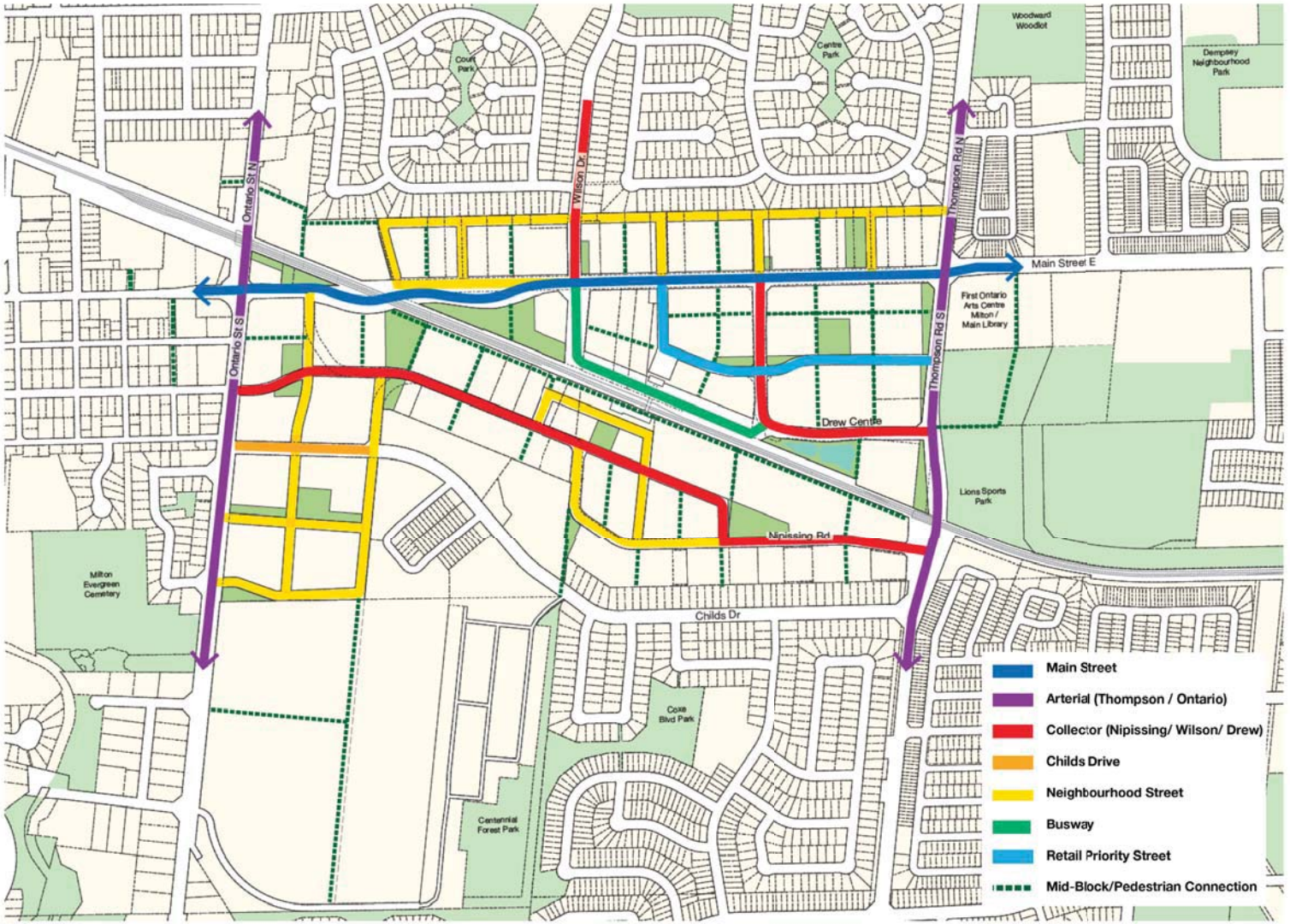


Figure 24: Street Types

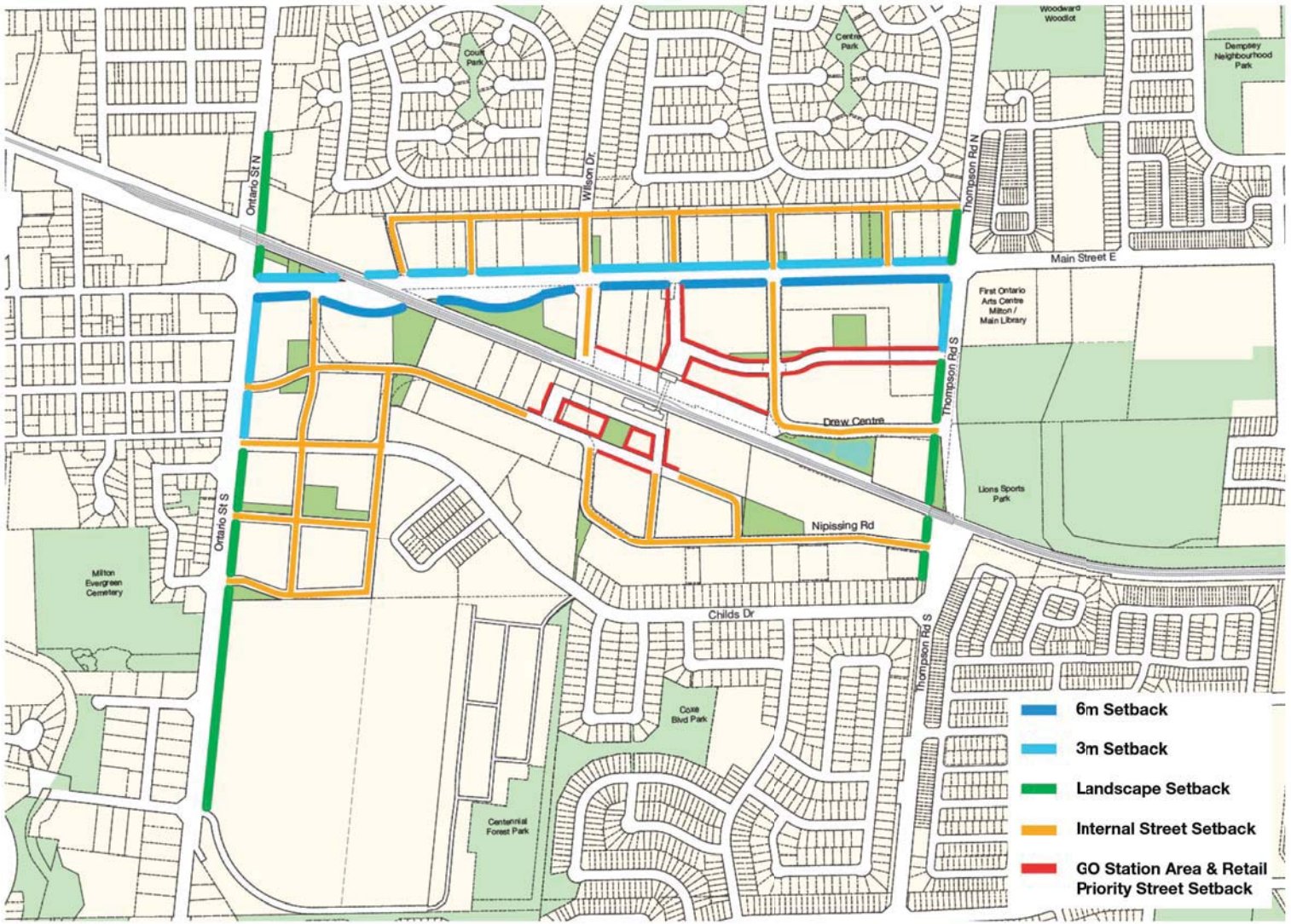


Figure 25: Setbacks

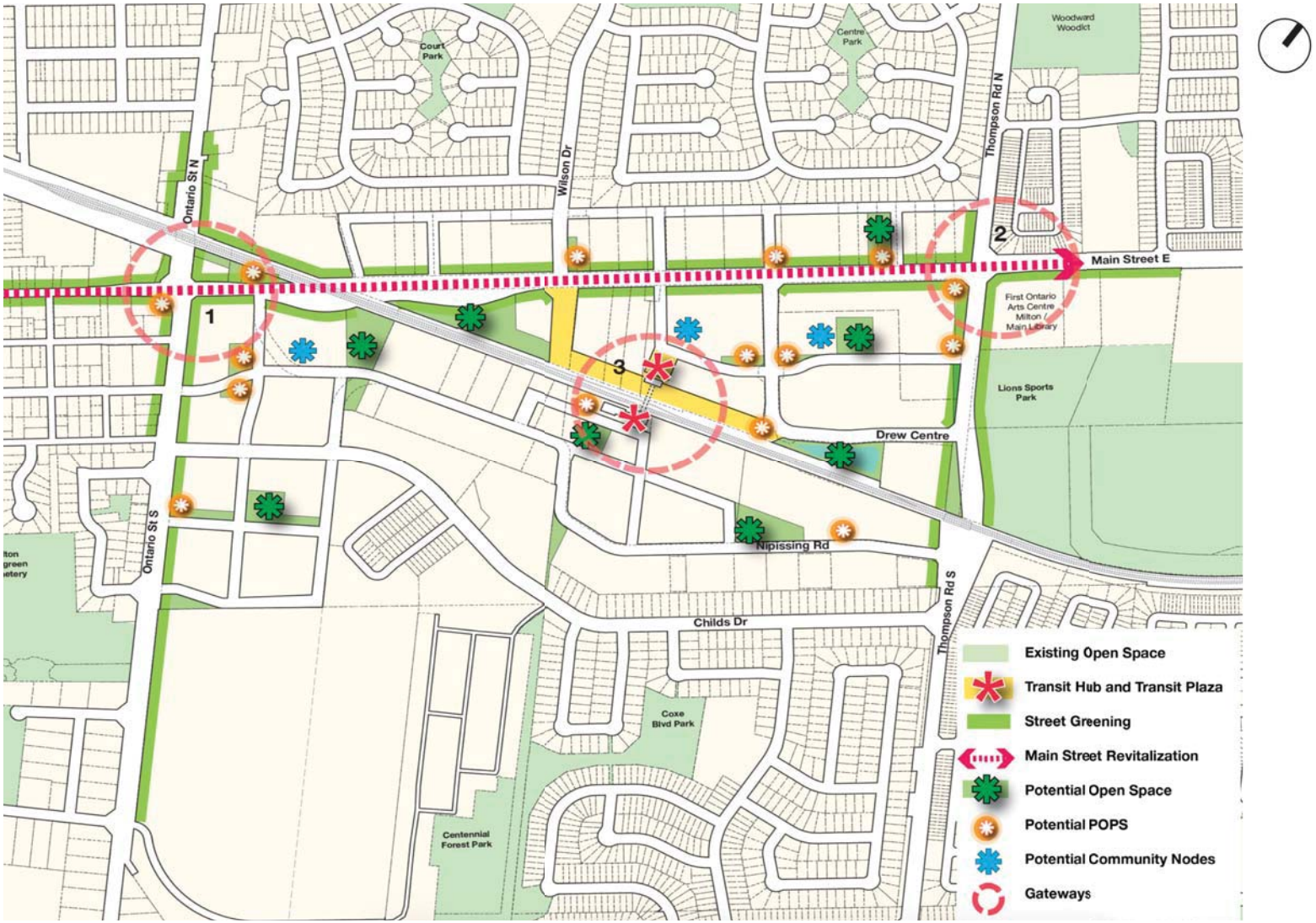


Figure 26: Public Realm

* Potential Community Nodes are possible locations for community spaces, such as multipurpose spaces or schools.

The following items should be considered in the design of POPS:

- Locate in spaces that are accessible from public sidewalks / paths, and visible from active indoor areas;
- Provide high-quality design for seating, public art, play equipment, shelters, paving and fencing (including hard and soft landscaping materials);
- Use low maintenance plant materials;
- Include clear and accessible wayfinding and signage;
- Provide pedestrian and cycling amenities such as sheltered seating, bike parking and public washrooms;
- Improve stormwater pond to potentially function as a hybrid of vital stormwater management infrastructure and innovative public open space;
- Maximize sun exposure and consider integration with rooftop amenities and gardens; and
- Maintain consistency in building materials to ensure physical and visual connectivity with surroundings.

Refer to the Urban Design Guidelines (Appendix C) for additional details on the public realm framework for the Mobility Hub.

Building Heights and Density

The tallest buildings are concentrated on the immediate north and south sides of the rail corridor. Tall buildings are also encouraged along the east side of Ontario Street and south of Main Street East. The intersection of Ontario Street and Main Street East is intended to serve as a gateway node into the Study Area.

Main Street East is envisioned as the spine of the Mobility Hub and a landmark street with wide sidewalks, physical separation of modes, generous street trees and other soft landscaping, store-front patios and active building frontages. Mid-rise buildings are permitted on the north side of Main Street East with low-rise townhouses along the Study Area's northern edge. Through a mix of mid- and low-rise buildings, the Tertiary Zone provides a transition to established residential neighbourhoods located to the north and south of the Study Area (refer to Figure 27).

Figure 28 illustrates the recommended density framework for the Study Area with the greatest densities located adjacent to the Station Precinct and along the rail corridor.

At full build out, the planning and development framework as visualized in the Demonstration Plan has a projected density of 221 people and jobs per hectare in the Primary and Secondary Zones. This results in a total of 25,114 residents and 4,137 jobs, with a sum of 29,251 total people and jobs.

The Downtown Milton UGC has an area of 139 hectares and, based on the 2016 census and 2015 employment survey, 5,641 total people and jobs for an existing density of 41 people and jobs per hectare. This is based on 1,057 people and 2,971 jobs located in the portion of the UGC within the Mobility Hub and 1,223 people and 390 jobs located in the UGC outside of the Mobility Hub boundary.

