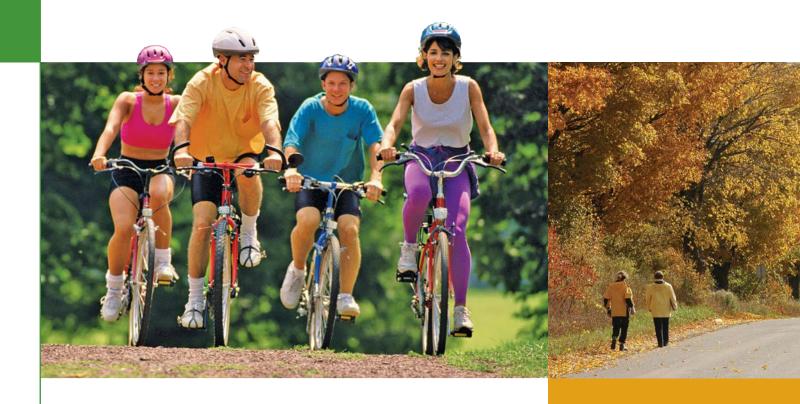
APPENDIX F2 Active Transportation

The Road to Change

Halton Region Transportation Master Plan



Active Transportation



Contents

			Page							
1.	PURI	POSE OF REPORT	1							
2.	INTRODUCTION									
	2.1	The Role of Active Transportation in Addressing Travel Demand	2							
3.	GUIDING DOCUMENTS									
	3.1	Regional Official Plan Amendment 38 (ROPA 38)	5							
	3.2	The Big Move	6							
4.	EXISTING CONDITIONS IMPACTING THE TRANSPORTATION SYSTEM									
	4.1	Population Growth	7							
	4.2	Health	7							
	4.3	Environment and Energy	8							
	4.4	Economic Impact of Traffic Congestion	8							
	4.5	Summary	8							
5.	EXIS'	EXISTING ACTIVE TRANSPORTATION INITIATIVES IN HALTON REGION								
	5.1	Halton Region	9							
	5.2	Oakville	10							
	5.3	Burlington	10							
	5.4	Milton	11							
	5.5	Halton Hills	12							
6.	OPPO	PPORTUNITIES TO IMPROVE ACTIVE TRANSPORTATION								
	6.1	Infrastructure Opportunities	13							
	6.2	Public Perception Opportunities	14							
	6.3	Design Standards in New Development Areas								
	6.4	Urban Form	14							
	6.5	Integration with other Forms of Transportation	14							
	6.6	AT Network GAP Analysis	15							
7.	RECO	RECOMMENDATIONS								
8.	CON	CLUSION	19							
9.	REF	ERENCES	20							

Appendices

Appendix A: Oakville AT Plan

Appendix B: Burlington AT Plan

Appendix C: Milton AT Plan

Appendix D: Halton Hills AT Plan

Appendix E: Consolidated AT Plan

1. Purpose of Report

"Active Transportation" (AT) is defined as non-motorised or lightly-motorised travel, including walking, cycling, roller-blading and movements with mobility devices. The AT network includes sidewalks, crosswalks, designated on-road and off-road trails to accommodate active transportation. (Regional Official Plan Amendment No. 38, Section 212.1.)

To promote AT, a well-connected, safe and functional transportation network consisting of sidewalks/multiuse paths, designated bicycle lanes, wider paved shoulders and off-road trails is required. To increase the use of AT, initiatives associated with education, planning, design and infrastructure development need to be closely coordinated with Halton's Local Municipalities. AT is being promoted as a year-round travel mode option that should be available for all members of the community.

It has been identified and confirmed by a variety of health reports that we generally live in a society where people are less active, air pollution is of concern and health issues related to obesity and respiratory problems are increasing. The reliance on the automobile and the prominence of the single occupant vehicle in peak period travel is one of the contributing factors to the deterioration of the noted quality of life measures.

Within the context of community development, there needs to be a variety of options to the general public to encourage a more active lifestyle and decrease the reliance upon the automobile — mainly the single occupant



vehicle. These options, however, must be "competitive" with the automobile not just during peak period travel, but at all times throughout the day. Therefore, a well-connected, safe and functional active transportation network should continue to form part of the future transportation system for the Region. The purpose of this technical reference is to educate, encourage and recommend guidelines needed to facilitate cycling and walking as

modes of transportation in Halton Region. Implementation of this will promote healthier lifestyles and provide increased mobility options for the residents of the Region.

2. Introduction

This discussion paper supports the objectives and guiding principles of the Halton Region Transportation Master Plan, a 20-year plan outlining Halton Region's transportation infrastructure and program needs to service growth to 2031, as outlined in Regional Official Plan Amendment No 38 (ROPA 38). In particular, this discussion paper supports the following master plan guiding principles:

- Balanced Needs provide choice for the travel needs of residents;
- Healthy Communities support a healthy and active lifestyle;
- Economic Vitality transportation will be a major contributor to the Region's prosperity;
- Sustainability balance economic, social and environmental goals; and
- Well-Maintained Infrastructure keep the Region's infrastructure in a good state of repair.

2.1 The Role of Active Transportation in Addressing Travel Demand

Active transportation can be used in utilitarian travel such as in trips from home to school, home to work or home to shopping. It also can be used for recreational purposes such as a walk around the neighbourhood in the evening or jogging / cycling for fitness. Utilitarian travel is the focus of the Transportation Master Plan.

Creating the environment to enable people to comfortably walk or cycle to activities during peak commute hours when they previously would drive to the activity will have a positive impact on the transportation network. Some characteristics of areas that would increase the likelihood of people using active transportation for utilitarian needs include:

- Neighbourhoods that have a mix of land uses in close proximity;
- Efficient transit network where people can walk / cycle to and from transit stops; and
- Connectivity of cycling paths and sidewalks.



This technical reference presents guidelines and directions to encourage the use of active transportation as a viable means of transportation for utilitarian tasks. This document addresses:

- Education informing the public about the benefits of active transportation and active transportation routes available;
- Planning supporting region-wide active transportation systems and neighbourhoods conducive to active transportation; and
- Design and infrastructure providing the urban design and associated infrastructure (cycle lanes, sidewalks and a transit network) that supports active transportation.



This report has been organized into several sections:

- Guiding documents: presents a summary of key principles and policies addressing active transportation;
- Existing conditions impacting the transportation system: provides factors that show the need for guidelines on active transportation;
- Existing active transportation conditions in Halton Region: presents a summary of what Halton Region and each local municipality in the Region is doing regarding active transportation;
- Opportunities to improve active transportation: discusses areas for guideline development to enhance ongoing active transportation efforts;



- Linkages to other guidelines: indicates how the active transportation technical reference is integrated with other guidelines and programs in the Transportation Master Plan, the Regional Official Plans, and other relevant documents;
- Recommended active transportation guidelines and programs
- Conclusions.

3. Guiding Documents

The guiding principles outlined in the Introduction provide the set of fundamental beliefs that will lead the development of the Transportation Master Plan. In addition to these principles, Halton Region's Regional Official Plan Amendment 38 (ROPA 38) and Metrolinx's Regional Transportation Plan (The Big Move) are two guiding documents reviewed in this section to highlight how each addresses active transportation. The Halton Region Transportation Master Plan conforms to the overall goals and policies related to active transportation outlined in both of these documents.

3.1 Regional Official Plan Amendment 38 (ROPA 38)

On December 16, 2009, Halton Regional Council adopted ROPA 38 "An Amendment to Incorporate the Results of Sustainable Halton, Official Plan Review Directions and Other Matters".

With ROPA 38's adoption, Halton Region fulfils the provincial requirements to plan for growth and integrates the principle of sustainability into its Official Plan.

ROPA 38 outlines how and where Halton will grow from 2021-2031. ROPA 38 is the final phase of a process that began in 2006 as a response to provincial requirements set out in policies including the Places to Grow Plan, the Greenbelt Plan and the Provincial Policy Statement.

In summary, through ROPA 38, Halton Region has decided to integrate active transportation into all aspects of the land use and transportation planning processes. New land use developments and new transportation projects all should consider how to encourage pedestrian and cycle activity in their design. Consideration of how to link existing pedestrian and cycle facilities in order to create an integrated transportation network will also be critical.

3.2 The Big Move

The regional transportation plan for the Greater Toronto Hamilton and Area (GTHA), entitled "The Big Move", was adopted by Metrolinx in November of 2008. The document placed a strong emphasis on active transportation. Many of the goals of the Big Move allude to or support active transportation such as:

- Transportation choices: alternatives to the car, such as cycling and walking;
- Active and healthy lifestyles: promoting active transportation as a viable transportation option;
- Safe and secure mobility: increasing safety of pedestrians and cyclists;
- Reduced dependence on non-renewable resources: increasing the number of trips by walking or cycling; and
- Foundation of an attractive and well-planned region: more pedestrian friendly environment and amenities for pedestrians and cyclists.

The Big Move shifts the transportation focus from the single occupant vehicle to non-automobile modes of transportation, including walking and cycling.

A considerable emphasis is put on improving walking and cycling networks, not just from a transportation perspective but also from an urban design and urban form perspective, in order to create more liveable communities that support and promote active transportation.



4. Existing Conditions Impacting the Transportation System

Current and future socio-economic and environmental trends related to or impacting the transportation system dictates a need for a discussion on active transportation as part of the Halton Region Transportation Master Plan.

4.1 Population Growth

According to the 2006 Census, Halton Region experienced a growth rate of 17.1% between 2001 and 2006, giving it one of the highest growth rates in the country. By the year 2031, Halton Region is forecast to increase its population from 450,000 to 780,000 (780,000 residents corresponds to 752,357 residents in Halton Region's Best Planning Estimates when the census undercount is taken into consideration) and its number of jobs is forecast to increase from 140,000 to 390,000. Increased population will result in increased trips in the Region. Improving AT facilities will enable current trips as well as future trips to find viable transportation options to the single occupant vehicle.

4.2 Health

Data released in January 2010 by Statistics Canada on the Canadian Health Measures Survey indicate that 61% of Canadian adults are obese or overweight. The Public Health Agency of Canada (PHAC) recommends that adults exercise a minimum of 30 minutes each day. However, 63% of Canadians are not meeting these minimal requirements and therefore not reaping the rewards in health benefits from modest levels of activity.

More appealing AT networks could help promote the exercise needed to improve the health of the population.

