



CITY OF STRATFORD BIKE AND PEDESTRIAN MASTER PLAN

FINAL REPORT
JANUARY 2014



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CHAPTER 1.0 INTRODUCTION



1.1 STRATFORD'S BIKE & PEDESTRIAN MASTER PLAN

The City of Stratford has committed to developing and implementing a Bike and Pedestrian Master Plan that will create and improve opportunities throughout the City for active recreation and active transportation for all residents and visitors.

An important part of the plan is a Bike and Pedestrian system that will provide residents and visitors with a network of on-road and off-road bike and pedestrian friendly corridors that connect neighbourhoods with key destinations within the City as well as to surrounding Communities.

An equally important part of the plan is the promotion of Bike and Pedestrian activities. Promotion includes education, outreach and encouragement initiatives to raise awareness of the numerous health, environmental, social and economic benefits of investing in walking and cycling. All of these elements are needed to bring about a 'cultural shift' towards walking and cycling and provide both residents and visitors with a broad range of urban mobility transportation choices within the City of Stratford.

Study Goal:

To develop a long term (20 year) strategic bicycle and pedestrian master plan and implementation strategy for the City of Stratford that will guide the development of a more balanced, better connected and integrated transportation system that will best serve the City's residents and visitors by accommodating all modes of travel including active transportation (walking and cycling).

1.1.1 What is Active Transportation (Cycling & Walking)?

The Public Health Agency of Canada defines Active Transportation (AT) as:

“Any form of human-powered transportation – walking, cycling, using a wheelchair, in-line skating or skateboarding.”

Active transportation comes in many different forms. The most common are illustrated and defined in **Figure 1.1**. The study team has developed a bike and pedestrian master plan which addresses each of these forms of sustainable travel.



Figure 1.1
Different forms of Active Transportation in the City of Stratford

1.2 WHY DEVELOP A BIKE & PEDESTRIAN MASTER PLAN?

There is clear evidence of a growing demand for active transportation (AT) (pedestrian and cycling) facilities throughout Ontario and across North America for utilitarian/commuter and recreational purposes. The development of AT infrastructure, policies and promotion strategies which respond to this growing demand are also supported at the federal, provincial, county and local municipal levels of government.

As people become more aware of the negative health effects that arise from a lack of physical activity and reduced air quality from our reliance on motor vehicles, they are asking their municipal governments in urban and rural communities to adopt more sustainable land use and urban mobility strategies that focus on promoting active transportation, public transit, car-pooling.



1.2.1 What are the Benefits of Developing a Bike & Pedestrian Master Plan?

COMMUNITY HEALTH

Municipalities in Southern Ontario and throughout North America are implementing initiatives to promote and encourage active transportation activities as a method of fostering a more active and healthy lifestyle.

Studies have shown the people who use active transportation are, on average, more physically fit, less obese, and have reduced risk of developing cardiovascular disease and other chronic health ailments. Physical activity such as walking and cycling has been known to reduce the symptoms of mental illnesses. Similar to meditation or relaxation, physical activity may reduce symptoms of depression, anxiety, and panic disorders¹.



Source: MMM Group City of Stratford

Some of the key findings to encourage active transportation include:

- Reduction in roadway costs (maintenance, safety, and enhancement costs);
- Less damage to road surfaces; and
- Lower space requirement than motor vehicles.

Towns, cities, and counties/regions that promote walking and biking tend to be healthier, more user-friendly and efficient for individuals of all ages, specifically children². Active Transportation (AT) friendly communities tend to be “better places to grow up in that they allow children a certain degree of autonomy essential to their development. Being able to go to daily destinations like school on foot or by bike allows young people to discover and experience their neighbourhood” in a more active and health oriented manner³.

A 2012 report from the City of Toronto Public Health Division concluded that the implementation of AT routes and facilities has very important health benefits which improve quality of life⁴. Some of these key findings include:

- Reduced risk of cardiovascular and coronary heart disease, stroke and hypertension;
- Prevention of the occurrence of Type 2 diabetes;
- Reduced overall risk of cancer, particularly colon cancer and breast cancer. Physical activity has been found to reduce the overall risk of colon cancer by 24%; and
- Reduced rates of motor-vehicle collision.

¹ Toronto Public Health, Road to Health: Improving Walking and Cycling in Toronto (2012)

² Bassett, D.R., et al. “Walking, Cycling and Obesity Rates in Europe, North America and Australia.” Journal of Physical Activity and Health. 2008 (5): p. 795 - 814

³ Bassett, D.R., et al. “Walking, Cycling and Obesity Rates in Europe, North America and Australia.” Journal of Physical Activity and Health. 2008 (5): p. 795 - 814

⁴ Toronto Public Health, Road to Health: Improving Walking and Cycling in Toronto (2012)

It is also important to complement the hard infrastructure with soft infrastructure such as education and awareness campaigns and pedestrian and cycling safety initiatives. Examples of these include:

- Canby (2003) recommends the creation of a strong education and advocacy program. European cities have experienced widespread change in pedestrian and cyclist safety with the implementation of traffic safety education program for children at an early age continued through into their teens.
- Zuks (2002) notes that programming related to bicycle handling, road sense, route selection, and road rules should be developed to enhance the user's perception of safety while increasing physical safety on and off the roadways.
- Improved residents' ability to access facilities and services.



Source: MMM Group, Stratford Bike Shop



Source: MMM Group, Lakeside Drive

COMMUNITY SAFETY

A research paper completed by Bueler & Pucher (2011) states that “cycling safety is an important determinant of cycling levels. The causation probably goes in both directions. Several studies confirm that increased cycling safety encourages more people to cycle.

Conversely, the concept of ‘safety in numbers’ proposes that, as more people cycle, it becomes safer because more cyclists are more visible to motorists and an increasing number of motorists are also cyclists, which helps to increase consideration of cyclists when driving⁵.”

A paper published by the Toronto Coalition for Active Transportation / Clean Air Partnership in 2010 identifies two principal safety concerns for pedestrians and cyclists. The first is related to personal safety which could be jeopardized by crime as well as concerns which arise as a result of traffic safety, due to the fact that non-motorized and motorized modes typically share the same infrastructure⁶.

⁵ Buehler, R. and Pucher, J. “Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes”. Sprinter Science+Business Media, LLC. (2011)

⁶ Behan, K & Smith Lea, N. “Benchmarking Active Transportation in Canadian Cities”. Toronto Community Foundation. Clean Air Partnership (2010).

Research has found that in the United States, pedestrians and cyclists suffer 2-3 times more accidents than a car driver (per 100 million trips) (Pucher and Dijkstra, 2003)⁷.

In another study completed by the Thunderhead Alliance, collision data was compared to the presence of bicycle and pedestrian fatalities and active transportation mode share. Results indicated a positive correlation between the levels of cycling and walking and increased safety of users. Cities with the highest raw numbers of walking and cycling also had the lowest per capita fatality rates for pedestrians and cyclists⁸.

Substandard infrastructure can also increase safety concerns of pedestrians and cyclists. Inadequate hard infrastructure including sidewalks and bicycle paths, dangerous intersections and crosswalks and poor lighting were found to be significant contributors to increased fatality and injury rates among pedestrians and cyclists⁹. Another study completed in 2001 noted the following factors which tend to impact the safety of pedestrians¹⁰:

- Presence of a sidewalk;
- Lateral separation from motor vehicle traffic;
- Barriers and buffers between pedestrians and motor vehicle traffic;
- Motor vehicle volume and composition;
- Effects of motor vehicle traffic speed; and
- Driveway frequency and access volume.

Public opinion research indicates that with the development and/or enhancement of hard infrastructure, such as the implementation of separated bike lanes, bike boxes and cycle tracks, application of the complete street design principles, and improved signage along designated cycle routes, many pedestrians and cyclists report that they feel safer and thus participate more frequently in active transportation activities.

⁷ Pucher, J. and Dijkstra, L. "Making Walking and Cycling Safer: Lessons from Europe". *Transportation Quarterly* 54 (2000): 25-50.

⁸ Thunderhead Alliance. "Bicycling and Walking in the US; Benchmarking Report, 2007". Prescott, AZ: Thunderhead Alliance. 2007.

⁹ Zeeger, C.V. "Designing for Pedestrians". In *the Traffic Safety Toolbox: A primer of Traffic Safety*. Washington D.C.: Institute for Transportation Engineers. (1993)

¹⁰ Buehler, R. and Pucher, J. "Cycling to Work in 90 Large American Cities: New Evidence on the Role of Bike Paths and Lanes". *Sprinter Science+Business Media, LLC*. (2011)

TRANSPORTATION

Walking and cycling are both popular recreational activities and a means of transportation that are efficient, affordable, and accessible. These modes of transportation are the most energy efficient and do not directly generate pollution (with the exception of bicycle manufacturing).

The transportation benefits of walking, cycling, and other active transportation modes include reduced road congestion (i.e., move more people by AT along a road compared to moving the same number of people by car), reduced maintenance costs, less costly infrastructure, increased road safety, and decreased user costs¹¹. In general, cycling is as fast as driving for trips of 7 km or less in urban areas and walking is as fast as driving for trips of 500 metres or less¹². Studies approximate that the construction of sidewalks on all city streets could increase non-motorized travel 0.16 km and reduce automobile travel 1.84 vehicles per capita¹³.

Congestion costs in Ontario were estimated at \$6.4 billion annually and could grow by an additional \$7 billion annually by 2021 without increased investment in alternative modes of transportation¹⁴. Studies have shown that walking and cycling improvement may reduce personal expenditures on taxi costs and public transit fares¹⁵. Reducing automobile ownership and usage may further contribute to lower parking costs and fewer parking spaces required at a place of employment.

Surveys indicate that 66% of Canadians would cycle more than they presently do. Seven in ten Canadians say they would cycle to work if there “were a dedicated lane which would take me to my workplace in less than 30 minutes at a comfortable pace”¹⁶.

A 2012 report from the City of Toronto’s Public Health Division concluded that the implementation of active transportation has very important transportation benefits. Some of the key findings include:

- Reduced traffic and road congestion.
- Reduced delays from collisions.
- Reduced unreliability of travel time.
- Reduced fuel and transport costs.
- Improved residents’ ability to access facilities and services.



¹¹ Reynolds, M., Winters, M., Ries, F. & Gouge B. “Active Transportation in Urban Areas: Exploring Health Benefits and Risks”. National Collaborating Centre for Environmental Health. June 2010.

¹² Toronto Public Health. Road to Health: Improving Walking and Cycling in Toronto. 2012

¹³ Litman, T. “Evaluating Non-Motorized Transportation Benefits and Costs”. Victoria Transport Policy Institute. www.vtppi.org. 2005.

¹⁴ Transportation Demand Management Strategy, City of Ottawa - TravelWise (Transportation, Utilities and Public Works), April 2003

¹⁵ Litman, T. “Evaluating Non-Motorized Transportation Benefits and Costs”. Victoria Transport Policy Institute. www.vtppi.org. 2005.

¹⁶ Ontario Trails Strategy. Ministry of Health Promotion. 2005

THE ENVIRONMENT

Active Transportation activities are energy-efficient, non-polluting modes of travel. Promoting the bike as a clean and efficient alternative to the personal automobile is a practical way for cities to reduce traffic congestion and smog¹⁷. Short distance motor vehicle trips are the least fuel efficient and generate the most pollution per kilometre.

These trips have the greatest potential of being replaced by walking or cycling trips as well as integrated walking-transit and cycling transit trips. It is estimated that each 1% shift from automobile to non-motorized travel typically reduces fuel consumption 2-4%¹⁸.

Active Transportation may provide large energy savings as it provides the opportunity to replace short motor vehicle trips that have high emission rates per mile per capita¹⁹. Planning and constructing communities in a more sustainable way so that residents are less vehicle dependant should be a focus for municipalities. By providing infrastructure for alternative transportation modes, such as walking, cycling and public transit, the amount of land required to construct new communities is reduced, thus creating more compact communities that make more efficient use of available land. This in turn may reduce water pollution and hydrologic disruptions related to factors such road de-icing, air pollution settlement, roadside herbicides, road construction along shorelines, and increased impervious surfaces.

Initiatives which promote and encourage active transportation are a viable option to reducing discretionary motor vehicle usage and promoting economic benefits. Some of the key environmental benefits include²⁰:

- Resource conservation (less dependency on natural resources such as petroleum and coal).
- Pollution reduction such as noise, carbon monoxide and particulates.
- Integration of compact mixed development due to reduced transport land requirements.



Features of Natural and Cultural Significance, Stratford, ON – Source: MMM Group Limited

¹⁷ Roney, Matthew J. Bicycles Pedaling Into the Spotlights. 2008. Earth Policy Institute

¹⁸ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

¹⁹ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

²⁰ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

THE LOCAL ECONOMY

Active Transportation reduces expenditures related to automobiles and in some cases can reduce the need for residents to own a vehicle, where savings can total hundreds or thousands of dollars annually per capita²¹. Active transportation provides benefits to the local economy during both construction and operation. The construction of these active transportation facilities results in direct benefits such as jobs, including the supply and installation of materials. Following construction, benefits emerge in the form of expenditures by active transportation facility users.

Non-automotive expenditures are estimated to have a regional impact of \$0.22 per dollar more than automobile expenditures²². In 2002, Canadian households spent an average of \$42 on bicycle, parts and accessories for a total of approximately \$500 million. Studies estimate that, over 40 years, Portland, Oregon's \$138 to 605 million bicycle facility investment will provide the following positive net economic benefits²³:

- Healthcare savings of \$388-594 million;
- Fuel savings of \$143-218 million; and
- \$7-12 billion in longevity value.

The Economic Benefits of Walking and Cycling, published by Go for Green in March 2004, outlined the following economic benefits related to Active Transportation:

- Reduction in road construction, repair and maintenance costs;
- Reduction in costs due to air pollutants and greenhouse gas emissions;
- Reduction in health care costs due to increased physical activity and reduced respiratory and cardiac disease;
- Reduction in fuel, repair and maintenance costs to users;
- Reduction of costs due to increased road safety;
- Reduction in external costs due to **traffic congestion**;
- Reduction in parking subsidies;
- Reduction of costs due to air pollution;
- Reduction of costs due to water pollution;
- The positive economic impact of bicycle tourism;
- The positive economic impact of bicycle sales and manufacturing;
- Increased property values along greenways and trails; and
- Increased productivity and reduction of sick days and injuries in the workplace.

²¹ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

²² The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

²³ Litman, T. "Evaluating Non-Motorized Transportation Benefits and Costs". Victoria Transport Policy Institute. www.vtpi.org. 2005.

TOURISM

There is a growing demand for cycling and eco-tourism throughout southern Ontario and North America. Studies indicate that economic benefits of tourism related to active transportation infrastructure will continue to grow²⁴. The demand stems from an increasing desire to explore new areas using active modes of transportation and to experience one's natural surroundings. The largest beneficiaries of cycling and eco-tourism are eating/drinking establishments, retail and lodging services.

Though tourism benefits from AT and Trail facilities provide an injection into the local economy there are also social, environmental and health benefits associated with AT and trail tourism. As people become aware of the benefits of cycling and walking the number of cycling tourists has shown to increase. These tourists will ultimately contribute economically to the communities that they live in and visit.

In a study completed by Ryerson University potential economic benefits related to cycling were documented which could be realized by Southern Ontario's Greenbelt Region²⁵. Findings from a number of recent studies such as a 2009 study completed by Transportation Options²⁶ indicate an increase in business and employment opportunities and health and environmental benefits associated with cycle tourism. Key highlights include:

- "As the demand for cycle tourism increases, cyclists' spending on food, drinks, entertainment and other expenses related to the sport will also increase at travel destinations."²⁷
- "There are many employment opportunities with the growth of cycle tourism. The Bicycle Trade Association of Canada (BTAC) suggests that an annual requirement between 50 and 100 new mechanics in the GTA, and as many as 1000 in other major cities in Canada, will be demanded as cycling continues to gain popularity."²⁸
- "Cycle tourism has become an increasingly important component within rural sustainable development projects between of its contribution to eliminating greenhouse gas emissions. Cycle tourism plays a part in eliminating the use of motorized travel (i.e. for sightseeing purposes)."²⁹

²⁴ The Business Case for Active Transportation, Better Environmentally Sound Transportation - BEST, Go for Green, March 2004

²⁵ Gal, D., Kamal, M., Lopez Silveira, M.A., Naccarato, G., Scott, S., and Dodds, R. "The Demand for Cycle Tourism in Ontario's Greenbelt Region". Ryerson University, Toronto, ON Canada. Ted Rogers School of Hospitality and Tourism Management. December 2010.

²⁶ Lafontaine, J. "2009 Bike Train Final Report". Transportation Options. 2009.

²⁷ BTAC – Bicycle Trade Associated of Canada. "2009 Data Capture". Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009a)

²⁸ BTAC – Bicycle Trade Associated of Canada. "2009 Data Capture". Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009a)

²⁹ BTAC – Bicycle Trade Associated of Canada. "2009 Data Capture". Retrieved September 2010 from http://www.btac.org/files/BTAC-2009_Data_Capture-Media.pdf. (2009a)

Similarly, Transportation Options also developed and initiated the “Welcome Cyclists” program in 2009. The program certifies and promotes bicycle friendly businesses and cycle tourism in a growing number of regions across Ontario. The Network is open to accommodations, food services, attractions, cycling related businesses and organizations interested in cycle tourism.

The Welcome Cyclists Network is launched in each region with an informative workshop, after which local businesses may register on-line, at no charge, to participate and ultimately reach the growing number of cycle tourists in Ontario³⁰. The cycle tourism and economic benefits realized by this program have grown as the program is implemented in new communities. A linked system / database of cycle touring supporters as well as local businesses helps to boost the local economy with cycle tourism dollars while increasing local awareness about safe practices of cycle touring.