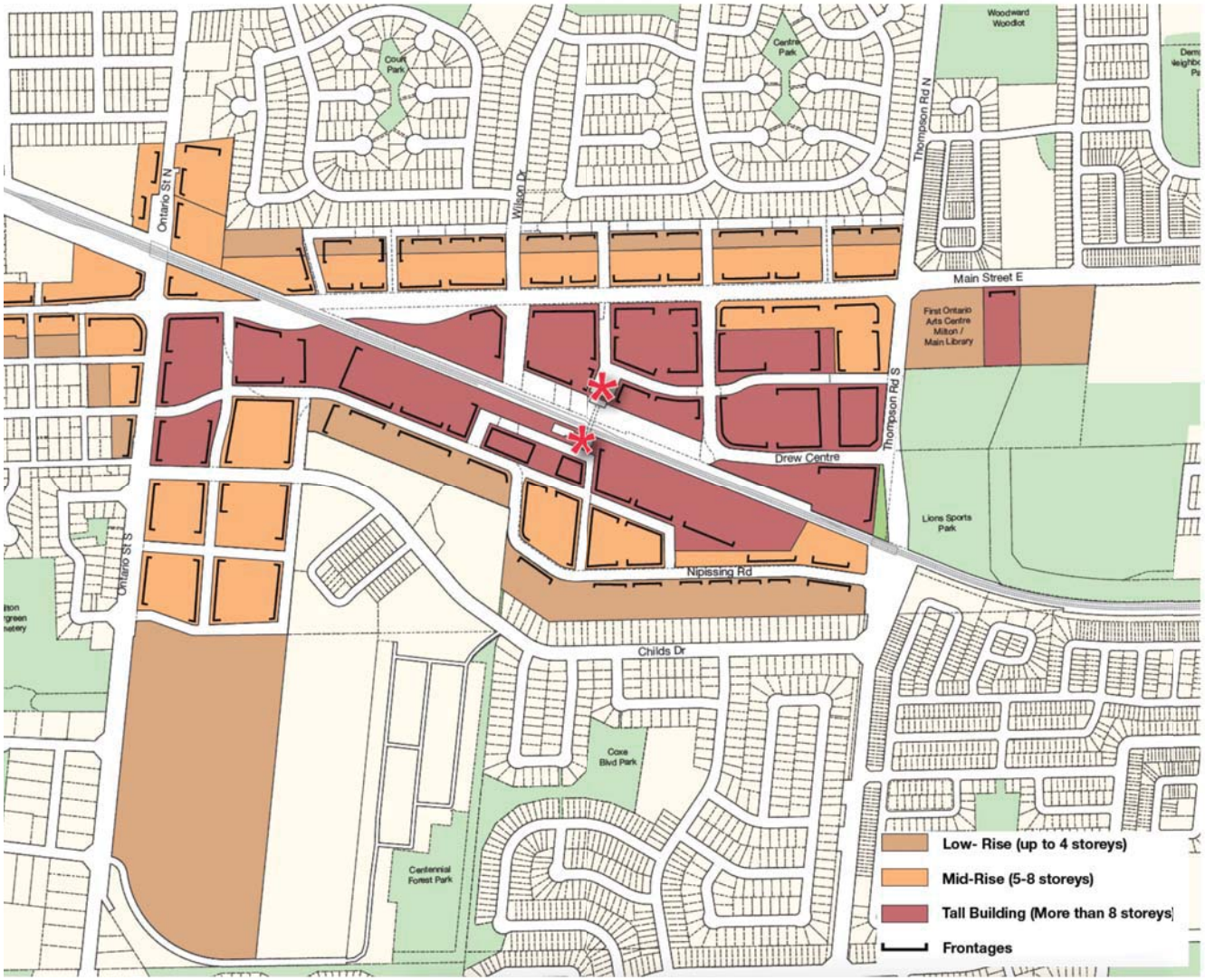


Figure 27: Building Heights

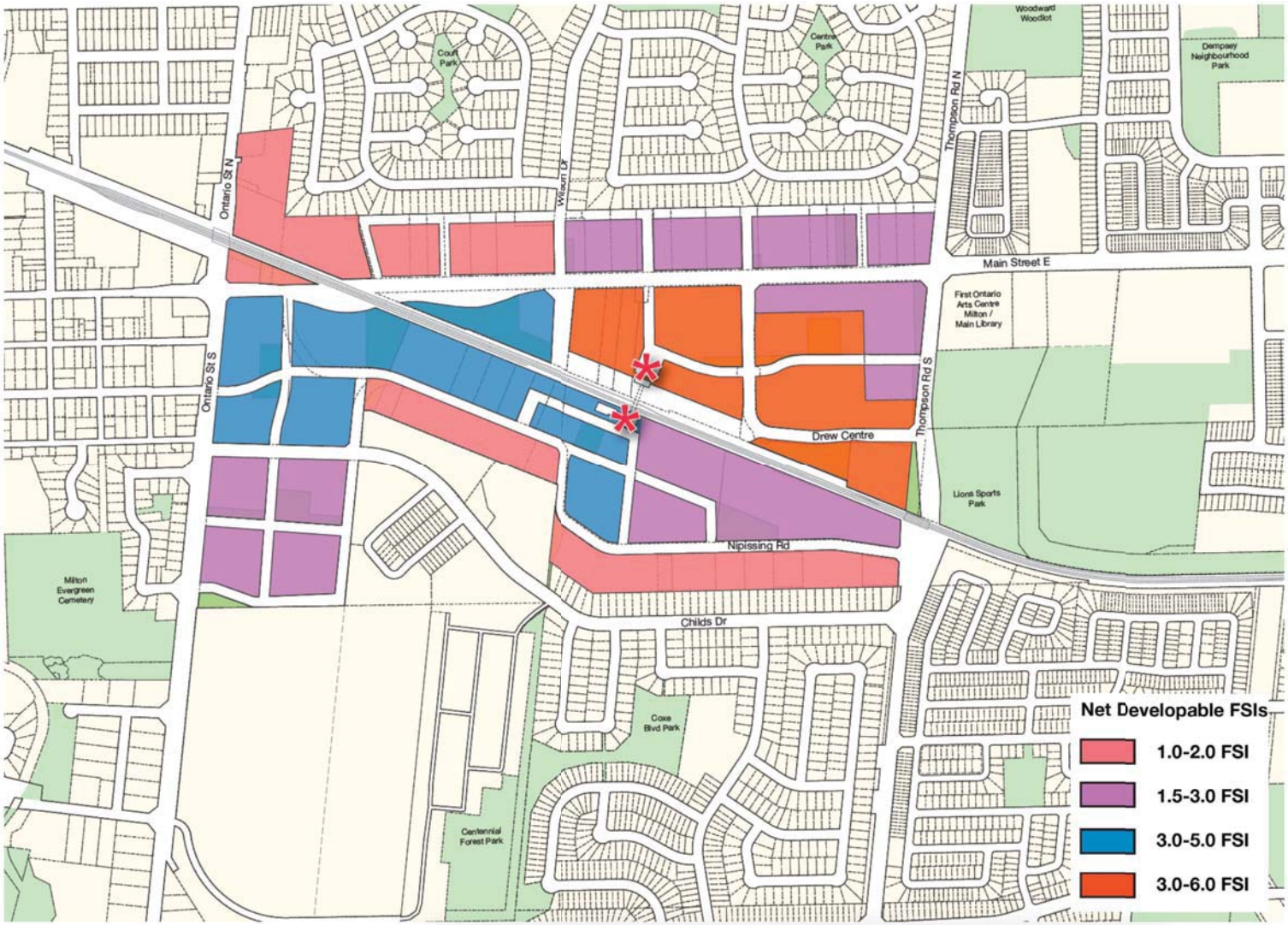


Figure 28: Density Framework

Development potential for the UGC lands outside the Mobility Hub are constrained by the flood plain and heritage properties meaning that development within the Mobility Hub will be required to undergo the large majority of intensification required to achieve mandated Provincial density targets of 200 people and jobs per hectare for the UGC.

Adopting the Demonstration Plan's projected population and employment growth for lands within the Mobility Hub that are considered part of the UGC (the Primary and Secondary Zones) results in 25,114 people and 3,921 jobs, assuming no population and employment growth for portions of the UGC outside the Mobility Hub. As mentioned above, the area of the UGC outside the Mobility Hub was calculated to have 1,223 people and 390 jobs. Together, this results in a total of 26,337 residents and 4,311 jobs over the UGC's 139 hectares, or 30,648 people and jobs combined. The projected density is 220 people and jobs per hectare for the UGC at full build out.

4.3.1 Demonstration Plan

The Demonstration Plan is illustrated in Figures 29-30. The Demonstration Plan represents one possible development scenario for the Study Area, based on the recommended planning and development framework (land uses, streets and blocks, public realm, building heights and FSIs).

*Note: The Demonstration Plan is presented for illustrative purposes only and is not the only potential outcome of the recommendations, which provide flexibility for various approaches. Built form testing assumes an aspirational approach to not underestimate potential development. Not every site tested will necessarily redevelop. This modelling exercise provided input to assessments for servicing infrastructure, transportation, and community services and facilities.

Projected densities for the Study Area are based on the Demonstration Plan's residential and employment gross floor area (GFA) along with people per unit and floor space per worker ratios. While the Study Area may not develop in the manner illustrated in the Demonstration Plan, it provides a fairly accurate snapshot of total achievable GFA.

Preliminary density and growth projections were also calculated for Planning and Development Alternatives 1 and 2. As no demonstration plan was prepared for these Alternatives, projected densities were based on the following methodology:

1. Floor space index (FSI) values were assigned to each block in the conceptual framework plans.
2. Block area was calculated using a spatial software called QGIS.
3. Estimated gross floor area (GFA) for each block was calculated by multiplying the assumed FSI by the block area.
4. Net floor areas (NFA) were calculated based on the assumption that NFA is 90% of GFA (which assumes a very high-efficiency floor plate).
5. Population and employment densities were calculated using people per unit and floor space per worker assumptions provided in the 2017 Development Charges Study from the Region of Halton.

FSI values assigned at this time were high-level and preliminary, evolving over the course of the Study.

4.4 Land Use Designations

The proposed policy directions are informed by Milton's Official Plan including Milton's Central Business District (CBD) Secondary Plan. General mixed-use policies are applicable to all lands within the Mobility Hub (with the exception of existing community parks, institutional and residential areas), with additional specific policies tailored for Sub-Areas.

Sub-Areas include:

1. Main Street East Sub-Area;
2. Station Precinct Sub-Area;
3. Retail Street Sub-Area; and
4. Transition Sub-Area(s).

Lands within the Mobility Hub are designated as one of the following land use categories, as depicted on Figure 29:

- Mixed-Use Area - General;
    - Mixed-Use Main Street East (Sub-Area)
    - Mixed-Use Station Precinct (Sub-Area)
    - Mixed-Use Retail Street (Sub-Area)
    - Mixed-Use Transition (Sub-Area)
- Residential Area;
- Institutional Area; and
- Community Park Area.

4.4.1 General Policies

The policy directions included in this section apply to all lands within the Mobility Hub, unless otherwise specified in the Sub-Area classifications. The Mixed-Use General designation shall be permitted on all lands, with the exception of existing lands designated as Institutional and Residential Areas (refer to Figure 31). Land use compatibility and air quality/noise and vibration assessments must be conducted to ensure proposed uses are permitted along Rail corridors.

Mixed-Use General

Permitted Uses

- The Mixed-Use General Area permits for the full range of commercial uses including retail, office, and service commercial uses and community facilities, including a diversified mixture of basic shopping facilities, specialty retail, business and professional offices, personal service uses, assisted, affordable and special needs housing and religious, recreational entertainment and cultural facilities, unless otherwise specified in the Sub-Area classifications (Policy 3.5.2.1, Official Plan, as modified by OPA 31); and
- The full range of Medium Density Residential II and High

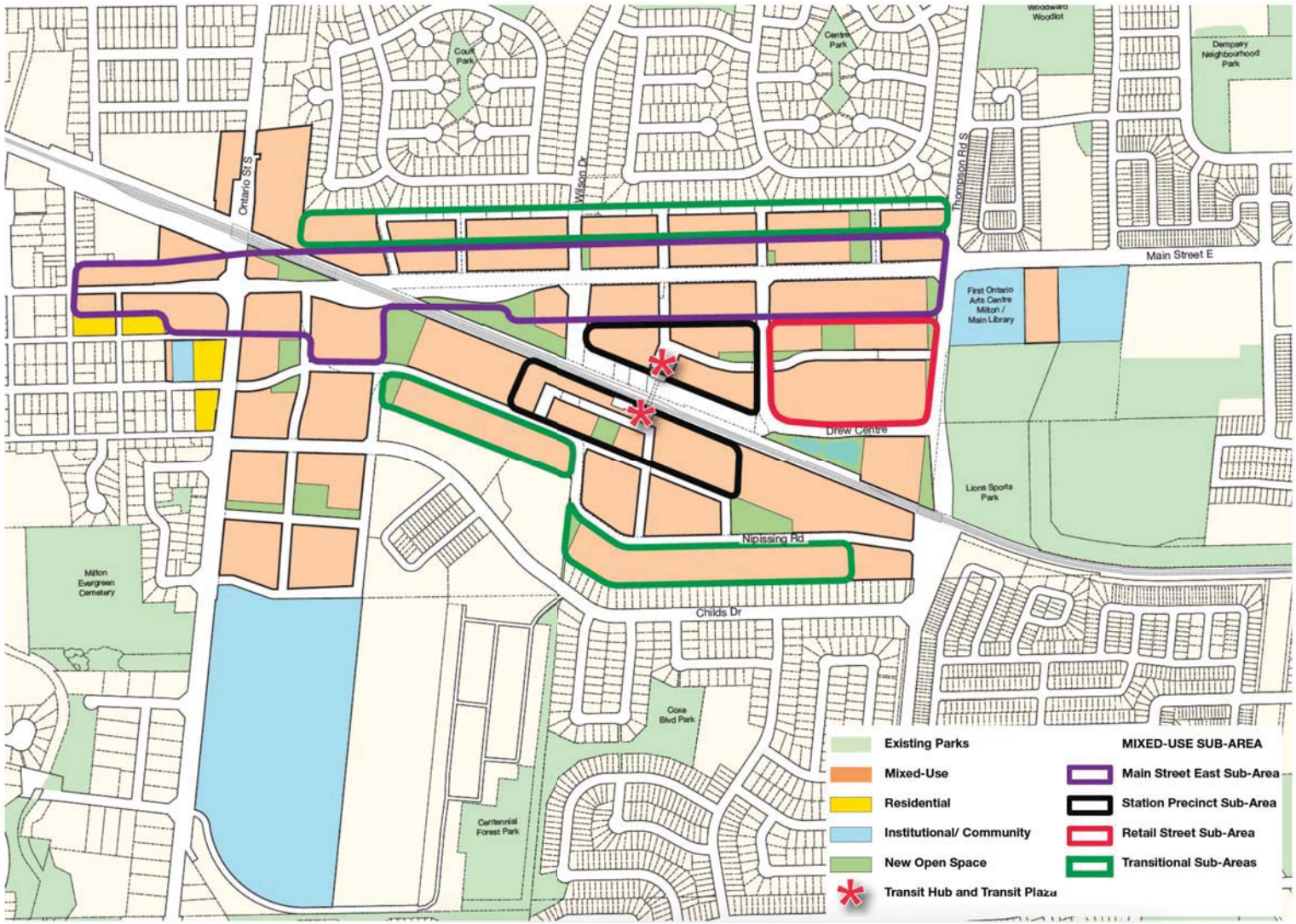


Figure 29: Land Uses with Sub-Areas

Density Residential and related uses as outlined in Section 3.2 of Milton's Official Plan shall be permitted as part of mixed-use developments within the Mobility Hub, including each Sub-Area:

- Medium Density Residential II permits stacked townhouses and apartments; and
- High Density Residential permits apartments.

Permitted Building Types

- Permitted buildings may include a wide range of complementary uses to contribute to the vitality and mixed-use character of the Mobility Hub. Uses that support live-work relationship shall be encouraged, including residential units above commercial establishments or offices (Policy 3.5.3.5); and
- All new developments should be consistent with the built form guidelines and standards outlined in the Urban Design Guidelines (Appendix C).

Institutional Area

Permitted Uses

- As outlined in Section 3.10 of Milton's Official Plan inclusive of OPAs 31 and 55, the Institutional designation permits public, quasi-public and private non-profit uses of municipal, regional or provincial significance, including hospitals, major educational uses such as secondary schools, places of worship, assisted and shared housing, Residential Care Facilities; and other major community uses on sites which generally exceed one hectare (Policy 3.10.2.1, Official Plan);
- Accessory service uses, retail uses, office functions, as well as residential uses including assisted and shared housing may also be permitted in conformity with the policies of subsection 3.10.3.2 of the Official Plan and subject to compliance with applicable codes, regulations and all other applicable land use policies (Policies 3.10.2.2 - 3.10.2.3, Official Plan):
  - Blocks designated Institutional are located along the south-eastern side of Ontario Street, south-west of the Ontario Street and Main Street East intersection, and on the south-east corner of the Thompson Road and Main Street East intersection (refer to Figure 31).

4.4.2 Sub-Areas

Mixed-Use Main Street East Sub-Area

Planned Function

A defining feature of the Mobility Hub, the Main Street East Sub-Area will serve as a main promenade connecting the neighbourhoods east of Thompson Road through to Downtown Milton. Main Street East will feature a mid-rise built form and pedestrian-scaled street wall with significant public realm improvements to support active frontages and a pedestrian-friendly character.

Permitted Uses

- The Main Street East Sub-Area permits all uses included within the Mixed-Use General designation;
- Encouraged uses include the full range of retail commercial uses including hotel, conference, convention and banquet facilities uses; office uses; institutional uses; cultural and entertainment uses; and service-commercial uses. Encouraged uses also include potential community nodes, in addition to mixed-use development and residential development in accordance with the following:
    - Retail commercial and any other non-residential uses are encouraged at grade.
- New open spaces and public realm improvements (including right-of-way considerations) guiding the development of a high-quality pedestrian environment should be consistent with the specific recommendations outlined for Main Street East in the Urban Design Guidelines (Appendix C).

Active Frontages

Active Frontages shall:

- Provide pedestrian traffic generating activities at street level particularly retail and service uses;
- Incorporate transparent display windows for a majority of the street facing ground floor wall with at least one main entry leading directly from the sidewalk, which is universally accessible to the public; and,
- Have a ground floor level at sidewalk grade elevation and ground floor heights of at least 4.5m measured floor to floor.

All buildings shall be designed to reflect the emerging Main Street East context and should have detailed and well articulated street level façades with high quality materials. Blank walls facing a street, lane or public open space shall be avoided.

Mixed-Use Station Precinct Sub-Area

Planned Function

The Station Precinct Sub-Area will accommodate the highest densities within the Mobility Hub. As a hub for local and regional transit connections and services this area will serve as the centre of activity for the Mobility Hub.

Permitted Uses

- The Station Precinct Sub-Area permits all uses included within the Mixed-Use General designation, in addition to community nodes (e.g. childcare, community hub);
- Encouraged uses for the Station Precinct Sub-Area include High Density Residential. No development within this Sub-Area shall proceed until a strategy to address the long term parking requirements of Metrolinx can be developed to the satisfaction of the Town of Milton and Metrolinx. Development within this Sub-Area shall be undertaken in accordance with the tall building guidelines outlined in the Urban Design

Guidelines (Appendix C);

- Commercial retail uses will be encouraged to develop in this Sub-Area provided they are integrated into residential or office developments and are oriented to face public streets; and
- Urban plazas with active grade-related buildings are proposed and encouraged at both GO Station entrances, as outlined in the Urban Design Guidelines.

Mixed-Use Retail Street Sub-Area

Planned Function

Adjacent to the GO Station, the Retail Street Sub-Area will be planned as a flexible boulevard with a fine-grained block pattern that serves as a node for retail commercial and residential uses. A proposed east-west pedestrian-focused street and mid-block connections will provide seamless movement for pedestrian and cyclists.

Permitted Uses

- The Retail Street Sub-Area permits all uses included within the Mixed-Use General designation;
- The full range of retail commercial uses are encouraged for the Retail Street Sub-Area, provided they are integrated into residential developments, have frontages on public streets and are part of a mixed-use development. These uses include: higher density residential and employment uses, major office, retail, hotels, convention centres and appropriate major institutional uses; and
- The full range of Medium Density Residential II, High Density Residential and related uses as outlined in Section 3.2 of Milton's Official Plan shall be permitted as part of mixed-use developments within the Sub-Area. These permissions include:
    - Stacked townhouses and apartments within the Medium Density Residential II designation; and
- Apartments within the High Density Residential designation.

Mixed-Use Transition Sub-Area(s)

Planned Function

The Transition Sub-Areas will feature mid- to low-rise built forms, ensuring appropriate transitions to help minimize impacts on the stable neighbourhoods to the north and south. In these areas, residential uses such as townhouses (e.g., stacked or back-to-back) are encouraged to create a fine-grained building scale within the larger blocks, providing a transition from the taller buildings.

Permitted Uses

- The Transition Sub-Areas permit all uses included within the Mixed-Use General designation;
- Standalone residential uses consistent with the Medium Density Residential I and Medium Density Residential II designations, as outlined in Section 3.2 of Milton's Official Plan, are encouraged for the Transition Sub-Areas:

- Street townhouses, stacked townhouses, triplexes, quattroplexes and row housing within the Medium Density Residential I designation; and
- Townhouses and apartments within the Medium Density Residential II designation.

- Development within these Sub-Areas shall be undertaken in accordance with the guidelines and standards for low- to mid-rise buildings, as outlined in the Urban Design Guidelines (Appendix C).

4.4.3 Built Form

Figure 27 illustrates the height distribution of buildings within the Mobility Hub. Minor changes to the recommended heights will be permitted where a project meets the overall objectives included in this report and is consistent with the Urban Design Guidelines.

The greatest densities shall be concentrated around the GO Station area and along the rail corridor, with densities transitioning downwards to stable residential neighbourhoods to the north and south.

Figures 27 and 28 provide a guide to the building heights and densities applicable within a particular development block. It is not to be assumed that each individual building within a block will necessarily be at the height and density indicated. Specific heights and densities will be informed by an analysis of the site context and the preparation of a site specific urban design brief.

4.4.4 Public Realm

Figure 26 identifies a public realm network for the Mobility Hub. Features include street greening, gateways, and potential parks, plazas and community nodes.

New parks, open spaces and connections will provide additional greening, support community vitality and better access to Lions Sports Park. Plazas and other POPS will contribute to an active and consistent green space system.

Lands identified for gateways shall be developed as points of interest and gathering spots, and shall prioritize opportunities for public art, architectural innovation and retail uses. Detailed design guidance for the public realm is provided in the Urban Design Guidelines (Appendix C).

The majority of open spaces within the Mobility Hub will be POPS. Their function will be similar to that of public open spaces but the land will be under control of agencies such as Metrolinx or private developers via condominium corporations. The design of POPS should:

- Provide direct access from adjacent public sidewalks.
- Include features (e.g. paving, seating, public art, etc.) constructed of materials equal in quality and appearance to those used in station entrances, main private buildings and nearby public spaces.
- Locate semi-public open spaces to be visible from active indoor areas.