4.3 Environment and Energy

The environment and in particular the unsustainable production of greenhouse gases, and air and noise pollution are key considerations in the planning for long term growth and for improvements in quality of life in existing communities. Motorised transportation makes a significant contribution to current air pollution issues. Ontario health researchers have estimated that in 2005, approximately 5,800 premature deaths and 60,000 emergency room visits by Ontario residents were related to air pollution levels in the province. This has an estimated health care costs of \$507 million related to air pollution, which based on current trends has been estimated to rise to nearly \$702 million by 2026. This equates to \$374 million in lost workdays, which again is estimated to rise to \$467 million by 2026. (Ontario Medical Association, The Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates (June 2005))

The Halton Region Health Department has stressed the significant impacts to human health and health care costs in Ontario that poor air quality causes. It was noted that poor air quality due to the five pollutants of ground-level ozone, fine particulate matter, nitrogen dioxide, sulphur dioxide, and carbon monoxide contributed to additional premature deaths, hospitalizations and emergency room visits. It was estimated that these health impacts cost the Region's health care system in excess of \$10 million. (Halton Region Health Department - Protecting Health: Air Quality and Land Use Compatibility (February 2009))

Active transportation modes create no greenhouse gasses or other environmental pollution. Diverting trips from automobiles or other motorised vehicles could help to protect the environment and reduce health care costs. Carbon dioxide emissions, which are the main contributor to global warming, are closely linked to energy consumption. It is vital to plan and promote cycling and walking as a key form of transportation in Halton Region.

4.4 Economic Impact of Traffic Congestion

The cost of congestion experienced by Greater Toronto and Hamilton Area (GTHA) residents and businesses is forecast to increase considerably by 2031. Diverting automobile-related trips to active transportation trips could help reduce traffic congestion and associated costs related to fuel and travel time.

4.5 Summary

The design and planning of communities for active transportation along with programmes that educate, maintain, promote and encourage the use of this fundamental, socially affordable, clean and healthy form of transportation for undertaking day to day activities is vital.

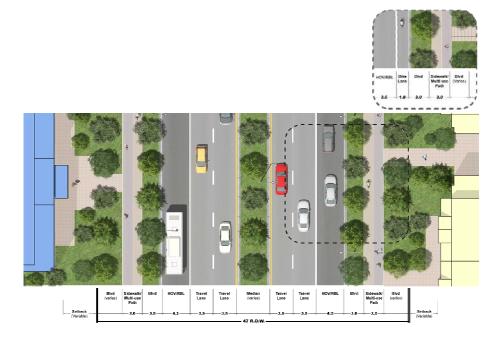
5. Existing Active Transportation Initiatives in Halton Region

This section presents the current efforts in support of active transportation in Halton Region overall and individually in each of the four local municipalities in Halton.

5.1 Halton Region

Halton Region has established Regional Road Right-of-Way Guidelines that include a standard 1.8 metre bicycle lane or 4.2 metre curb lane in order to facilitate cycle usage in an urban setting. On rural roads, 2.5 metre wide (1.5 metre paved and 1.0 metre granular) partially paved shoulders are provided to accommodate cycle usage.

Implementation of cycling facilities is considered when a road is widened or reconstructed.



The Regional Cycling Committee was formed subsequent to the 2004 Halton Transportation Master Plan with the purpose of promoting, facilitating, educating and encouraging increased cycling in Halton Region. The committee was comprised of residents, regional councillors and staff who believe strongly in the value of cycling as part of a healthy and liveable community. In 2011, this committee was re-established as the "Active Transportation Advisory Committee". The Region's "Active Transportation Advisory Committee" (ATAC) will define a coordinated approach to all non-motorised travel needs across the Region. In this role, the ATAC will commission the development of a detailed region-wide Active Transportation Master Plan (ATMP) to establish a strategy defining educational and outreach initiatives and infrastructure improvements to promote increased non-motorised travel throughout the Region.

5.2 Oakville

The town completed an Active Transportation Master Plan (ATMP) study in the Spring of 2009. The study included a full review of pedestrian and cycling facilities network, with an additional focus on how these initiatives blend with transit services. The study results assessed current conditions and developed a recommended plan to improve and expand the network, and promote cycling and walking in Oakville. The study also covered safety, environmental benefits, performance measures, promotion, education, maintenance, and a number of other areas integrated with cycling and walking.

The plan further supported the Oakville Official Plan, the Oakville Transportation Master Plan and the Environmental Strategic Plan by providing:

- Convenient and efficient Town-wide cycling and pedestrian system that links all communities in the town;
- Establishment of an environmentally friendly transportation system that improves mobility; and
- Increased cycling and walking network connectivity.

Appendix A presents the Town's cycling and pedestrian network as proposed by the ATMP.

5.3 Burlington

In 2009 The City of Burlington completed an update to its 1997 "Multi-Use Pathways and Bikeway Plan". The Cycling Master Plan (2009) guides the expansion of the City's network of on-road bike lanes and off-road multi-use pathways. It includes policies and programs that will make Burlington more bicycle-friendly. The expansion plans include increasing the existing 90 kilometres of bikeways and multiple purpose paths to 310 kilometres of facilities.

A new bikeway design recommended as part of the Cycling Master Plan is the bicycle priority street, or "bicycle boulevard" as it is known in western United States. It is a traffic-calmed, local street that has been optimized for through bicycle traffic, but discourages other non-local traffic. Traffic controls (signals, stop signs and yield signs) are placed to control conflicts with motorists and give priority to cyclists. Traffic control or features are provided so cyclists can cross major streets.



These types of streets enhance neighbourhood liveability and traffic safety.

The Burlington Cycling Committee has been active for twenty years. Its mandate is to assist, advise, recommend, and support Council in matters pertaining to cycling in the City of Burlington. Appendix B presents the City's planned cycling and pedestrian network.

5.4 Milton

The Town of Milton developed a Trails Master Plan in 2007 that provides a vision for a "trail network that unifies neighbourhoods and destinations within the community of Milton." As the Town grows, the Trails Master Plan has evolved to reflect the changing needs of residents and businesses and explores new technology and design possibilities for trails development. A Trails Advisory Committee, comprised of Town staff, Councillors and members of the public, meets on a regular basis to guide trails development in Milton.

The Town publishes the Community Connections Map which features Town transit routes/schedules, facilities, trails, parks, playgrounds (including amenities, such as basketball courts, accessible swings, etc.), pools, schools and more to help residents connect to various destinations. The map illustrates the trail network, detailing hard surface, granular, woodchip and proposed future trails.

Appendix C presents the Town's AT network.

5.5 Halton Hills

Halton Hills currently has a system of multi-use pathways and trails that it wanted to expand and integrate into the new cycling master plan. The Town of Halton Hills completed this new Cycling Master Plan in 2010. The Town of Halton Hills wanted to increase the availability of active transportation and active recreation opportunities to residents. Much of Halton Hills land is protected through either the Niagara Escarpment Plan or provincial greenbelt plan providing residents with ready access to the natural environment.

The cycling master plan makes recommendations that lead to opportunities for the Town's citizens to increase their activity level regardless of age, fitness, ability or cycling skill. The plan has been developed for the enjoyment of all and to bring the community together. Extensive public input was sought as part of the delivery of the plan.

Appendix D presents the Town's plan.



6. Opportunities to Improve Active Transportation

Walking and cycling are valued as a means of transportation and recreation due to their low cost, low impact, wide suitability and health benefits. However, there are numerous barriers to increasing walking and cycling. In order to understand how active transportation, in particular walking and cycling, can be improved in Halton Region, it is important to address opportunities for improving walking and cycling in the areas of:

- Infrastructure;
- Public perception;
- Design standards in new development areas;
- Urban Form: and
- Integration with other forms of transportation.

6.1 Infrastructure Opportunities

There is an opportunity to provide for increased walking and cycling through the provision of attractive infrastructure within existing and future urban areas. The provision of infrastructure includes facilities at destinations (safe lock up, showers), suitable and friendly designs at activity centres, and safe and well maintained walking and cycle paths. In certain situations there may be a need to clearly define and separate these users from vehicular traffic, and possibly even between cyclists and pedestrians.

Potential conflict areas include intersections, particularly those with high turning movements. The appropriate physical design and traffic management controls must be in place. Speed limits and safe and appropriate crossing points, particularly at major crossing barriers such as Highway 401 and the QEW, should be addressed on a case by case basis.

Other infrastructure opportunities include year-round path maintenance and street lighting to enhance safety along walking and cycling routes.

6.2 Public Perception Opportunities

The major gain in cyclist and walkers will be those people who currently drive for short length trips (less than 10 km). Currently these potential AT users shy away from AT noting reasons such as insufficient facilities, safety or a general lack of knowledge of the "network". The promotion of safe cycling and pedestrian routes, journey planning tools that provide an understanding of alternative mode and route options to travelling by private vehicle are opportunities to pursue to change public perception of AT.

6.3 Design Standards in New Development Areas

Incorporation of pedestrian and bicycle routes into the design of new developments can help to encourage active transportation. The inclusion of these design features in a continuous connected manner to local and

regional roadways and trails can be used as an incentive to attract future residents and demonstrate the mobility potential to local facilities and services.



6.4 Urban Form

Effective planning for mixed land uses and complete communities will help make active transportation a viable choice. This in turn will benefit community vitality, quality of life and economic opportunity.

6.5 Integration with other forms of Transportation

Walking is the simplest form of transportation. It is free and has insignificant environmental cost. Furthermore, all trips involve some walking component, if only from the parking lot to the retail shop. Planning for pedestrians is therefore of primary importance to transportation planning and should be as critical in site design. Pedestrians use every part of the public domain, including roads, footpaths, nature trails, shopping centres, parking lots and other public spaces.

Cycling is a highly efficient, environmentally friendly form of transportation. As with walking, cyclists are improving their health and contributing to an active environment at a human scale.

The provision of pedestrian and cyclist infrastructure should not only aim to fulfil the requirements of existing users, but to increase the number of these users in Halton Region. Such an outcome would result in fewer car trips, healthier residents and a more active (and safe) streetscape.

A high quality pedestrian and cycling environment would include:

- Safety: pedestrian and cyclists are vulnerable road users;
- Continuity / Direct Routing: pedestrians and cyclists dislike significant deviations to their route;
- Pleasant Environment: people will be more likely to walk/cycle if their route (cycle lanes, sidewalks, trails) are properly designed and maintained clear of snow, ice and other debris;
- Complement other modes: the catchment area of public transit services can be enhanced with the aid of walking/cycling infrastructure; and
- End of trip facilities: cyclists need to know that their bike is safe from theft while it is not attended and

that other facilities could be available (such as showers).