Tourism Features in Stratford – Festival Theatre; Source: stratfordcanada.ca

1.2.2 Increasing Demand for Cycling and Walking

There are a number of reasons to support the investment in active transportation initiatives. Surveys have been completed at the national, provincial and local municipal level which addresses this trend. They include:

National Active Transportation Survey (2004)	Completed By: Canadian Fitness and Lifestyle Research Institute on behalf of “Go for Green” Sample Size: 1,640 Canadians aged 15 or older
Huron-Perth <i>in motion</i> Survey (2010)	Completed by: Huron-Perth <i>in motion</i> Steering Committee Sample Size: 761 respondents
Perth County Community Picture Report (2011)	Completed by: Perth District Health Unit and Healthy Living Perth
City of Stratford Bike and Pedestrian Study Online Questionnaire (2012)	Completed By: MMM Group Ltd. using Survey Monkey (www.surveymonkey.com) Sample Size: 113 respondents

³⁰ Welcome Cyclists. Retrieved from: www.welcomecyclists.ca/network. July 26, 2012.

These results provide the context for developing the Bike & Pedestrian Master Plan for the City of Stratford and are summarized in **Chapter 2** of this report.

1.2.3 Supportive Policies & Plans

Active Transportation is supported at all levels of government. There is a growing awareness for the negative effects a lack of physical activity has on human health, as well as the benefits of reducing motor-vehicle use and increasing multi-modal transportation for both urban and rural communities in Ontario. As a key step in the study process, the study team undertook a detailed analysis of City, County, Provincial and Federal policies. The following is a summary of the policies and plans which may influence / guide the development of cycling and walking facilities in the City of Stratford.



“The promotion of active transportation has led to special emphasis on on-road / off-road facilities for non-motorized movements within cities.” (*Transport Canada, 2011*)

Federal Organizations:

- Trans Canada Trails Association



“Our vision is for a safe cycling network that connects the province, for collision rates and injuries to continue to drop, and for everyone from the occasional user to the daily commuter to feel safe when they get on a bicycle in Ontario.” (*draft Ontario Provincial Cycling Strategy, 2012*)

Applicable Policies:

- Provincial Policy Statement
- Bill 51 – Plan Reform
- Municipal Act (2001)
- Highway Traffic Act
- Accessibility for Ontarians with Disability Act (2005)
- Ontario Trails Strategy
- Transit Supportive Guidelines



“There is **considerable interest** in making communities in Perth County **better for walking, cycling and accessibility** by providing public spaces, programs and infrastructure to enable a **physically active community**.” (*Creating Walkable and Bikeable Communities*)

Applicable Policies:

- County of Perth Corporate Strategic Plan 2012-2017
- Perth County Policy Scan (2010)
- Creating Walking and Bikeable Communities – A Perth County MovingON Community Planning Guide (2011)
- Perth County Take a Hike Guide (2004)
- Perth County Community Picture Report

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“Research, review and **develop opportunities** and options for **pedestrian and cycling strategies**.” (*Master Transportation Plan, 2010*)

Applicable Policies:

- City of Stratford Official Plan
- Stratford Transportation Master Plan (2010)
- Accessibility Plan (2012)
- A Tourism Study for the City of Stratford (2005)
- A Community Vision for the 21st Century (1997)
- Strategic Master Plan to Provide for Leisure Services and Facilities (2005)

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1.3 HOW THE PLAN WAS DEVELOPED & REPORT ORGANIZATION

1.3.1 The Vision for Bike & Pedestrian Development in Stratford

Taking into consideration the information presented above, the study team developed the following vision and set of objectives specific to Active Transportation in the City of Stratford to help guide the future development and implementation of infrastructure and programming. The City of Stratford's vision for Active Transportation is:

“To develop a long term (20 year) strategic bicycle and pedestrian master plan and implementation strategy for the City of Stratford that encourages more active lifestyles by improving conditions for walking and cycling for both recreation and utilitarian transportation.”

In addition to the active transportation vision established for the City, goals specific to cycling and walking were identified to help guide the future development of cycling and walking specific facilities and initiatives. These goals are as follows:

Bicycle Goal:

“To build upon current routes and facilities to develop a feasible and practical City-wide bicycle network, cycling supportive policies and an implementation plan that accommodates residents of all ages as well as visitors.”

Pedestrian Goal:

“To build upon existing pedestrian facilities and recommend future infrastructure links and programming (e.g. way-finding signing strategy) to increase and improve pedestrian mobility and access to community facilities, attractions and services.”

In addition to the study vision, a set of objectives were developed to support the study vision. The objectives for cycling and walking throughout the City include:

- Examine the current state of bike and pedestrian activities throughout the City;
- Recommend a cycling and trail network including routes which provide connections throughout the City to key destinations (i.e. community centres and libraries etc.) and to surrounding municipalities;
- Identify missing links in the city's existing sidewalk network and recommend a strategy for improved pedestrian connections;
- Provide active transportation recommendations for consideration in the update to the City's Official Plan;
- Illustrate and describe design guidelines for the construction of bike and pedestrian facilities;
- Recommend a way-finding and signage program and bike map strategy for consideration by the City when implementing the master plan;

- Recommend education, promotion and enforcement programs related to bike and pedestrian activities;
- Consult with the public and local stakeholders to identify route barriers and opportunities; and
- Identify costs and priorities as part of a phased (short, medium and long-term) action / implementation plan.

1.3.2 How the Master Plan was Developed

A key component of the plan was the development of an integrated bike and pedestrian network. The network approach and process involved a number of steps which were used to establish a recommended bike and pedestrian network for the City of Stratford's Master Plan. The network development approach included the following steps:

1

An Inventory of Existing Conditions:

Compiling and digitally map existing or previously planned active transportation facilities (pedestrian and cycling) in the City of Stratford. These included both on and off-road facilities, in order to establish a base condition.

A Route Selection Process:

Included developing a set of route selection principles and supportive qualitative and quantitative criteria for determining the preferred network and facility types.

Finalizing the Recommended Route Network:

Involved receiving and evaluating comments and suggestions provided by the project steering committee, finalizing the alignments for the route network and recommendations regarding appropriate facility types, developing an opinion of cost for implementation and determining implementation priorities.

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The Bike and Pedestrian Master Plan has been designed to be a living document that is flexible and capable of evolving over time. It is intended to maintain and enhance existing programs and infrastructure, while guiding the development and implementation of new walking and cycling facilities and programs.

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Cycling and Walking in Stratford – Source: MMM Group



Figure 1.2
City of Stratford Bike & Pedestrian Master
Plan Development Process

This approach was based on the need to integrate the existing City-wide pedestrian and cycling routes and policies and recommend a coordinated policy and implementation strategy that the City could adopt to achieve the common goal of improving conditions for walking and cycling into the future. Implementation of the Master Plan is aimed at encouraging people to leave their cars at home and use non-motorized modes of transportation for recreation and utilitarian purposes throughout the City of Stratford. The study approach that led to the development of the Plan included the following phases, refer to **Figure 1.2**.

1.3.3 How the Report is Organized?

CHAPTER 1 provides the background behind the development of the Active Transportation Initiative including the policies and initiatives which support active transportation development, the benefits associated with active transportation development, as well as the vision and an overview of how active transportation is defined in the context of the study.

CHAPTER 2 details the consultation methods that were undertaken throughout the study, documents the comments that were received, and outlines the way in which the comments were incorporated.

CHAPTER 3 outlines the approach used to develop the Bike and Pedestrian System for Stratford as well as the proposed Bike and Pedestrian Network with associated facility types.

CHAPTER 4 describes the different types of promotion and outreach initiatives recommended for consideration when developing the Bike and Pedestrian network.

CHAPTER 5 outlines the proposed Implementation Strategy. It outlines the implementation schedule and route priorities as well as the steps towards investing in Bike and Pedestrian facilities.

CHAPTER 6 provides a summary of recommendations as well as a proposed timeline, resources required, and potential partnership opportunities to be explored during implementation.

CHAPTER 2.0

WHAT YOU TOLD US

2.1 EMERGING TRENDS & DEMAND FOR BIKE AND PEDESTRIAN ROUTES

2.1.1 National Active Transportation Survey

The National Active Transportation Survey was completed by the Canadian Fitness and Lifestyle Research Institute on behalf of "Go for Green" and the "Public Health Agency of Canada" in 2004 as a follow-up to the 1998 survey.

The survey examined the opportunities and existing levels of participation in Active Transportation (walking and cycling) in both adults and school-aged children. **Table 2-1** outlines some of the key factors that were identified by respondents which would influence them to walk and cycle more.

Table 2-1 - National Motivators for People in Canada to Walk and Cycle More	
Walking	Cycling
<p>Top 4 factors that would encourage people to walk more often include:</p> <ul style="list-style-type: none"> ▪ To improve personal health (65%) ▪ Better weather conditions (62%) ▪ Safer trails and paths (47%) ▪ Better routes and a well-linked network (41%) 	<p>Top 4 factors that would encourage people to cycle more often include:</p> <ul style="list-style-type: none"> ▪ Better weather conditions (70%) ▪ Increased safety in traffic (69%) ▪ To improve personal health (68%) ▪ More or better designed cycling lanes (65%)

The results generated from this survey have helped to confirm the growing demand for walking and cycling infrastructure and programming throughout Canada and more locally in Ontario. **Figure 2.1**, illustrates some of the study's key findings.

Figure 2.1 – Results from the National Active Transportation Survey

15% of adults would like to cycle much more and 59% would like to cycle more.

About 1/3 sometimes walk to visit friends or family, or to shop and do errands, or to leisure / recreation activities (52% never do).

3/4 of children never used their bicycle to get to school in 2004.

About 1/4 sometimes cycle to visit friends or family and few do so for errands, to shop or to get to public transit.

Most Canadians
(78%)
walk as a leisure or recreational activity.

About 27% of adults work at home to telecommute, however, 62% travel to work by car most of the time.

60% of Canadian adults own or use a bicycle and 82% of those that cycle for leisure or recreation.

39% of adults have changed the amount they cycled compared to the previous year. Of those, 50% cycle more.

Cycling for leisure and recreation and for utilitarian travel has increased.

2.1.2 Perth County Community Picture Report

The Perth County Community Picture Report was developed in 2011 by the Perth District Health Unit and Healthy Living Perth to meet the requirements of the Healthy Community Partnership submission to the Ministry of Health Promotion and Sport (MHPS).

Study Objective: To form an accurate depiction of the diversity, priorities, and capacity of the County's communities including the City of Stratford.

What Information was Presented?: Perth County's current health status was assessed to identify six priority areas for community engagement and improvement. A key recommendation from the report was the need for additional emphasis on the development of policies to support healthy living including specific policies geared towards physical activity, sport and recreation and active transportation. The Community Picture Report identifies that through sport and recreation and active transportation policies, the County has the ability to improve physical activity levels of residents.

Other key findings are summarized in the table, [Table 2-2](#).

Table 2-2 - Key Findings for Perth County

- Significant numbers of residents participate in physical activity and sport, however, a significant portion still remains uninvolved.
- Adults appear to be less active than their peer groups and have become less active as they age.
- Most of the physical activity and sport programs are of a traditional nature with walking being the preferred choice.
- Due to the limited population in many municipalities, there is a reduced number of opportunities to participate in physical activity and sport.

How the Information was Used: The report was designed to identify a preliminary socio-demographic profile from which base-line information can be gathered. Using the physical activity information, the study team was able to identify areas that could be improved and enhanced through proposed initiatives and recommendations in the City of Stratford's Bike and Pedestrian Master Plan.

2.1.3 Huron-Perth *In Motion* Survey 2010

The 2010 Huron-Perth *inmotion* conducted a survey to gain perspective on the physical activity levels of the residents of Huron and Perth County. The survey was also used to gauge public awareness on the benefits of physical activity and to better understand the association between demographic characteristics of local communities and their varying levels of physical activity.

This survey was conducted as a telephone survey with a sample size of 761 respondents with an equal distribution of male and female respondents. The

following are some of the key socio-demographic results generated for Perth County:

- The mean respondent age was 49 years old.
- Approximately half of the Perth County's survey respondents were employed full-time (55%).
- The most common household composition was married with one or more children (45%).
- 39% of respondents surveyed from Perth County were residents of Stratford, Ontario.

Huron-Perth *inmotion* was a group of recreation and health organizations from across Huron and Perth Counties that work to create opportunities for residents to be active more often through community events and activities. They have recently disbanded but the resources still remain influential in the development of the master plan

The following are some of the key findings from the survey specific to Perth County. The findings which have been summarized focus on physical activity trends.

83% of Perth County respondents reported that they are physically active on a regular basis with **92%** reporting that they have been physically active for the past 6 months or more. Of those respondents that reported they were not regularly physically active, **39%** reported that they plan to begin regular physical activity in the next month. **27%** of Perth County respondents reported to have a mental or health condition which prevents them from being physically active. Muscle, bone or joint problems were the top debilitating issue reported (**52%**).

When asked the degree of physical of activity Perth County respondents participated in the past week:

- 86% had partaken in light physical activities (i.e. walking, house or yard work)
- 62% had partaken in moderate physical activities (i.e. work related activity or cycling)
- 35% had partaken in vigorous physical activities (i.e. running or conditioning exercises)

A similar survey was conducted in 2008 by Huron-Perth *inmotion* which found that physical activity levels between 2008 and 2010 either remained the same or improved for both Huron and Perth County residents. Overall, Perth and Huron County respondents reported being regularly physically active incorporating physical activities into their weekly routine.

One of the areas of deficiency identified by survey results proved to be awareness and promotion. The organization recognized the need for a continuous focus on promotional messaging as it pertains to healthy living including active lifestyles increased activity levels.

2.1.4 Bike & Pedestrian Master Plan Online Questionnaire

As part of the City of Stratford Bike and Pedestrian Master Plan Study, a web-based questionnaire was developed and hosted using the online service SurveyMonkey (www.surveymonkey.com). The questionnaire, which was posted in August 1st, 2012, concluded in September 1st, 2013. The questionnaire, although not statistically valid, provided the study team with important information regarding the public's thoughts on active transportation throughout the City.

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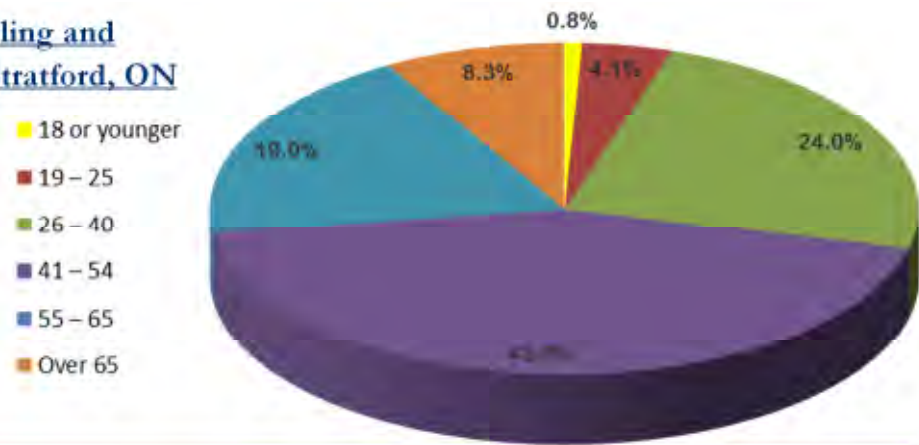
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The survey was composed of 14 questions that gathered information regarding the socio-demographics of respondents, their current levels and trends regarding cycling and pedestrian activities as well as input on potential improvements as they pertain to infrastructure, policies and programs. A total of 124 questionnaire responses were gathered over the course of the study. The following tables and figures illustrate a summary of key questionnaire results. The results have been organized based on two categories; current activity (cycling and walking) trends for respondents and input to future bike and pedestrian infrastructure, programs and initiatives.

Current Activity (Cycling and Walking) Trends in Stratford, ON



The greatest number of respondents, 89%, were between 26 and 65 years of age. Of this percentage, the greatest number of respondents, 43.6%, represented individuals between 41 and 54 years of age.