- Where easy internal access can be provided include semi-public open space in the form of rooftop amenity space.
- Maximize sun exposure through the location and massing of taller building elements.
- Use hard and soft landscaping materials that are high quality, easily replaceable and low maintenance.
- Support Active Transportation initiatives for routes to schools;
- Ensure all-season comfort for users;
- Select site furnishings (e.g. play equipment, public art, shelters, signage, fencing, etc.) that are manufactured from high quality durable materials.
- Use plant materials that are low maintenance, and pest and disease resistant.
- Ensure landscaping and site furnishings maintain clear views into and out of semi public open spaces.

4.4.5 Urban Design

All new public and private development is to be informed by the Urban Design Guidelines, included as Appendix C of this Report.

4.5 Transportation Policies

As part of the Mobility Hub Study, an Area Transportation Plan (Appendix E) was prepared in accordance with the Municipal Class Environmental Assessment (MCEA) process for master plans and is summarized in this section.

4.5.1 Existing Conditions

The Mobility Hub currently provides transportation facilities for all forms of transportation, although some are more limited than others.

4.5.2 Opportunities and Challenges

An opportunity exists to shift from largely automobile-dominated travel patterns to a more people-centric approach. Analyses of existing traffic conditions reveals moderate congestion at primary intersections during peak hours. The analyses of intersection turning movement counts indicate that conditions are acceptable for vehicle traffic in urban conditions. Prioritizing walking, cycling and public transit will help alleviate congestion and facilitate intensification of land. However, a shift from private automobiles to alternative modes of transportation will require a significant financial investment.

At a high-level, if the shift does not occur, it would be expected that vehicle congestion would increase, which would have a ripple effect on reducing the on-time performance of buses and creating an environment that is less conducive to walking and cycling.

4.5.3 Recommended Transportation Improvements

Transportation improvements have been recommended for the Study Area in this report and in other documents such as Halton Region's Defining Major Transit Requirements (DMTR) study. For this report, the Planning and Development Framework identifies a more compact street and block structure along with transit and

active transportation supportive land uses and densities (refer to Figures 32-35).

The Area Transportation Plan (2019) proposes to add, maintain or enhance the following transportation facilities and infrastructure:

Active Transportation

- Provide wide sidewalks on both sides of roads;
- Provide protected cycle tracks on Nipissing Road and Ontario Street;
- Extend cycle tracks on Main Street from Wilson Drive to Ontario Street;
- Provide a multi-use trail on the Wilson Drive Extension;
- Provide a multi-use trail on Ontario Street;
- Maintain multi-use trail on Drew Centre;
- Sign Childs Drive as an on-street bike route;
- Provide a multi-use trail on the north side of the CPR Galt Subdivision from Ontario Street to Thompson Road;
- Provide a pedestrian Tunnel under the rail line;
- Improve multi-use trail between Childs Drive and Nipissing Road; and
- Improve pedestrian connections and crossings.

Public Transit

- Provide enhancements to transit infrastructure;
- Maintain the bus-only roadway adjacent to the Milton GO Station;
- Explore the potential for Milton Transit services to locate on the south side of the railway corridor; and
- Consider that long-term route strategy estimates four buses per hour, per route.

New Mobility

- Opportunity for new modes of mobility (e.g., electric scooter or bike share programs, car sharing, ride sourcing/home-to-hub services via transportation network companies, demand responsive transit and automated vehicles).

Goods Movement

- All forms of land use will need provisions for municipal maintenance, waste removal and private deliveries; and
- Service vehicles should be sized appropriately to service new transportation infrastructure.

Despite some operational concerns at study intersections, the widening of any municipal or regional roads for the purposes of accommodating vehicular traffic volumes is not recommended. Emphasizing alternative and more sustainable modes of travel provides a longer-term solution to congestion, while also facilitating a people-centric and pedestrian-friendly environment.

In addition, the following transportation improvements are recommended for further study by the Town:

Transit

- Transit long-term strategy/options for express buses, fleet and Regional bus rapid transit service;
- Additional station stops along the Milton GO Rail Line, particularly 'relief' stops east and west of Milton GO to act as alternative access/egress stations as the Town develops;
- Surface transit priority infrastructure such as the Bus-only lanes on Drew Centre;
- Transit stop upgrades (shelters, next vehicle departure screens, garbage receptacles);
- Metrolinx's recommendation of a two-way all-day service or skip-stop service on Milton GO Rail Line;
- Explore opportunities for transit priority at intersections in the future:
- If the Town adopts electrified vehicles, the Town can consider terminal and/or on-street overhead charging stations;
- HOV lanes on Ontario Street between Derry Road and Steeles Avenue;
- "Jug handle" implementation to reduce bus weaving at Nipissing Road and Thompson Road;
- Transit Signal Priority;

Road Network

- Removal of dual WB left-turn lanes on Childs Drive @ Ontario Street;
- Removal of signals at Childs Dr & N/S Street 2 and NS Street 5 & EW Street 4 (Nipissing Road);

4.5.4 Summary of Transportation Analysis

The findings of the transportation analysis included in the Area Transportation Plan (2019) are summarized below:

- The vehicle traffic analyses of intersection performance shows overall conditions to be within acceptable range except for three intersections in the PM Peak hour: Main Street East and Ontario Street, Main Street East and Thompson Road, and Thompson Road and Nipissing Road. These three roadways are arterial and collector roads that would be expected to experience at capacity only during two to four hours a day on a weekday. The other 20 hours of the weekday, weekends and holidays would be expected to exhibit better vehicle traffic conditions.
- Improved infrastructure for walking, cycling and public transit are expected to greatly improve existing vehicle traffic conditions. The smaller block size and wide sidewalks on both sides of new roads will contribute to pedestrian connectivity. Wider sidewalks are anticipated in areas of higher pedestrian traffic;

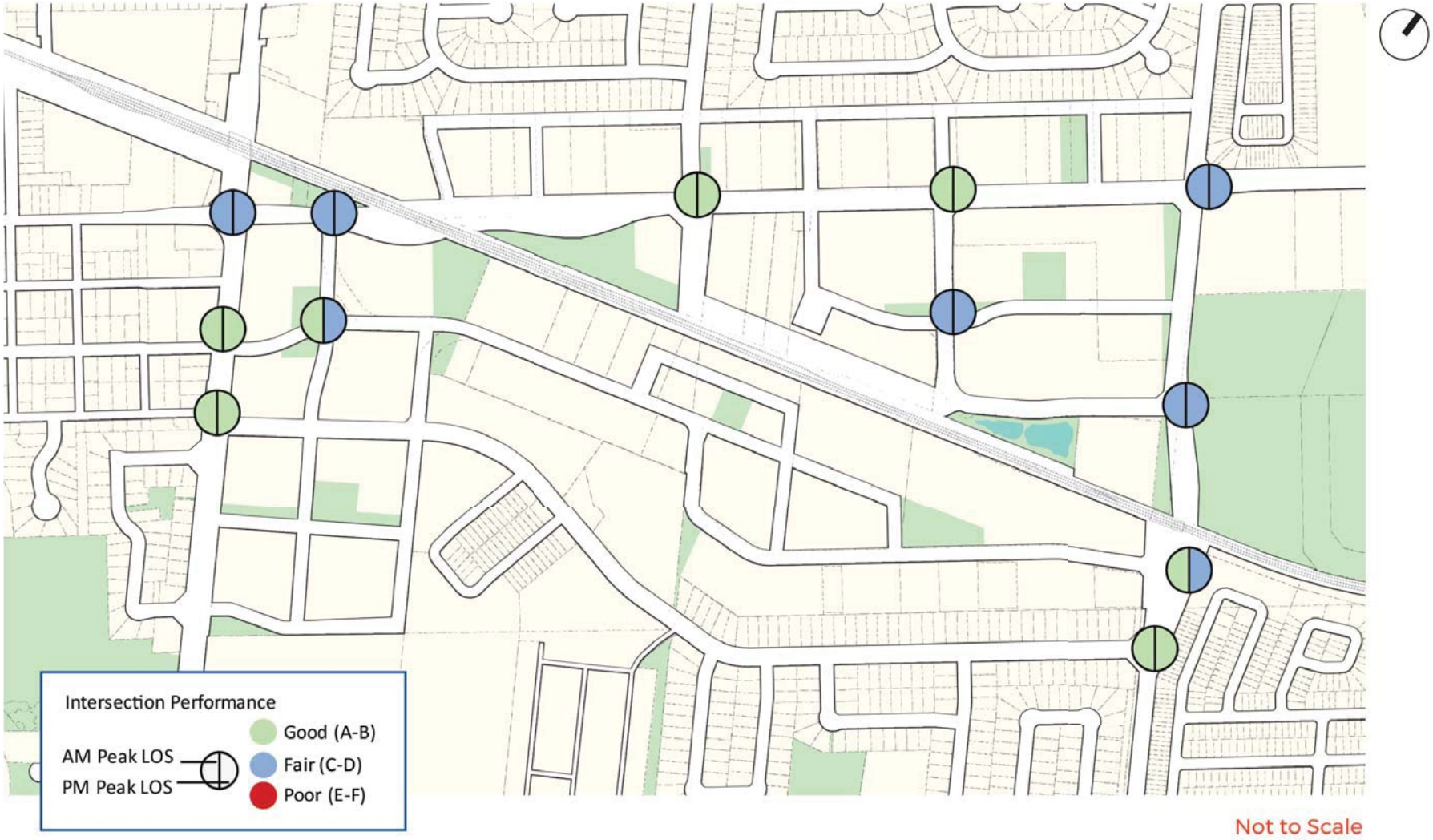


Figure 30: Signalized Intersection Level of Service Summary

- Cycling infrastructure is currently limited in the Study Area. Through redevelopment, the cycling network is expected to expand and address existing gaps;
- Increased frequency of trains and buses (e.g., along both GO and Milton transit routes), along with the Area Transportation Plan's transit priority measures, will make schedules more reliable and transit a more attractive option; and
- Vehicle traffic congestion, longer delays and longer queues at full build out is expected. Despite this, the Plan's people-centric approach seeks to address traffic concerns by providing more amenities and better connectivity for pedestrians and cyclists, as well as reliable and convenient service for transit passengers.

4.5.5 Implementation

Implementation of the transportation improvements identified in the Area Transportation Plan will be largely directed by private development. In general, development is expected to originate from the GO Station and expand to the edges of the Study Area. As properties develop, the Town should obtain right-of-way per the Official Plan and require transportation projects to align with the multi-modal network diagrammed throughout the Area Transportation Plan (see Appedix E). The Town is not expected to unilaterally acquire land, demolish existing buildings and construct new transportation facilities.

Recommended road cross sections have been developed for Main Street East, Nipissing Road, Childs Drive, Thompson Road and Ontario Street, neighbourhood streets, and pedestrian connections. These cross sections are provided in the Urban Design Guidelines (Appendix C).

Town Actions

While most improvements in the Area Transportation Plan will be driven by development, the Town of Milton can take some actions to support the implementation of multi-modal enhancements. These include:

- Exploring transit priority measures as detailed in the Area Transportation Plan to determine ease of implementation and any property acquisition required. If property acquisition is required, it would be expected to take place during the development application process and does not need to be Town-initiated;
- Investing in additional transit vehicles and other infrastructure and human resources to increase transit service frequency;
- Initiating discussions for an active transportation facility/multi-use trail parallel to the rail corridor; and
- Identifying and implementing active transportation facilities that can be accommodated within the existing urban structure and would not be superseded by other facilities at full build out.

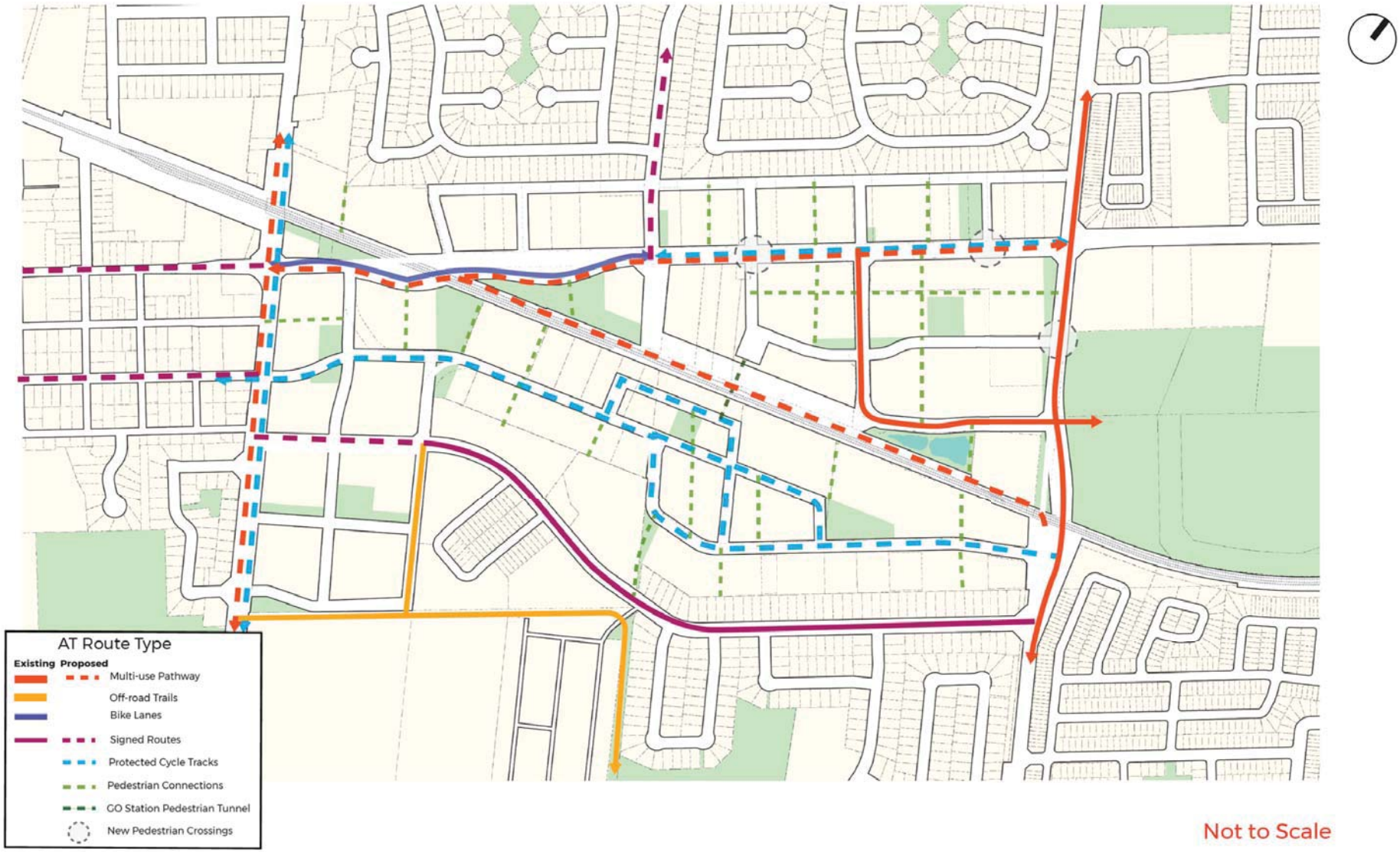


Figure 31: Proposed Active Transportation Network

4.6 Parking

The Planning and Development Framework has been created in a manner that facilitates development of existing surface parking into higher intensity uses.

The proposed road network has been informed by existing and planned surface parking lots. It recognizes that parking will intensify to other uses over time and ensures a flexible framework that does not impede future development while maintaining functionality of required parking throughout the plan's various phases. Strategic approaches to parking management should be adopted including the use of shared parking facilities, as appropriate.

Recommendations for the provision of parking include:

- The market is the best determinate of necessary parking spaces. A minimum parking ratio is not necessary while a maximum parking ratio should be mandatory;
- Preferential parking for bicycles, electric vehicles and car-share services;
- Secure bicycle parking outside and inside new buildings (including outdoor sheltered bike parking and short-term parking);
- If required, surface parking should be located at the rear or side of buildings, with appropriate landscaping along the street edge to enhance the pedestrian environment;
- Below grade parking should be promoted within mixed-use and residential redevelopments with active uses at street level;
- Improve off-street parking lots through landscaping and street trees (short to medium term); and
- If above grade parking structures are proposed they should include active ground floor frontages and be wrapped by residential or employment uses.

Additional guidance for the design of parking facilities within the Milton Mobility Hub are provided in the Urban Design Guidelines (Appendix C).

4.7 Servicing Infrastructure

The Area Servicing Plan (Appendix F) identifies the water, sewer and stormwater networks required to serve the Mobility Hub. Key findings and recommendations summarized by utility are discussed below.