Pedestrian and bicycle plans cannot be considered in isolation from other forms of transportation and urban planning. This applies to the integration of pedestrian and bicycle plans with access to existing



and potential bus and rail networks and with continued growth with higher density and mixed land-use development. The latter is particularly important if shops and services are located within walking or cycling distance.

Examples of current integration of AT in Halton Region include Metrolinx's provision of covered bicycle facilities at GO transit stations and the City of Burlington's Locus Street Parking garage where there are provisions for bicycle parking on the first floor.

6.6 AT Network GAP Analysis

One of the key factors to promote AT in Halton will be a continuous network throughout the Region. As presented in this document, each of the Local Municipalities has developed an AT plan but each of these plans ends generally at the local boundary or within the urban area. Therefore, a gap analysis was conducted by consolidating the future AT networks of all the Local Municipalities and evaluating those areas where there is discontinuity. The goal is to have a continuous Regional network with logical links in the north/south and east/west directions to promote AT travel within Halton Region.

Appendix E illustrates the consolidated network and the identified opportunities to unify the Region via AT. The consolidated network shows a well defined AT network within the urban areas and a generally well connected non-urban area.

A review of this consolidated network reveals there are a number of linkages that show opportunities to identify new link specific AT designations or enhance existing link AT designations (e.g. change a link designation from a "signed" only facility to an exclusive on-street bicycle lane) to provide a fluid, connected and safe region-wide AT network, including opportunities to connect beyond the Halton boundary.

This map will serve as the basis for connecting the Region and the ATMP network to be developed once the master plan study is underway.

7. Recommendations

Active Transportation will form part of the Region's transportation system to support travel demands from anticipated growth to 2031. Although much progress had been made in planning for Active Transportation at the local levels, there is still a need to coordinate these plans to promote and develop a connected regional system.

Halton's Cycling Advisory Committee has been unifying cycling across the region. However, Active Transportation is more than cycling; hence there is a need for this Committee to expand its mandate to other active modes such as walking, rollerblading, and certain types of scooters.

Therefore, the Halton Region Cycling Committee has evolved to become the Halton Region Active Transportation Committee and it is recommended this Committee include in its mandate the following measures to promote Active Transportation:

- Education and facilitation: educate the public about active transportation and promote safer transportation by informing cyclists, pedestrians and motorists of proper safety in the use of the transportation network, regardless the transportation mode.
- **Planning:** participate in the development of a region-wide Active Transportation Master Plan in partnership with the Local Municipalities.
- **Design and Infrastructure:** through the Regional Road Right-of-Way Guidelines prepared as part of the Halton Transportation Master Plan (2031) support the provision of pedestrian, transit and cycling facilities on major regional roads to support active transportation.



Implementation strategies for the above recommendations include:

Education and Facilitation

- On the Region and Local Municipality websites continue to support the image of cycling and walking in partnership with other stakeholders, by promoting active transportation not just for occasional leisure activities, but as a mode of transport that is healthy, economical, accessible, non-polluting and convenient way to make every day journeys.
- Develop brochures to promote safe and legal cycling, including safe cycling training programs and promote driver awareness of considerate behaviour towards cyclists.
- Develop programs with Halton Regional Police to enforce violations of pedestrian and cyclist laws/regulations and support projects/programs addressing theft, enforcement and personal security that help pedestrians and cyclist feel safer on the streets.
- Provide effective information such as mapping and inclusion of walking and cycling in web based journey planning.

Planning

- Undertake before the next TMP study a region-wide Active Transportation Master Plan study.
- Ensure that pedestrian and cycle friendly systems and facilities are included in the planning and approval of urban development in consultation with the Local Municipalities.

Design and Infrastructure

• Implement the Regional Road Right of Way Guidelines (2011) on all new projects.

Performance Goals

• Set the Regional average performance goals during commuter peak periods for Active Transportation mode share to 5% by 2031;

Monitoring

- Undertake a periodic review of:
 - o Commuter peak period mode share by measuring travel modes on key Regional corridors
 - Active transportation facility implementation (i.e. km of facilities)

8. Conclusion

Active Transportation is an integral part of the Halton Region Transportation Master Plan. Encouraging Active Transportation and an urban design that supports Active Transportation could lead to many potential benefits to residents of Halton Region, including:

- An active population;
- Better air quality through fewer motorised vehicle trips; and
- More liveable and sustainable communities.



9. References

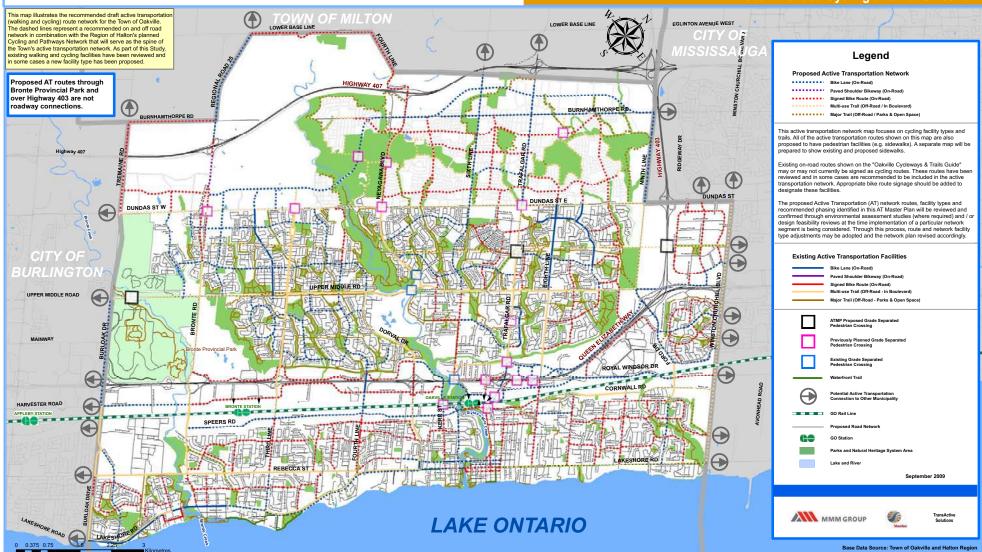
- Ontario Medical Association, The Illness Costs of Air Pollution: 2005-2026 Health and Economic Damage Estimates (June 2005)).
- City of Burlington. (30 March 2009). *Burlington Cycling Committee*. Accessed on 12 January 2010 from http://cms.burlington.ca/Page90.aspx.
- City of Burlington. (June 2009). Cycling Master Plan Draft Final Report. Burlington, Ontario.
- City of Vancouver. (1997). *City of Vancouver Transportation Plan: 1997 Report.* Vancouver, British Columbia.
- Hall, Joseph. (13 January 2010). Canadians fatter, less active than ever. Healthzone.CA.
- Halton Region Health Department. (2009). *Creating Walkable and Transit-Supportive Communities in Halton*. Oakville, Ontario.
- Metrolinx. (2008). *The Big Move, Transforming Transportation in the Greater Toronto and Hamilton Areas.* Toronto, Ontario.
- Oakville Cycling Club. (2010). *Oakville Cycling Club Home Page*. Accessed on 12 January 2010 from http://www.oakvillecc.com/.
- Region of Halton. (June 2004). *Regional Transportation Master Plan Study Appendix I Cycling and Pedestrian Infrastructure Plan*. Oakville, Ontario.
- Regional Municipality of Halton. (16 December 2009). *Amendment No. 38 to the Regional Official Plan* (2006) Official Plan for the Halton Planning Area. Oakville, Ontario.
- Southern California Association of Governments. (2008). *Nonmotorised Transportation Report of the 2008 Regional Transportation Plan.* Los Angeles, California, USA.
- Statistics Canada. (13 January 2010). *Canadian Health Measures Survey*. Accessed on 13 January 2010 from http://www.statcan.gc.ca/daily-quotidien/100113/dq100113a-eng.htm.
- Town of Halton Hills. (2010). *Trails Advisory Committee*. Accessed on 12 January 2010 from http://www.haltonhills.ca/committees/trails.php.
- Town of Milton. (26 September 2007). Trails Master Plan 2007 Update. Milton, Ontario.
- Town of Oakville. (September 2009). *Active Transportation Master Plan (Cycling and Walking Master Plan) Final Report*. Oakville, Ontario.