Figure 2.2 – Demographic Representation of Questionnaire Respondents

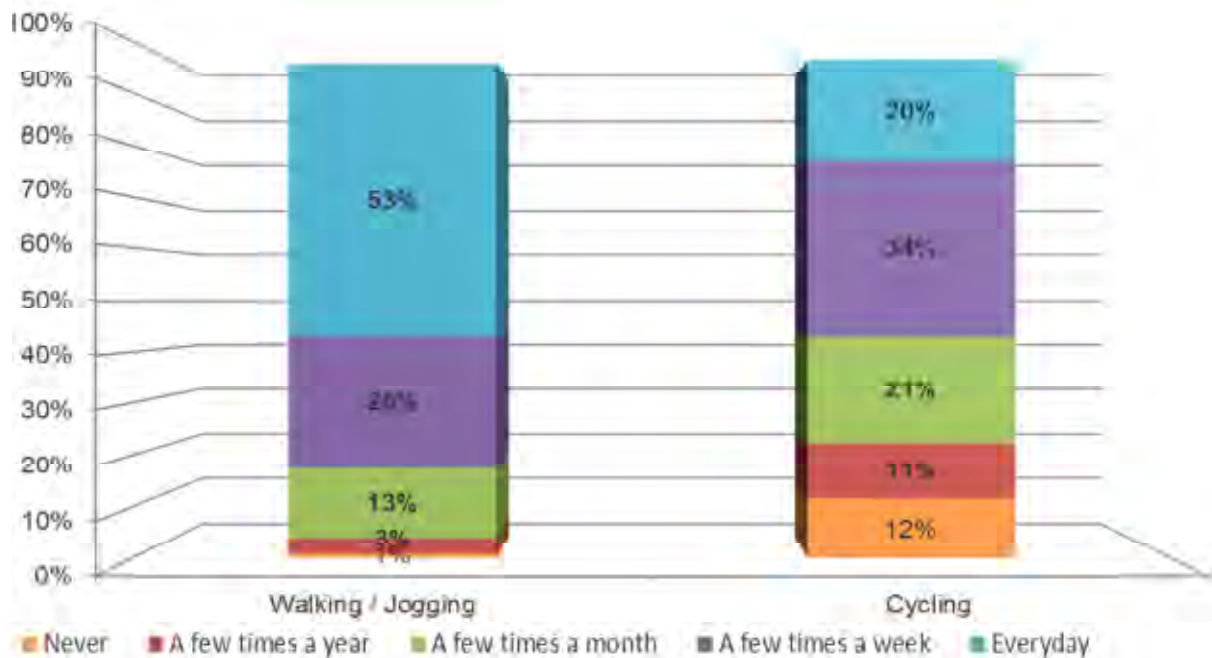
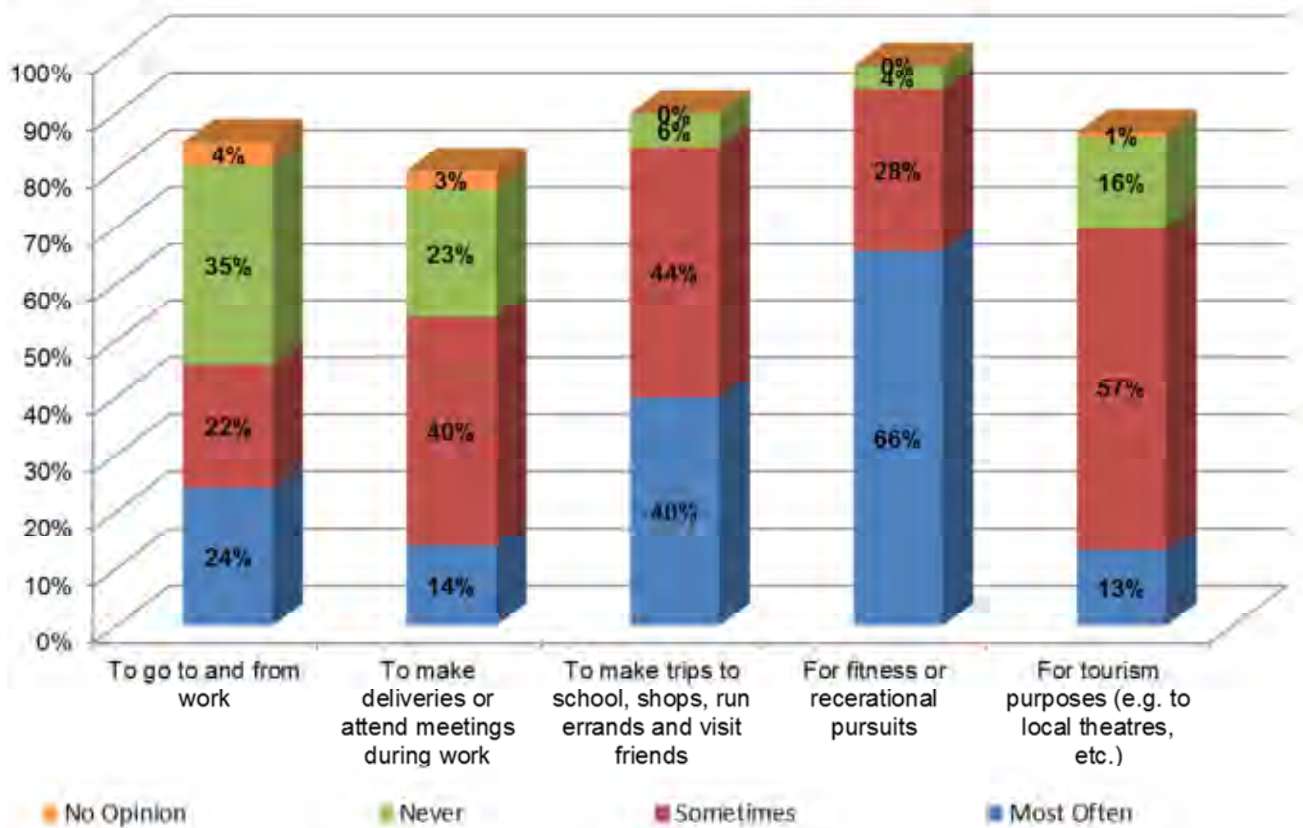


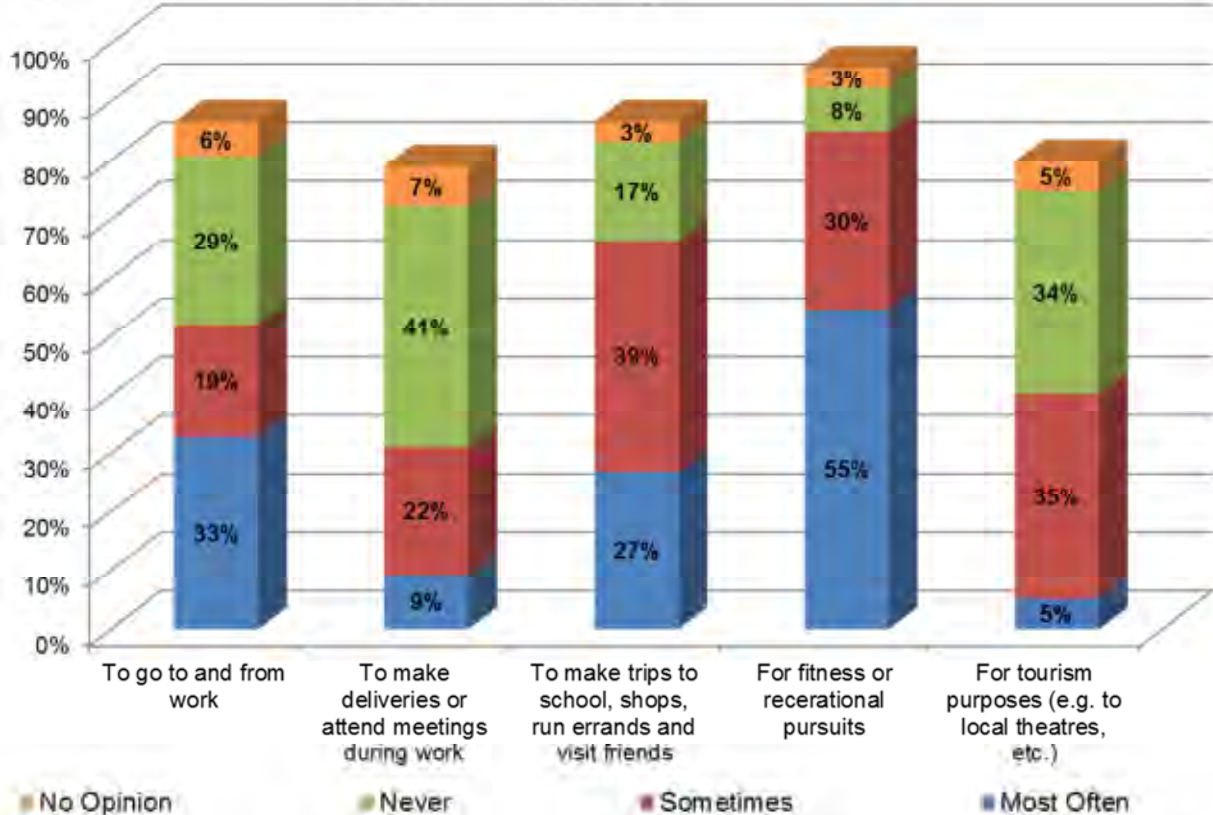
Figure 2.3 – Current Walking and Cycling Trends for Questionnaire Respondents

A total of 80% of respondents walk daily or a few times a week and 52% cycle at the same frequency. These results clearly illustrate the demand for and interest in cycling and walking throughout the community.



Of those respondents who walk in the City the majority, 94%, engage in these activities for fitness and recreation most often or sometimes. This is followed by 84% of respondents who walk to make trips to school, shops, run errands etc.

Figure 2.4 – Rationale for Engaging in Walking by Respondents



Of those respondents who cycle in the City the majority, 85%, engage in these activities for fitness and recreation most often or sometimes. This is followed by 66% of respondents who cycle to make trips to school, shops, run errands etc.

Figure 2.5 – Rationale for Engaging in Cycling by Respondents

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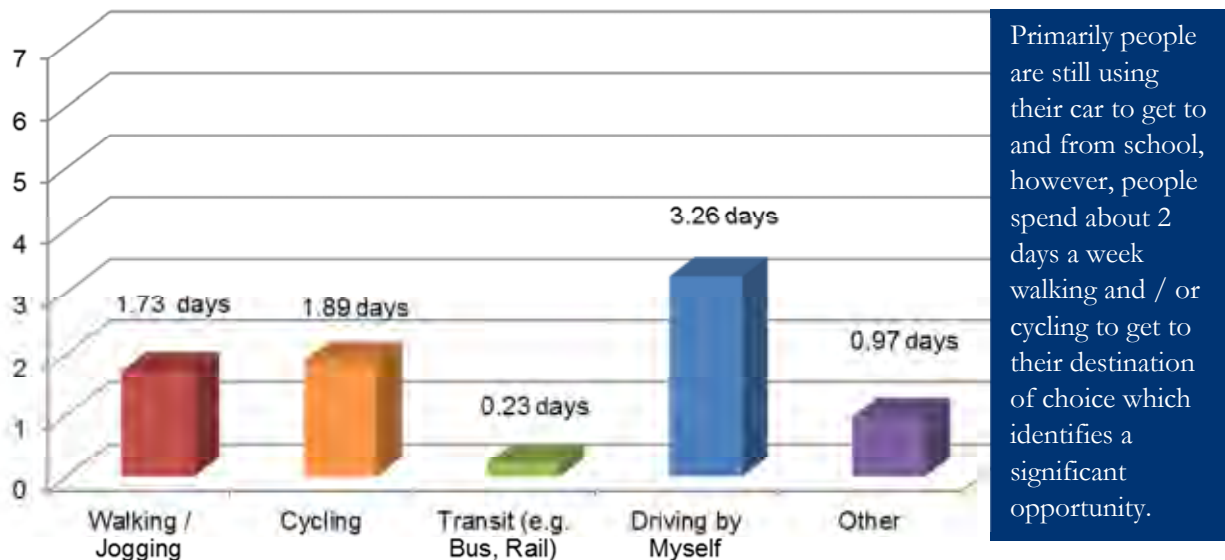
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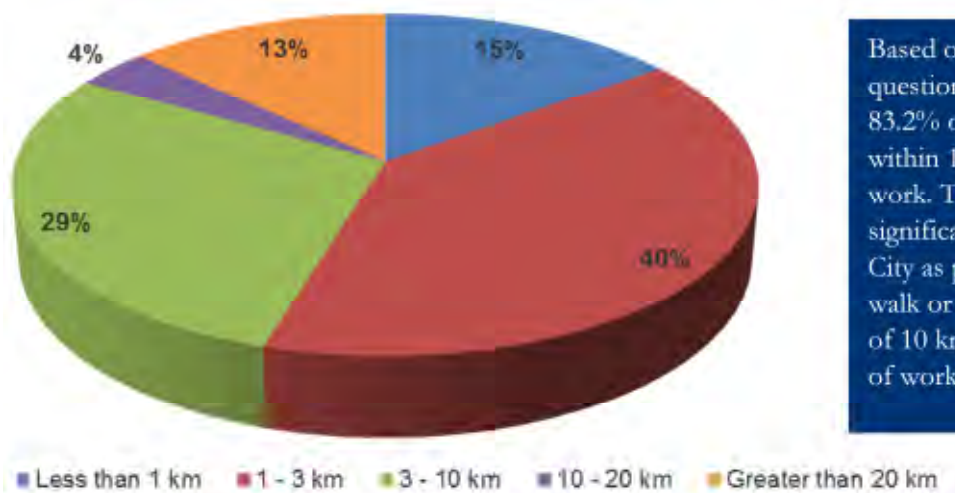
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Primarily people are still using their car to get to and from school, however, people spend about 2 days a week walking and / or cycling to get to their destination of choice which identifies a significant opportunity.

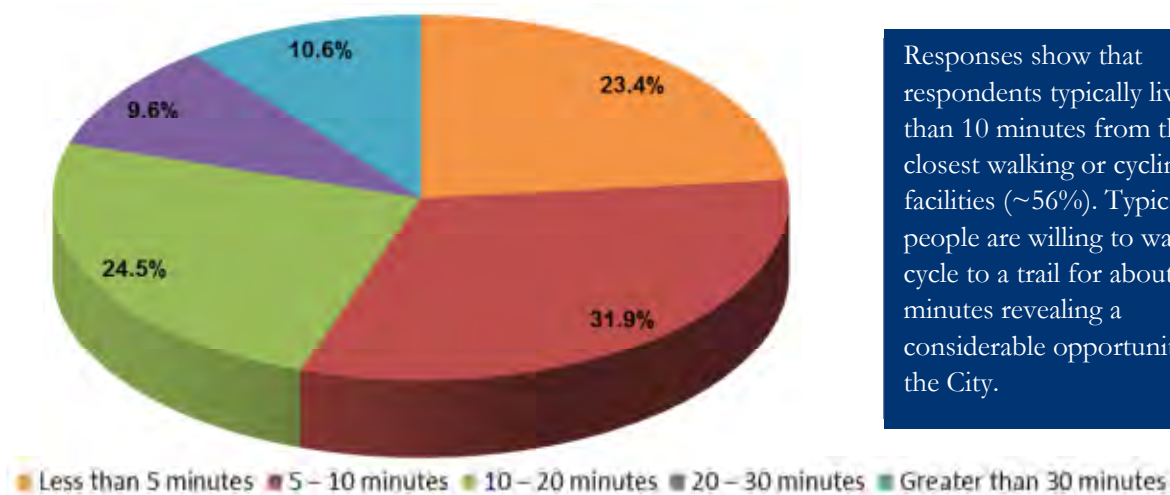
Figure 2.6 – Number of Days a Week to get to School and Work using Alternate Modes

Input on Future Bike & Pedestrian Infrastructure, Programs & Facility Types



Based on responses to the questionnaire, it shows that 83.2% of respondents live within 10 km or less of their work. This provides a significant opportunity for the City as people will typically walk or cycle up to a distance of 10 km to get to their place of work or school.

Figure 2.7 – Typical Distance to Work and / or School for Residents



Responses show that respondents typically live less than 10 minutes from the closest walking or cycling facilities (~56%). Typically people are willing to walk or cycle to a trail for about 10 minutes revealing a considerable opportunity for the City.

Figure 2.8 – Typical Time it takes to Access the Nearest Trail and / or Walking and Cycling Facility

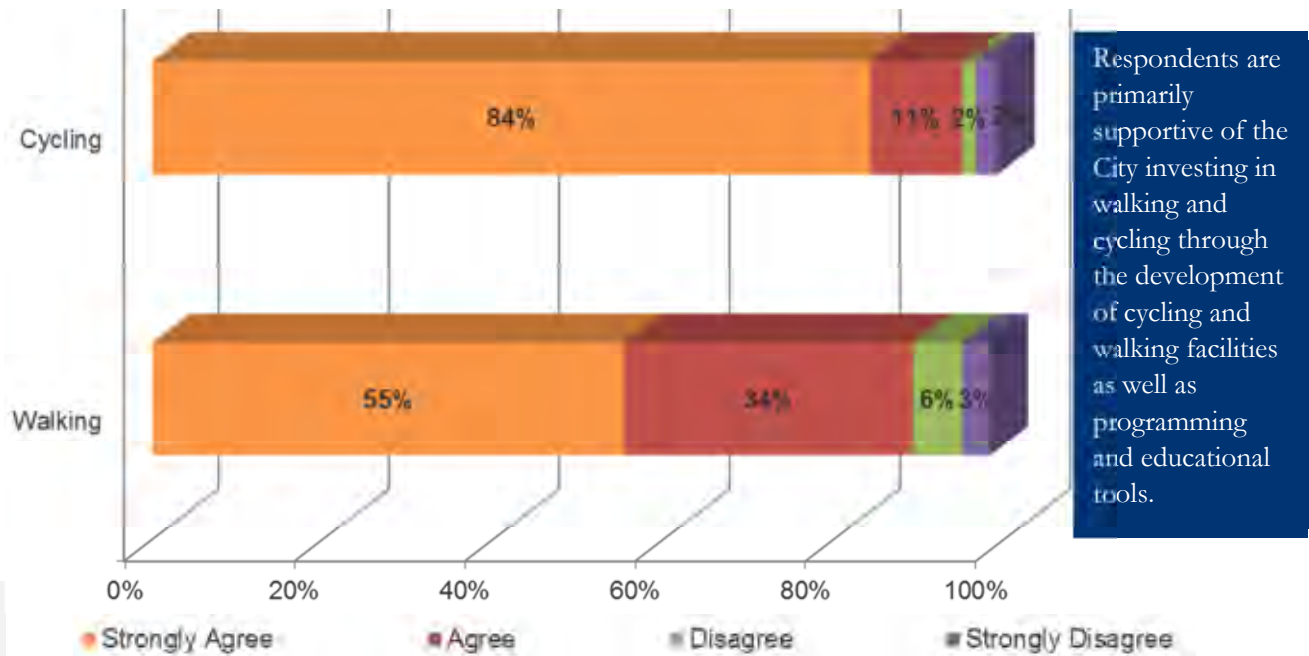
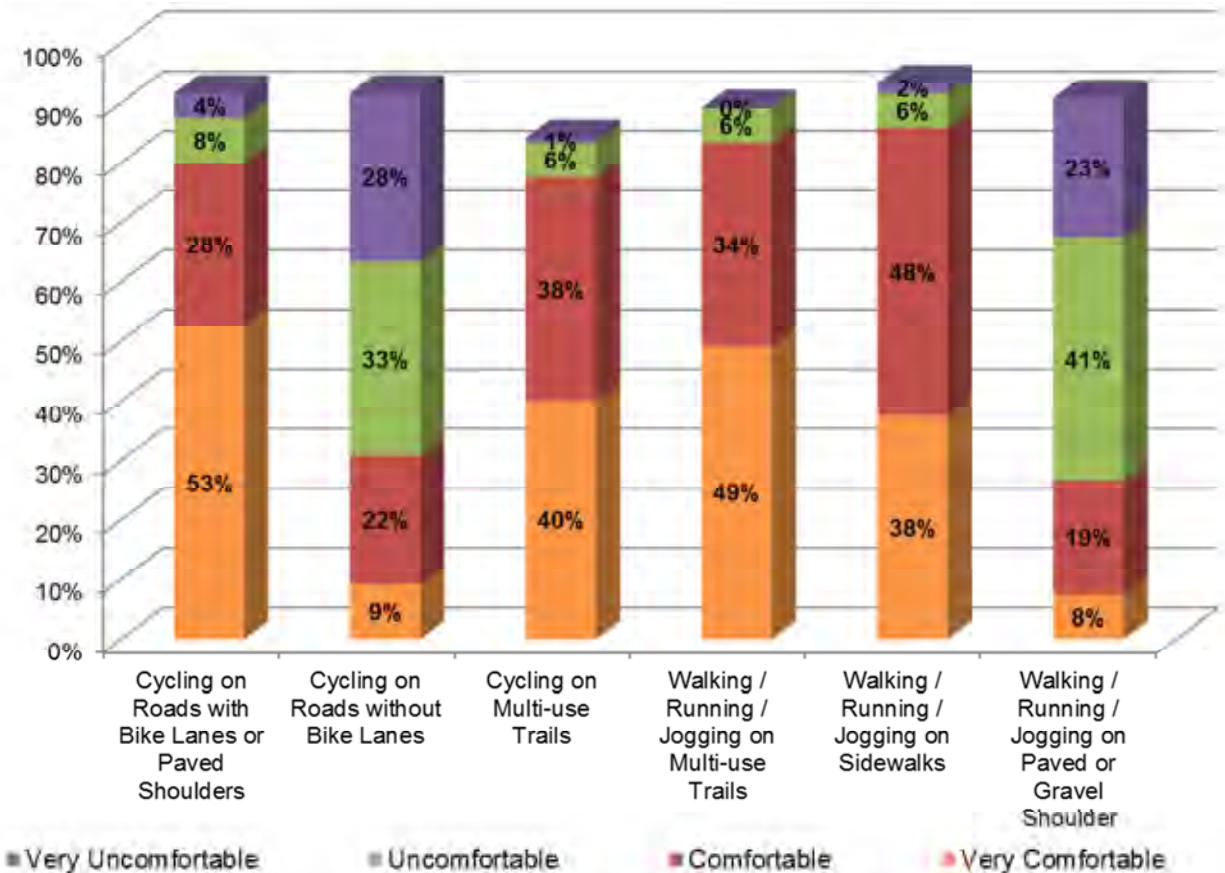