4.7.1 Water

Findings

The watermain analysis was completed using the Town's existing InfoWater models for the present (2016) and future (2031) planning horizons. From this review, the simulated pressures for the existing conditions for all relevant scenarios (2016 and 2031 Average Day, Maximum Day and Peak Hour) satisfied the pressure requirements set by the Town of Milton and the Ministry of the Environment, Conservation and Parks (MECP). Similarly, given the existing conditions, the network is able to provide high rates of fire flow

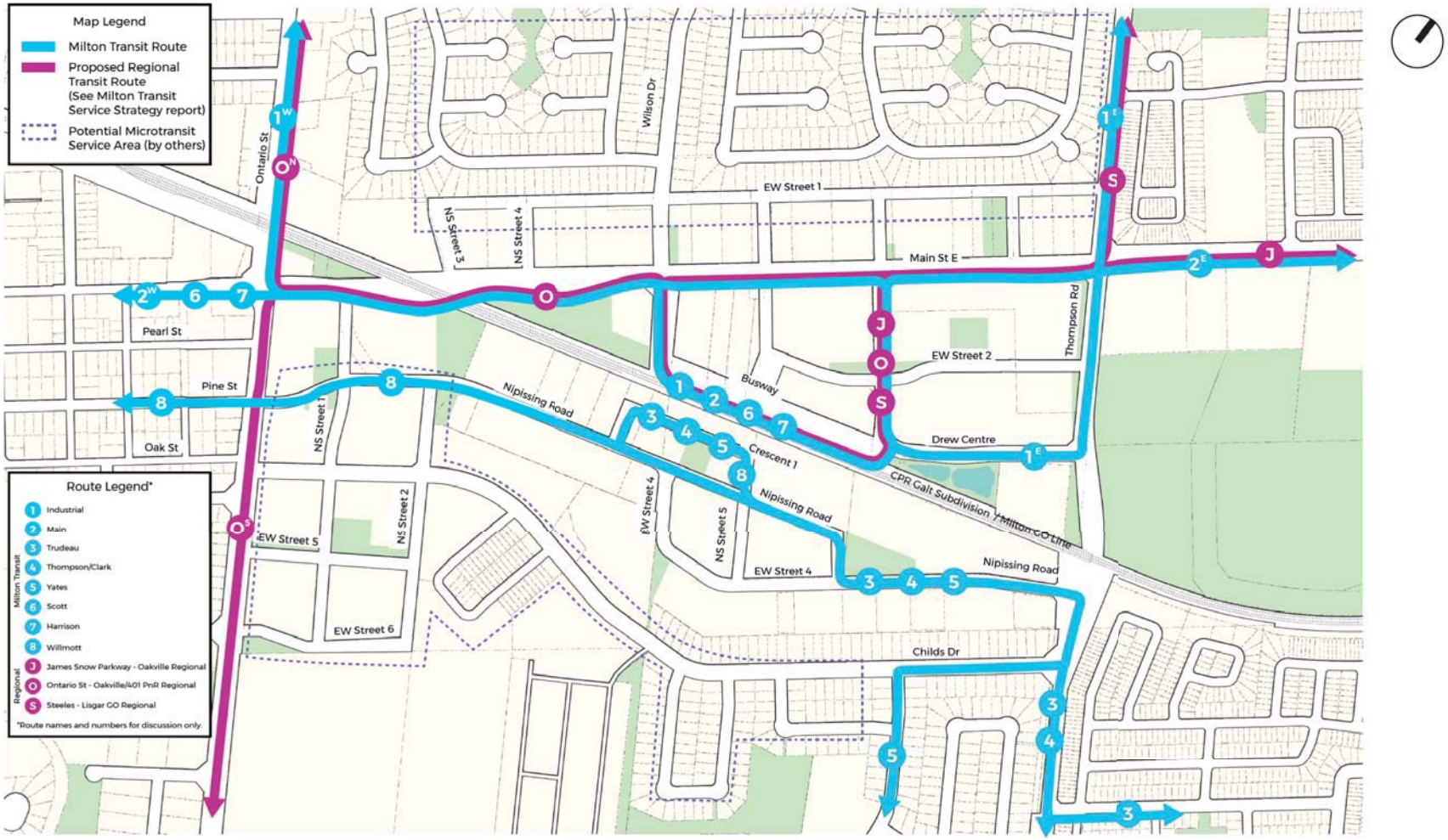
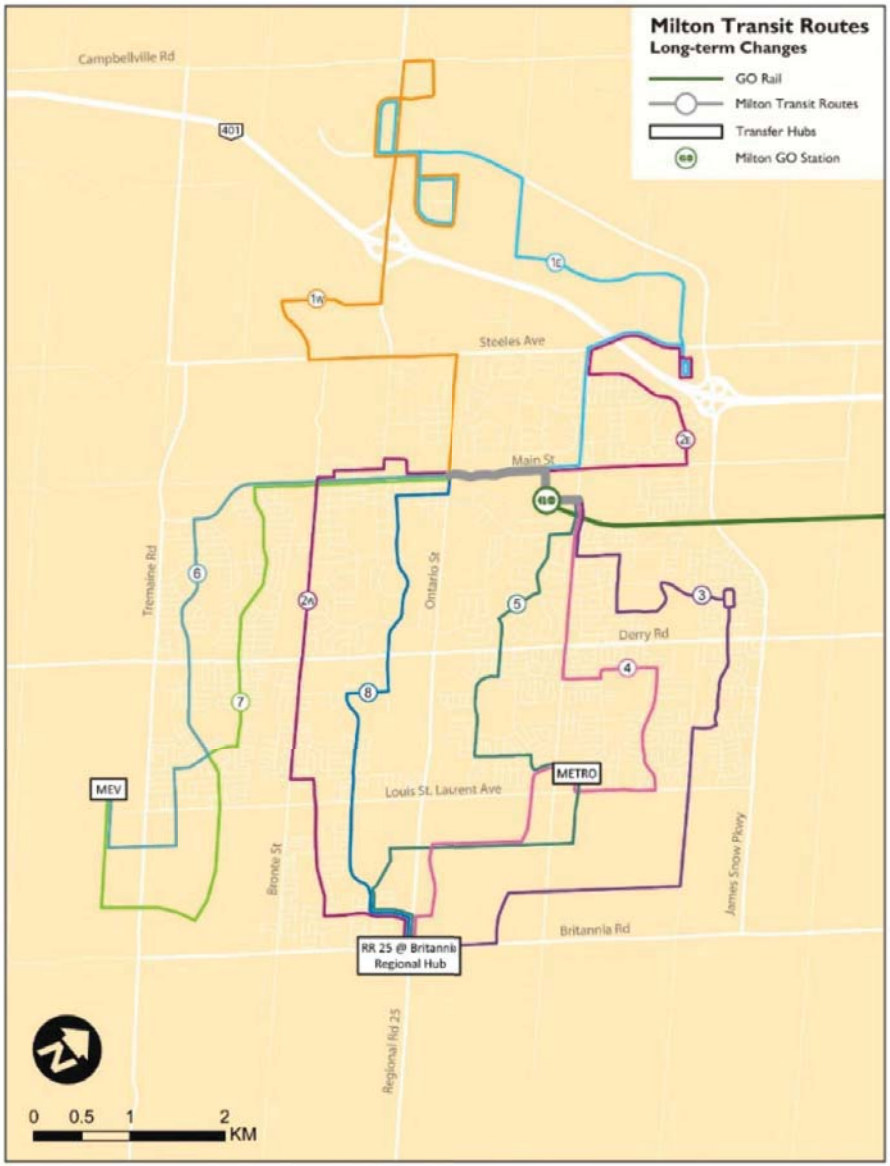


Figure 32: Potential Local Transit Network

Regional Routes



Local Routes

Figure 33: Proposed Long Term Transit Network

availability throughout the Study Area while maintaining the minimum residual pressure requirements set by Milton and the MECP.

Some exceptions to this fire flow analysis include the neighbourhoods predominantly serviced by 150mm watermains. In studying the impacts of the MTSA intensification area, Milton's InfoWater models were updated to include the proposed intensification demands and watermain infrastructure (refer to Figure 36). Findings from simulating all relevant scenarios (2016 and 2031 Average Day, Maximum Day and Peak Hour) suggest that the watermain network can sustain the pressure requirements throughout the Study Area and generally provide high rates of fire flows – given the same limitation described for the existing conditions.

Recommendations

Recommended upgrades to the existing watermain infrastructure in and near the Study Area include increasing the size of some of the 150mm watermains in a local residential neighbourhood to help increase the fire flow availability, as well as extending the 400mm trunk watermains along Main Street East and Thompson Road North to help reduce headloss and increase the efficiency of the network performance (refer to Figure 37).

4.7.2 Wastewater

Findings

Analyses of the wastewater network in the Study Area were completed to asses the impact of design flows from the proposed Mobility Hub. This analysis required using the Region's InfoSewer models for the present (2016) and future (2031) planning horizons. Informed by the appropriate base model, three submodels were developed for use:

1. 20190528_Milton_Only_Existing.mxd containing the model without the proposed development (as-is model from the Region);
2. 2019_Milton_MTSA_New_Projects.mxd containing the Region's model reflecting existing sewers with the proposed intensification; and
3. qQ_based_Milton_MTSA_With_Existing_Infra_Plus_Flows.mxd containing the model from the Region with the proposed intensification and upgrades to the existing infrastructure.

Recommendations

Conclusions and recommendation on the adequacy of the sewer network was based on the ratio of Actual Sewer Flow vs. Theoretical Sewer Capacity (q/Q) criteria in these models. From this, it is concluded that some of the existing infrastructure in the Study Area requires upgrades to effectively convey the sewage from the Study Area to the Fulton SPS, as a result of the intensification. Infrastructure upgrades or improvements include but are not limited to increasing the slopes of specific sewers and/or increasing the diameter of certain sewers. The upgrades are primarily located along the Nipissing Road, Childs Drive and Main Street East (refer to Figure 38).

Figure 34: New Watermains Added to Service Proposed Intensification (identified in red)

4.7.3 Stormwater

Findings

The Study Area is located within Conservation Halton's (CH) area of jurisdiction. The management of water resources for the Mobility Hub follows applicable policies and guidelines by CH and MECP.

A downstream impact analysis was completed using HSP-F continuous hydrological model. The analysis confirms that there will be no negative hydrological impacts at downstream locations as a result of the Mobility Hub development.

Recommendations

A preliminary Stormwater Management (SWM) strategy was developed for the Study Area to satisfy the identified criteria by CH and MECP. The strategy incorporates the integrated "treatment train approach" by implementing applicable Low Impact Development (LID) measures. The proposed SWM strategy was developed to achieve:

- An Enhanced Level of water quality protection (Level 1) or a long-term 80% TSS removal on an annual loading basis for the proposed developments;
- Water quantity/flood controls to ensure that there will be no increases of the 2-year to 100-year peak flows from the development areas during the proposed conditions; and
- Erosion controls to ensure that there will be no increases of the erosion potentials at the receiving water courses due to the development.

The results of the above analysis reflect the planned population figures confirmed at the time of this Study. If these population numbers are to be reviewed and/or changed, the analysis will require updates. The detailed analyses and conclusions included in the Area Servicing Plan (Appendix F) are valid as long as the planned population figures and parameters remain unchanged.

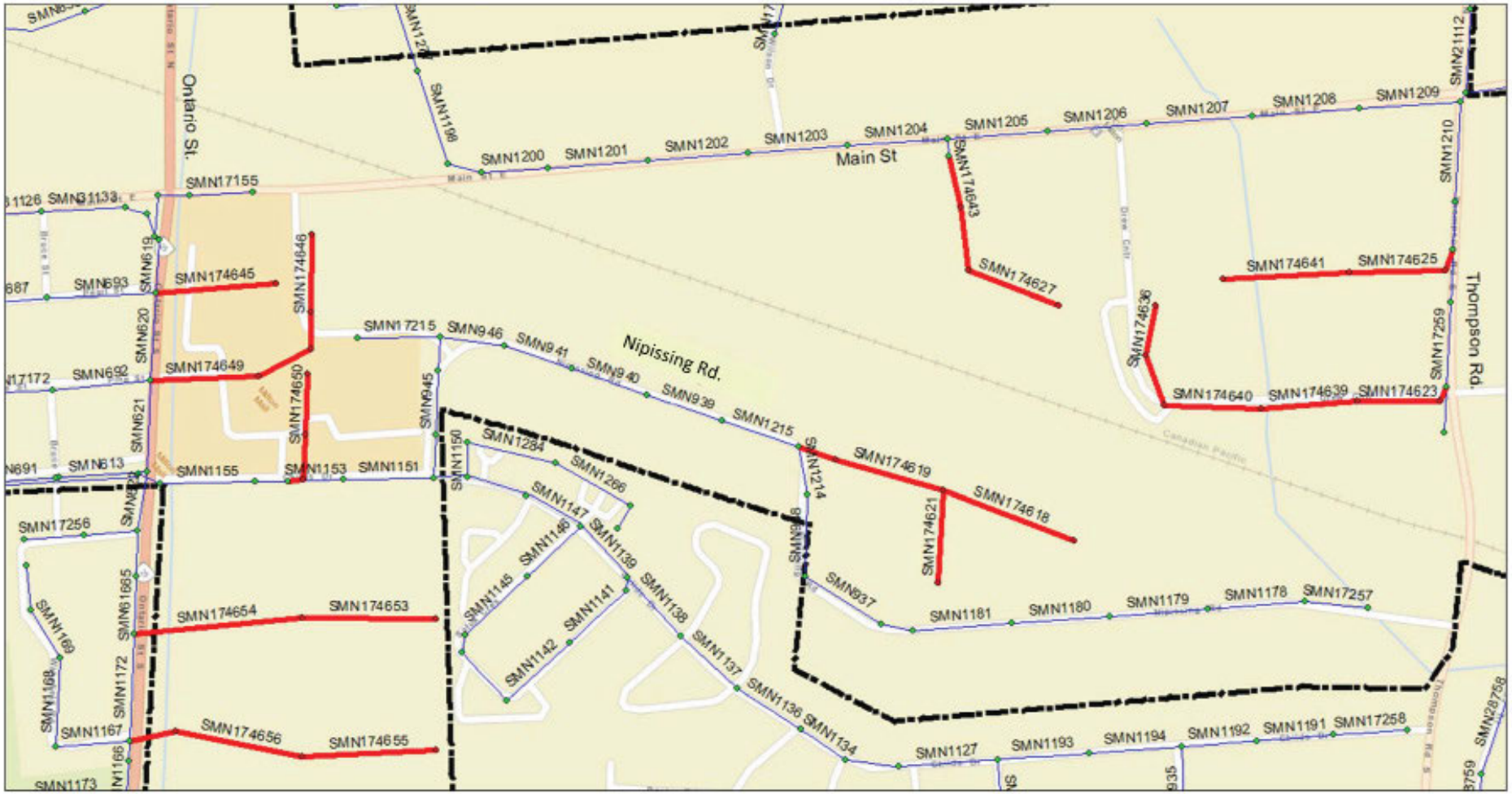
4.8 Community Services and Facilities

Community services and facilities ("CS&F") are necessary neighbourhood components that contribute to residents' everyday quality of life and assist in creating complete and liveable communities. The area surrounding the Milton GO Station will experience increased residential and employment population as a result of anticipated redevelopment and intensification. Projected growth for the Study Area (see Table 6) will increase the need for new and enhanced CS&F, including schools, child care, libraries and cultural services, human/social services and community agencies and emergency services.

A CS&F Strategy was prepared to uncover the needs that may result from this projected growth (see Appendix D). The CS&F Strategy assesses current and future gaps, recommends priorities for supporting the area population and develops strategies to ensure that facilities and services adequately accommodate the population growth anticipated through the intensification of the Study Area.

The Strategy builds on the 2018 CS&F inventory and survey responses from Town of Milton departments, as well as provincial and regional agencies. Service levels were determined as part of the CS&F Strategy, informed by data obtained from Town departments

Figure 35: Proposed Upgrades to Existing Watermains (identified in red)



Pipe Type

- Existing
- Proposed
- Study Area

Figure 36: Labelled Sewers and New Proposed Sewers

and regional and provincial agencies about their standards, as well as feedback from the CS&F survey, which requested that divisions/ agencies list their anticipated requirements based on the projected population/employment growth for the area. Capital costs, described in Section 5, were estimated at a high-level based on this work.

Recommended priorities for each of the sectors are grounded in the notion that existing CS&F should be maintained, improved or expanded, and that new CS&F may be secured through development by various means available through the Planning Act and Development Charges Act, including the emerging Community Benefits charge from Bill 108 and parkland dedication, as well as through innovative approaches such as co-location, multi-use and shared facilities. Plans for the Mobility Hub's CS&F are guided by provincial, regional and municipal policies including the Provincial Policy Statement (2014), the Growth Plan for the Greater Golden Horseshoe (2019) and the Milton Official Plan (2008).

The CS&F Strategy aims to provide for investments that service the population that would result from growth according to Town standards and address gaps as pointed out by staff. This includes recommended items based on staff direction, as well as optional items that are were not directly requested but that would be beneficial to improve the service standard in the area, or that may be required as growth progresses.

Summaries of each sector and recommendations by service area are provided below.

4.8.1 Schools

In the CS&F Catchment Area, school boards face accommodation pressures due to new developments, with many schools already exceeding capacity. School boards have expressed enrolment and utilization concerns regarding the potential impact of future developments in the Study Area.

Halton District School Board

There are seven Halton District School Board (HDSB) elementary schools located within the CS&F Catchment Area, with most schools operating over capacity. Projected enrolment generally exceeds total capacity for the elementary schools. While there are no HDSB secondary schools within the CS&F Catchment Area, students living in the area fall within the boundaries of two high schools for which projected enrolment exceeds total capacity. Furthermore, the Catchment Area includes one HDSB continuing education facility.

Between 2008 and 2017, HDSB elementary school enrolment in Milton increased by 138 per cent. In 2018, the seven HDSB elementary schools located in the Catchment Area operated at 113 per cent capacity. There are up to 17 portables on some school properties, with some reaching their portable capacity.

Between 2008 and 2017, secondary school enrolment in Milton increased by 33 per cent. By 2028, secondary school enrolment is expected to grow by 92 per cent (Note: there are no HDSB secondary schools within the CS&F Catchment Area). HDSB staff provided a projected pupil yield based on preliminary density calculations for the Study Area development (see Table 7).

There are currently no submissions to the Ministry of Education for new facilities and/or additions to the facilities for elementary and secondary schools in the CS&F Catchment Area. There are several initiatives outside of the Catchment Area, including various capital projects and boundary studies already in progress.

HDSB Recommendations:

- HDSB will determine if there is a need for one new elementary school or the redevelopment of existing school sites to create more pupil places (any new additions or schools are subject to Ministry of Education funding). HDSB will continue to monitor growth in collaboration with the Town;
- Phasing is essential for school board additions or for the creation of new schools to accommodate additional students;
- The Town should work with HDSB to permit additional portables on school sites;
- Explore opportunities to provide visible and accessible pedestrian/cycling links and pathways to encourage active transportation within the Study Area;
- Encourage community hubs at local schools; and
- To encourage active transportation, HDSB seeks the Town of Milton cooperation for crossing guard placements.