APPENDIX A Oakville AT Network



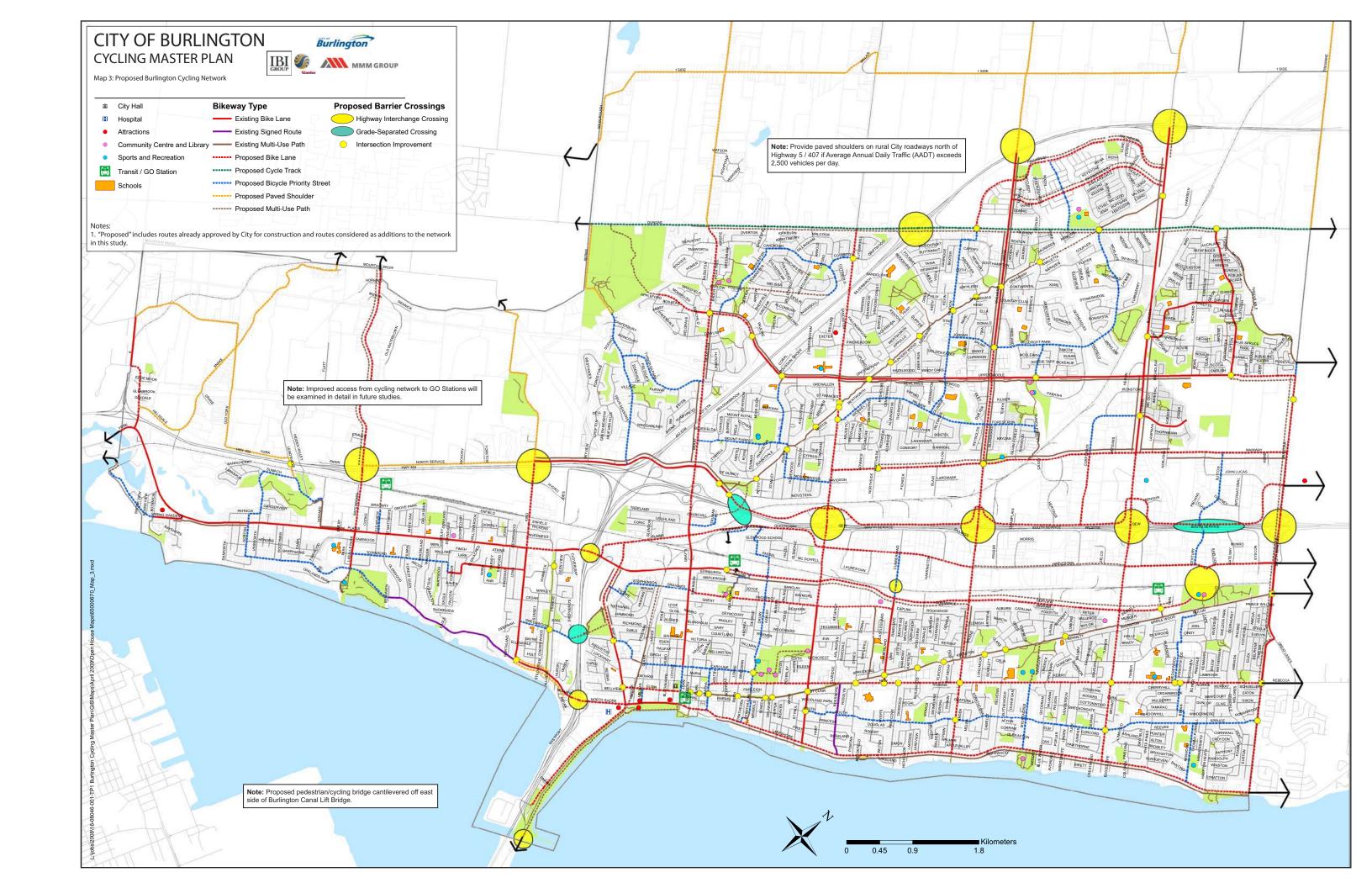
Active Transportation Master Plan

FIGURE EX-1
Recommended Cycling and Trails Network





APPENDIX B Burlington AT Network

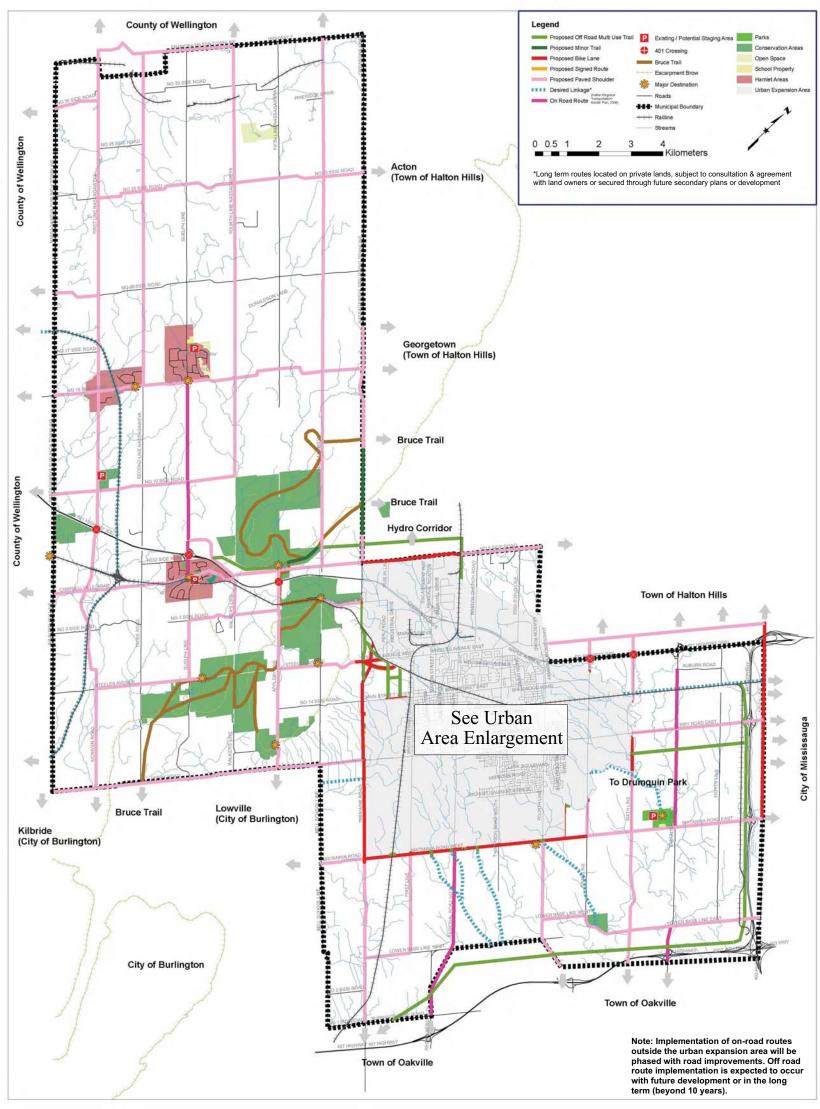


APPENDIX C Milton AT Network



TRAILS MASTER PLAN - 2007 UPDATE





Map 4 - Town Wide Network: Facility Type

September 2007

Milton: "Engaging, Balanced, Connected"

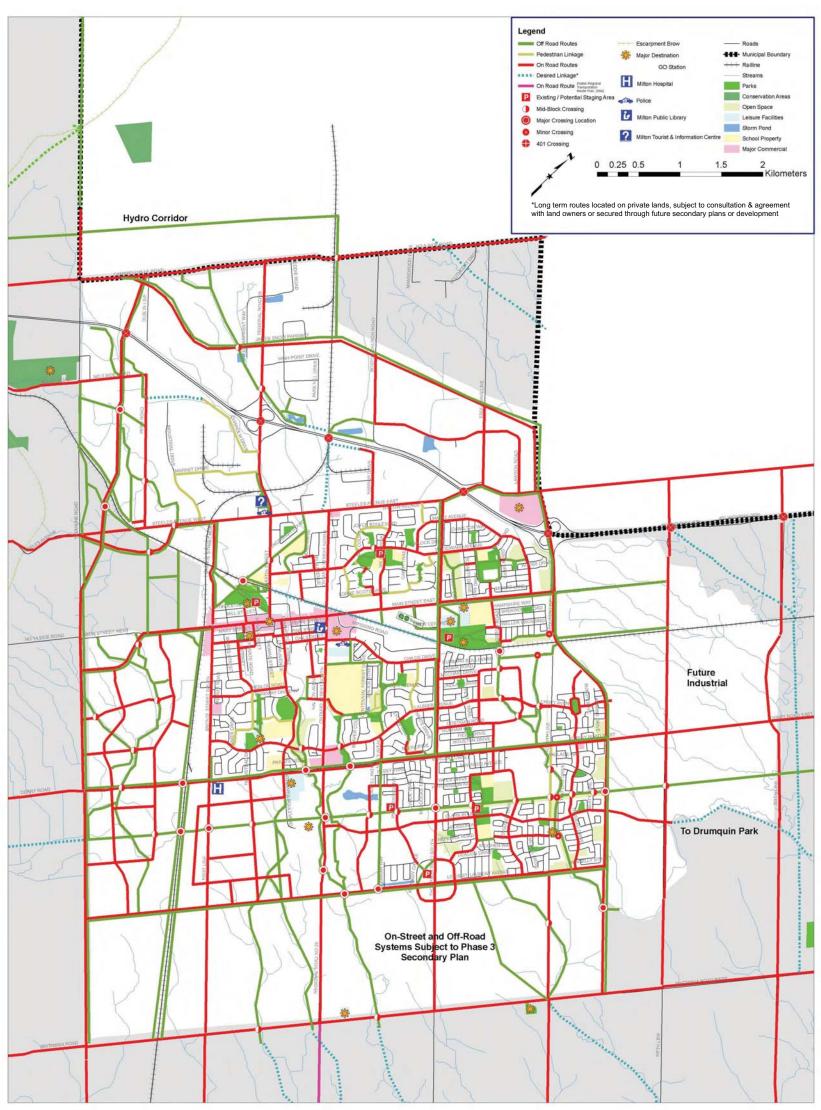






TRAILS MASTER PLAN - 2007 UPDATE





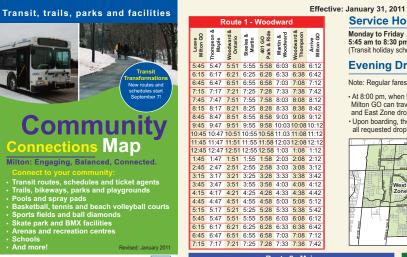
Map 2 - Urban Area Network: On/Off Road

September 2007

Milton: "Engaging, Balanced, Connected"







-- -- 5:51 5:56 6:00 6:05 6:10 6:15 6:21 6:25 6:03 6:10 6:15 6:21 6:26 6:30 6:35 6:40 6:45 6:51 6:55 6:30 6:33 6:40 6:45 6:51 6:56 7:00 7:05 7:10 7:15 7:21 7:2 7:00 7:03 7:10 7:15 7:21 7:26 7:30 7:35 7:40 7:45 7:51 7:55 7.30 7.40 7.45 7.51 7.56 820 8:05 8:10 8:15 8:21 8:25 8:00 8:08 8:35 8:40 8:15 8:21 8:25 8:00 8:03 8:34 8:40 8:15 8:25 8:26 8:30 8:35 8:40 8:45 8:51 8:55 8:30 8:33 8:40 8:45 8:51 8:55 9:00 9:05 9:10 9:15 9:21 9:25 9:00 9:05 9:10 9:15 9:21 9:25 9:00 9:05 9:10 9:15 9:21 9:25 9:00 9:30 9:33 9:40 9:45 9:51 9:55 9:30 9:35 9:30 9:35 9:40 9:45 9:51 9:55 10:00 10:03 10:10 10:15 10:21 10:25 10:20 10:30 10:30 10:40 10:45 10:51 10:55 11:00 11:03 11:00 11:03 11:00 11:03 11:00 11:15 11:21 11:26 11:30 11:35 11:40 11:45 11:51 11:55 11:20 11:33 11:40 11:45 11:51 11:56 11:30 11:33 11:40 11:45 11:51 11:56 11:30 11:35 11:40 11:45 11:51 11:56 11:30 11:35 11:40 11:45 11:51 11:55 11:30 11:35 11:40 11:45 11:51 11:56 11:30 11:35 11:40 11:45 11:51 11:50 11:30 11:35 11:40 11:45 11:51 11:50 11:30 11:30 11:35 11:40 11:45 11:51 11:50 11:30 12:00 12:03 12:10 12:15 12:21 12:26 12:30 12:35 12:40 12:45 12:5112:55 12:30 12:33 12:40 12:45 12:51 12:56 1:00 1:05 1:10 1:15 1:21 1:25 3:30 3:33 3:40 3:45 3:51 3:56 4:00 4:05 4:10 4:15 4:21 4:25 4:00 4:03 4:10 4:15 4:21 4:25 4:30 4:33 4:40 4:45 4:51 4:56 5:00 5:05 5:10 5:15 5:21 5:25