Figure 2.9 – Support for Financial Commitment by the City for Walking and Cycling



Based on responses, it is clear that most people are more comfortable with cycling and / or walking on roads with dedicated cycling facilities such as bike lanes (80%) and sidewalks (85%) or on multi-use trail facilities. There is less enthusiasm for cycling and / or walking on routes without dedicated facilities or paved shoulders.

Figure 2.10 – Level of Comfort using Different Walking and Cycling Facilities considered for Implementation as part of the Network

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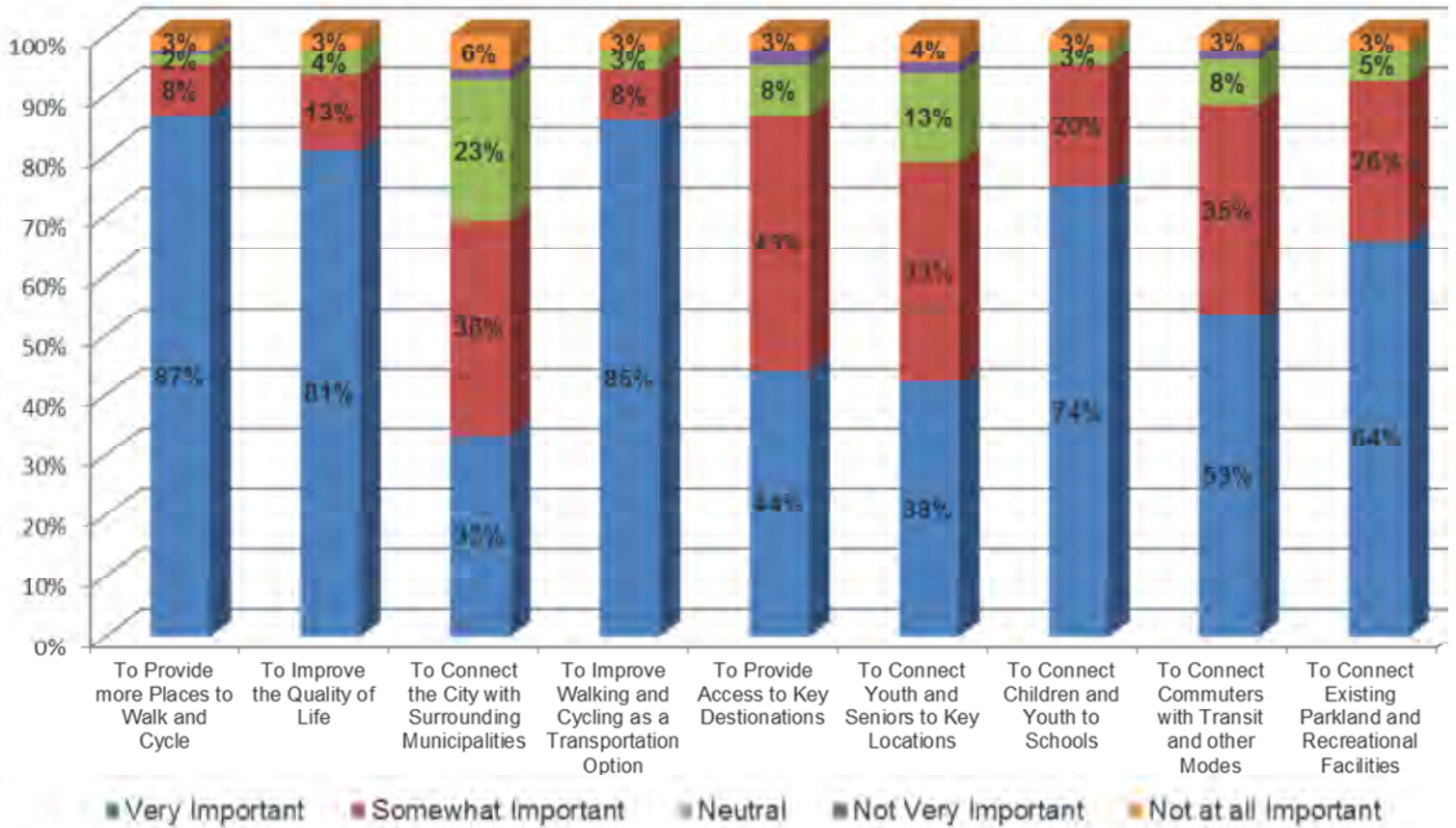
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Respondents made it clear that the City of Stratford should develop a bike and pedestrian master plan primarily to improve the conditions for walking and cycling as transportation alternatives (85%) and to provide formal facilities and places for people to walk and cycle (86%).

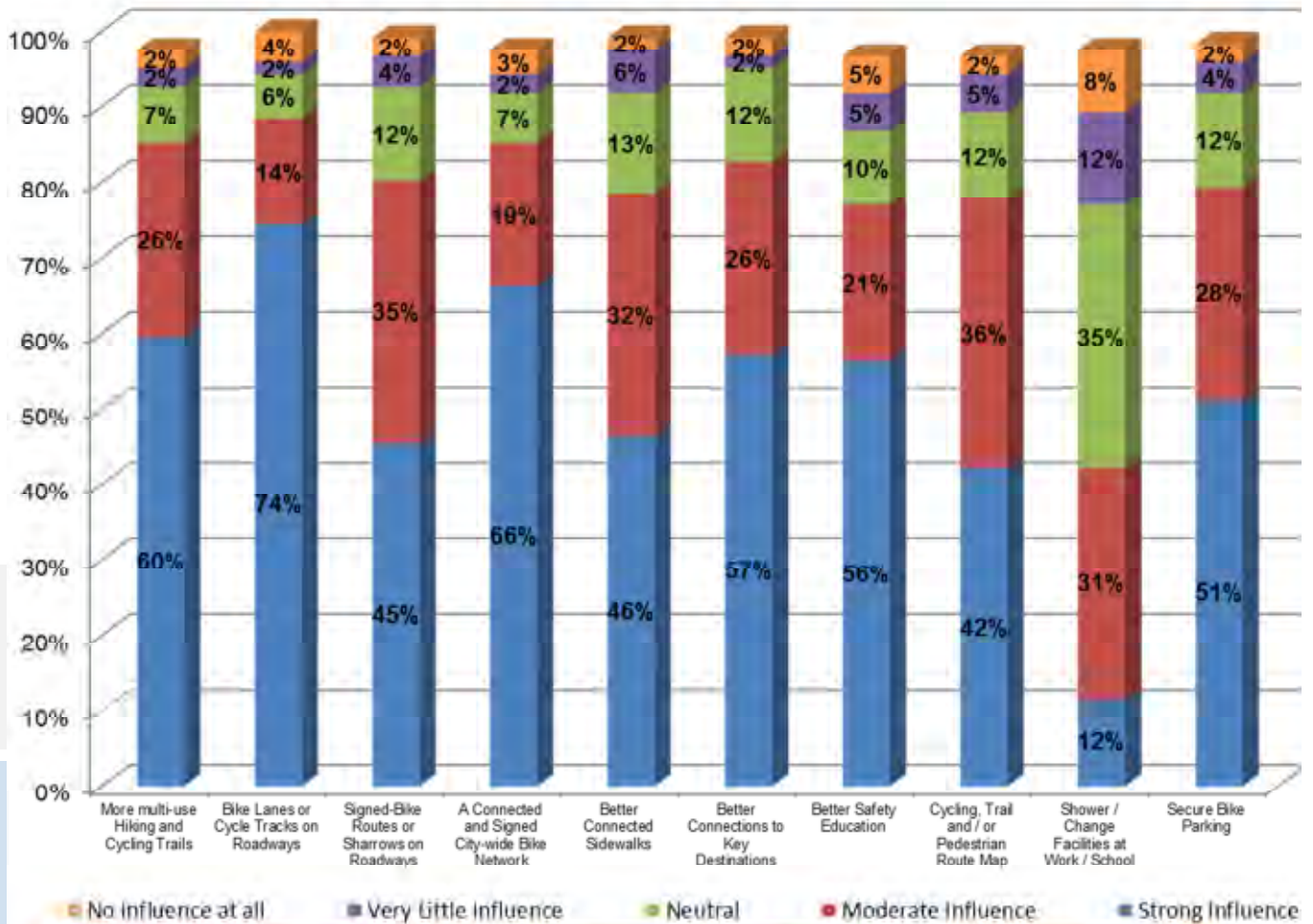
Figure 2.11 – Reasons the City Should Develop a Bike & Pedestrian Master Plan



Top Locations: Downtown, Stratford Agriplex, Victoria Lake / Avon Trail
 Bottom Locations: Festival Theatre, YMCA, VIA Rail Station, Lions Pool



Figure 2.12 – Locations in the City where Cycling and Walking should be Improved



Responses indicate that most people would be influenced to walk and / or cycle in the City of Stratford if there were bike lanes or cycle tracks on roadways (74%) or if there was a connected and signed city-wide network of facilities (68%).

Figure 2.13 - Potential Improvements which would Influence Walking and Cycling

2.2 PUBLIC & STAKEHOLDER CONSULTATION INITIATIVES & OUTCOMES

One of the key objectives of the study was to develop a Bike and Pedestrian Master Plan for the City of Stratford based on local knowledge, understanding and input. In advance of the project's initiation, the study team explored the use of different consultation initiatives, which formed a formal consultation strategy based on:

"Bringing the Consultation to the People"

The consultation strategy (please see [Appendix B](#)) developed by the study team and steering committee was used to guide consultation over the course of the study. The overall goal of the strategy was to provide a variety of consultation opportunities to engage the public and stakeholders in the community, while respecting AODA guidelines.

The following is a summary of these initiatives as well as the input which was gathered.

2.2.1 Phase 1 & 2 Consultation Initiatives

Over the course of the first and second phase of the study, the study team developed and facilitated a number of different consultation initiatives. The following figure illustrates these initiatives and the timeline in which they were undertaken.



The overall goal for the consultation initiatives undertaken as part of Project Initiation and Phase 1 was to inform the public of the study's background and objectives and to gather input on potential network opportunities and barriers using an online questionnaire.

Following the completion of Phase 1 and part of Phase 2, the study team conducted the first Public Information Centre (PIC) on **January 12th, 2013**. A total of three venues were used for PIC #1 to present the study materials and gather input from members of the public.

Venue #1	Venue #2	Venue #3
Stratford Farmer's Market Burnside Agriplex 9:00 a.m. - 10:00 a.m.	Avon Walking Group Walking Tour: TJ Dolan Trail 9:00 a.m. - 11:00 a.m.	Stratford Soup's ON Event Stratford Rotary Complex 11:00 a.m. - 2:00 p.m.

The following provides a description of each of the consultation venues.

Farmer's Market & Soup's ON "Open-house"

The PIC was scheduled to engage the greatest number of public representatives and was formatted as an informal "drop-in" / "open-house" session. The overall goal of the PIC, as outlined in the consultation strategy, was:

"To introduce the public to the project and to hear from them the issues and opportunities related to developing a Bike and Pedestrian Master Plan for the City of Stratford. In addition, attendees will also be provided with the draft route selection criteria, mapping of existing conditions and potential candidate routes, initial online questionnaire results and as well as relevant studies for future consideration."

The events were promoted by way of a public notice which was posted on the City's Community Services webpage and at key locations throughout the community. In addition, media releases were published in local publications which noted the time and location of the PIC events and provided readers with some background information on the study and a link to the online questionnaire.

Display boards developed for the PIC illustrated existing bicycle and pedestrian routes as well as routes which were currently being investigated in the field (candidate routes map) that may become part of the recommended pedestrian and cycling network. Other displays included bicycle and pedestrian supportive policies and plans, route selection criteria and current best practices. Examples of some of the display boards are illustrated below.

What is Active Transportation (Walking & Cycling) in Stratford?

Overall Study Goal:
 "To develop a long term (20 year) strategic bicycle and pedestrian master plan and implementation strategy for the City of Stratford that encourages more active lifestyles by improving conditions for walking and cycling for both recreation and transportation."

Pedestrian Goal:
 "To build upon existing pedestrian facilities and recommend future infrastructure links and programming (e.g. way-finding signing strategy) to increase and improve pedestrian mobility and access to community facilities, attractions and services."

Bicycle Goal:
 "To build upon current routes and facilities to develop a feasible and practical City-wide bicycle network, cycling supportive policies and an implementation plan that accommodates residents of all ages as well as visitors."







Benefits of Developing Pedestrian and Cycling Facilities

<p>Community Building Brings communities together, builds community spirit and fosters enthusiasm.</p>	<p>Asset Management Provides a means to appreciate and assist in protecting natural and cultural heritage resources.</p>	<p>Transportation Provides residents and visitors with a choice of transportation options. Helps to reduce dependence on travel by personal automobile.</p>	<p>Community Health Provides opportunities for physical activity, enables healthy, active lifestyles and makes our communities more liveable.</p>
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CITY OF STRATFORD | BIKE AND PEDESTRIAN MASTER PLAN | MIMT GROUP LIMITED

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How Would Potential Cycling & Walking Routes be Selected?

Visible Bicycle and pedestrian routes should be a visible component of the transportation system.

Connected / Linked The bike and pedestrian network should link the City with surrounding communities and key destinations as well as existing and planned bike and pedestrian routes and facilities.

Easy to Access Routes should be easily accessible from local neighbourhoods within the community and from feeder routes from surrounding municipalities.

Integrated The network should be integrated with other modes of transportation, particularly existing public transit. Routes will provide access to existing and future transit facilities / hubs including buses, VIA Rail etc.

Diverse The network should provide a diverse and balanced On and Off-road walking and cycling experience throughout the City. The system should appeal to a range of user ages, abilities and interests.

Accessible All sidewalks will be accessible. Where possible and practical, off-road routes (trails) will also be accessible. It is recognized however, that not all off-road routes will be accessible in all locations. Routes will be appropriately signed to communicate level of accessibility.

Context-Sensitive: Facility design for individuals routes should follow widely accepted guidelines but may also be modified to respond to the immediate surroundings.

Sustainable Sustainability will be a key consideration in the alignment, design and selection of materials for on and off-road bicycle and pedestrian facility types.

Cost-Effective The cost to implement and maintain the bike and pedestrian network and supporting facilities / amenities should be phased over time and designed to be affordable and appropriate in scale for the City but should not compromise user safety.

Comfort & Safety Reducing risks to users and providing comfortable facilities will be key considerations when selecting routes for the network. The increased perception of risk can increase confidence in users.

Attractive & Interesting Routes should take advantage of attractive and scenic areas, views and vistas. Routes should provide users with the opportunity to experience the cultural and natural heritage found throughout the City.

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What are the Potential Active Transportation Facility Types?