Halton Catholic District School Board

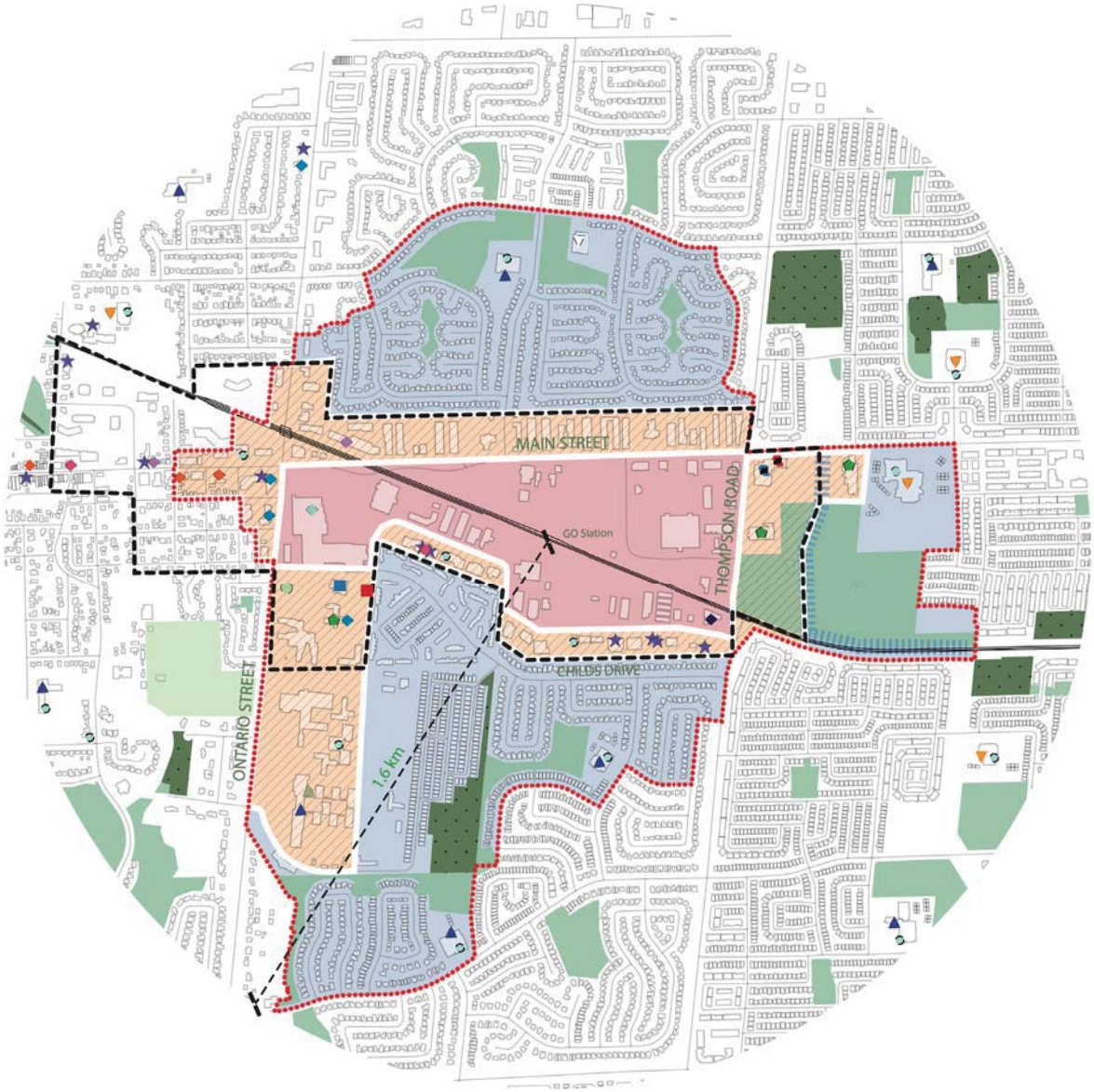
There are three Halton Catholic District School Board (HCDSB) elementary schools located within the CS&F Catchment Area, all of which operate over capacity, and one elementary school partially within the Catchment Area. Projected enrolment generally exceeds total capacity for the elementary schools. There is one HCDSB secondary school located within the Catchment Area and it operates over capacity. Secondary school enrolment is projected to grow approximately 87 percent in the Town of Milton within a 15-year period. Furthermore, there is one HCDSB continuing education facility within the Catchment Area.

In 2018, all three HCDSB elementary schools operated at 116 percent capacity. A fourth school whose catchment partially falls within the CS&F Catchment Area operated at 95 percent capacity. Elementary enrolment for the entire Town elementary panel is projected to grow approximately 88 percent within a 15-year period. Various capital project initiatives and boundary studies are in progress to help relieve some of the accommodation pressures. The HCDSB has asked that one 527-student elementary school be included in the Study Area as a strata development.

In 2018, the HCDSB secondary school operated at 205 percent capacity. The Ministry of Education approved an addition to the school building in 2018, which will increase the capacity from 912 to 1,542 students. The HCDSB continues to explore the need for a third Catholic secondary school in Milton. Various capital project initiatives and boundary studies are in progress.

HCSDB Recommendations:

- Include one 527-student elementary school as a strata development (note any new additions or schools are subject to Ministry of Education funding);



Community Services and Facilities

Schools
- Conseil Scolaire de District Catholique
- Halton Catholic District School Board
- Halton District School Board
- E.C. Drury School for the Deaf

Human/Social Services
- Child and youth services
- Community food services
- Individual and family services
- Vocational rehabilitation services
- Community housing services
- Services for persons with disabilities

Emergency Services
- Paramedic
- Police

Child Care
- Licensed child care provider

Libraries
- Milton Public Library - Main Library

Parks and Recreation
- Community and Recreation Centre
- Community Garden
- Parks
- Woodlots

Places of Worship
- Place of worship

Cultural Services
- Cultural Services

Data sources:
Halton Region, 2015; Town of Milton, 2018;
Ontario Open Data, 2018

Figure 37: Existing Community Services and Facilities

Table 6: Projected Population and Jobs in the Mobility Hub Study Area (Primary and Secondary Zones)

	Estimated Number of Employees	Estimated Number of Residents	Estimated Number of Residential Units
Mobility Hub Study Area	4,137	25,144	15,040

Table 7: HDSB Projected Pupil Yield

HDSB Projected Pupil Yield		
	Elementary	Secondary
Study Area - Primary and Secondary Zone	380-490	150-200

Table 8: HCDSB Projected Pupil Yield

HCDSB Projected Pupil Yield *		
	Elementary	Secondary
Study Area - Primary and Secondary Zone	162	94
* Projected based on 16,000 high density units and the HCDSB's 2017 student yields. It should be noted that the Board will be reviewing its student yields from new developments in 2018, which will likely result in an increase to the high-density student yields.		

- HCDSB will monitor growth and evaluate their ability to accommodate future growth based on enrolment projections and utilization rates. Need for ongoing collaboration with the Town of Milton;
- Phasing is essential for school board additions or for the creation of new schools to accommodate additional students;
- The Town should work with HCDSB to permit additional portables on school sites;
- Explore opportunities to provide visible and accessible pedestrian/cycling links and pathways to encourage active transportation within the Study Area; and
- Encourage partnerships and the creation of community hubs at local schools.

Other School Boards

French public education at all levels is not provided in Milton. The Conseil Scolaire Catholique Mon Avenir operates one French-language Catholic elementary school within the CS&F Catchment Area and is building a second elementary school, set to open in the fall of 2019. The Conseil Scolaire Viamonde is building an elementary school outside the CS&F Catchment Area which is intended to serve all of Milton. Otherwise, there is one Provincial School for the deaf and hard-of-hearing within the CS&F Catchment Area.

4.8.2 Child Care

Sixteen licensed child care providers are active within the CS&F

Catchment Area. The total licensed child care capacity in the Study Area for all age groups was 1,657 spaces in 2018. Responses to the 2018 survey from Halton Region Children's Services staff indicate that infant, toddler and preschool spaces are over-saturated in the CS&F Catchment Area. The demand for child care is less than 50 per cent for infant and toddler care, and 59 per cent for preschool care. The opening of three new child care centres in the Study Area will open up even more spaces. However, the supply/demand data used by the Children's Services staff do not allow them to capture the needs of commuters who travel to the Study Area for child care.

Certain gaps were identified throughout the study: the standard hours for child care do not meet the needs of families across the Halton Region, and there are gaps in service for children with differing abilities.

Recommendations:

- With anticipated growth, 10 to 12 child care centres (each with 72 spaces) will be needed;
- Ongoing monitoring of unit counts can assist in the assessment of future child care needs. Each 1,300 new occupied units triggers the need for a new child care centre;
- Child care facilities should be located at grade, highly visible and accessible with sufficient dedicated outdoor play space, safe access for pickup and drop-off, and consideration for sun/shade, wind, noise and air/soil quality impacts;
- Facilities can be integrated on the ground-floor of new developments and/or co-located in collaboration with other agencies providing early learning services; and
- The need for services and programs for children with differing abilities should be addressed.

4.8.3 Libraries and Cultural Services

Libraries

The main library branch of the Milton Public Library (MPL) is located within the Secondary Zone of the Mobility Hub Study Area. The main library branch is intended to serve the entire Town of Milton. The MPL has proposed two new branches outside of the Study Area. As the population grows, expansion and optimization of existing space may be needed. According to MPL staff, the ideal scenario would be to add a new library for every 25,000 new residents.

Recommendations:

- Optimize and expand existing main library with a building addition as growth progresses;
- Ongoing monitoring of population growth as development occurs can assist in the assessment of future library needs, noting that a new library branch may be needed as growth occurs;
- Generally, improvements to public library space, hours and location of all branches are required to optimize service delivery to existing and future populations. Additional program capacity should be considered in response to existing and new community demand; and

- Partnerships should be encouraged to provide programming.

Cultural Services

Currently, the main public cultural sector facility in the CS&F Catchment Area is the FirstOntario Arts Centre Milton, which serves the entire Town in addition to the local population in the Study Area. In 2017, the usage percentage of the Centre was 47 percent. Parking constraints around the centre require scheduling coordination of all Town-owned facilities and services in the area.

Recommendations:

- Optimize and expand existing main library as growth progresses;
- Ongoing monitoring of the population as development occurs can assist in the assessment of future needs for cultural spaces;
- Generally, improvements to the FirstOntario Arts Centre Milton space and an ongoing review of operating hours will be required to optimize service delivery to existing and future populations. Additional program capacity should be considered in response to existing and new community demand;
- Adapt to customer needs and market conditions through active monitoring;
- Recreation facility and service providers should have the ability to understand, develop and deliver an array of programs that respond to the activity preferences of a diverse population; and
- Partnerships with artists and groups should be encouraged to provide programming.

4.8.4 Publicly Accessible Open Spaces and Community Recreation Centres

According to the 2018 CS&F Inventory, 29 parks exist within the CS&F Catchment Area with a total of 69.3 hectares of parkland (31.8 of which is in the Mobility Hub Study Area). All planned future parks are located outside the CS&F Catchment Area. The maintenance and improvement of existing parks in addition to parkland acquisition and development are Town-wide priorities. The Mobility Hub's objective to achieve transit supportive densities poses challenges for parkland acquisition. According to Community Services Staff, the Town's existing parks cannot support an increased population.

Parks and Recreation acreage and programming needs are to be met by:

- Enhancement or redevelopment of existing Town assets;
- New land acquisition within Study Area;
- Cash-in-lieu (CIL) parkland; and
- New parkland outside Study Area limits.

The Town's Official Plan sets the standards for parkland provision, considered to be the Town-wide objective for the amount of lands required for parks and recreational purposes. The Town is currently reviewing its parkland hierarchy and provisions rates. It is recommended that new parkland dedication rates within the context of a high-density environment be developed for the Study Area.

Given the presence of several large parks within walking distance of the Mobility Hub, the recommended approach to open space is a series of smaller publicly accessible open spaces distributed across the Study Area.

The preferred development scenario dedicates approximately 10 percent of developable parcels to new parkland and POPS, for a total of 7.3 hectares. When considering all parcels in the Study Area, the area of parkland both existing and new increases to 13 per cent for a total of 14.1 hectares. Where included, passive open spaces do not amount to the active parkland as required by the Town's standards. Active parkland will be at a deficit in the Mobility Hub and will need to be located outside of the Study Area.

Publicly Accessible Open Spaces Recommendations:

- Improvements to existing parks in the Study Area should be considered. Continually monitor and adapt to resident needs;
- The location of new publicly accessible open spaces should be context sensitive and respect the urban environment of the Study Area;
- For smaller development sites, cash-in-lieu of parkland dedication should be considered for the acquisition of new public parkland and park improvements;
- POPS should be utilized and encouraged through redevelopment;
- Any deficits in active parkland within the Mobility Hub should be planned in areas external to the Study Area; and
- A new parkland dedication rate should be considered for high-density areas. The Town should conduct a parkland dedication analysis to determine an appropriate approach.
- Where feasible, Town parks will be strategic, centrally located, configured to maximize security of users from road traffic, unencumbered parcels.

Public Realm Recommendations:

- Mid-block connections and landscaped setbacks with seating areas should be considered to enhance the public realm;
- Linear connections to enhance active transportation connectivity to the GO Station should be provided through streetscaping, as well as through dedicated pedestrian and cycling infrastructure; and
- Opportunities to provide pedestrian/cycling links and pathways through active transportation routes should be considered to connect residents to key community destinations, such as Town parks and facilities.

Recreation Facilities

The 2018 CS&F Inventory identifies three primary Town-owned recreation facilities located within the Mobility Hub's Secondary and Tertiary Zones. These facilities serve the entire Town in addition to the local Study Area population. With projected intensification, adapting to changing needs and increased competition for facilities/ resources is expected. These changes may be a result of shifting demographics and customer demands.

Recommendations:

- The recreation needs of the community should be evaluated relative to the capacity of the existing community centre and its potential expansion. Ongoing monitoring is recommended. Priorities include opening the Sherwood Community Centre and the addition of large indoor multi-purpose and flexible gathering/social spaces. An additional community centre may be required inside or outside the Study Area;
- Opportunities to provide pedestrian/cycling links and pathways within the Study Area through active transportation routes should be considered;
- Adapt to customer needs and market conditions through active monitoring. This includes responding to the demands of a younger demographic in terms of programming needs and associated staffing requirements, recruitment development and retention;
- Recreation facility and service providers should have the ability to understand, develop and deliver an array of programs that respond to the activity preferences of a diverse population; and
- Additional partnerships between public agencies should be explored.

4.8.5 Human/Social Services and Community Agencies

Regional Staff indicate that Milton may currently lack adequate space for community programs and services and that a population increase would result in increased demand for a range of Regional Health and Human Service programs. Milton is home to the most culturally diverse population in Halton, with more than 40 percent of residents belonging to a visible minority population. Over 42 percent of tenant households spend over 30 percent of their income on housing (which is widely considered an affordability threshold). Low income rates are a related issue that require attention. Moreover, Milton's large deaf population is currently underserved by community facilities and services.

Recommendations:

- Provide additional spaces for community programs and services, including for Milton's large deaf population. Programs and services must be inclusive in responding to diverse needs. Consider providing additional programs and spaces for youth;
- Include affordable housing units within new developments, as well as affordable/accessible spaces for community service providers. Actively monitor the proportion of low-income residents in the Study Area in order to respond appropriately;
- Consider opportunities to bring together multiple service providers in hubs;
- Consider using other community buildings (e.g., schools and libraries) and rented spaces in private developments for community programs; and
- Provide additional high-quality and affordable early childhood education.

4.8.6 Emergency Services

The Study Area is served by Police and Emergency Medical Services (EMS) located within the CS&F Catchment Area, and by Milton Fire Department Stations outside of the Study Area.

Milton Fire Department

The development of a Fire Department Service Master Plan and a comprehensive risk assessment is currently underway. It is anticipated that future development and population increases will proportionately increase the demands for fire protection services. Staff indicate that future facilities, personnel, equipment and services will be required to supplement emergency response in the Study Area.

Recommendations:

- Future facilities, personnel, equipment and services will be needed to supplement emergency response in the Study Area. The Fire Department should continuously monitor growth and evaluate their ability to respond;
- Priorities include increased personnel resources to improve response depth and response timeliness; additional capacity of equipment to support increased vertical response challenges (e.g., equipment carts); and additional staff training to support increased vertical response challenges (e.g., high-rise training);
- The resulting area should become a focus for enhanced public fire and life safety education;
- Pedestrian friendly principles should be encouraged as a way to discourage and limit vehicle traffic. For the delivery of effective and efficient fire protection, the timely arrival of fire apparatus, personnel and equipment is critical; and
- Fire protection systems (e.g., alarms and sprinklers) will be critical for safety. Additional fire inspections and code enforcement to ensure the adequate maintenance of fire protection systems is recommended.

Halton Region Police Services

The Halton Region Police Service (HRPS) is located within the CS&F Catchment Area. However, HRPS will relocate to a new facility outside of the Study Area between 2020 and 2021. There are no new or proposed facilities or services within the Study Area. As indicated by Staff, HRPS delivers policing services from the police car. As such, the location of its facility has little bearing on the services received by Milton's residents and businesses. Population changes (i.e. intensification) will be addressed by the deployment of required mobile resources and are not expected to impact the HRPS' service delivery as it will scale its resources according to need.

Recommendations:

- The Police Department should continuously monitor growth and evaluate their ability to respond.

Emergency Medical Services

According to Halton Region Emergency Medical Services (HREMS) Staff, no additional resources are currently anticipated in the Study

Area.

Recommendations:

- Emergency Medical Services should continuously monitor growth and evaluate their ability to respond.

4.8.7 Implementation

Long-term redevelopment of the Mobility Hub Study Area presents an opportunity to develop and acquire new CS&F as the needs of the growing population evolve over time. Recommendations are premised on the principle that existing CS&F are maintained, improved or expanded to continue serving the neighbourhood population, with no net loss of services or facilities.

New and/or improvements to existing CS&F may be secured through the development process by various means that may include agreements pursuant to Bill 108 of the Planning Act and parkland dedication pursuant to Section 42 of the Planning Act. The Bill 108 regulations regarding community benefits had not yet been released at the time that this report was prepared. Given the potential magnitude of change proposed by Bill 108 to the Planning Act and on the ability to deliver parkland and community infrastructure, a better understanding of the Province's changes and what replaces former tools to obtain CS&F once the regulations are released and the Bill is in force is necessary to understand what is feasible and explain the financial impact.

There are several opportunities for comprehensive redevelopment on larger parcels within the Study Area, which can potentially accommodate new publicly accessible open spaces and facilities onsite. Innovative approaches to the provision of CS&F, such as co-location, multi-use and shared facilities, are encouraged to allow for efficiencies in service provision and maximize potential community benefits resulting from new development.

Monitoring

The Study Area is unlikely to see full redevelopment over the 30 years or more time horizon of the plan. Some sites, especially larger parcels in single ownership, present a more immediate opportunity for change, while many other smaller sites would require consolidation over time to be viable for redevelopment as envisioned by this Study.

It is recommended that any policy documents pertaining to the Study Area establish monitoring of redevelopment in the short, medium and long term, to revisit CS&F needs at those intervals to assess the changing needs of the population as it grows. More specificity around these timelines is provided in Section 5 - Phasing and Implementation.

5.0
Phasing & Implementation

5.1 Overview

This Study is intended to guide the Mobility Hub's long-term development projected to take place over the next 30 to 40 years. The following section provides directions for the preparation of a new policy framework including a phasing plan, preliminary cost estimates for capital improvements and recommended implementation measures to shape and support growth.