	5:03	5:10	5:15	5:21	5:26	5	:30 5:3	5 5:	40 5:4	15 5:	:51	5:55	de	tails.							
	5:33	5:40	5:45	5:51	5:56	6	:00 6:0	5 6:	10 6:1	15 6:	21	6:25	M	ore tra	ncit	info	rma	tion	ic o	n th	_
	6:03	6:10	6:15	6:21	6:26	6:	:30 6:3	5 6:	40 6:4	15 6:	:51	6:55						lion	15 0	n un	е
	6:33	6:40	6:45	6:51	6:56	7:	:00 7:0	5 7:	10 7:1	15 7:	21	7:25	ba	ck of	this	map)!				
	7:03	7:10	7:15	7:21	7:26	7:	:30 7:3	5 7:	40 7:4	15 7:	:51	7:55									
	7:33	7:40	7:45	7:51	7:56	8	:00 8:0	5 8:	10												
	8:03	8:10																			
υ			omps	on/C	lark	9			Rou		- 1	ates			ĸ			Scot	_		S
	Thomspon & Clark	Ferguson & Armstrong	Fourth Line & Louis St.	Thompson 8		Milton GO	Leave Milton GO	Childs & Coxe	Ontario & Laurier	Phillbrook &	inada.	Laurier & Ontario	Ontario & Main	Arrive Milton GO	Leave Milton GO	Main & Scott	Scott & Derry	Dymott & Savoline	Scott & Derry	Scott & Main	Arrive Milton GO
	5:50	5:53	5:57				5:45	5:48	5:52	5:5		6:03	6:06	6:10			Αl	M Pea	ak		
,	6:20	6:23	6:27				6:15	6:18	6:22	6:2		6:33	6:36	6:40			5:56	5:58	6:00	6:03	6:13
,	6:50	6:53	6:57				6:45	6:48		6:5		7:03	7:06	7:10	6:13		6:21	6:23	6:25	6:28	6:38
,	7:20	7:23	7:27				7:15 7:45	7:18	7:22 7:52	7:2		7:33 8:03	7:36 8:06	7:40 8:10	6:38			6:48			
,	7:50	7:53	7:57				8:15	8:18		8:2		8:33	8:36	8:10	7:03	-		7:15			
,	8:20	8:23	8:27		1 8:3		8:45	8:48	8:52	8:5		9:03	9:06	9:10	7:30						
,	8:50	8:53	8:57		1 9:0		9:15	9:18	9:22	9:2		9:33	9:36	9:40				7:45			
)	9:50	9:53		10:0					3 10:22					10:40	8:00			8:15		8:20	8:30
		10:53							11:22					11:40				M Pea			
_	11:50				_	-			3 12:22					12:40	2:40	2:50	2:53	2:55	2:57		3:15
5	12:50	12:53	12:57	7 1:0			1:15 2:15	1:18		1:2		1:33 2:33	1:36 2:36	1:40 2:40	3:15	3:25	3:28	3:30	3:32		3:45
,	1:50	1:53	1:57	2:0	1 2:0	06	2:15	2:18		2:2		3:03	3:06	3:10	3:45	3:55	3:58	4:00	4:02		4:15
,	2:50	2:53	2:57	3:0	1 3:0	06	3:15	3:18		3:2		3:33	3:36	3:40	4:15	4:25	4:28	4:30	4:32		4:45
,	3:20	3:23	3:27	3:3	1 3:3	36	3:45	3:48	3:52	3:5	7 .	4:03	4:06	4:10	4:45	4:55	4:58	5:00	5:02		5:15
,	3:50	3:53	3:57	4:0	1 4:0	06	4:15	4:18		4:2		4:33	4:36	4:40			5:28				5:45
	4:20	4:23	4:27	-		36	4:45	4:48		4:5		5:03	5:06	5:10	-		5:58				6:15
	4:50	4:53	4:57				5:15 5:45	5:18 5:48		5:2° 5:5°		5:33 6:03	5:36 6:06	5:40 6:10	-						
	5:20	5:23	5:27				6:15	6:18		6:2		6:33	6:36	6:40			6:28				6:45
)							6:45	6:48	6:52	6:5		7:03	7:06	7:10			6:58				7:15
)	5:50	5:53	5:57			_	7:15	7:18		7:2		7:33	7:36	7:40	7:15	7:25	7:28	7:30	7:32		7:45
,	6:20	6:23	6:27		1 6:3		During	netruc	ional sch	nool de	ave .	the 7:4	15 am		8:00	8:10	8:13	8:15	8:17		
,	6:50	6:53	6:57										o alli								
	7:20	7:23	7:27	7:3	1 7:3	36			and 2:45 pm highlighted bus trips: Operate as the 50 AM and 52 PM High School Special AM - Travels from the GO Station to Thompson Rd., Derry Rd. and Scott												

· Depart Milton GO at 7:40 am and 2:40 pm

Service Hours

Note: Regular fares apply.

all requested drop-off locations

Evening Drop-off Service

· At 8:00 pm, when the last GO train arrives, passengers at Milton GO can travel to their destination via West Zone and East Zone drop-off service.

Upon boarding, the bus driver will create a route based on

Trails and Bikeways Urban Map Hard surface (2.4 - 3 m wide) MILTON Milton Transit 401 Hwy W Woodchip (1.5 - 2.5 m wide) • • • Granular (1.5 - 2.5 m wide) Proposed (Future Trail) **Transit Routes** Scott Express GO Transit Termina (bus and train) **Transit Ticket Agents** Α Town Hall* 150 Mary St. Milton Leisure Centre* 1100 Main St. East Milton Sports Centre' 605 Santa Maria Blvd. D Milton Seniors' Activity Centre' **₫** 10 500 Childs Dr. 3 O Ε Milton Public Library (Main Branch) 45 Bruce St. Milton Public Library (Beaty Branch) 945 Fourth Line Milton 50 Mall 57 D **6** (12) 2 Ħ 4 4 Derry 2 11 Rd 59 Louis St Laurent Av Kilometres

6:45 6:49 6:54 6:58 7:02 7:07 7:1 8:15 8:19 8:24 8:28 8:32 8:37 8:4: 1:15 11:19 11:24 11:28 11:32 11:37 11:42 2:15 2:19 2:24 2:28 2:32 2:37 2:4:
 2:45
 2:49
 2:54
 2:58
 3:02
 3:07
 3:12

 3:15
 3:19
 3:24
 3:28
 3:32
 3:37
 3:42

 3:45
 3:49
 3:54
 3:58
 4:02
 4:07
 4:12
 4:15 4:19 4:24 4:28 4:32 4:37 4:42 4:45 4:49 4:54 4:58 5:02 5:07 5:11 5:15 5:19 5:24 5:28 5:32 5:37 5:43 5:45 5:49 5:54 5:58 6:02 6:07 6:13 6:15 6:19 6:24 6:28 6:32 6:37 6:43 6:45 6:49 6:54 6:58 7:02 7:07 7:12 7:15 7:19 7:24 7:28 7:32 7:37 7:42 During instructional school days, the 2:45 pm highlighter bus trip:
Operates as the 51 PM High School Special route
Departs Milton GO at 2:42 pm
Please see Route 51 PM for route map and schedule

PM - Travels from Scott Blvd. and Derry Rd. to Thompson Rd., then the GO Station

The trails on this map are meant to promote trails as a means of recreation and transportation. The Town of Millton assumes no responsibility for the accuracy of this map or the safe condition of any road, route, trail or facility mentioned on it. Users are solely responsible for risks encountered, their own safety and use of safety equipment. The Town of Millton shall not be held responsible for any damages and/or claims arising from the use of this map. Trail and bike-route users must be aware of their skills and make their own evaluation of actual conditions encountered. On-road cycling is subject to compliance with the Highway Traffic Act. R.S.O. 1990. CHAPTER H.B.

Transit Information

Visit www.milton.ca: Select Transit from the Fast Forward section on the home page. Conventional Service: 905-864-4141 Accessible Service: 905-878-7252, ext. 2182

Special High School Routes

During the school season, Milton Transit provides special routes and schedules for high school students travelling to and from school. This service does not operate on 7.40 7.45 7.50 non-instructional days. For more Route 50 AM operates





2:45 3:15

5:45 6:15 6:45 7:15

Milton Transit

Transit Information

Visit www.milton.ca: Select Transit from the Fast Forward section on the home page. Conventional Service: 905-864-4141 Accessible Service: 905-878-7252, ext. 2182

What's New?

In an effort to recognize the needs of customers, Milton Transit has introduced a number of new service initiatives that are available for all ages:

- · Expanded service routes and new schedules
- · Day Pass (One adult or senior and up to 3 children or youth, 18 years and under)
- Welcome to Milton Program (One free monthly transit pass for new Milton households)

As the Town of Milton continues to grow, so will the services provided by Milton Transit to serve vour needs.

Changes to Routes and Schedules

Check before you connect!

In response to the changing needs of our community, transit routes and times are adjusted on a regular basis to enhance service for passengers. For updated information, visit www.milton.ca or call 905-864-4141.

Milton Transit Cash Tickets Pass \$2.75 10 for \$60.00 \$22.00 \$2.75 10 for \$42.00 (ID required) \$15.00 6 - 18 years \$2.75 10 for \$45.00 \$17.00 (Students over the age of 18 must show the Day Pass All ages (One adult or senior and up to 3 youth, 18 years and under) \$0.55 N/A \$22.00 • For bike rack use, please see below. All ages (GO pass or GO ticket required) not eliaible.