Signed Bicycle Route	Signed Route with Sharrow Symbol	Bikeway Boulevard	Paved Shoulder	Bike Lane	Separated Bike Lane / Cycle Track	Multi-use Trail in Road Right-of-Way	Multi-use Trail outside of Road Right-of-Way
<p>Requires and often includes the following, in addition to what is needed for signage:</p> <ul style="list-style-type: none"> • The pavement markings of facilities • Supplemented by flexible raised edges • Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both • Flexibility to use the shoulder in other areas, and may use the shoulder as a bike lane 	<p>Similar characteristics to signed bicycle route but require what is needed for the signed route as well as the sharrow symbol.</p> <p>Similar characteristics to signed bicycle route but require what is needed for the signed route as well as the sharrow symbol.</p>	<p>Similar to a signed bicycle route, but the entire road is dedicated to bicycles and pedestrians.</p> <p>Similar to a signed bicycle route, but the entire road is dedicated to bicycles and pedestrians.</p>	<p>Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both</p>	<p>Continues as a dedicated space in the travel portion of the road</p> <p>Requires a sign to indicate the start and end of the bike lane</p> <p>Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both</p>	<p>Continues as a dedicated space in the travel portion of the road</p> <p>Requires a sign to indicate the start and end of the bike lane</p> <p>Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both</p>	<p>Continues as a dedicated space in the travel portion of the road</p> <p>Requires a sign to indicate the start and end of the bike lane</p> <p>Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both</p>	<p>Continues as a dedicated space in the travel portion of the road</p> <p>Requires a sign to indicate the start and end of the bike lane</p> <p>Typical for urban residential to local urban routes where traffic volumes and speeds are low, and road width allows for wider shoulders on both</p>
<p>SHARED FACILITIES</p>			<p>SEPARATED FACILITIES</p>			<p>OFF-ROAD FACILITIES</p>	

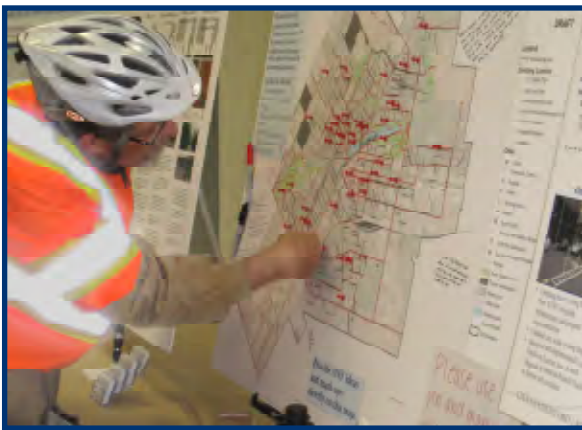
CITY OF STRATFORD | BIKE AND PEDESTRIAN MASTER PLAN | MMM GROUP LIMITED 5

Those who attended the PIC were able to view the displays and were encouraged to ask questions to members of the study team. They were also encouraged to use a red "pin" to mark where they lived. The study team spoke with hundreds of interested community members of which 84 chose to insert a pin in the Candidate Route Map. The Candidate Route Map Board (presented on the following page) illustrates representation from neighbourhoods across the entire City.



Candidate Routes Network

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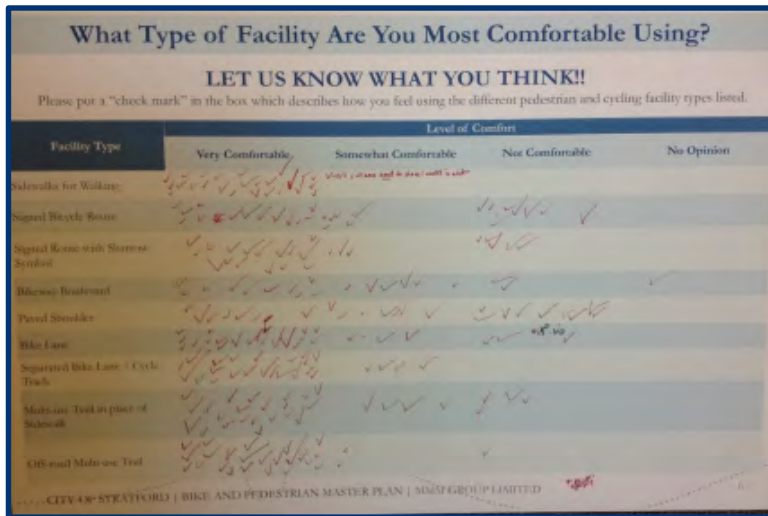
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The public was also invited to provide their input on their "comfort level" with different cycling and walking facilities. To the left is a photo of the interactive display board that captures the public's input. **Table 2-3** summarizes these responses. The top two responses for each level of comfort have been highlighted in yellow.

Table 2-3 – Summary of Responses from the Interactive Display Board

Facility Type	Level of Comfort			
	Very Comfortable	Somewhat Comfortable	Not Comfortable	No Opinion
Sidewalks for Walking	✓ X 26	✓ X 1		
Signed Bicycle Route	✓ X 13	✓ X 6	✓ X 8	
Signed Route with Sharrow	✓ X 16	✓ X 3	✓ X 5	
Bikeway Boulevard	✓ X 10	✓ X 6	✓ X 2	✓ X 1
Paved Shoulder	✓ X 7	✓ X 7	✓ X 9	
Bike Lane	✓ X 20	✓ X 4	✓ X 3	
Separated Bike Lane / Cycle Track	✓ X 22	✓ X 4		
Multi-use Trail in Place of Sidewalk	✓ X 22	✓ X 4	✓ X 4	
Off-road Multi-use Trail	✓ X 24	✓ X 5	✓ X 1	

Local media reported that around 3,200 people attended the Soup's ON Fundraising event, the majority of which passed by the study information, spoke with a member of the study team and / or provided their input directly on the Candidate Routes Map.

Avon Trail Group Walking Tour

As an additional method of engagement, a representative from the consultant team participated on a Walking Tour with the Avon Trails Group on the same day at the PIC. The tour, one of their regularly scheduled hikes, focused on exploring parts of the TJ Dolan Trail. The route took hikers from the trailhead off John Street, through the Avondale cemetery and continued along the trail on the north side of the river to the bridge on O'Loane Street, connected to the trail on the south side of the river and continued the loop back to the starting point at John Street.

In attendance were 14 members of the Avon Trail Association, who were also invited to attend the Soup's ON event following the tour to provide their input on the candidate routes network. The tour provided additional opportunities for one-on-one discussion regarding the development of a bike and pedestrian network including existing trail opportunities and barriers. The following are some photos illustrate some of the conditions experienced during the walk.

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Summary of Comments

Table 2-4 summarizes the comments which were received from those who participated in the public engagement events as part of the study's first open house.

Table 2-4 – Comments Received from PIC #1

Farmer's Market & Soup's ON	
General Comments:	Specific Network Comments:
<ul style="list-style-type: none"> ▪ Buses parked around City Hall create dangerous situations for Pedestrians ▪ Bike lanes should be considered for implementation around schools. Cycling facilities could encourage kids to bike to school regularly. Right now, school zones are filled with cars, and bikes don't have space on the road or on the sidewalk ▪ Festival City Rollergirls and other roller sport enthusiasts would love the opportunity to safely skate outside our beautiful city ▪ Should ensure that all pedestrian and cycling surfaces are accessible for those with physical disabilities i.e. sidewalks should be shoveled in the winter ▪ There is an overall lack of street maintenance in the winter for pedestrians ▪ The vision developed for the Market Square should be implemented ▪ Trucking routes should be considered at municipal entry points e.g. Ontario Street to the east 	<ul style="list-style-type: none"> ▪ Surface type on the existing TJ Dolan Trail is not ideal for cyclists ▪ Vincent Street should be removed from the network due to high volume of traffic accessing the hospital ▪ Context sensitive design considerations should be made for St. Vincent Street at West Gore Street and Cambria Street ▪ Formal connection should be made south of McCarthy Road beside the Community Centre and the Fairgrounds. Right-of-way (ROW) width is available on the east side of the property. ▪ Additional local routes for consideration / further field investigation include: <ul style="list-style-type: none"> ○ Whitelock Street; ○ Mowat Street; ○ Inverness Street; ○ Moderwell Street; ○ Romeo Street (north of McCarthy Roads); and ○ West Gore Street.
Facility Considerations:	Intersection Redesign Considerations:
<ul style="list-style-type: none"> ▪ Bike lanes should be considered for implementation along the following streets: <ul style="list-style-type: none"> ○ Waterloo Street Bridge; ○ Perth Line 36; ○ O'Loane Avenue; ○ Lorne Avenue West; ○ Lorne Avenue East; ○ Romeo Street South; and ○ Romeo Street North. ▪ A combination of walking and bike paths should be considered for implementation along the following streets: <ul style="list-style-type: none"> ○ Douro Street east of Romeo Street; ○ CH Meier Boulevard; and ○ North of Devon Street south of the existing Golf Course. ▪ The existing multi-use pathway on Erie Street next to the hydro pole should be fixed and mud should be removed to facilitate use by cyclists. 	<ul style="list-style-type: none"> ▪ Intersection redesign to accommodate pedestrians and cyclists should be considered for: <ul style="list-style-type: none"> ○ McCarthy Road and Mornington Street; ○ 3-way intersection at Mornington Street, Delamere Avenue and James Street; ○ Mornington Street and Waterloo Street; ○ Downie Street and Waterloo Street; ○ Whitlock Street and Home Street; ○ St. Vincent Street at West Core Street; and ○ St. Vincent Street at Cambria Street.

Avon Walking Trail Group Walking Tour

- The group stopped at several locations along the walk to discuss conditions along the trail and the potential role of the trail in the context of a city-wide pedestrian and cycling network. The key topics discussed included:
 - Whether some sections of the TJ Dolan trail could/should be included in a City-wide network. There was general support among those in attendance that some portions of the trail could be included, specifically those that create connections from one neighbourhood to another. However, including all of the trails would not be appropriate. Trail users enjoy the narrow, soft surface trails in their current state and would be opposed to having all of them upgraded to a wider, hard surface to accommodate a wider range of active transportation uses.
 - What would the trail "look like" if it were upgraded? Generally this discussion revolved around surface type and width. Presently the sections of the trail west of John Street are either natural surfaced (i.e. packed earth), or woodchip and the width varies from a narrow path that accommodates users in single file, to a wider path (i.e. up to approximately 2m) that enables two users to walk side-by-side. There were concerns with upgrading the trail to a hard surface such as asphalt, and making it too wide as this could result in cyclists traveling at higher speeds. The use of a packed granular surface such as limestone screening was discussed as a potential surface for sections of the trail that are upgraded. It was suggested that user education be made available should any upgrades take place. Some cyclists are using the trails in their current form and there was concern regarding potential conflicts between pedestrians and cyclists, especially if larger numbers of users frequented the trail.
 - A second connection across the river west of John Street. Currently there is one trail bridge over the river approximately 400m downstream of the John Street staging area, however an additional connection further downstream (e.g. the Freeland Drive neighbourhood with the Sir Adam Beck Road neighbourhood) would help to connect neighbourhoods and also provide more trail loop opportunities.

Bike & Pedestrian Master Plan Stakeholder Workshop #1

Following the completion of Phase 2, the study team developed and facilitated the first of two Stakeholder Workshops on **February 20th, 2013** at the Kiwanis Community Centre.

Workshop Objective: to provide members of the public, local stakeholders and interest groups with the opportunity to review the proposed Bike & Pedestrian Concept Network and to discuss potential policies, programs and outreach initiatives which could be explored for future consideration by the study team.

Stakeholder Workshop Schedule

6:30 p.m. - 7:00 p.m.

Introduction & Background
Presentation

7:00 p.m. - 8:20 p.m. Group
Exercise: 3 Station Working
Group Session

8:20 p.m. - 8:30 p.m. Closing
Remarks & Next Steps

The workshop was promoted using an invitation letter which was sent electronically to stakeholders. The list was generated based on contact information from online questionnaire respondents and those who attended and expressed interest in being informed of upcoming study events at PIC #1. A total of 120 stakeholders were issued an invitation to the workshop, however, the session was open to all members of the public who chose to attend.

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A notice of the stakeholder workshop was also advertised online and in print (the local newsletter and the Town crier). Members of the public were encouraged to attend and provide their commentary. The workshop was very well attended with over 50 people participating.

Display materials presented at the workshop were similar to those presented at PIC #1 with the exception of an updated Draft Bike & Pedestrian Network Concept which was a refined and updated version of the previously developed Candidate Route Network. The materials were available for participants to view, however, the focus of the session was on the working group component. The 3 Station Working Group exercise was used to gather input and comments on the development of bike and pedestrian related policies, programs and outreach initiatives as well as the Draft Bike & Pedestrian Concept Network. Participants were organized into three groups and asked to start at one station and rotate to the others over the course of the 1.5 hour working group. The following is a description of each of the stations:

Station #1: Bike Pedestrian Policies & Recommendations	Station #2: Bike & Pedestrian Network & Facility Types:	Station #3: Promotion, Marketing & Programming for Bike & Pedestrian Activities
Participants were provided with potential policy options to comment on and were encouraged to provide suggestions on other potential policies and recommendations which could be incorporated into the Master Plan.	Participants were provided with a map of the Bike and Pedestrian Network Concept and were asked to provide their comments directly on the map regarding the route alignment, proposed facility types, route opportunities and barriers and key destinations.	Participants were asked to provide their input on a chart outlining potential promotion, marketing and programming ideas which could be incorporated into the Master Plan.

At each station participants were provided with interactive materials and encouraged to mark them up with their comments and suggestions. Following the stakeholder session the comments were summarized. The study team highlighted key themes and outcomes which are presented below.

Station #1: Bike & Pedestrian Policies

Station #1: Bike and Pedestrian Policies

Please provide your comments on the some policies which could be incorporated into the Bike and Pedestrian Master Plan. Use a marker to note a "check" below the policies that you think should be incorporated into the plan. Should you have any other policy suggestions please write them into the boxes below "Suggested Policies for Consideration".

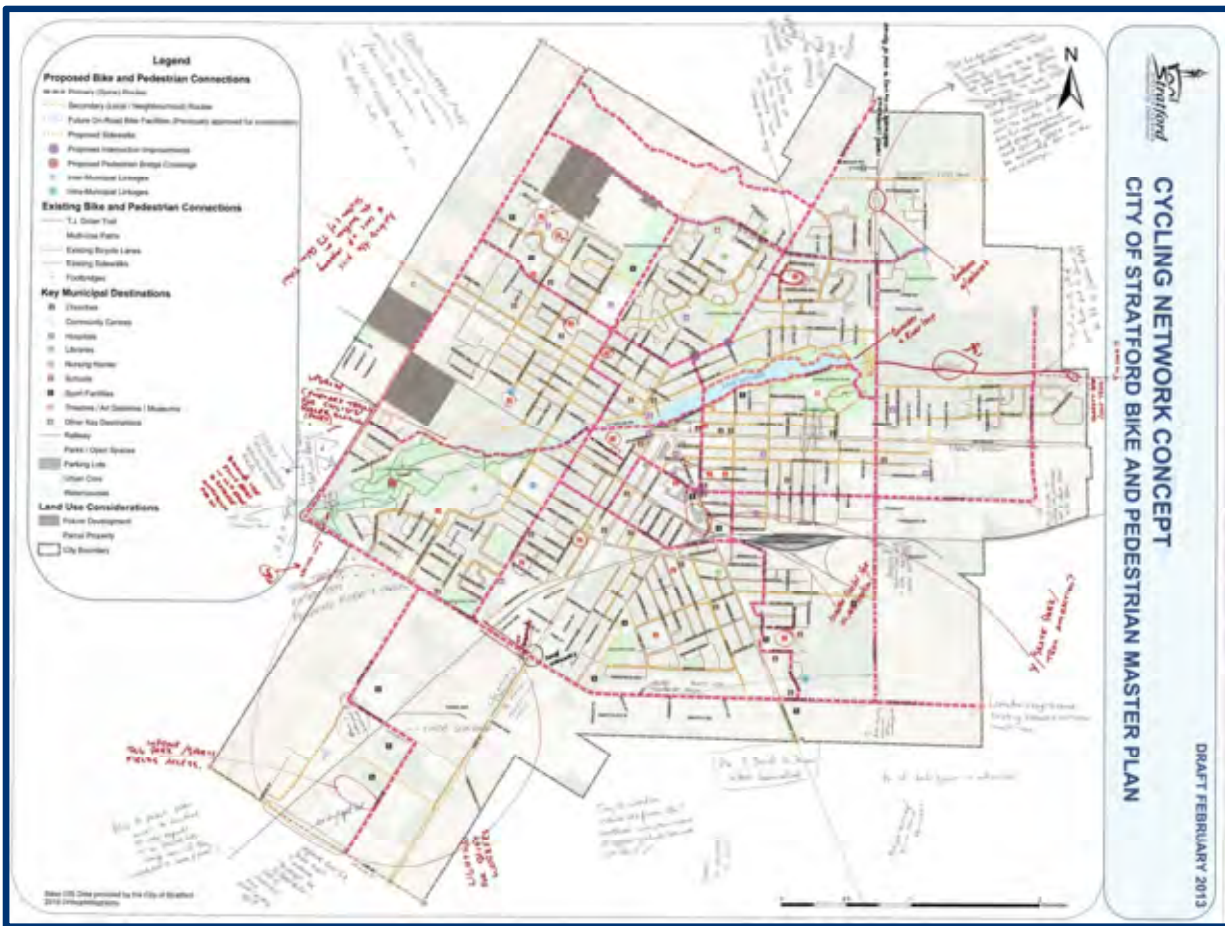
Policy #1: Continually improve connectivity for pedestrian and bicycle travel through the City and to neighbouring municipalities.	Policy #2: Work to develop a formal Safe Routes to School Program throughout the City including developing a SRTS Committee.	Policy #3: The City should consider adopting an Active Transportation Charter to help facilitate and promote the development of a walkable and bicycle friendly environment.	Policy #4: The City should take the lead to develop a Bike and Pedestrian Working Group to guide the development of future AT initiatives	Policy #5: As part of demonstrating leadership the City should provide bicycle parking facilities at public buildings under their ownership.
<p><i>Handwritten notes:</i> - Improve connectivity to neighbouring municipalities - Add side paths to keep pedestrians off O'Loane - Add a bicycle connection from Stratford to St. Mary's</p>	<p><i>Handwritten notes:</i> - Walking school bus - safe path - provide the infrastructure to make this a safe option.</p>	<p><i>Handwritten notes:</i> - overall reduction in residential and to other SRTS - planning of sidewalks - sidewalks on major roads - crosswalks at major crossing points (e.g. Queen Ontario)</p>	<p><i>Handwritten notes:</i> - By City Joint Committee - Separate from E+E</p>	<p><i>Handwritten notes:</i> - Bike Parking - Public Buildings</p>
Suggested Policies for Considerations:				
<p>(e.g. The City should develop and distribute hard copy and electronic information (e.g. newsletters, mapping and promotional materials etc.))</p>	<p><i>Handwritten notes:</i> - driver education - In B+E - Driver Education</p>	<p><i>Handwritten notes:</i> - City of Police - real Bike Toward - Enforcement - City's committee of Transportation Panel (C+E) - This committee will require representation from the accessible advisory committee to ensure barrier free and safe inclusion for the entire population.</p>	<p><i>Handwritten notes:</i> - Police - Policy on a Traffic School - encourage the day time school to start on street with safety school - with access for their facilities</p>	<p><i>Handwritten notes:</i> - Bike Parking - Public Buildings</p>
<p><i>Handwritten notes:</i> - cooperative planning, communication between/among: - Community of Social Services Engineering/Public Works - Energy/Environment Committee (City Adv) - Transportation Committee</p>				

Suggested Policy	Level of Support	Comments Received
Continually improve connectivity for pedestrian and bicycle travel through the City and to neighbouring municipalities	✓ X 5	<ul style="list-style-type: none"> ▪ A footbridge, adjacent to Dundas Bridge, will connect north and south ▪ Add side paths to keep pedestrians off O'Loane ▪ A bicycle connection from Stratford to St. Mary's would be a good tourism opportunity
Work to develop a formal Safe Routes to School Program throughout the City including developing a SRTS Committee.	✓ X 6	<ul style="list-style-type: none"> ▪ Should consider implementing a walking school bus ▪ Should provide safe infrastructure to allow children to ride to school. Parents need to be taught that it's safe for their children to ride to school.
The City should consider adopting an Active Transportation Charter to help facilitate and promote the development of a walkable and bicycle friendly environment.	✓ X 4	<ul style="list-style-type: none"> ▪ The overall speed to traffic on major routes needs to be decreased. ▪ Consideration should be given to developing pedestrian crossings at major crossing points (e.g. Queen Street & Ontario Street).