5.2 Phasing

Growth and development within the Mobility Hub is expected to occur over a period of 30 to 40 years. Estimated full build out, as illustrated in the Demonstration Plan, is expected between 2055 and 2062. Proposed recommendations are intended to be implemented over the short-term (0-5 years), medium-term (5-15 years), and long-term (15-30 years).

The planning horizon as per the Growth Plan and the Regional Plan is to 2031. This Study illustrates how density targets can be achieved in the long-term as full build out is unlikely to be achieved within the 2031 timeframe.

Table 9 identifies estimated projected population growth in the Mobility Hub over these timeframes. Projections to the 2031 horizon year are found in the medium-term. These numbers align with servicing and capital plans.

Note that projected growth figures are informed by estimated absorption rates, as calculated in July 2019. Key assumptions for the absorption estimate include:

Table 9: Phasing - Projected Population and Jobs in the Mobility Hub Study Area (Primary and Secondary Zones)

	Short-Term: 0-5 years (2019-2024)	**Medium-Term: 6-15 years (2025-2034)**	**Long-Term: 16-30 years (2035-2049)**	**Full Build Out (expected 2055-2062)**
Population Increase (Residents)	750-1,250 (450-750 units)	4,180-5,010 (2,500-3,000 units)	9,018-13,527 (5,400-8,100 units)	5,327-11,166 (3,190-6,690 units)
Cumulative Population Increase (Residents)	750-1,250 (450-750 units)	4,930-6,260 (2,950-3,750 units)	13,948-19,787 (8,350-11,850 units)	25,114 (15,040 units)
Employment Increase (Jobs)	124-206	689-825	1,486-2,229	878-1,840
Cumulative Employment Increase (Jobs)	124-206	812-1,031	2,298-3,260	4,137
Cumulative Total	**874-1,456**	**5,742-7,291**	**16,246-23,047**	**29,251**

- **Future residential absorptions per year** are based on the number of new projects across Milton in recent years and final occupancy dates.
- **The proportion of residential growth to the Study Area** is based on the number of units at full-build out, as illustrated in the Demonstration Plan, and where development is occurring now. The short-term is based on the estimated distribution of units in 2019. For the medium-term, the estimate assumes the Mobility Hub becomes popular as a location for high-rise development. Over the longer-term, optimal sites may be developed or demand may shift to other expansion areas.
- **Person Per Unit (PPU):** Residential estimates are based on an average unit size of 79 square metres (approx. 850 square feet) and 1.67 persons per unit, which is a blended rate based on a mix of unit sizes and units types. 12 percent of units were attributed to townhouses with the remaining attributed to apartments. Flexibility in the delivery of housing types (i.e. grade-related vs. mid-rise or high-rise buildings), and in land use (i.e. market shifts toward more office space over residential development) would vary these estimates.
- **Employment Ratio / Activity Rate:** The Employment ratio is based on the Demonstration Plan for the number of jobs at full-build. This creates an activity rate that assumes one job for every six new residents. Predicting commercial growth is difficult. Given that it is mostly expected to be tied to population, another approach would be to employ an activity rate that assumes one job for every four to five new residents as found in the 2015 DC Study (ratio excludes no fixed place of work, work from home and industrial jobs), which would result in a slightly higher job count.

5.2.1 General Timeline for Capital Improvements

Table 10 outlines the general timeline anticipated for capital improvements to the transportation network, servicing network, community services and facilities and public realm according to the growth phases described above (short, medium, long). Modifications may be required due to market conditions, shifts in capital planning, funding and/or strategic priorities. These capital improvements can be further categorized according to essential and desirable infrastructure and infrastructure that may or may not be important. The improvements can also be categorized according to who is responsible for service delivery (Region, Town or other), further discussed in Section 5.3.

Most of the essential enabling infrastructure such as improvements within the municipal right of ways, GO Station access improvements and water/wastewater are expected to occur in the short- and medium term. The majority of population-driven infrastructure such as community services and facilities are anticipated in the medium- and long-term, with the remainder provided post-2049 if required. Overall population growth and needs should be monitored to help guide development.

5.2.1.1 Transportation

Transportation improvements are largely expected to be development-driven. The Town need not acquire property to build new roads or other facilities until development applications are received to redevelop lands. The requirement to build new roads

will need to be determined well before development applications are submitted. Due to the uncertain timing regarding redevelopment, the general timeline presented is an estimate.

5.2.1.2 Servicing

Table 11 details the Phasing Plan for Capital Improvements to servicing in the Mobility Hub.

5.2.1.3 Community Services & Facilities (CS&F)

CS&F improvements are largely expected to be population-driven. Due to the uncertain timing regarding redevelopment, the general timeline is an estimate. The priority categories noted in Table 12 represent the average timeline(s) anticipated for simplification purposes (refer to sub-section 5.3 and Appendix D for more details). CS&F improvements are generally anticipated to occur in the medium-term, with a handful in the short-term (portables, pedestrian/cycling links, addition to the existing library, expanded publicly accessible open spaces, affordable housing) and a few in the long-term (potential new library, outdoor tournament facility). While not indicated in these tables, some improvements are expected to occur incrementally throughout redevelopment (e.g., affordable housing).

5.2.1.4 Public Realm

Table 13 outlines the Phasing Plan for Capital Improvements to the Public Realm.

5.2.2 Phasing Strategy for Municipal Capital Improvements

The Town should prepare a phasing strategy to assist the implementation of the recommendations provided in this report. The phasing strategy should consider:

- Expected timing of development, including expected build-out of vacant lands and redevelopment of existing areas;
- Timing of any potential transportation, infrastructure and public realm improvements; and
- Any other projects or initiatives that may impact timing of development.

Priority should be given to improvements located in close proximity to the GO Station and along Main Street East that support transit-oriented development and intensification in these areas.

5.3 Preliminary Cost Estimates (Capital Costs)

Preliminary capital cost estimates for the implementation of recommended transportation, servicing and community infrastructure improvements within the Mobility Hub is described in this section. Cost estimates do not include operating costs or lifecycle financial implications associated with growth. These costs are significant and cannot be met without substantial increases in Town revenue. Cost estimates represent an order of magnitude estimate to provide preliminary input at an early evaluation and planning stage.

Table 10: Phasing Plan for Capital Improvements (Transportation)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
New Roadway Connections and Improvements		
GO Station Access (in progress)	Redevelopment of the Main Street GO facility includes the reconfiguration of parking lot layouts, bus loop and passenger pick-up/drop-offs	Short-Term
Proposed Streets (Secondary Plan, Metrolinx Plan, Regional Ontario Street Property Master Plan)	Extension of Drew Centre North, EW Street 2, EW Street 3 (i.e. Wilson Drive extension south), NS Street 5, Nipissing Road extension east, NS Street 2, EW Street 6	Mid-Term
Potential Public Streets	NS Street 3, NS Street 4, extension of street west of Thompson Nipissing Road Extension West and NS Street 1. The timing of these projects is to be coordinated with the redevelopment of the Milton Mall Site EW Street 1. Linked to redevelopment of Main Street frontage parcels. Any frontage property that redevelops will be required to provide 20m right-of-way allowance	Mid-Term Mid-Term Long-Term
Proposed Connections (Secondary Plan, Metrolinx Plan, Regional Ontario Street Property Master Plan)	Various connections within blocks north of Main Street, and within blocks south of Child's Drive and east on Ontario Street	Mid-Term
Proposed Connections (Streets, Paths, Mid-block Connections)	Various connections throughout the Study Area coordinated with redevelopment	Mid-Term
Proposed Signalized Intersection	Intersection of Nipissing extension and proposed NS Street 1 coordinated with the Nipissing Road Extension West	Mid-Term
GO Service		
GO Station (in progress)	Expanded GO Station building, additional parking, accessible connections to train and bus platforms, upgraded platforms and infrastructure to support future layovers of trains, improved pedestrian connections and bicycle storage	Short-Term
Service to Milton GO Rail Line (for further study)	Two-way all-day service or skip-stop service	Mid-Term
GO Station Stops (for further study)	Additional station stops along Milton GO Rail Line, particularly 'relief' stops east and west of Milton GO to act as alternative access/egress stations as the Town develops	Long-Term

Table 10 (cont'd): Phasing Plan for Capital Improvements (Transportation)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Public Transit		
Transit Stop Upgrades (for further study)	Shelters, next vehicle departure screens, garbage receptacles	Short-Term
Main Street East and Wilson Drive	Northbound bus-only left-turn lane with dedicated signal head and phase	Mid-Term
Other Surface Transit Priority Infrastructure (for further study)	Bus-only lanes on Drew Centre Transit-friendly curb radii	Mid-Term
Active Transportation		
Bicycle Lanes	Main Street from Wilson Drive to Thompson Road On-street bike route signage on Childs Drive Designated cycling facilities on collector and arterial roads Accommodation of cyclists in the same lane as vehicles on local roads	Short-Term
Multi-use Trails	The Wilson Drive Extension Ontario Street	Mid-Term
Related Infrastructure	Upgrade connectivity between existing active transportation network and publicly accessible open spaces through road redevelopment/boulevard repair Active transportation-only connections through blocks to enhance convenience of travel	Mid-Term
New Mobility		
New Mobility Options	Opportunity for development of new mobility options such as electric scooter or bike share programs, car sharing, ridesourcing/home-to-hub services via transportation network companies, demand responsive transit and automated vehicles	Mid-Term

Table 11: Phasing Plan for Capital Improvements (Servicing)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
New Stormwater and Waste Water Management Infrastructure and Improvements		
New Sewers	2.5 km of new sanitary sewer sections	Mid-Term
Upgraded Sewers	3 km of upgrades, with increase in diameter and/or slope of existing sanitary sewers at Nipissing Road and Childs Drive, Ontario Street, Evergreen Cemetery to Fulton SPS, Thompson Road South, between Fulton Street and Ontario Street, Childs Drive upstream of Fulton Street	Mid-Term

Table 12: Phasing Plan for Capital Improvements (CS&F)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Schools		
Portables	Additional portables on both elementary and secondary school sites	Short-Term
Pedestrian/Cycling Links and Pathways	Visible and accessible pedestrian/cycling links and pathways to schools to encourage active transportation	Short-Term
New Schools/Additions	One 527-student elementary school (HCDSB) which can be in a strata development School boards will continue to monitor growth and identify future need for expansion and new development	Mid-Term
Childcare		
Child Care Centres	10 to 12 new child care centres, each with 72 spaces Study team determined that a new child care centre is triggered with approximately each 1,300 new occupied units. Ongoing monitoring as development occurs	Mid-Term

Table 12 (cont'd): Phasing Plan for Capital Improvements (CS&F)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Libraries and Cultural Services		
Library	Expand existing space A future facility may be needed (MPL Staff indicated that a new library is generally triggered with each 25,000 new residents). Ongoing monitoring as development occurs	Short-Term Long-Term
Cultural Services	Expand existing space and/or new space in cultural hub Improvements to the FirstOntario Arts Centre Milton space may be needed	Mid-Term Mid-Term
Publicly Accessible Open Spaces and Community Recreation Centres		
Publicly Accessible Open Spaces	Improvements to existing parks A series of new smaller parks distributed throughout the Study Area; new privately-owned public spaces (POPS) through redevelopment will be the priority Parkland and recreation facilities located outside of the Study Area will be developed with consideration for Town-wide need resulting from population growth	Short-Term Mid-Term Mid-Term / Long-Term
Recreation Facilities	Adjust programming or re-purpose existing indoor spaces within all Town facilities to meet changing needs Partner with other public agencies to support the provision of multi-functional indoor or outdoor community spaces, where feasible and warranted by a business plan Expand existing indoor facilities to meet needs where feasible Addition of new higher-order outdoor tournament facilities	Mid-Term / Long-Term Mid-Term / Long-Term Mid-Term / Long-Term Long-Term
Human/Social Services and Community Agencies		
Human/Social Services and Community Agencies	Affordable housing and affordable/accessible space for community service providers in new developments. Ongoing monitoring of proportion of low-income residents to evaluate need Additional adequate space for community programs and services	Short-Term Mid-Term
Emergency Services		
Police, EMS, Fire	Future facilities, personnel, equipment and services will be needed to supplement emergency response. Emergency Services will continue to monitor growth to evaluate ability to respond	Mid-Term

Table 13: Phasing Plan for Capital Improvements (Public Realm)

Capital Improvement	Details/Extent	Priority (short-, mid- or long-term)
Streetscape Improvements *refer to the Urban Design Guidelines (Appendix C) for additional details		
Main Street Major Streetscape Improvement	Between Ontario Street and Thompson Road. Coordinated with right-of-way widening and in advance of redevelopment: includes the boulevard improvements, new cycle tracks, greening. Private setbacks and the south promenade constructed through redevelopment (for discussion)	Short-Term
Ontario Street Major Streetscape	Within Study Area boundaries (includes street greening). It may be beneficial for the Town to coordinate the timing of streetscape improvement with turning the curb lanes into HOV/ bus lanes on each side of the street (existing lanes re-purposed; would have one general purpose lane and one HOV/bus lane in each direction on each side of the street; does not require much change to road outside signs and line markings designating existing curb lanes as HOV/bus)	Mid-Term
Thompson Road Major Streetscape Improvement	Between Proposed EW Street 1 and Childs Drive	Mid-Term
Proposed Green Connections	Linked with individual redevelopment sites	Mid-Term
Gateway Features		
Major Gateway at the Entrance to the GO Station	Linked with Station improvements. Could include public art integrated with the Station or a stand-alone public art piece within a new plaza	Short-Term
Major Gateway at Main Street and Thompson Road	Linked with the redevelopment of the Milton Common site	Mid-Term
Major Gateway at Main Street and Ontario Street	Linked with the redevelopment of the Milton Mall site	Mid-Term
Public Space		
New Public Space Adjacent to the North and South Access of the Station Area	The single most important current project in the Mobility Hub is the improvement of the Station Area. Many of the public space projects, streets and redevelopment sites identified in this Study are directly connected to the Station. A high-quality public realm around the Station should serve as a catalyst for improving the overall pedestrian realm and the visibility and image of the neighbourhood	Short-Term

As noted in Section 5.2, costs will be spread over time as growth and development within the Mobility Hub is expected to occur over a period of 30 to 40 years or more. Recommendations for action and their associated costs are intended to be implemented over short-term (0-5 years), medium-term (5-15 years), and long-term (15-30 years) time frames.

Different levels of government including the Region and Town, as well as other actors (e.g. agencies, developers, non-profit organizations) are responsible for service delivery of infrastructure improvements. Costs for infrastructure improvements in the following subsections have been categorized according to responsibility. Infrastructure improvements can be further categorized into essential infrastructure required for the area to function such as roads, water and wastewater; desirable infrastructure required to service an increased population such as community services and facilities and transit; and optional infrastructure that may or may not be required dependent upon changing circumstances.

5.3.1 Transportation Costs

Transportation cost estimates recognize that a significant investment will need to be made in transit and active transportation infrastructure to achieve the desired modal split of 50% private vehicle and 50% transit, walking, and cycling in the Study Area. Frequency of existing bus service will have to be increased substantially and new routes will have to be added. Bus service improvements are intended to not only to serve residents within the Study Area but from across the region.

Estimates provide information on construction costs in 2019 dollar values, inflated from unit costs shown in the 2018 Milton TMP. The summary of transit, active transportation facilities and roads cost estimates are shown in Table 14. Total costs for each proponent are summarized in Table 15.

Refer to Appendix E for additional details on transportation costing.

Transit Costs

The estimated costs for transit facilities include the cost of buses for additional trips generated within the Mobility Hub. Town costs include additional buses to increase frequency of service on eight Town routes (Route 1-8) and the Metrolinx costs include buses to begin operations on three proposed regional routes (James Snow Parkway, Ontario Street and Steeles Avenue).

Estimates for additional buses are based on the following assumptions:

- Current occupancy rate is assumed to be 75% full; and
- A 37 seat capacity is used for conventional buses and 19 seats for cutaway buses.

Operating costs for buses are estimated at $115 per hour (including costs for labour, fuel, maintenance and other related items). Refer to Table 16 for estimated costs for transit buses within the Mobility Hub.

Active Transportation Costs

Active transportation infrastructure includes protected cycle tracks, multi-use trails, pedestrian crossings and connectors such as

Table 14: Summary of Preliminary Cost Estimates (Transportation)

Facility	Length/Units	Total Cost per Unit	Cost Unit	Total	Proponent
Transit Buses - Milton	13 Buses	$621,000	per vehicle	**$8,333,000**	Town
Transit Buses - Region	23 Buses	$641,000	per vehicle	**$14,743,000**	Metrolinx
Protected Cycle Tracks	4.4 km	$1,293,000	per centre line km	**$5,690,000**	Town
Multi-Use Trails	3.9 km	$377,000	per centre line km	**$1,471,000**	Town
Connections/Pathways	0.2 km	$377,000	per centre line km	**$76,000**	Town
Connections/Pathways	6.5 km	$377,000	per centre line km	**$2,451,000**	Developer
Pedestrian Crossings	3 Crossings	$87,000	per centre line km	**$261,000**	Town
Sidewalks	2.5 km	$162,000	per centre line km	**$405,000**	Town
20 m ROW Collectors Roads	3.5 km	$2,585,000	per centre line km	**$9,048,000**	Developer
Bus Loops, Nipissing and Childs	2.7 km	$2,585,000	per centre line km	$6,980,000	Metrolinx
Total				**$49,458,000**	

Table 15: Summary of Total Cost for Each Proponent (Transportation)

Facility	Length / Units
Town	**$16,236,000**
Metrolinx	**$14,743,000**
Metrolinx	**$6,980,000**
Developer	**$11,499,000**
Total	**$49,458,000**

Table 16: Proposed Transit Cost Estimate

Proposed Facilities	No. of Vehicles	Cost per Unit	Total	Proponent
Transit Buses - Town	13 Buses	$641,000	**$8,333,000**	Town
Transit Buses - Region	23 Buses	$641,000	**$14,743,000**	Metrolinx
Total			**$23,076,000**	

Table 17: Proposed Active Transportation Facilities Cost Estimate

Proposed Facilities	No. of Vehicles	Total Cost per Unit	Cost Unit	Total	Proponent
Protected Cycle Tracks	4.4 km	$1,293,000	per centre line km	**$5,690,000**	Town
Multi-use Trails	3.9 km	$377,000	per centre line km	**$1,471,000**	Town
Connections/Pathways	0.2 km	$377,000	per centre line km	**$76,000**	Town
Connections/Pathways	6.5 km	$377,000	per centre line km	**$2,451,000**	Developer
Pedestrian Crossings	3 Crossings	$87,000	per centre line km	**$261,000**	Town
Sidewalks	2.5 km	$162,000	per centre line km	**$405,000**	Town
Total				**$10,354,000**	

Table 18: Proposed Roads Cost Estimate

Proposed Facilities	No. of Lanes	Distance (km)	Cost per centerline km	Total	Proponent
20 m ROW Collector Roads	2 Lanes	3.5 km	$2,585,000	**$9,048,000**	Developer
Bus Loops, Nipissing Road and Childs Drive	2 Lanes	2.7 km	$2,585,000	**$6,980,000**	Metrolinx
Total				**$28,557,000**	

pathways and midblock access points (refer to Table 17). Phasing of active transportation infrastructure will depend on development applications along corridors where these facilities are proposed.