Fare Policies

All ages

CNIB

 Use exact change for cash fares: bus drivers. do not sell tickets/passes or make change.

Free N/A N/A

Free N/A N/A

- Request transfers when boarding the bus;
- damaged transfers are not accepted. Show student identification if using student
- tickets or passes.
- · Day passes must be validated by the driver upon boarding the bus.

GO Transit Connections Pay a reduced fare on Milton Transit when you

transfer to/from GO Transit. This reduced fare applies only for GO bus and train connections at the Milton GO Station. A valid GO Transit ticket or pass must be presented to the bus driver upon boarding. GO Transit group passes, photo identification employee passes, or Presto cards

Using Transit Route Maps and Schedules

- 1. Find your starting location and destination on the man to see which bus routes you need to take for your trip. 2. Check the schedules to find the times for your bus
- Arrival times: The schedules provide approximate arrival times at various points along the routes; these points may not be specific bus stops. A listing of all bus stop locations is available at www.milton.ca.
- Transfers: If you transfer from one route to another at the Milton GO Station, buses are scheduled to arrive in time for you to board your next bus. Confirm you are on the right bus by asking the driver.
- GO Station: All routes service the Milton GO Station. 3. Routes and times are subject to change. For updated information, please visit www.milton.ca

Accessibility

Milton Transit is committed to the safety, comfort and needs of all transit riders. To maintain this commitment Milton Transit has adopted its fleet to include a variety of accessibility featu to serve the community.



Accessible Services and Features

- Bus lowering capabilities with accessible curb side ramps for wheelchairs, scooters and strollers
- · Fasteners and buckles to secure wheelchairs · Audible bus stop announcements
- Bus driver assistance for passengers with limited

Rider Guidelines

Entering and Exiting the Bus

- Have your fare ready when boarding.
- Use caution when entering and exiting the bus; exit using the rear doors, when possible.
- Proceed to the back of the bus, leaving the front of the bus for seniors, individuals with limited mobility and persons in wheelchairs.

- Do not smoke on the bus or in transit shelters.
- · Do not eat, drink or litter. Wear a shirt and shoes.
- To ensure safety, please remove children from strollers fold strollers and keep them clear of the aisle.
- Remove rollerblades and inline skates before boarding Registered service animals (such as hearing
- and seeing guide dogs) are welcome. Small pets are permitted if they are in a lockable carrier. To ensure passenger safety, large objects are not
- permitted on board. Wheelchairs must be secured using fasteners and buckles.

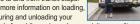
Bike Rack Information

Milton Transit bike racks make it easy for passengers to ride their bikes to and from transit stops.

For more information on leading For more information on loading, securing and unloading your



bicycle from bike racks on buses, visit www.milton.ca





Parks, Trails and **Bikeways**

Connect with Trails

and Bikeways
The Town of Milton has a Trails Master Plan that presents a vision for a unifying trail network within the community of Milton. Explore the extensive network of off-road trails, boulevard trails and cycling routes throughout our park system and community.

Milton

Trails

Use of Parks and Trails

Most connecting trails within Milton are accessible for various uses; hard-surface trails are the most suitable for mobility scooters, wheelchairs, inline skating and cycling. Accessible playground swings and features have been installed in many parks. For more information on accessibility, see our Community Services Guide or contact our Coordinator, Accessibility and Special Needs, at 905-878-7252,

Refer to the legend on the opposite side of the map for more parks and trails information. To ensure parks and trails are clean and safe for all to enjoy, please follow the information on park signs regarding etiquette and hours of operation. Parents and guardians assume all risks for children in their care. The Town has a weekly maintenance schedule to help keep parks at



Online Reporting Forms

With your help, we can ensure your outdoor experiences in the community are positive and in keeping with the Town's goal of a "safe, livable and healthy community." We encourage you to use our online reporting forms at www.milton.ca to alert us

Graffiti: Report writing, drawing or symbols applied to any surface on Town-owned property. If you see graffiti vandalism in progress, call 9-1-1 immediately. Private property owners are responsible for removing any graffiti on their property. (905 878-7252, ext. 2500)

Streetlights: Report streetlights in Milton that are malfunctioning or in need of repair. (905 878-7252 ext. 2536)

Trails: Report obstructions, required repairs, trip hazards and tree maintenance issues (trimming removal, etc.) that may be impacting trail navigation. (905 878-7252, ext. 2211)

Public Consultation for Future Parks The Town's public consultation process is an

opportunity for you to shape open space experiences Read about park projects on the website and watch for notices about upcoming public input sessions in local



Trail Mail

Trail Mail is a seasonal e-newsletter that contains news about trails, parks and more! To sign up for this free publication visit www milton car

More Trails Information 905-878-7252, ext. 2211



Move More, Milton! Be active, more often

Move More, Milton! is a new community-wide campaign that encourages Milton residents and employees to be more active, more often and as

You can easily include a variety of activities in your daily routine anytime and anywhere to benefit your health, maximize your mood, connect with your community and have some fun!

Take to the Trails

Explore the natural beauty of Milton all year long in both urban and rural neighbourhoods by taking a walk through parks and trails. Connecting while enjoying the great outdoors.

Check out the "Take to the Trails" brochures available at Town facilities or online (www.MoveMoreMilton.ca) to learn more about trails in your neighbourhood.

Use the information in this map to navigate our parks bikeways and pedestrian trails.

Play in the Park

With over 60 parks in both rural and urban areas, the Town of Milton makes it easy to incorporate healthy activities into your busy lifestyle. Children's play areas, bikeways, pedestrian walkways, soccer fields and baseball diamonds are among some of the many park amenities that are provided for you and your family to stay active in the great outdoors. Explore the parks in your area and join in the fun!

Community Services Guide Fall/Winter Activities

Avoid the winter blues by taking part in fall and winter programs and activities being offered to you this season by Milton's Community Services Department local businesses and community organizations. Recreational swimming, hockey, fitness, and special interest classes are among some of the ways that the Town of Milton is helping you to Move More! To learn more about fall and winter programs, visit online at www.milton.ca or drop by a Town facility to pick up your copy of the Community Services Guide today!

of Flamborough

Town

City of Burlington

Recreation Facilities



- Milton Seniors' Activity Centre Milton Sports Centre
- Drop into a recreation facility near you and enjoy Public skating at our three arenas
- Figure Skating or Stick N' Puck at the Milton Sports · Public swimming at the Milton Leisure Centre
- · HOOPS youth programs at the Milton Leisure Movin' & Groovin' Skating Youth Events
- (November 21, 2010 and February 20, 2011) Activities and fitness programs at the Milton Seniors' Activity Centre
- Fitness classes and weight/cardio room at the Milton Leisure Centre