Suggested Policy	Level of Support	Comments Received
The City should take the lead to develop a Bike and Pedestrian Working Group to guide the development of future AT Initiatives.	✓ X 1	<ul style="list-style-type: none"> ▪ Should work with the energy and environment committee as well as Cycle Stratford. The groups already exist and could help to see the plan through to implementation. ▪ The committee should be separate from the Energy and the Environment committee but work together.
As part of demonstrating leadership the City should provide bicycle parking facilities at public buildings under their ownership.	✓ X 3	<ul style="list-style-type: none"> ▪ Bike racks are needed throughout the City not just at municipal buildings. ▪ Consideration must be made for theft and vandalism - secure bike parking needs to help prevent this. ▪ Consider pilot on street bike parking corral at one or two locations in place of a car parking space.

Other Policy Considerations	
1. Pedestrian paths should be "soft" surface wherever possible (hard surface and stone paths are detrimental to knee and ankle joints, they are also tiring).	2. Lighting is important to off-road trail facilities.
3. Should consider developing maintenance policies which address sidewalk maintenance. Residents need to be responsible for clearing their sidewalks or the sidewalks should be plowed by the City.	4. Cooperative planning and communication needs to exist between City departments including community and social services, engineering / public works, energy / environment committee, transportation sub-committee etc.
5. Consider the implementation of driver and cyclist education programs including CANBike and other driver education programs.	6. The role of the police must be increased to include CANBike instruction and training as well as enforcement of cycling and walking policies / regulations.
7. The mandate of the Transportation Sub-Committee needs to be clarified to include active transportation. It should require representation from the accessible advisory committee to ensure barrier free and safe inclusion for the entire population.	8. New large format retail developments should be encouraged to front onto the street with parking behind. This provides better access for pedestrians as well as cyclists.
9. Nature areas must have some protection when considering routes through them that affect environmentally sensitive areas.	10. Bicycle hubs should be considered for development consistent with the Market Square Plan developed for the City.

Station #2: Bike & Pedestrian Network Concept Map



Comments Received

- Explore storm water management ponds as a potential location for future multi-use trails which would encourage increased fitness and trail awareness.
- Address the pros and cons of improving the surface on the T.J. Dolan Trail in the master plan report
- Upgrade cemetery trails (i.e. paving) to accommodate cyclists and rollerbladers
- Leave the T.J. Dolan Trail as a natural area!
- Ensure that environmentally sensitive areas are protected.
- The T.J. Dolan Trail should be improved to include signage along the path.
- Develop trails throughout the City along rivers and parks.
- Improve accesses to dog parks and sports field at Packham Road Sports Complex
- Develop a policy to protect and restrict public access to the river front as the City expands or as the land use changes.
- Investigate the opportunity to repair the Erie St. bike trail.
- Explore the opportunity to provide connection to St. Patrick St. including the access to businesses and new food centre.
- Use existing asphalt trail located on Line 29 between Dunn Rd and Durkin Rd.
- Storm water pond near Packham Ave and Wright Blvd should be explored as a potential location for future multi-use trails.
- Finish the construction of the proposed sidewalk along Packham Ave.
- Use the existing sidewalk to make a multi-use trail on Erie St from Lorne Ave to Line 29.
- Consider the opportunity of installing lighting for shift workers travelling southwest of Erie St and Lorne Ave.

Comments Received

- Consider the implementation of sidewalks along Lorne Ave.
- Consider developing a route to and from the YCMA so that we can have a cycling club based at this central location.
- Consider connecting the network to Wildwood/ St. Mary's.
- Use St. David's St. to connect to Downie St instead of using Cambria St and Kent Ln.
- Consider implementing multi-use trails along all truck bypasses.
- Consider the opportunity to implement rollerblading/ skating facilities.
- Explore the opportunity of implementing a multi-use trail around the storm water pond near Lorne Ave at Romeo St.
- Should consider implementing trail connections to the YMCA as well as the skate park as they are key community destinations.
- Consider Market Square as a key community destination to connect to.
- Consider aligning routes under the train corridor - sharing a narrow lane with a semi is not fun!
- Should not consider implementing shared facilities along truck routes.
- Consider connecting the proposed route with the Avon Trail.
- Consider developing a trail on south side on Avon River, east of Romeo St to RR 111 (Sabbon Bridge)
- Consider developing a multi-use path north of Devon St from Romeo St to C.H. Meier Blvd.
- Consider paving the shoulder of the bridge over the Court Drain on both sides and provide shared road signage as it is currently not pedestrian or cyclist friendly. This will provide safety until the bridge is due for replacement and proper pedestrian and cycling space can be accounted for in the new design.
- Finish sidewalk as it is proposed for construction on Romeo St, south of Vivian Line.
- Consider developing a river loop on the east end of Lake Victoria.
- Develop bike lanes on streets which connect to or have schools on them so students can get all the way to school safely.
- Connect G2G (Goderich to Guelph) Rail Trail in Milbank.
- Use the separated bike lane McCarthy Rd W.
- Consider implementing pedestrian crossing on Queen St from Albert St to Water St.
- Consider developing a bike lane or multi-use path along Ontario St, from Romeo St to C.H. Meier Blvd.
- Develop chip stone paths in old grove to increase accessibility for all.
- Should consider making Lakeside Dr. one-way from Waterloo St. to Upper Queens Park as well as on the North side of the river to accommodate a multi-use loop route around the river.



Stakeholders Providing their Input at Stakeholder Workshop #1

Station #3: Promotion, Marketing & Programming for Bike & Pedestrian Activities

Station #3: Bike and Pedestrian Promotion, Marketing & Programming

Please provide your comments on the some promotion, marketing and programming strategies which could be incorporated into the Bike and Pedestrian Master Plan. Use a marker to note which strategies you support as well as potential partners who could play a role in developing these strategies. If you have other strategies that you think should be considered please add them below "Suggested Strategies for Considerations"

Strategy #1: Developing a City-wide Map of Bike & Pedestrian Routes	Strategy #2: Developing a Branded Route Signing and Wayfinding Strategy	Strategy #3: Developing a Youth-Focused Bike Education Program i.e. CANBike	Strategy #4: Holding Yearly Bike Campaigns for Local Businesses i.e. Bike to Work Day	Strategy #5: Putting Bike Racks on Local Buses and Maps on local bus stops
<p><i>Handwritten:</i> MUST ABOUT THE DISABLED</p>	<p><i>Handwritten:</i> The Bikes beyond of the...</p>	<p><i>Handwritten:</i> At this time not justifying... (partially) (partially) (partially) (partially) (partially)</p>	<p><i>Handwritten:</i> as long as there is one where safe to put your bike.</p>	<p><i>Handwritten:</i> Restaurants w/ bike racks, downtown businesses, bike shops, etc.</p>
<p>Potential Partners: (e.g. Tourism Stratford) City Centre Committee Bed & Breakfast Accommodations Hotels Downtown Businesses</p>	<p>Potential Partners: MTO Region S&A Federal City committees - Energy Alyce Club</p>	<p>Potential Partners: School boards public health service clubs bike shops</p>	<p>Potential Partners: Any private business Health Unit Min of Health Environment MTO</p>	<p>Potential Partners: - Restaurants w/ bike racks - downtown businesses - bike shops, etc.</p>
<p>Suggested Strategies for Considerations:</p> <p><i>Handwritten:</i> Map at a location showing the complete outline of the trail options. Level of difficulty identified. Connectivity to County trails is highlighted. 300 signs!!</p> <p><i>Handwritten:</i> Properly marked routes is key. - signage that is easy to read. - illuminated trails to go out in dark. - indicates distances to points of interest.</p> <p><i>Handwritten:</i> - develop a bike Show the Road Programme a la Hamilton. Bike to work program to get to work for work day.</p> <p><i>Handwritten:</i> Promote biking during: - Save our Shortland - Garlic Fest - Free Donor Bike to City. Hold on Saturdays include events @ City Hall for family fun.</p> <p><i>Handwritten:</i> cycle tourism - partners: Bethelwood Festival Historical Society</p>				

Suggested Programs / Strategies	Level of Support	Comments Received	Potential Partners
Develop a City-wide Map of Bike & Pedestrian Routes	✓ X 19	<ul style="list-style-type: none"> Routes should be developed which provide children with safe bike routes to get home. The disabled population must be considered when developing these routes. Maps should be developed at a location showing the complete outline of trail options including level of difficulty. Map should provide clear connections to County trails and to surrounding communities. Maps should be provided in parks that show connections to cycling and walking routes. Should also include paperless map options such as storyboards and online sources. 	<p>City Centre Committee</p> <p>Tourism Stratford</p> <p>Bed & Breakfast Accommodations & Hotels</p> <p>Downtown Businesses</p> <p>Environmental Groups</p> <p>City Committees</p> <p>Bicycle Club</p>

Suggested Programs / Strategies	Level of Support	Comments Received	Potential Partners
		<ul style="list-style-type: none"> ▪ Emergency information should be provided on mapping and signage. ▪ Hard copy maps should also be provided to provide to friends, family and tourists. ▪ Points of interest and key community destinations should be identified on the maps. ▪ Maps should be developed for different audiences (i.e. elderly or youth). ▪ GPS should be made available. 	
Develop a Branded Route Signing and Wayfinding Strategy	✓ X 21	<ul style="list-style-type: none"> ▪ Should consider best practices from the Netherlands and / or other communities that have implemented successfully signage programs (i.e. London, ON). ▪ Properly marked routes are important for the community. ▪ Signage should be large enough for the vehicular traffic to see. ▪ Illuminated signs should be provided along trails for use in the dark. ▪ Distances to points of interest should be indicated on the signage where possible. ▪ Signage should be used at key intersections to increase awareness for cyclists and pedestrians. ▪ A city-wide branding strategy including a sub-brand for cycling and walking should be considered. 	MTO Stratford Tourism Association Festival Theatre Environmental Groups City Committees Bicycle Clubs
Develop a Youth-Focused Bike Education Program i.e. CANBike	✓ X 19	<ul style="list-style-type: none"> ▪ Adults should also be educated about cycling not just kids. ▪ walkers, runners, drivers, cyclists should all be encouraged to take part in educational programs. ▪ The school should bring in educators to teach kids how to use the trails and ride bikes. ▪ Should be considered as an additional part of the existing curriculum. ▪ Example of a program such as this would be "Sprokids" from BC, Canada. 	Optimist Rodeo School Boards Public Health Service Clubs Bike Shops Sports Teams Police

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Suggested Programs / Strategies	Level of Support	Comments Received	Potential Partners
Holding Yearly Bike Campaigns for Local Businesses i.e. Bike to Work Day	✓ X 15	<ul style="list-style-type: none"> Should consider developing this program only if there is somewhere for people at work that is safe to park their bikes. Should consider implementing this program in the summer months. Workplaces should also consider implementing end of trip facilities such as showers to promote cycling. 	Fitness Clubs Any Private Businesses Health Unit Ministry of Health / Environment / Transportation Environmental Groups City Committees Bicycle Clubs
Putting Bike Racks on Local Buses and Maps on local bus stops.	✓ X 15	<ul style="list-style-type: none"> Should also consider implementing bike racks at restaurants as well as bike shops. Large opportunity for increased cycle tourism. Money could be raised from parking which could help to support the infrastructure required for this. 	Downtown BIA Bus provider City

Other Program Considerations	
1. Should consider promoting biking during local festivals and events i.e. Savour Stratford, Garlic Fest, Free Day-bike to City Hall on Sundays which could include events for families, close down a street or the downtown core to encourage walking and cycling on Sundays.	2. Should consider developing a Police Share the Road Program similar to what was developed for the City of Hamilton.
3. Bike and walk marathons to raise money for more bike lanes and trail should be considered for development throughout the City.	4. Tax incentives should be explored for businesses to have bike parking within the downtown business areas.
5. Local businesses should be given the chance to supply / implement bike racks outside their place of businesses.	6. Should consider the implementation of an adopt-a-trail program.

2.2.2 Phase 3 & 4 Consultation Initiatives

In Phases 3 and 4, the study team developed and facilitated a second round of public and stakeholder engagement events. The following figure illustrates the initiatives that were undertaken and the timeline in which they were undertaken.



The overall goal for the consultation initiatives undertaken as part of phases 3 and 4 was to provide the public and stakeholders with the opportunity to submit their input on the candidate route network, the draft bike and pedestrian network, implementation and phasing. The input gathered was used to refine and ultimately confirm the proposed network and priority routes.

Two formal public events were held / hosted towards the end of Phase 4. Building on the success experienced in Phase 1 and 2, the study team promoted the study results / recommendations at a Public Information event held at the Rotary Complex on June 1st, 2013 and the second Stakeholder Workshop on **June 4th, 2013**. The following is an overview of the session and a summary of the input that was generated.

Bike & Pedestrian Master Plan Stakeholder Workshop #2

The workshop was conducted to present and discuss the draft bike and pedestrian network and corresponding network phasing / implementation plans. The workshop was held at the Kiwanis Community Centre.

Workshop Objective: to provide members of the public, local stakeholders and interest groups with the opportunity to review the Draft Bike and Pedestrian Network including proposed facility types and route phasing /

Stakeholder Workshop Schedule

- 6:30 p.m. - 7:00 p.m.-
Introduction & Background Presentation
- 7:00 p.m. - 8:20 p.m. - Group Exercise: 3 Station Working Group Session
- 8:20 p.m. - 8:30 p.m. - Closing Remarks & Next Steps

implementation. The public was also provided with a map illustrating priority projects which had been identified by the study team. The priority projects were organized into three categories based on type of study / project. The categories included:

- Construction Projects;
- Intersection Improvement Studies; and
- Signage Projects.

Using the contact list which was generated from the first stakeholder workshop as well as additional respondents to the online questionnaire, a notice / letter of invitation was distributed. The letter was also posted on the City's webpage. Though letters were provided to specific individuals, the event was also advertised online and in print (the local newsletter and the Town crier). Members of the public were encouraged to attend and provide their commentary. The workshop was attended by over 25 people some of whom had attended the first workshop while others were participating for the first time.

The Display materials and presentation at the workshop was based on the information presented at the Public Information Event at the Rotary Complex with the exception of the priority projects map. The materials were available on display for participants to view, however, the session's focus was on the break-out sessions. The two Station Working Group session was intended to gather input and comments on the draft bike and pedestrian network with proposed facility types, the network phasing plan as well as 16 select priority projects. Maps were placed on each table for the participants to comment on. Over the course of the 80 minute workshop, the materials were rotated around the groups to ensure that all attendees were able to provide their input. The figures on the next page illustrate how the comments were documented on some of the maps.