Multi-use trails (MUT) are proposed along Ontario Street, the north side of the rail lines and Main Street E and protected cycle tracks are proposed along Main Street E, Nipissing Road and Ontario Street. Exceptions to the MUTs are along the existing roads, Ontario Street, Thompson Road, and Drew Centre.

Pedestrian connections and pathways are expected to have the same features as an MUT to provide access to pedestrians and cyclists. These are included as part of the developer's cost, with the exception of the connection between Nipissing Road and Childs Drive. Costs for pedestrian crossings are also included in the cost estimate.

Roadway Costs

All road improvements are expected to be supported by either the Metrolinx Station Access Plan or by developers, except for sidewalks along Nipissing Road and Childs Drive. Proposed improvements at Nipissing Road, Childs Drive and both north and the south bus loops are within the scope of the Metrolinx Station Access Plan. The 20 m collector roads are to be constructed as two-lane roads by developers.

While the Town is not expected to fund construction, the completed roads could be conveyed to the Town for ongoing operations and maintenance. Refer to Table 18 for cost estimates for the proposed roads.

5.3.2 Servicing Costs

Cost estimates for water and sewer servicing are included in Tables 19 and 20. Refer to Appendix F for additional details on servicing costing.

5.3.3 Community Services & Facilities Costs

Preliminary CS&F cost estimates are included in this section. The figures provide information on capital costs in 2019 dollar values, inflated from unit costs (see Appendix D for more details). The summary of CS&F cost estimates is shown in Table 21, categorized by improvements recommended in the CS&F Strategy, in addition to optional improvements that may or may not be required.

Modifications to the CS&F cost estimates may be required due to market conditions, shifts in capital planning, funding or strategic priorities, as well as following further discussions with Town and Regional stakeholders.

A more detailed description of each improvement, categorized according to the actor responsible (Region, Town, or other) is provided in the following subsections.

5.3.3.1 Regional CS&F Costs

Of the various community services and facilities identified in the CS&F Strategy, Halton Region is responsible for the service delivery of Child Care, Human/Social Services and Community Agencies, and certain Emergency Services (Police, Emergency Medical Services). The summary of CS&F cost estimates for the facilities and services to be provided by the Region are shown in Table 22,

categorized by improvements recommended in the CS&F Strategy and optional improvements that may or may not be required.

The costs for CS&F improvements to be delivered by the Region that are recommended is shown in Table 22. These include a new 527-student elementary school for the HCDSB as requested by the school board, as well as additional portables for elementary and secondary school. Both the HCSDB and HDSB noted the need for additional portables and costs assume that each school will reach their maximum portable capacity over time. Costs for childcare include 11 child care centres (9 new, 2 retrofitted) to be built gradually as growth progresses which assumes space will be rented rather than purchased. In terms of human/social services and community agencies, costs for a new community/cultural hub is included as well as 200 units of assisted affordable rental housing. In terms of emergency services, there are costs for various police equipment including new equipment and technology, 45 vehicles, and 3 mobile command units, as well as costs for emergency medical services including equipment and 2 vehicles (refer to Appendix D for a more detailed list of assumptions used, calculations and the source of units costs).

Regional CS&F Costs - Recommended

The costs for recommended CS&F improvements to be delivered by the Region are shown in Table 23. Costs for childcare include 12 child care centres (8 new, 4 retrofitted) to be built gradually as growth progresses which assumes space will be rented rather than purchased. In terms of human/social services and community agencies, costs for a new community hub is included as well as 211 units of assisted affordable rental housing. In terms of emergency

Table 19: Proposed Sanitary Sewer System Cost Estimate

Item	Quantity	Unit	Unit Price	Cost Estimate
1. Supply and install watermain pipe including all fittings, restraints and special pipes				
200 mm dia. PVC DR 18 Class 150	1680	m	$434	**$729,000**
250 mm dia. PVC DR 18 Class 150	736	m	$598	**$440,000**
300 mm dia. PVC DR 18 Class 150	770	m	$722	**$556,000**
375 mm dia. PVC DR 18 Class 150	540	m	$980	**$529,000**
450 mm dia. PVC DR 18 Class 150	577	m	$1,350	**$778,000**
525 mm dia. PVC DR 18 Class 150	872	m	$1,770	**$1,544,000**
750 mm dia. PVC DR 18 Class 150	1678	m	$2,330	**$3,911,000**
1200 mm dia. PVC DR 18 Class 150	90	m	$3,000	**$270,000**
2. Supply and install sanitary sewer manhole structures including frame and cover				
Std. 1050-1800mm	77	ea	$9,000	**$693,000**
Sub-Total				**$9,450,000**
Contingency (35%)				**$3,308,000**
Total				**$12,758,000**

Table 20: Proposed Water Supply System Cost Estimate

Item	Quantity	Unit	Unit Price	Cost Estimate
1. Supply and install watermain pipe including all fittings, restraints and special pipes				
150 mm dia. PVC DR 18 Class 150	284	m	$446	**$127,000**
200 mm dia. PVC DR 18 Class 150	2143	m	$499	**$1,070,000**
300 mm dia. PVC DR 18 Class 150	1348	m	$830	**$1,119,000**
400 mm dia. PVC DR 18 Class 150	1200	m	$1,553	**$1,863,000**
2. Supply and install valve chamber frame and cover				
(a) Valve Chamber	5	ea	$45,000	**$225,000**
Sub-Total				**$4,404,000**
Contingency (35%)				**$1,541,000**
Total				**$5,945,000**

Table 21: Summary of Preliminary Cost Estimates (CS&F)

Recommended	
Schools (Other)	$29,500,000
Child Care (Region)	$47,020,000
Libraries and Cultural Services (Town)	$8,530,000
Publicly Accessible Open Spaces and Community Recreation Centres (Town)	$27,780,000
Human/Social Services and Community Agencies (Region)	$69,580,000
Emergency Services (Region)	$3,890,000
Emergency Services (Town)	$2,570,000
CS&F TOTAL	$188,870,000
Optional	
Schools (Other)	$41,050,000
Libraries and Cultural Services (Town)	$16,390,000
Publicly Accessible Open Spaces and Community Recreation Centres (Town)	$29,790,000
Emergency Services (Region)	$8,200,000
Emergency Services (Town)	$7,790,000
CS&F TOTAL	**$103,220,000**
CS&F TOTAL Recommended + Optional	**$292,090,000**

Table 22: Summary of Preliminary Cost Estimates (CS&F, Region)

Recommended	
Child Care	$47,020,000
Human/Social Services and Community Agencies	$69,580,000
Emergency Services (Police, EMS)	$3,890,000
TOTAL	**$120,490,000**
Optional	
Emergency Services (Police, EMS)	$8,200,000
TOTAL	**$8,200,000**
CS&F TOTAL Recommended + Optional	**$128,690,000**

services, there are costs for various police equipment including new equipment and technology, 38 vehicles, and 2 mobile command units, as well as costs for emergency medical services including equipment and 2 vehicles. While these costs are intended to provide a start, further discussion will be required in regards to emergency service needs for facilities, equipment and vehicles (refer to Appendix D for a detailed list of assumptions, calculations and the source of units costs).

Regional CS&F Costs - Optional

Community services and facilities to be delivered by the Region that were not recommended in the CS&F Strategy but may be considered dependent on monitoring and changing circumstances are shown in Table 24. In terms of emergency services, there are costs for a building addition for police, as well as costs for a building addition for emergency medical services (one-storey building for two vehicles).

5.3.3.2 Municipal CS&F Costs

Of the various community services and facilities identified in the CS&F Strategy, the Town of Milton is responsible for the service delivery of Libraries and Cultural Services, Parks and Community Recreation Centres, and one type of Emergency Service (Fire). The summary of CS&F cost estimates for those services to be provided by the Town is shown in Table 25, categorized by improvements recommended in the CS&F Strategy and optional improvements that may or may not be required.

Municipal CS&F Costs - Recommended

Costs for the recommended CS&F improvements to be delivered by the Town are shown in Table 26. These include a new library addition of 15,000 square feet and a space for cultural services. In terms of publicly accessible open spaces, the Demonstration Plan illustrates 23 spaces distributed across the Study Area. The intent is that most, if not all, would be developer funded and maintained POPS. It is recommend that, where feasible, the Town may consider acquiring 1-2 small public parks in the Primary/Secondary Zone through the Planning Act. This high-level costing estimate includes costs for one district park to be located outside the Study Area, as well as for two neighbourhood parks. In terms of community recreation centres, there are costs for one new indoor multi-purpose space, as well as various outdoor facilities including 2 skateboard areas, 5 baseball diamonds, 10 soccer fields, 2 multi-purpose courts, 3 tennis courts and 1 sand volleyball facility. These outdoor facilities vary between minor/major and lit/unlit facilities, and will be implemented at different stages as growth occurs. In terms of emergency services, costs include equipment and vehicles. While these costs are intended to provide a start, further discussion will be required in regards to emergency service needs for facilities, equipment and vehicles (refer to Appendix D for a detailed list of assumptions, calculations and the source of unit costs).

Municipal CS&F Costs - Optional

Community services and facilities to be delivered by the Town that were not recommended in the CS&F Strategy but may or may not be considered dependent upon monitoring and changing circumstances

Table 23: Summary of Preliminary Cost Estimates (CS&F, Region, Recommended)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Child Care					
Child Care Centre	New Centre	8 new centres (72-places)	1:1,300 units	$37,810,000	Short-, Mid- and Long-Term +
	Retrofitted Centre	4 retrofitted centres (72-places)		$9,210,000	Long-Term +
Total				$47,020,000	
Human/Social Services and Community Agencies					
Community Services	Additional space	1 New Community Hub	N/A	$11,800,000	Mid- and Long-Term +
Affordable Housing	Affordable housing	211 units - Affordable Housing - Assisted Housing (Rental)	3.5% of all new units, 40% of which rental	$57,780,000	Short-, Mid- and Long-Term +
Total				**$69,580,000**	
Emergency Services					
Police	Equipment	New Equipment & Technology	N/A	$300,000	Short-, Mid- and Long-Term +
		38 Vehicles	N/A	$2,080,000	Short-, Mid- and Long-Term +
		2 Mobile Command Units	N/A	$1,060,000	Mid- and Long-Term +
Emergency Medical Services (EMS)	Equipment	New Equipment	N/A	$120,000	Mid- and Long-Term +
		2 Vehicles	N/A	$330,000	Mid- and Long-Term +
Total				**$3,890,000**	

Table 24: Summary of Preliminary Cost Estimates (CS&F, Region, Optional)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Emergency Services					
Police	Facility	1 Building Addition	N/A	$6,880,000	
EMS	Facility	1 Building Addition	N/A	$1,320,000	
Total				**$8,200,000**	

is shown in Table 27. These include costs for a new 25,000 square foot library and the redevelopment of all existing parks in the CS&F Catchment Area, some of which would be redeveloped twice over the course of 30 years. In terms of recreation facilities, costs include a 5,000-10,000 square foot addition to the Milton Senior's Activity Centre, as well as a 5,000-10,000 square foot addition to the Milton Memorial Arena and the Milton Leisure Centre. Further, there are costs for an indoor soccer air-supported structure, land for additional recreation facilities, and one new indoor multi-purpose space. In terms of emergency services (fire), costs include a new facility and a new building addition (refer to Appendix D for a detailed list of assumptions, calculations and the source of unit costs).

5.3.3.3 Other CS&F Costs

Of the various community services and facilities identified in the CS&F Strategy, some infrastructure improvements can be delivered by other actors (e.g. agencies, developers, non-profit organizations) rather than the Region or Town. Currently, it includes the schools that are to be delivered by the Province of Ontario, and publicly accessible open spaces and urban plazas that are anticipated to be developed as POPs by private developers as growth occurs (refer to Appendix D for a detailed list of assumptions, calculations and the source of unit costs). Other potential items are affordable housing (particularly if inclusionary zoning policies are implemented) and public amenities integrated into mixed-use developments. The Town should use any applicable tools under the Planning Act to assist with the delivery of a range of housing and the integration of public amenities. Similar to other areas in Milton, developers and landowners will likely enter into private arrangements to share capital costs within the Secondary Plan Area (local & collector roads, stormwater management works, parkland, etc).

Table 25: Summary of Preliminary Cost Estimates (CS&F, Town)

Recommended	
Libraries and Cultural Services	$8,530,000
Publicly Accessible Open Spaces and Community Recreation Centres	$27,780,000
Emergency Services (Fire)	$2,570,000
TOTAL	$38,880,000
Optional	
Libraries and Cultural Services	$16,390,000
Publicly Accessible Open Spaces and Community Recreation Centres	$29,790,000
Emergency Services (Fire)	$7,790,000
TOTAL	**$53,970,000**
CS&F TOTAL Recommended + Optional	**$92,850,000**

Table 26: Summary of Preliminary Cost Estimates (CS&F, Town, Recommended)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Libraries and Cultural Services					
Library	Building Addition	1 Building Addition (15,000 sf)	N/A	$6,030,000	Short-Term
Cultural Facilities	Additional space	1 New Cultural Hub	N/A	$2,500,000	Mid- and Long-Term +
Total				$8,530,000	
Publicly Accessible Open Spaces and Community Recreation Centres					
Publicly Accessible Open Spaces	New Parks *	1 District Park (12-16 ha/park)	N/A	$10,260,000	Long-Term
		2 Nbhd Park (5-8 ha/park)	N/A	$4,000,000	Mid- and Long-Term
Recreation Facilities	Multi-purpose space	1 Indoor Multipurpose Space	N/A	$2,500,000	Mid-Term
	Skateboard Areas	1 Major	per Community	$740,000	Mid-Term
		1 Minor	per District	$640,000	Mid-Term
	Ball Diamonds	1 Unlit	each Nbhd	$220,000	Mid-Term
		4 Lit	See Appendix	$1,940,000	Mid- to Long-Term +
	Outdoor Soccer Fields	1 Unlit	each Nbhd	$270,000	Short-Term
		9 Lit	See Appendix	$5,020,000	Mid- to Long-Term +
	Multi-purpose Courts	1 Full Court	each District	$40,000	Mid-Term
		1 Half Court	each Nbhd	$180,000	Mid-Term
	Tennis Courts	3 Unlit	1:10,000 pop	$1,760,000	Mid- to Long-Term +
	Sand volleyball	1 Lit	1:20,000 pop	$210,000	Long-Term
Total				$27,780,000	
Emergency Services					
Fire	Equipment	New Equipment	N/A	$330,000	Mid-Term
	Vehicles	1 Pumper Rescue	N/A	$810,000	Mid-Term
		1 Ariel (100ft)	N/A	$1,370,000	Mid-Term
		1 Utility Pickup	N/A	$60,000	Mid-Term
Total				$2,570,000	

* Anticipated to be located external to the Study Area

Table 27: Summary of Preliminary Cost Estimates (CS&F, Town, Optional)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Libraries and Cultural Services					
Library	New facility	1 Library (25,000 sf)	1:25,000 pop.	$14,170,000	Long-Term
Cultural Facilities	Building Addition	1 Building Addition - FirstOntario Arts Centre Milton	N/A	$2,220,000	Mid- to Long-Term
Total				$16,390,000	
Publicly Accessible Open Spaces and Community Recreation Centres					
Publicly Accessible Open Spaces	Redevelopment of existing parks	24 Parks	N/A	$12,520,000	Short-, Mid- and Long-Term +
Recreation Facilities	Building Additions	1 Addition - Milton Seniors' Activity Centre (5,000-10,000 sf)	N/A	$2,220,000	Mid-Term
		1 Addition - Milton Memorial Arena (5,000-10,000 sf)	N/A	$2,220,000	Mid-Term
		1 Addition - Milton Leisure Centre (5,000-10,000 sf)	N/A	$2,220,000	Mid-Term
	Addition of new higher-order outdoor tournament facilities (cricket, soccer, baseball)	1 Indoor Soccer - Air Supported	N/A	$4,520,000	Long-Term
		Land for Additional Recreation Facilities (acres)	N/A	$3,590,000	Long-Term
	Indoor/outdoor multi-purpose spaces	Multipurpose Spaces	N/A	$2,500,000	Long-Term
Total				$29,790,000	
Emergency Services					
Fire	Facility	1 New Facility	N/A	$3,680,000	Long-Term
	Vehicles	1 Building Addition	N/A	$4,110,000	Long-Term
Total				$7,790,000	

Table 28: Summary of Preliminary Cost Estimates (CS&F, Province)

Recommended	
Schools	$29,500,000
TOTAL	$29,500,000
Optional	
Schools	$41,050,000
TOTAL	**$41,050,000**
CS&F TOTAL Recommended + Optional	**$70,550,000**

Provincial CS&F Costs

Of the various community services and facilities identified in the CS&F Strategy, the Province of Ontario is responsible for the service delivery of Schools. The summary of CS&F cost estimates for the facilities and services to be provided by the Province are shown in Table 28, categorized by improvements recommended in the CS&F Strategy and optional improvements that may or may not be required.

Provincial CS&F Costs - Recommended

The costs for recommended CS&F improvements to be delivered by the Province are shown in Table 29. These include a new 527-student elementary school for the HCDSB as requested, as well as additional portables for elementary and secondary schools. The HCSDB and HDSB noted the need for additional portables.

Provincial CS&F Costs - Optional

Community services and facilities to be delivered by the Province that were not recommended in the CS&F Strategy but may be considered dependent on monitoring and changing circumstances are shown in Table 30. These include costs for a new 490-student elementary school for the HDSB, should it be required, as well as costs for 100-pupil building additions for each of the elementary schools, secondary schools and continuing education facilities in the Study Area.