E-newsletter: Sign up for tips on becoming more

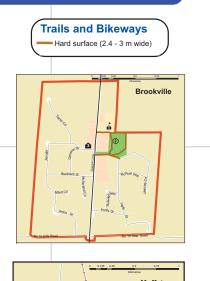
Information: 905-878-7252 ext 2706

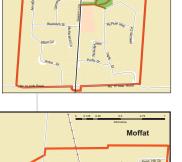


Hall

of

Town







Old Milton

5 Valley View 6 Bronte Meadows

Brookville Public School

Cove Pioneer Cemetery

- 24 Esquesing
- 26 Nelson

 Future Facility

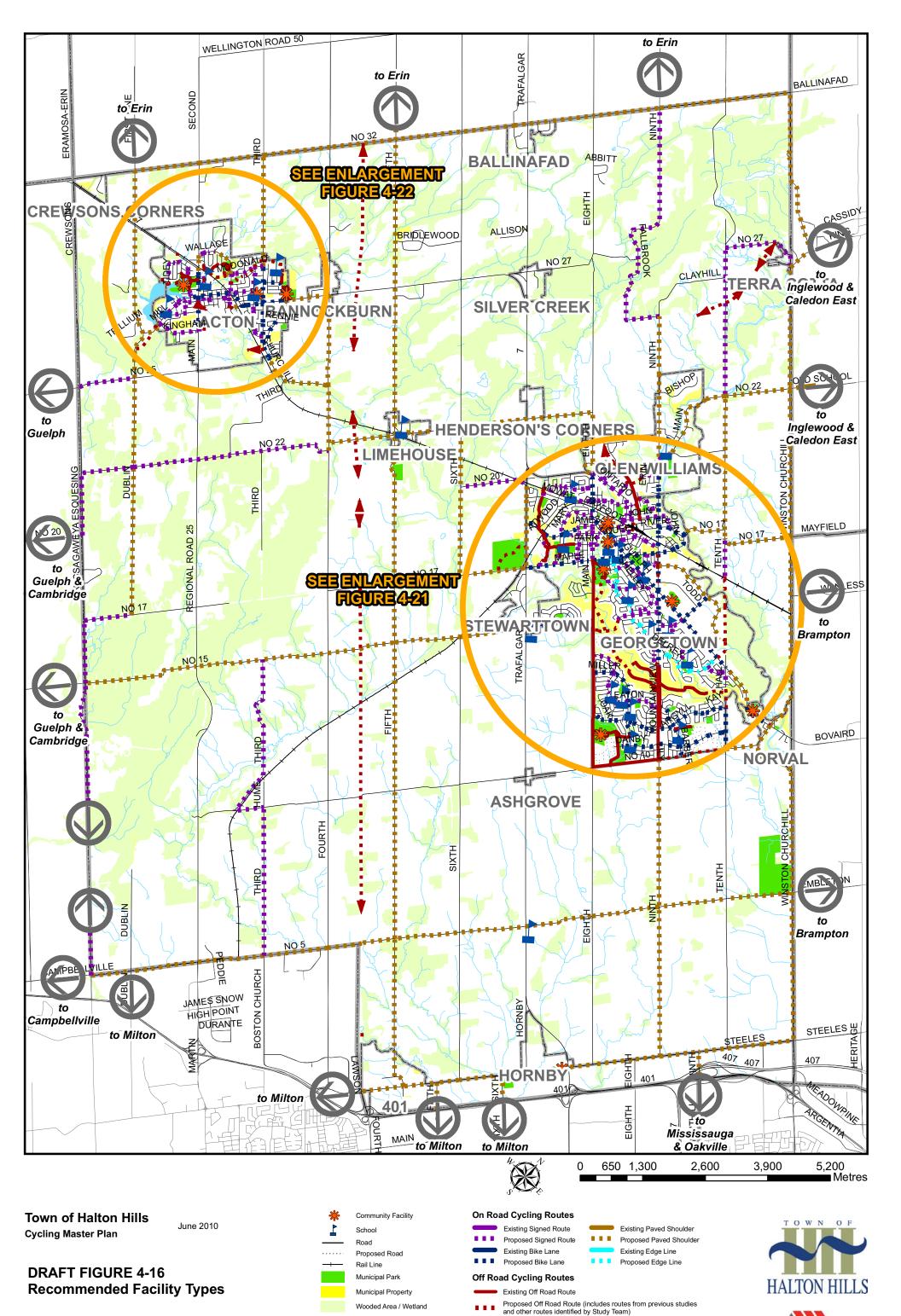






of

APPENDIX D Halton Hills AT Network



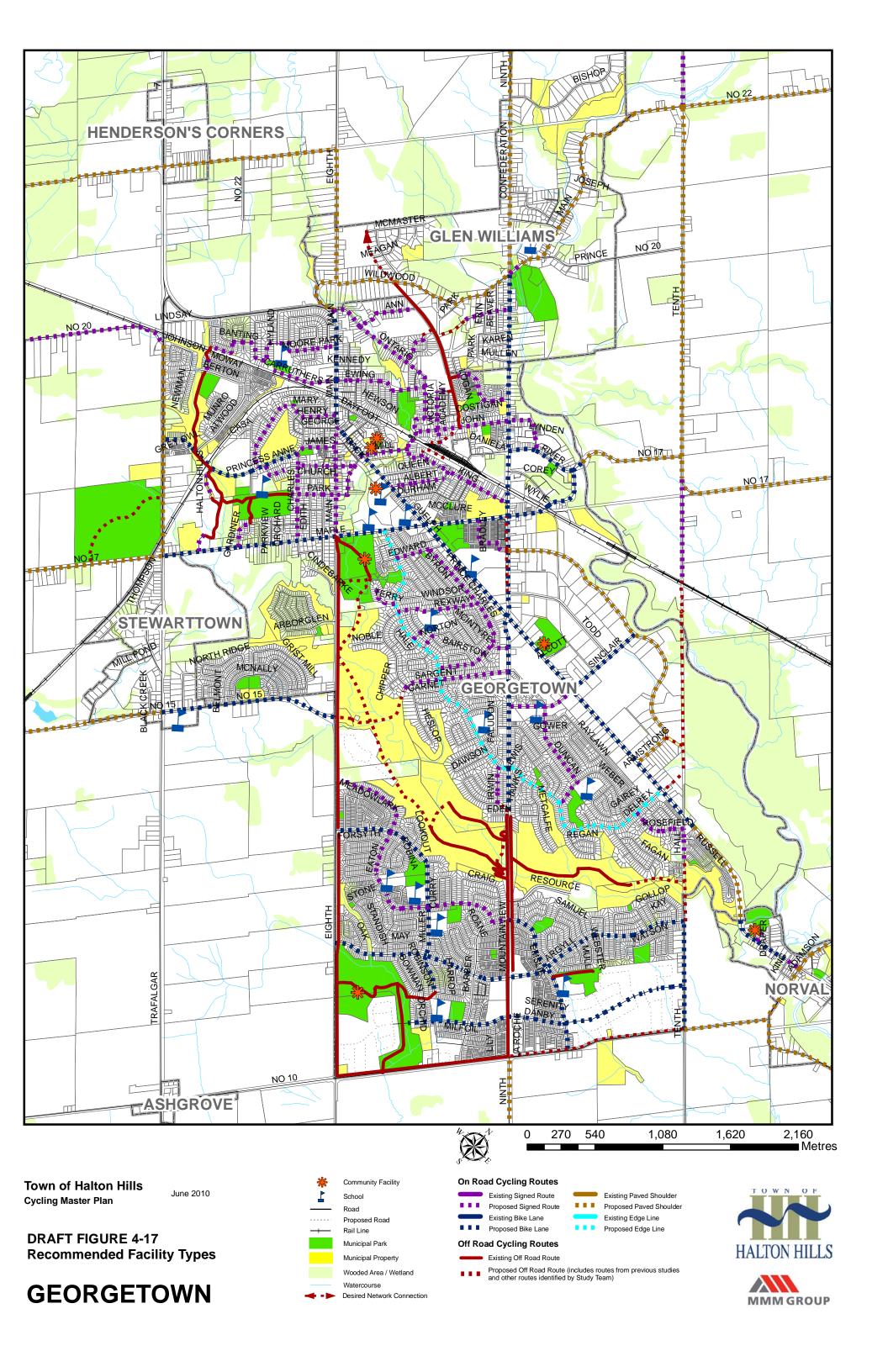
Watercourse

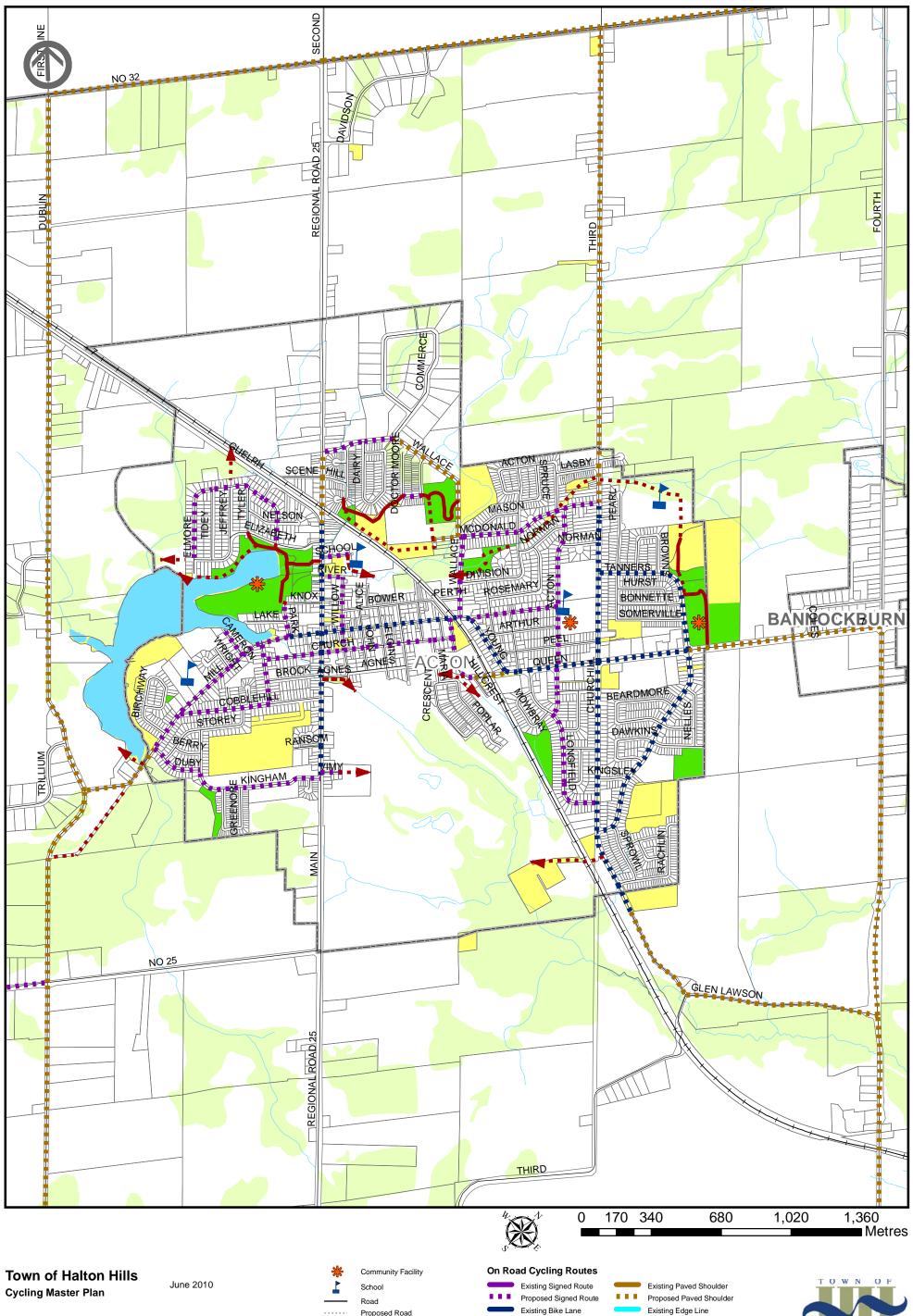
Desired Network Connection