Stakeholders Providing their Input at Stakeholder Workshop #2

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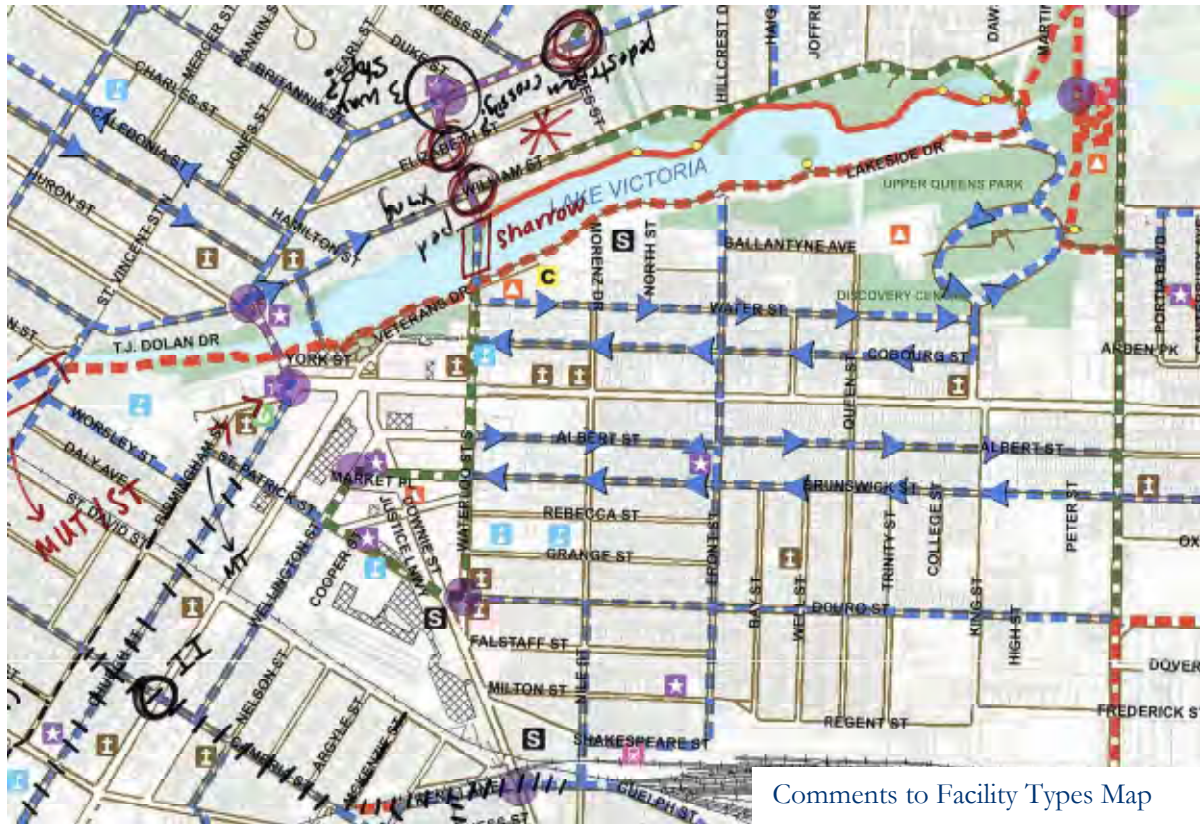
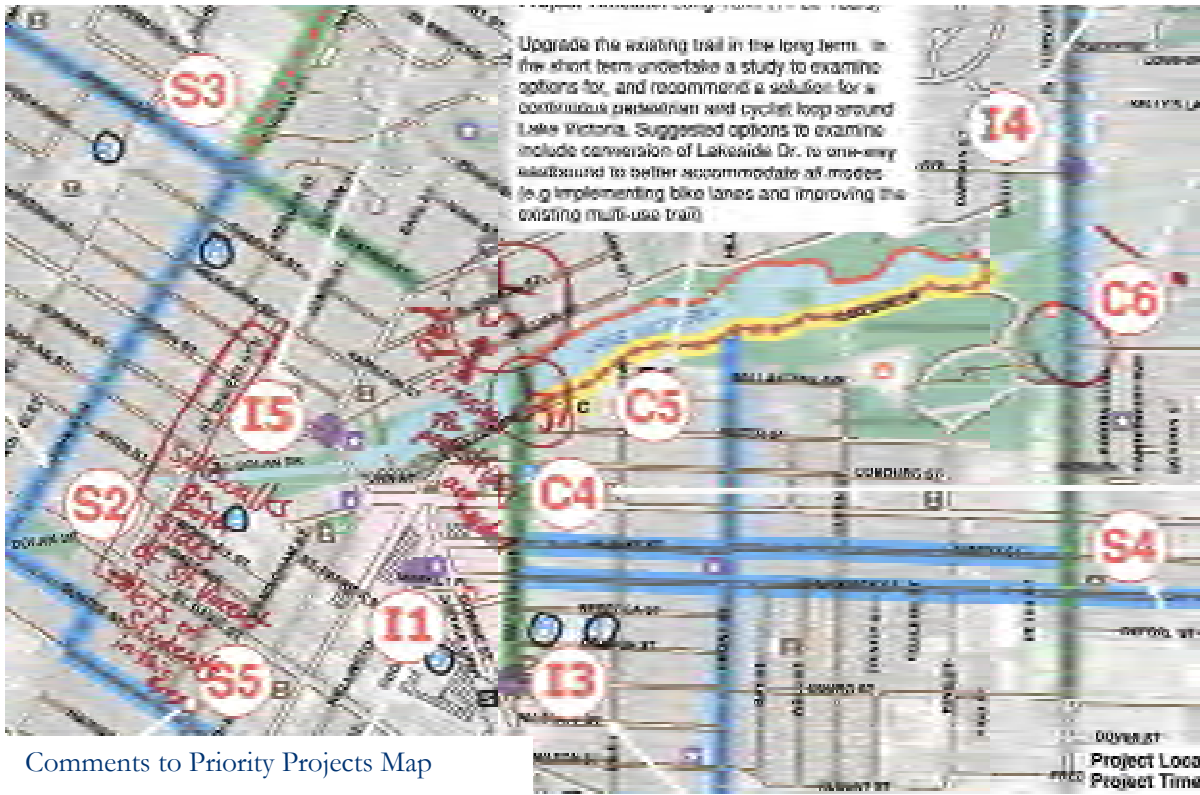
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The following is a summary of the comments which were received:

Comments to Facility Types Map	Comments to Phasing Map
<ul style="list-style-type: none"> ▪ An additional route should be considered along Erie Street north of Lorne Ave. to connect up to community support facility. ▪ Additional cycling facilities to be considered along Ontario street between Burritt St. and C.H. Meier to connect to retail stores. ▪ Consideration should be made to altering the signal timing for the light at Ontario St. and C.H. Meier. ▪ Consideration should be made for the application of bike lanes along Devon St. ▪ Enhancements must be made to the existing intersections along Waterloo St. and Devonshire St. ▪ Consideration should be made for the removal of Cambria St. as a route and the application of St. David St. as the alternative. ▪ Should consider proposing a bridge connecting O'Loane to the existing portions of the TJ Dolan Trail using a bridge. ▪ Should also include a new multi-use trail on the North side of the River as an extension of the existing TJ Dolan. ▪ Consider including Birmingham St. and Young St. as additional connections and an alternative to the proposed Church St. connection. ▪ Consider extending the Avon Trail on the north side of Victoria Lake through to the York Street Bridge if possible. ▪ The proposed route along Albert St. should be extended to Burritt St. and identified as a short-term study. 	<ul style="list-style-type: none"> ▪ Should consider moving the proposed route on Waterloo St. north of Veterans Dr. into the short term. Immediate enhancements must be made to the crossings to accommodate pedestrian traffic. ▪ The proposed route along O'Loane north of the existing multi-use trail should be updated to be included as a medium term project. ▪ To facilitate the development of a multi-use loop around the City many of the Multi-use paths should be identified as short or medium-term projects.
Comments to Priority Projects Map	Additional Comments for Consideration
<ul style="list-style-type: none"> ▪ Sidewalks should be implemented along St. Vincent St. between St. David St. and Hibernia St. on both sides of the road to accommodate high volumes of pedestrians accessing the school. 	<ul style="list-style-type: none"> ▪ Washroom facilities should be considered along the TJ Dolan Trail ▪ Education must be a key component of the study for those projects identified in the short term. ▪ The City should consider developing a map to promote the routes as they are developed. ▪ The City should explore investing in a Share the Road Campaign City-wide. ▪ Bike Racks should also be implemented along the routes identified . ▪ The City should consider implementing additional stop signs as a traffic calming measure along pedestrian or cycling routes.

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CHAPTER 3.0 THE PROPOSED BIKE & PEDESTRIAN SYSTEM



3.1 THE NETWORK DEVELOPMENT APPROACH

The information presented in this chapter provides an overview of the steps which were taken to develop the City of Stratford's proposed Bike and Pedestrian Network. The network was developed using an 8-step network development process and route selection criteria which were established early on in the study.

3.1.1 How was the Network Developed?

The eight-step process used to develop the Bike and Pedestrian Network for the City is based on an iterative planning process which has been refined through the development of a number of master plans and adapted for the wants and needs of the City of Stratford.

1. Collect & Assemble Background Information	<ul style="list-style-type: none">• Consolidate and digitally map previously planned bike and pedestrian facilities and subdivisions in the City of Stratford with base mapping information was provided by the City.
2. Develop Route Selection Criteria	<ul style="list-style-type: none">• A set of qualitative principles were developed to guide the selection of the routes.• The principles were reviewed with the study team and presented at the first public information centre.
3. Select Candidate Routes / Route Alignment	<ul style="list-style-type: none">• Candidate bike and pedestrian routes were mapped and refined based on the following:<ul style="list-style-type: none">○ Consolidated Base Mapping;○ Route Selection Criteria;○ Consultation with the Steering Committee;○ Expertise of the Study Team;○ Consultation with the public; and○ Desktop analysis using the City's GIS database and aerial imagery available on Google Earth.

<p>4. Undertake Field Investigation</p>	<ul style="list-style-type: none"> The study team examined each of the candidate routes in the field and collected additional information, including photographs and measurements that helped to inform the development of the bike and pedestrian network concept.
<p>5. Prepare Draft routing (Select Alignments & Differentiate between on and off-road facilities)</p>	<ul style="list-style-type: none"> The candidate route network was refined using the route selection criteria and information collected in the field combined with the technical expertise of the study team as well as input from the Steering Committee.
<p>6. Determine Draft Facility Types</p>	<ul style="list-style-type: none"> For each route, an appropriate facility type was suggested by considering a number of factors including: <ul style="list-style-type: none"> Geographic location (urban vs. rural); Facility types recommended in other previously completed plans and studies conducted within the City, County or bordering municipalities; and Roadway characteristics such as cross section widths, traffic volume and speed, sight lines, truck volumes, etc. Observations made by the study team were then balanced by the comments received from the Steering Committee and the public.
<p>7. Determine Priorities (Implementation Plan)</p>	<ul style="list-style-type: none"> The Implementation Plan was developed to respond to priorities identified by the Steering Committee and the public. Note that as part of the implementation of individual routes in the future, a more detailed assessment will be undertaken to confirm the route and facility type (refer to the 5-step implementation process outlined in Chapter 5).
<p>8. Apply Unit Costing to Arrive at Opinion of Cost for Network Implementation</p>	<ul style="list-style-type: none"> The recommended network and facility types were used at the master plan level to develop an order of magnitude cost estimate for the implementation of the network.

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Cycling Amenities at Schools & Walking facilities to Transit Stops, Stratford, ON – Source: MMM Group

3.1.2 Assessing Existing Transportation Conditions

An initial step in the development of the bike and pedestrian network was the documentation and assessment of existing transportation conditions throughout the City including walking, cycling, transit, common truck routes etc. One of the primary goals of the study was to develop a network of AT facilities which connect to other modes of transportation. Documenting the existing transportation conditions informed the study team when selecting the most direct and connected routes and appropriate facility types for the pedestrian and cycling network.

A set of maps were developed which illustrate the existing transportation conditions throughout the City of Stratford. **Figures 3.1 to 3.3** illustrate the transportation conditions, both existing and planned, that were known at the time of the study. The tables below summarize the information that is being presented and where the information was gathered from.

CYCLING & WALKING (Figure 3.1)

Features Illustrated on the Map:

- Minimum walking and cycling distance for schools of 1 kilometre for youth travelling to school;
- Existing hiking trails including those in parks in urban and built-up areas, and in rural areas;
- Existing signed bicycle routes;
- Existing unsigned bicycle routes that are popular with local cycling groups;
- Roads with existing paved shoulders and/or bicycle lanes;
- Proposed trails as noted in local municipal plans; and
- Regional/Nationally recognized routes that have been established or that are currently in the planning process including the T.J Dolan Trail.

TRANSIT (Figure 3.2)

Features Illustrated on the Map:

- Existing transit routes that are identified in the City of Stratford Transportation Master Plan (2010).
- Where possible designated transit stops or stations including transit hubs.

FRIEGHT TRANSPORT (Figure 3.3)

Features Illustrated on the Map:

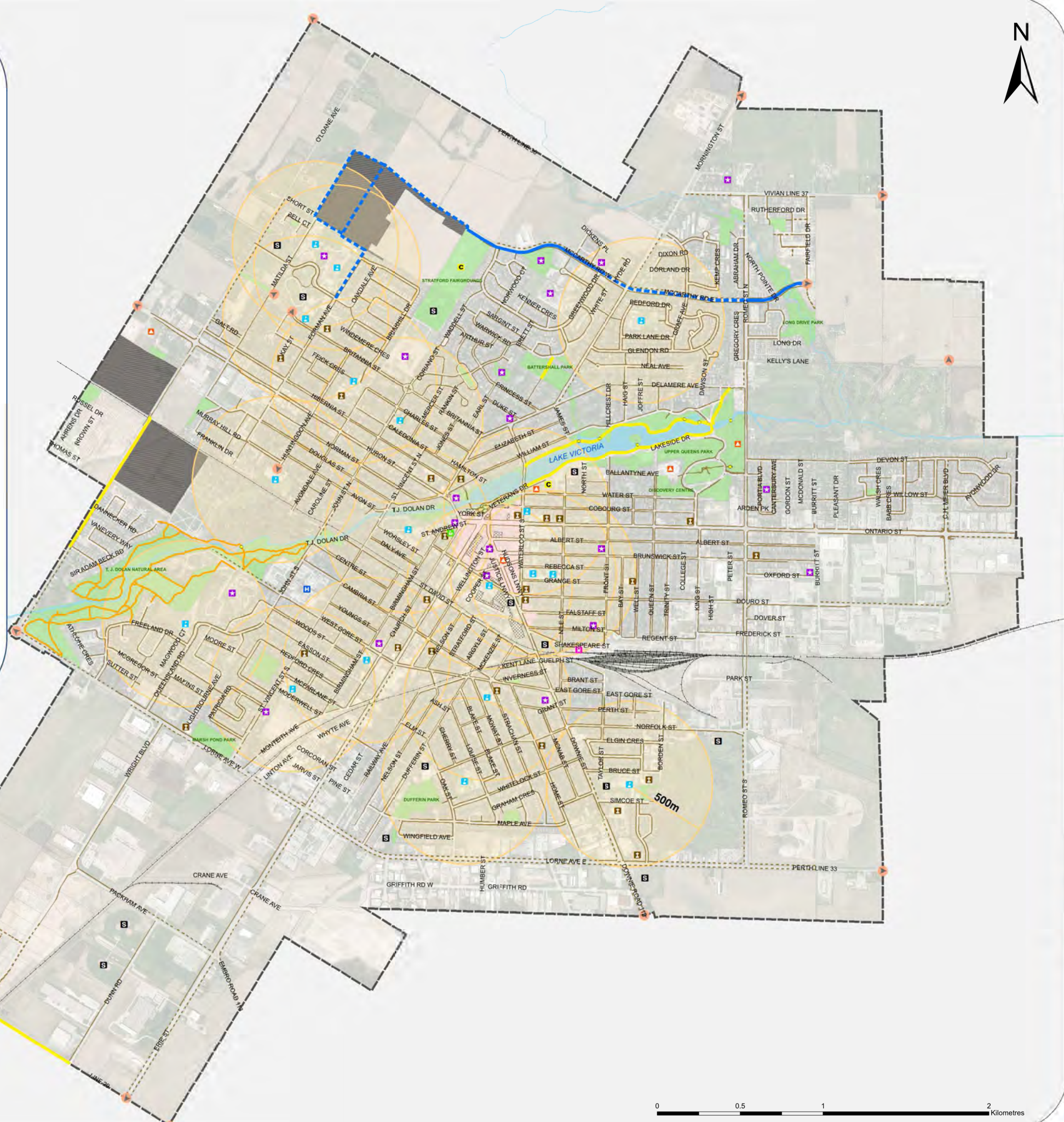
- Existing truck routes identified in City of Stratford Transportation Master Plan (2010).
- Industrial routes along major arterials which provide direct access in and out of the City.