Private Developer CS&F Costs

The Demonstration Plan illustrates 23 publicly accessible opens spaces distributed across the Study Area. The intent is that most, if not all, would be developer funded and maintained POPS. Active parkland to meet the population driven need for facilities such as major sports facilities should be accommodated outside the Study Area. These larger park types are incompatible with the goals and objectives of the Study Area, given the intensification of the Study Area to achieve mandated transit supportive densities. Further, parkland provision rates are suggested to be lower in the Study Area in order to be viable in a high-density setting.

Within the Study Area, publicly accessible open space should generally be developer funded and maintained in the form of privately owned public space (POPS). It is recommended that, where feasible, the Town consider acquiring 1-2 small public parks in the Primary/ Secondary Zone of the Study Area through the Planning Act. Based on the existing service levels, the proposed new development in the Study Area would benefit from the provision of a public park within

Table 29: Summary of Preliminary Cost Estimates (CS&F, Province, Recommended)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Schools					
Elementary	New School	HCDSB: 1 Building (527-students)	N/A	$12,100,000	Mid- to Long-Term
		HCDSB: 1 Site (6 acres)	N/A	$11,290,000	Mid- to Long-Term
	Additional portables on school site	HCDSB: 7 units (staggered lease)	N/A	$1,790,000	Short-, Mid- and Long-Term +
		HDSB: 20 units (purchased)	N/A	$2,500,000	Short-, Mid- and Long-Term +
Secondary	Additional portables on school site	HCDSB: 4 units (staggered lease)	N/A	$820,000	Short-, Mid- and Long-Term +
		HDSB: 8 units (purchased)	N/A	$1,000,000	Short-, Mid- and Long-Term +
Total				**$29,500,000**	

Table 30: Summary of Preliminary Cost Estimates (CS&F, Province, Optional)

Recommended Capital Improvement		Details	Population Trigger	High-level Cost Estimate	Priority (short-, mid- or long-term)
Schools					
Elementary	New School	HDSB: 1 School (490-students)	N/A	$10,600,000	Mid- to Long-Term +
		HDSB: 1 Site	N/A	$11,290,000	Mid- to Long-Term +
	Building Addition	HCDSB: 2 additions (100-student)	N/A	$3,190,000	Short- and Long-Term
		HDSB: 5 additions (100-student)	N/A	$7,980,000	Short-, Mid- and Long-Term +
Secondary	Building Addition	HCDSB: 1 addition (100-student)	N/A	$1,600,000	Mid-Term
		HDSB: 2 additions (100-student)	N/A	$3,190,000	Mid- and Long-Term
Continuing Education Facility	Building Addition	HCDSB: 1 addition		$1,600,000	Long-Term
		HDSB: 1 addition		$1,600,000	Long-Term
Total				**$41,050,000**	

the central portion of the Study Area, as well as a focus on improved connectivity throughout the area.

5.3.4 Detailed Cost Estimate for Municipal Capital Improvements

The Town should prepare a detailed cost estimate to assist the implementation of the recommendations provided in this Report.

This comprehensive cost estimate should consider the following:

- Capital and operating costs to serve growth in the Mobility Hub
- The expected timing of development and any potential transportation, infrastructure and public realm improvements;
- The lifecycle financial implications associated with growth; and
- Any other projects or initiatives which may impact the timing of development and costs for infrastructure improvements.

In order to adequately support the growth anticipated in the Study Area, costs will be significant and cannot be met without substantial increases in Town revenue. The Town can use a more detailed cost estimate as a supporting study in the development of the Town's Development Charge Study and Fiscal Impact Analysis. As noted by the Town's Finance staff, this costing should be based on tangible supporting evidence from recent industry experience for similar infrastructure investment and should clearly articulate the source (based on averaging a sample of similar projects) as well as the assumptions contained within, such as percentage for design, CA, project management, and overhead (capital surcharge, etc.). The fiscal impact analysis will require the estimates on an annual basis. At a minimum, the detailed cost estimate should include the phasing of capital infrastructure investments and population (to be provided in 5 year increments).

The development of a Secondary Plan as discussed in the next subsection is a recommended as part of the implementation strategy for the Mobility Hub Study. A detailed cost estimate for municipal capital improvements can be prepared as part of this task to provide sufficient justification and supporting evidence if required in the Development Charge Study or Financial Agreement processes to follow completion of the Secondary Plan.

5.4 Implementation

Study recommendations can be implemented through a variety of methods. Recommended components of the implementation strategy include a Secondary Plan, Zoning Update, Built Form Objectives, Early Solution and Interventions and other strategies detailed below.

5.4.1 Secondary Plan

Although the Study Area largely overlaps with the Central Business District Secondary Plan in the Milton Official Plan (amended as part of OPA 31 in 2018), new designations for certain land uses are recommended as part of this Study along with revisions to density limits, height limits, street and development blocks, and open space, linkages and nodes. As such, a new Secondary Plan is recommended for the Mobility Hub. With the introduction of a new Secondary Plan,

the boundaries of the Central Business District Secondary Plan in the Official Plan would need to be revised.

The anticipated scale and intensity of development contemplated through this Study warrant careful consideration to ensure the capacity of the local transportation network, municipal servicing, open spaces and other public services and facilities. As growth is expected to occur over an extended period of time, the recommended public realm, street network and other improvements will likely be delivered on an incremental basis.

Section 36 of the Planning Act allows the Town to institute a holding symbol (H) in the implementation of zoning by-law(s) to specify certain conditions to be met prior to site redevelopment. A Secondary Plan for the Mobility Hub should incorporate this tool to ensure growth supports a complete community, with particular regard to transportation infrastructure and other municipal services that benefit the community as a whole. As mixed-use development proceeds, holding provisions would require applicants to review and address the current network capacity and implement improvements recommended by this Study in order to manage and improve the Mobility Hub's transportation network and traffic operations.

It is recommended that the Secondary Plan include:

- An introductory section outlining the purpose, objectives and guiding principles for the area as developed through the Mobility Hub Study;
- A figure defining the Precincts and Gateways identified by this Study;
- A Structure Plan identifying potential locations for new streets and blocks, publicly accessible open spaces and built-form edges;
- A figure delineating existing and potential view corridors and visual points of interest;
- A Public Realm Plan illustrating the conceptual network of publicly accessible open spaces, street greening and signature landscape treatments;
- Maps outlining maximum heights and densities;
- A Mobility Plan compiling key transportation recommendations for improving connectivity, identifying new streets and intersections, mid-block pedestrian paths, cycling network improvements and opportunities for local and regional transit integration; and
- Subsections outlining specific policies to guide development of each Precinct and Gateway—including their intended character and role within the Secondary Plan area, public realm improvements, built-form objectives, desired land uses and building types, development intensity and appropriate locations for parking.

The Secondary Plan should also include policies to enable the following implementation tools:

- The requirement to prepare a conceptual block master plan prior to redevelopment of larger parcels. Such plans should show the location of new streets, POPs and other publicly

accessible open spaces and proposed built form and land use relationships, as to achieve multiple objectives consistent with the guiding principles and urban design objectives for the Mobility Hub;

- Provisions to enable the use of a holding (H) symbol in the zoning of parcels to ensure the satisfactory completion of studies or other matters necessary prior to new zoning coming into effect, including but not limited to:
    - A Streets, Blocks and Circulation Plan;
    - A Transportation Impact Study that reviews traffic conditions to demonstrate that: operation and levels of service will be adequately controlled at the time of redevelopment, that there is sufficient transportation capacity to accommodate additional site-generated trips for all modes, and that appropriate measures can be undertaken to address network constraints in accordance with the transportation policies in the Secondary Plan;
    - The provision of new streets, pedestrian links, mobility hub infrastructure and intersection and streetscape improvements to support multi-modal mobility throughout the Secondary Plan;
    - Municipal servicing requirements;
    - Noise Impact Studies;
    - A Community Services and Facilities Needs and Delivery Plan;
    - The provision of parkland and a public realm/open spaces; and
    - Environmental Assessments (as may be necessary).
- Policies identifying limits to development prior to the provision of transportation infrastructure, as needed;
- Policies requiring CS&F needs to be monitored and addressed through development;
- Implementation tools to enable improvements to the public realm including publicly accessible open spaces, as well as to community services and facilities, such as:
    - Town capital funding;
    - Parkland acquisition and/or cash-in-lieu of parkland pursuant to Section 42 of the Planning Act, with specific reference to the potential to pool cash-in-lieu funds collected on smaller development parcels to be directed for the creation of parks within Secondary Plan area;
    - Contribution of benefits from developments resulting in increased heights and densities, pursuant to the Planning Act (communities benefits charges); and
    - Improvements to the public realm adjacent to private development secured through Section 41 Agreements (site plan control).

5.4.2 Zoning Updates

As the Study Area redevelops, current zoning will require updates to align with the objectives for the Mobility Hub. The Comprehensive Zoning By-law 016-2014 applicable to the Town's Urban Area was adopted by Milton Council in February 2014 and approved in part by the Ontario Municipal Board in October 2014. A comprehensive review of existing zoning will be required to provide necessary updates to support the planning objectives for the Study Area.

Several zoning updates to implement the recommendations of this Study are discussed below:

- Apply mixed-use (MU) zoning.
    - Determine which lands need to be re-designated to allow for the range of mixed commercial, residential, office and institutional uses that align with the direction set by the Study;
    - Determine whether existing zoning designation categories, such as the Urban Growth Centre – Mixed-Use Zone (UGC-MU) as defined by the Zoning By-law are adequate to provide for the broad range of uses anticipated in the area;
    - Determine whether additional MU categories should be created. The Town has the opportunity to secure the desired mix of commercial and residential densities through appropriate zoning categories; and
    - Determine whether development standards need to define specific built form requirements to address different physical contexts, and whether these provisions need to be adjusted on a site-or area-specific basis to reflect the built form recommendations of this Study.
- Update MU zones to reflect Study recommendations. Certain lands around the GO Station are already zoned UGC-MU but reflect a lower intensity of development. Rezoning these lands provide the opportunity to consider appropriate maximum densities, heights, setbacks and parking requirements to encourage more compact and urban forms of development.
- Apply a holding ('H') symbol to MU zoning to ensure the provision of necessary transportation infrastructure. The application of a holding symbol to the new and updated MU zones is an effective tool to ensure that growth is appropriately monitored and sequenced with the provision of higher-order transit serving the area. Certain improvements are needed in conjunction with the development of certain blocks. The holding symbol can be utilized to tie the provision of streets and transportation improvements to MU parcels. In addition, incremental measures to increase modal share and alleviate congestion can be achieved through redevelopment and/or the conditional removal of holding symbols. The holding symbol can also be utilized to require other studies and matters necessary to support development. Note that using a Plan of Subdivision or applying a holding symbol can offer tools to create new streets, but may impose a layer of complexity that disrupts the streamlined and flexible development review process.

- Explore reduced and locational parking standards. Review and determine reduced parking standards throughout the Mobility Hub to limit the availability of parking, in turn disincentivizing commutes by private vehicle. In addition, zoning should contain provisions that regulate the size and location of surface parking areas to limit their impact on the public realm.
- Review permitted land uses to consider compatibility. The list of uses permitted in the MU zones should be reviewed to identify uses that may not be compatible with the urban design or growth objectives of the Mobility Hub. Some light manufacturing, open storage areas and auto-related uses such as gas and service stations do not contribute to the intended character for the area. Zoning permissions could be enhanced or changed to ensure that objectives are achieved.
- Ensure MU zones permit schools. To support the need for an elementary school through a strata development, discussions will need to occur between the Town, school board and landowners to ensure the availability of a school site within development areas. Further, blanket zoning permissions should be included within all of the mixed-use land use areas to permit the development of an elementary school and associated uses, such as a child care centre, when the need permits. Mixed-use zoning should permit adult education facilities, in addition to the institutional uses mentioned above.

5.4.3 Built Form Objectives / Urban Design Guidelines

It is recommended that the Town adopt the Urban Design Guidelines prepared for the Milton Mobility Hub (see Appendix C).

5.4.4 Early Solutions and Interventions

Most of the recommendations included in this Report are intended to be brought forward over the medium- to long-term. However, several interventions have been identified for implementation in the near-term. These interventions may help establish early successes and highlight the importance of the Mobility Hub to the business community and to the Town of Milton as a whole, potentially attracting additional private sector investment.

Several interventions to highlight the importance of the Mobility Hub include:

- **Streetscape Improvements.** The timing of recommended streetscape improvements could either take place incrementally, aligned with development activity, or as a larger public capital project. With respect to the latter, the overall reconstruction of the street and implementation of the recommended streetscape improvements should be coordinated with major below-grade infrastructure works to reduce construction schedule timing and disturbance to the local and business communities.
- **Transportation 'Quick Wins'.** The Area Transportation Plan identifies a series of actions that the Town can undertake in the short-term to improve modal share, independent of private redevelopment. These 'Quick Wins' include implementing planned cycling facilities and enhancing partnerships with regional transportation departments and agencies to achieve common goals. Potential 'Quick Wins' could include the following:

- Transit stop upgrades (to be implemented by the Town);
- GO Station building, parking and accessibility improvements, including a pedestrian tunnel to facilitate movement between the north and south side of the tracks (Metrolinx has begun this work); and
- Expansion of pedestrian and cycling networks (to be implemented by the Town).

- **Signage and Wayfinding Strategy.** The Town should prepare a Signage and Wayfinding Strategy for the Mobility Hub to reduce visual pollution and improve signage. Coordinated branding and wayfinding efforts can also contribute to the Study Area's visibility and identity.
- **Tactical Urbanism.** The use of shipping containers and other temporary structures can assist in amenitizing areas of the Mobility Hub while highlighting potential opportunities. The Town should review its Official Plan, Zoning By-law and development engineering policies in an effort to identify and eliminate barriers to temporary low cost interventions to pilot streetscape / public realm improvement.

5.4.5 Community Improvement Plan

To assist and accelerate redevelopment and facilitate further public realm improvements for identified areas within the Mobility Hub, the Town may consider creating a Community Improvement Plan (CIP) for intensification areas and a Public Realm Master Plan for key areas as part of the implementation of a Secondary Plan. The rationale is to ensure that:

- The proposed public realm improvement projects are appropriately planned and accounted for in Town and Regional capital and operating budgets, including any property acquisitions which may be required to complete the proposed streetscaping, public realm and gateway improvements;
- The location of the proposed improvements can be confirmed through additional detailed analysis and site level review; and
- Competitive financial incentives exist to promote intensification and redevelopment such as, but not limited to, incentives for greyfield and brownfield redevelopment, lot consolidation/ assembly, residential infilling and/or mixed-use intensification, etc.

5.4.6 Community Services and Facilities

Long-term redevelopment of the Mobility Hub presents an opportunity to develop and acquire new CS&F as the needs of the population evolve. Existing CS&F should be maintained, improved or expanded, and new CS&F may be secured through development by various means, including the development charges and parkland dedication, as well as through innovative approaches such as co-location, multi-use and shared facilities.

5.4.7 Parkland Dedication

Where the Town accepts cash-in-lieu of parkland dedication, the Town should dedicate the funding to the development of a public space program for the Mobility Hub. The Town should prioritize developments that contributes to the enhancement of the public realm, including active transportation infrastructure. A new parkland

dedication rate should be considered for high-density areas such as that anticipated in the Study Area. The Town should conduct a fulsome parkland dedication analysis to determine the approach for this rate.

5.4.8 Development Charges

The Town should include any growth-related infrastructure identified in the Mobility Hub as part of its Development Charges By-law update. The Town may want to consider a review of their fees in light of the emerging community benefits recommendations from the Province.

5.4.9 Community Planning Permit System

In light of updates to planning legislation and processes provided through Bill 108, the Town may consider alternative implementation measures such as the Community Planning Permit System (CPPS). The CPPS is a development review system that consolidates zoning, site plan approval and minor variance processes through the enactment of a Community Planning Permit By-law. The By-law shall include minimum and maximum development standards, evaluation criteria to test development proposals, formula for community benefit contributions and clearly defined conditions for approval. The general objective of the CPPS is to streamline the approvals process and allow municipalities to set regulations pertaining to land use, density and urban design.

If the Town should choose to adopt the CPPS, the following implementation measures should be followed:

- Develop a framework through new Official Plan policies that outline the goals, objectives and general evaluation criteria of the CPPS;
- Undertake planning studies and community consultation to determine the boundaries for the Community Planning Permit By-law area(s), to identify a comprehensive vision and to outline a local CPPS framework (including amendments to the Official Plan);
- Create a clear and comprehensive CPPS By-law that reflects the area-specific vision of the community; and
- Review development permit applications and issue Community Planning Permits if the proposal is deemed to be consistent with CPPS by-law parameters (Community Planning Permits are issued prior to the issuance of building permits).

5.4.10 Coordination with Halton Region

The Town should work with Halton Region to ensure Study recommendations are implemented, including opportunities for urban design and public realm improvements through future Regional works. Other items to coordinate with the Region include:

- **GO Transit Service.** The Town should work collaboratively with the Region and other appropriate agencies to support the expansion of GO Transit services; and
- **Affordable Housing.** The Town should work collaboratively with the Region to ensure that affordable housing is provided. Inclusionary zoning could be used as a policy tool to require

affordable housing in a certain percentage of new units. In April 2018, the Province of Ontario introduced an inclusionary zoning regulation through the adoption of Bill 139. The regulation allows municipalities to require that affordable housing units be included in residential development. Changes to the Planning Act, adopted through Bill 108 in force as of September 2019, limit the use of inclusionary zoning to specific areas, which includes MTSAs such as the Study Area. A municipality must adopt policies in its Official Plan and Zoning By-law to establish inclusionary zoning and determine how it is to be implemented. Municipalities are further required to provide an assessment report to guide the development of these policies. A report entitled “Increasing Housing Supply in Ontario” prepared by the Halton Area Planning Partnership in January 2019 noted a lack of clarity regarding next steps toward the implementation of an action plan to increase the supply of housing in Ontario. The Report recommended that the Province provide enhanced support to municipalities in implementing inclusionary zoning in areas intended for intensification.

5.4.11 Monitoring Program

Growth in the Study Area is expected to occur over a period of 40 years or more. The Town should prepare a monitoring program to track the implementation of recommendations included in this Study and regularly report on progress. The monitoring program should identify development statistics for intensification and the status of the various actions identified in this Report, such as parkland dedication, community services and facilities, and various streetscape projects. The monitoring program should also be designed to monitor and asses the achievement of planning goals and objectives, such as modal shift, density, transit use, etc.