Regional Network Connection

MMM GROUP

TOWN WIDE





DRAFT FIGURE 4-18 Recommended Facility Types

ACTON



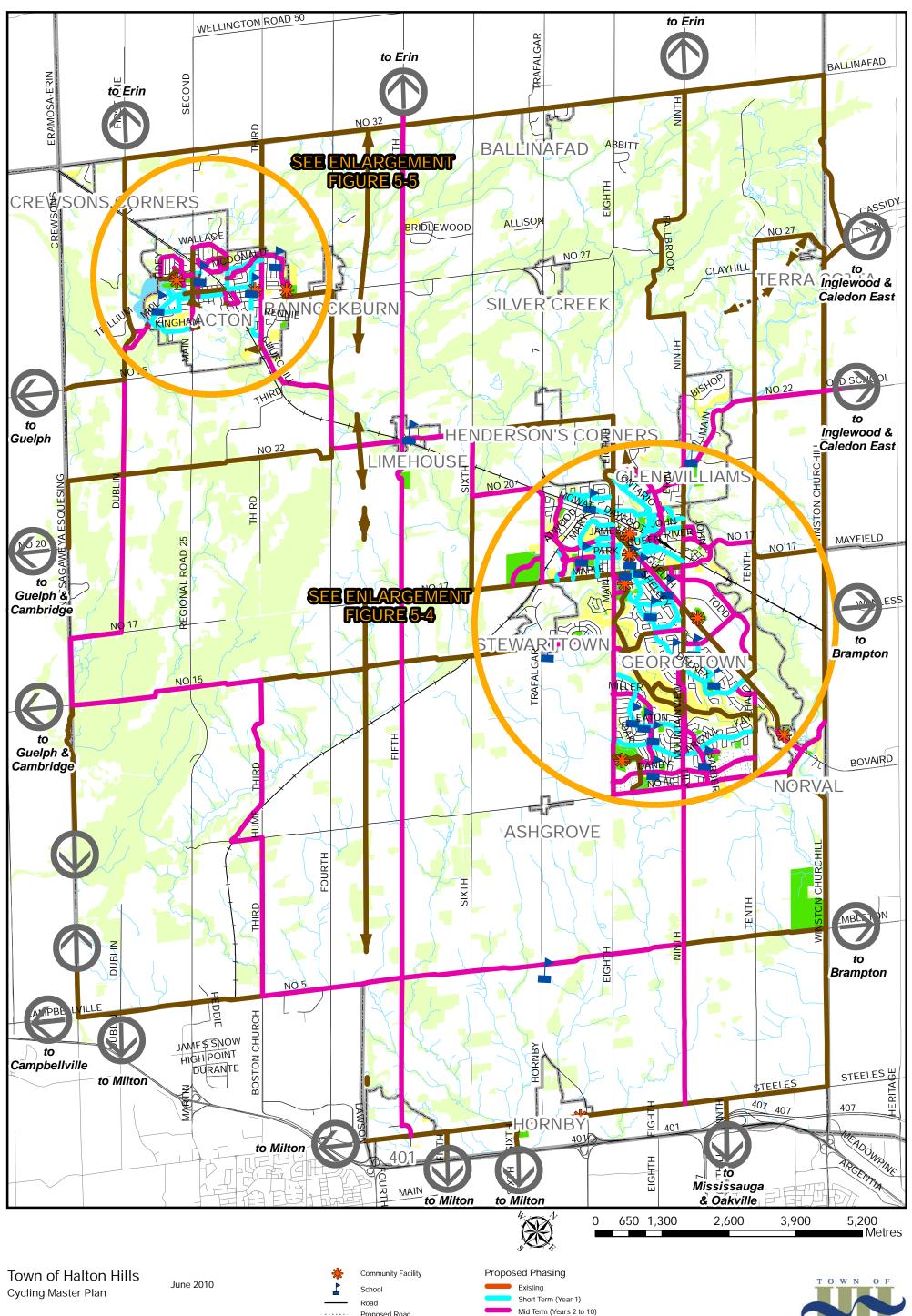
■ ■ Proposed Bike Lane Proposed Edge Line

Off Road Cycling Routes Existing Off Road Route

Proposed Off Road Route (includes routes from previous studies and other routes identified by Study Team)







DRAFT FIGURE 5-3 Proposed Implementation Schedule

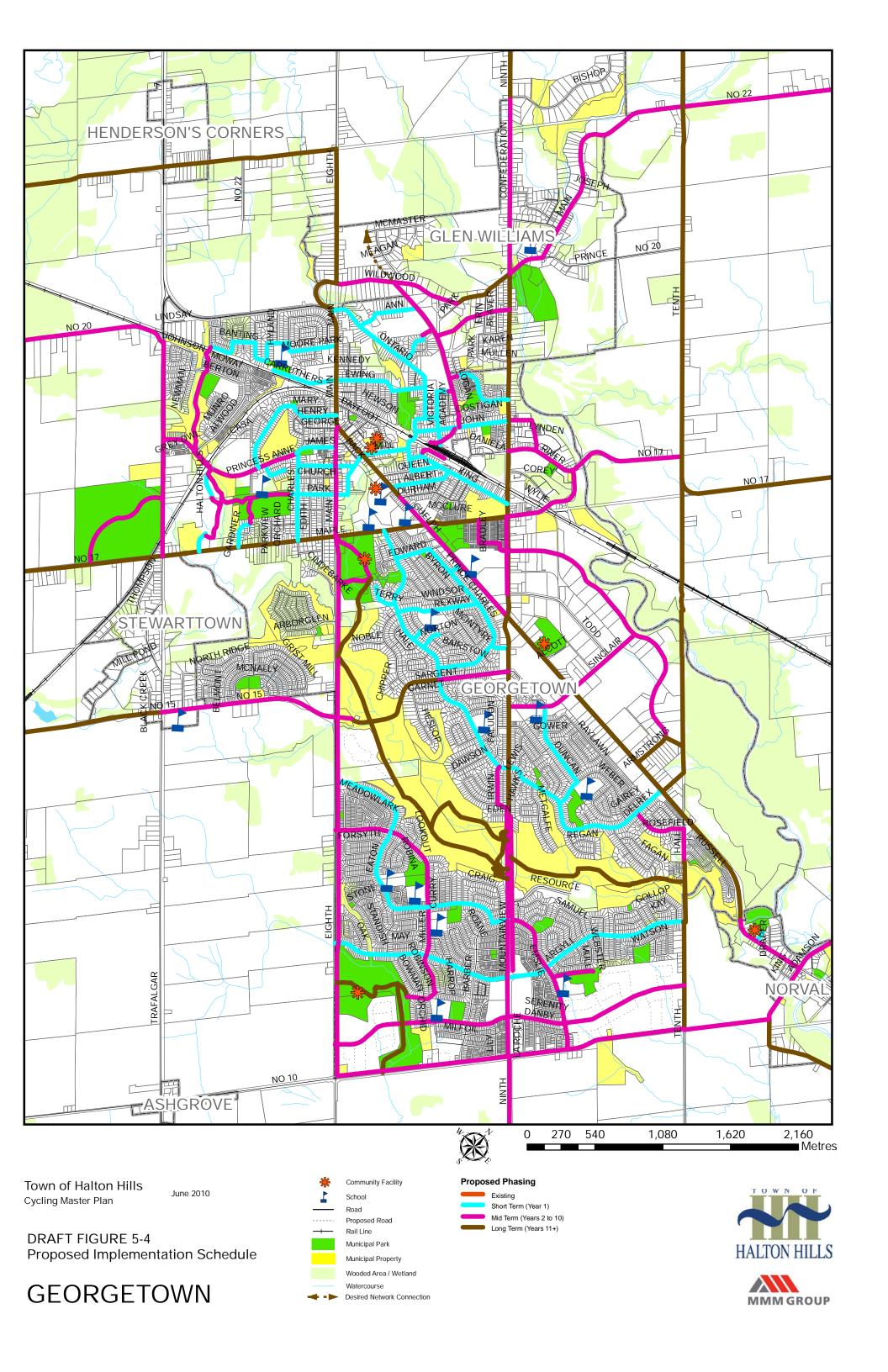
TOWN WIDE

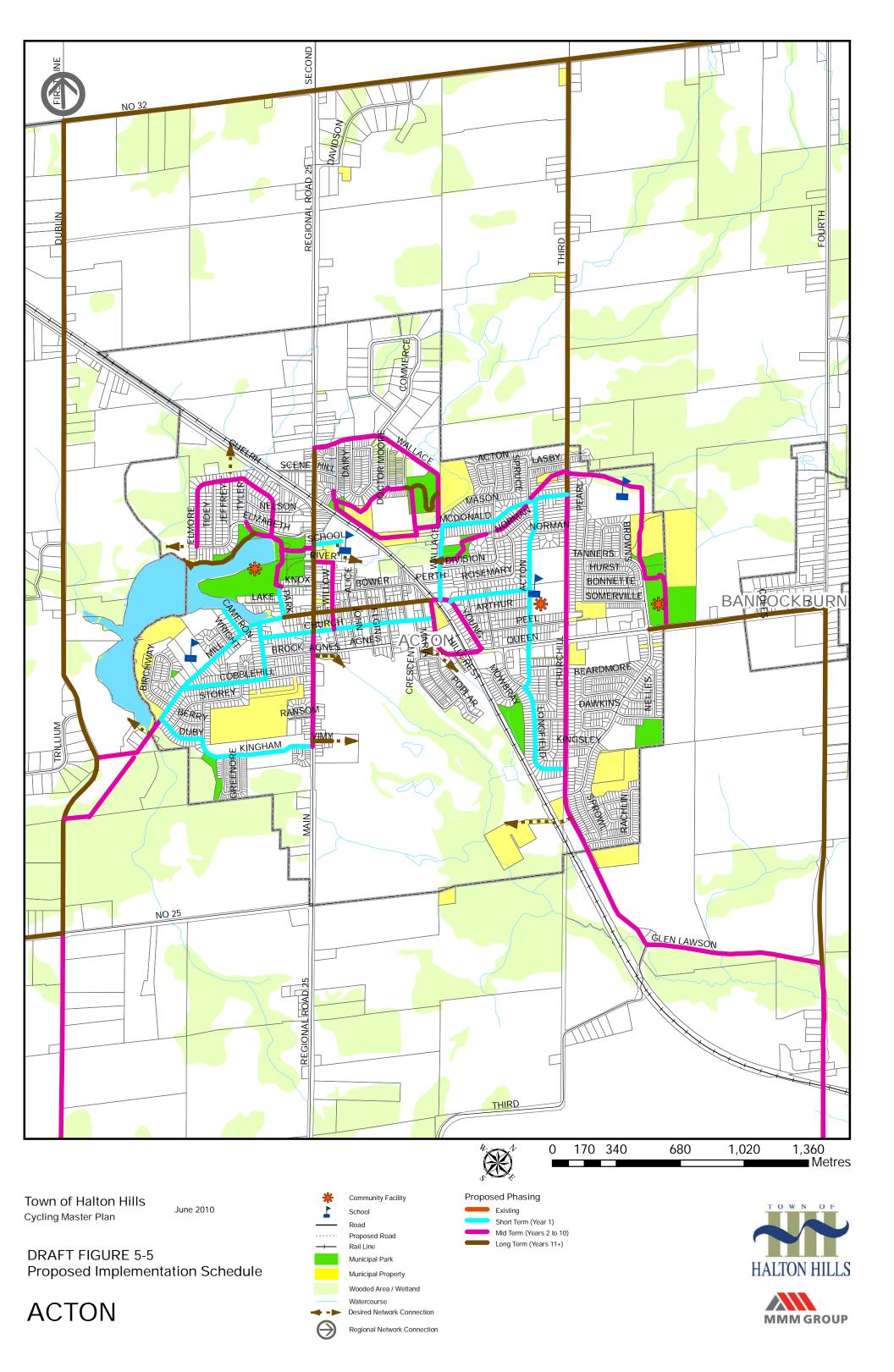


Long Term (Years 11+)









APPENDIX E Consolidated AT Network