Legend

- Existing Conditions**
 - T.J. Dolan Trail
 - Multi-Use Trails
 - Existing Bicycle Lanes
 - Future Planned Pedestrian / Cycling Connection
 - Existing Sidewalks
 - Proposed Sidewalks
 - Footbridge
- Safe Walking and Cycling Area for Schools**
 - 500 Metre Area¹
- Key Municipal Destinations**
 - Churches
 - Community Centres
 - Hospitals
 - Libraries
 - Schools
 - Transit Hubs
 - Sport Facilities
 - Theatres / Art Galleries / Museums
 - Other Community Destinations
- Other**
 - Key Inter-Municipal Linkages
 - Railway
 - Parks / Open Spaces
 - Parking Lots
 - Urban Core
 - Watercourses
- Land Use Considerations**
 - Future Development
 - Parcel Property
 - City Boundary

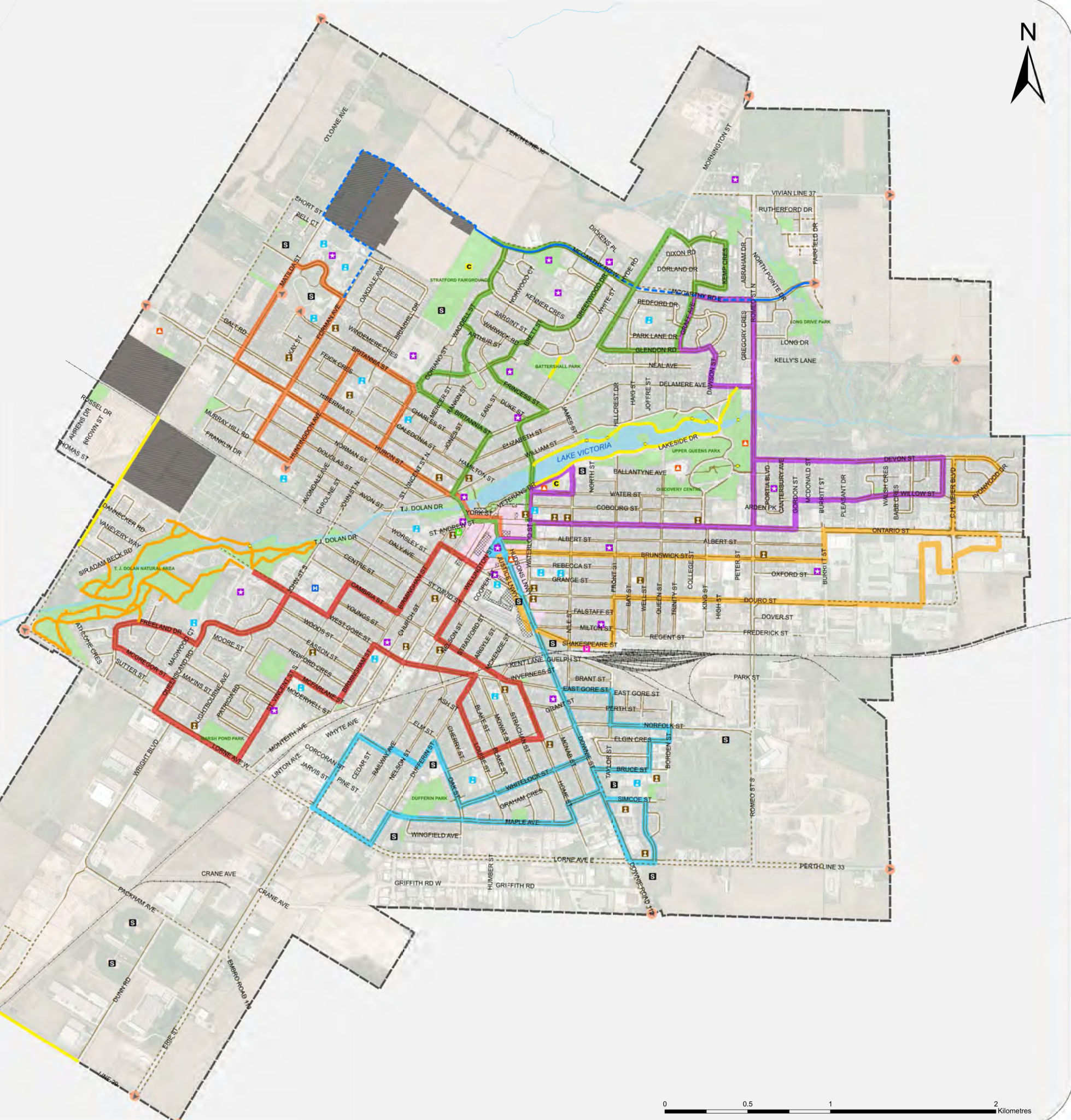
1. Minimum walking and cycling distance for youth traveling to schools. Source: Child and Youth-Friendly Land-Use and Transport Planning Guidelines, The Centre for Sustainable Transportation, 2010.





Legend

- Transit System**
 - Route 1 - Huron
 - Route 2 - East End
 - Route 3 - McCarthy
 - Route 4 - Queensland
 - Route 5 - Devon
 - Route 6 - Downie
- Existing Conditions**
 - T.J. Dolan Trail
 - Multi-Use Trails
 - Existing Bicycle Lanes
 - Future Planned Pedestrian / Cycling Connections
 - Existing Sidewalks
 - Proposed Sidewalks
 - Footbridges
- Key Municipal Destinations**
 - Churches
 - Community Centres
 - Hospitals
 - Libraries
 - Schools
 - Transit Hubs
 - Sport Facilities
 - Theatres / Art Galleries / Museums
 - Other Community Destinations
- Other**
 - Key Inter-Municipal Linkages
 - Railway
 - Parks / Open Spaces
 - Parking Lots
 - Urban Core
 - Watercourses
- Land Use Considerations**
 - Future Development
 - Parcel Property
 - City Boundary



Base GIS Data provided by the City of Stratford.
 2010 Orthophotography

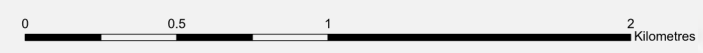


FIGURE 3.3
EXISTING TRUCK ROUTES
CITY OF STRATFORD BIKE AND PEDESTRIAN MASTER PLAN

DRAFT JUNE 2013



Legend

Existing Trucking Routes

- Existing Trucking Routes

Existing Bike and Pedestrian Connections

- T.J. Dolan Trail
- Multi-Use Trails
- Existing Bicycle Lanes
- Future Planned Pedestrian / Cycling Connections
- Existing Sidewalks
- Proposed Sidewalks
- Footbridges

Key Municipal Destinations

- Churches
- Community Centres
- Hospitals
- Libraries
- Schools
- Transit Hubs
- Sport Facilities
- Theatres / Art Galleries / Museums
- Other Community Destinations

Other

- Key Inter-Municipal Linkages
- Railway
- Parks / Open Spaces
- Parking Lots
- Urban Core
- Watercourses

Land Use Considerations

- Future Development
- Parcel Property
- City Boundary



Base GIS Data provided by the City of Stratford.
 2010 Orthophotography



3.1.3 Selecting the Bike & Pedestrian Route

One of the key inputs to the development of the recommended Bike and Pedestrian Network was a set of route selection criteria. These were developed by the study team and reviewed with the Steering Committee and members of the public in the initial stages of the study.

It is recommended that the route selection criteria be used when undertaking a more detailed route feasibility assessment on a route-by-route basis, and also when any network changes are being considered in the future:

Route Selection Criteria	Yes
Visible Bicycle and pedestrian routes should be a visible component of the transportation system.	✓
Connected / Linked The bike and pedestrian network should link the City with surrounding communities and key destinations as well as existing and planned bike and pedestrian routes and facilities.	✓
Easy to Access Routes should be easily accessible from local neighbourhoods within the community and from feeder routes from surrounding municipalities.	✓
Integrated The network should be integrated with other modes of transportation, particularly existing public transit. Routes will provide access to existing and future transit facilities / hubs including buses, VIA Rail etc.	✓
Diverse The network should provide a diverse and balanced On and Off-road walking and cycling experience throughout the City. The system should appeal to a range of user ages, abilities and interests.	✓
Accessible All sidewalks will be accessible. Where possible and practical, off-road routes (trails) will also be accessible. It is recognized however, that not all off-road routes will be accessible in all locations. Routes will be appropriately signed to communicate level of accessibility.	✓
Context-Sensitive Facility design for individuals routes should follow widely accepted guidelines but may also be modified to respond to the immediate surroundings.	✓
Sustainable Sustainability will be a key consideration in the alignment, design and selection of materials for on and off-road bicycle and pedestrian facility types.	✓
Cost-Effective The cost to implement and maintain the bike and pedestrian network and supporting facilities / amenities should be phased over time and designed to be affordable and appropriate in scale for the City but should not compromise user safety.	✓

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Route Selection Criteria	Yes
<p>Comfort & Safety</p> <p>Reducing risks to users and providing comfortable facilities will be key considerations when selecting routes for the network. The decreased perception of risk can increase confidence in users.</p>	✓
<p>Attractive & Interesting</p> <p>Routes should take advantage of attractive and scenic areas, views and vistas. Routes should provide users with the opportunity to experience the cultural and natural heritage found throughout the City.</p>	✓

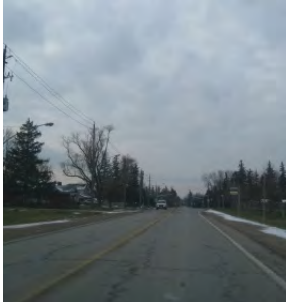
Figure 3.4 illustrates candidate bike and pedestrian routes the study team and the City of Stratford considered when developing the network.

3.2 A HIERARCHY OF BIKE & PEDESTRIAN ROUTES

The proposed route hierarchy for the bike and pedestrian network consists of two systems the Primary “Spine” System and the Secondary “Neighbourhood / Local Road” System. Details regarding these systems are discussed in the following sub-sections.

3.2.1 Primary “Spine” System

Please refer to Figure 3.5 which illustrates the primary “spine” system using the following line-type: — — — —

Definition	Objectives	Users	Application	Facility Types
The spine system should typically consist of cycling routes designed to provide direct north-south and east-west links within and outside of the City.	The route provides direct connections between major nodes, transit hubs and communities throughout the City of Stratford including but not limited to commercial, employment, industrial and serves as the “backbone” of the network.	Intended for use by utilitarian cyclists but could also be used as direct connections for recreational cyclists.	Primarily along arterials and collector roads  Mornington St – Proposed Primary Route	<ul style="list-style-type: none"> ▪ Bike Lanes ▪ Multi-use Pathways outside of the Road Right-of-Way ▪ Paved Shoulders

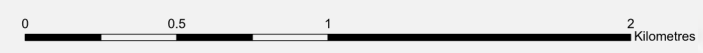


Legend

- Routes Investigated**
- Potential Routes for Consideration
- Existing Conditions**
- T.J. Dolan Trail
- Multi-Use Trails
- Existing Bicycle Lanes
- Future Planned Pedestrian / Cycling Connection
- Existing Sidewalks
- Proposed Sidewalks
- Footbridge
- Key Municipal Destinations**
- Churches
- Community Centres
- Hospitals
- Libraries
- Schools
- Transit Hubs
- Sport Facilities
- Theatres / Art Galleries / Museums
- Other Community Destinations
- Other**
- Key Inter-Municipal Linkages
- Railway
- Parks / Open Spaces
- Parking Lots
- Urban Core
- Watercourses
- Land Use Considerations**
- Future Development
- Parcel Property
- City Boundary



Base GIS Data provided by the City of Stratford.
 2010 Orthophotography





Legend

Proposed Bike and Pedestrian Connections

- Primary (Spine) Routes
- Secondary (Local / Neighbourhood) Routes
- Future On-Road Bike Facilities (Previously approved for construction)
- Proposed Sidewalks
- Existing Bridge Improvements
- New Crossings / Bridges
- Proposed Intersection Improvements
- Inter-Municipal Linkages
- Intra-Municipal Linkages

Existing Bike and Pedestrian Connections

- T.J. Dolan Trail
- Multi-Use Paths
- Existing Bicycle Lanes
- Existing Sidewalks
- Footbridges

Key Municipal Destinations

- Churches
- Community Centres
- Hospitals
- Libraries
- Schools
- Transit Hubs
- Sport Facilities
- Theatres / Art Galleries / Museums
- Other Community Destinations

Other

- Railway
- Parks / Open Spaces
- Parking Lots
- Urban Core
- Watercourses

Land Use Considerations


- Future Development
- Parcel Property
- City Boundary



Base GIS Data provided by the City of Stratford.
 2010 Orthophotography



3.2.2 Secondary “Neighbourhood / Local Road” System

Please refer to **Figure 3.5** which illustrates the secondary “neighbourhood / local road” system using the following line-type: 

Definition	Objectives	Users	Application	Facility Types
The secondary system should typically consist of parallel routes to the primary system and provide alternate cycling connection on local roadways.	The route provides connections between local destinations throughout local neighbourhood and communities e.g. schools, local stores, commercial nodes, arenas, parks and community centres and “feed” into the primary “spine” system.	Intended for use by utilitarian and recreational cyclists. These routes tend to be more comfortable / safe alternatives for children travelling to school or those who prefer a quieter cycling environment.	Quieter Local Residential Roads  Douglas St - Proposed Secondary Route	<ul style="list-style-type: none"> ▪ Bike Lanes ▪ Signed Routes on local residential streets some with wide burn lanes or edge lines ▪ Paved shoulders

Additional details regarding the facility types identified above can be found in section 3.3 and in **Appendix D**.

3.3 TYPES OF BIKE & PEDESTRIAN FACILITIES PROPOSED (OVERVIEW)

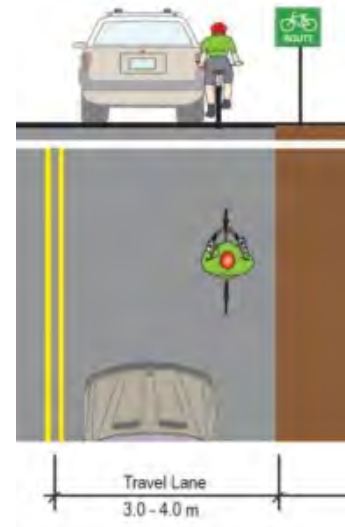
A brief summary of proposed facility types identified in the bike and pedestrian network are provided below. A more comprehensive discussion of design guidelines and some standards are presented in **Appendix D**. It is recommended that the City also use the Ontario Traffic Council’s Ontario Traffic Manual (OTM) Book 18: Bicycle Facility Guidelines as well as the TAC Bikeway Traffic Control Guidelines as primary references when designing and signing bike facilities.

Recommendation 3-1: The guidelines prepared as part of the City of Stratford Bike and Pedestrian Master Plan are intended to inform the detailed design and construction of bike and pedestrian facilities and should be referenced in coordination with OTM Book 18 as well as the TAC Bikeway Control Guidelines.

Recommendation 3-2: Staff responsible for the design and construction of bike and pedestrian facilities should remain current regarding best practices as they related to bicycle facility design including updates to existing design guidelines, information presented at conferences and innovative design alternatives in Canada and internationally.

3.3.1 Signed-only Routes on Local Roads

- Typically installed on quiet, residential local/collector streets.
- Cyclists share the street with motor vehicles and pedestrians use sidewalks where they exist.
- Generally no changes made to the roadway outside of the application of a “Bicycle Route Sign”, provided that there is adequate pavement width to safely accommodate both motor vehicles and cyclists and when adequate sight lines exist and vehicle traffic volume (Average Annual Daily Traffic – AADT) are within acceptable ranges.
- Where this is not the case, alternative routes should be investigated or paved shoulders/bike lanes implemented.



Signed Route on Local Road, Halton Hills, ON (Bottom Left), Sample Signed-Only Cycling Route Cross Section (Top); Source: MMM Group
Signed Route on Local Road, Dallas, TX; Source: bikefriendlygarland.org



3.3.2 Signed Bike Route with Sharrow Symbol

- “Sharrows,” are symbols placed on the pavement surface in the intended area of bicycle travel.
- They provide added route guidance and help cyclists position themselves appropriately in the travelled lane, increase driver awareness of the presence of cyclists and help deter unsafe passing maneuvers by motorists.
- The placement of the Sharrow symbol indicates to cyclists where they should be traveling on the road (e.g., approximately 1.0 m from the curb where there is no on-street parking and 3.4 m from the curb where there is on-street parking on a multi-lane road).

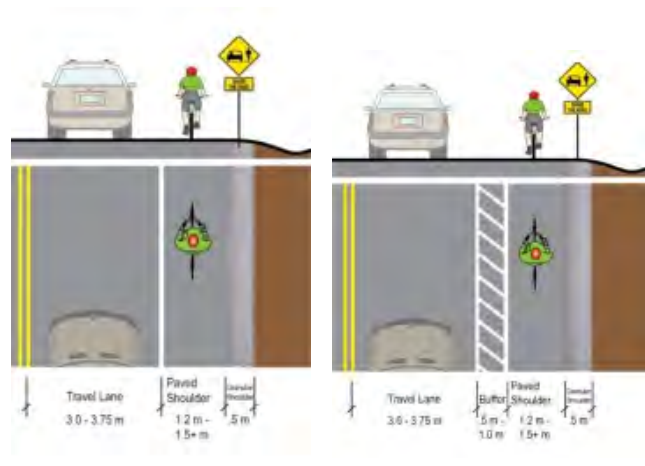


Signed Route on Local Road, Halton Hills, ON (Bottom Left) & Sample Signed-Only Cycling Route Cross Section with sharrow symbol; (Top) Source: MMM Group
Signed Route on Local Road with Sharrow, Town of Carey (Bottom right); Source: townofcarey.org



3.3.3 Signed Bike Route with Paved Shoulder

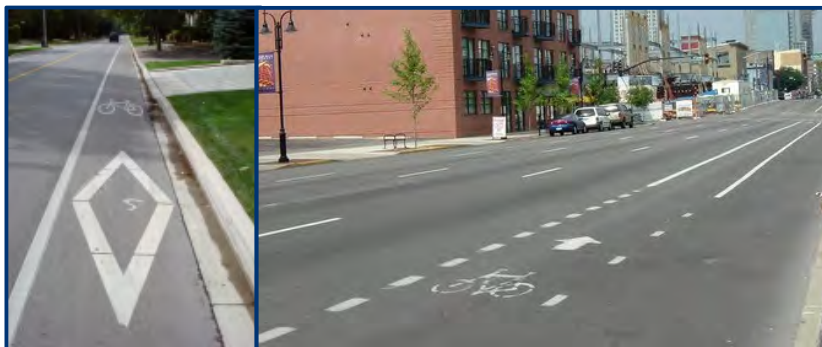
- Provide a convenient place for cyclists to ride on a road with a rural road cross section (no curbs).
- A buffer made up of two edge lines with or without diagonal hatching or with a rumble strip in between can be used to provide cyclists riding on the paved shoulder with added separation in locations where traffic volumes are high, and/or where commercial vehicle percentages are high, and where adequate space is available.
- Can be implemented on rural cross-sections with no curb where motor vehicle traffic volume and speeds are higher than typical roadways.



Sample Paved Shoulder Cross Section (Top Left); Source: MMM Group
 Sample Paved Shoulder with rumble strip Cross Section; (Top Right) Source: MMM Group,
 Paved Shoulder with rumble strip; (Bottom Left) Source: MMM Group

3.3.4 Bike Lanes

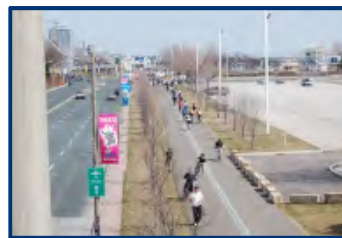
- A portion of a roadway which has been designated by pavement markings and signage for preferential or exclusive use by one-way cyclist traffic often along the right-most curb or edge of the road.
- Typically provided on urban arterial and major collector roads that are part of the AT network where traffic volume and speed are higher.
- Bike lanes should also be clearly identified on roadways with bicycle symbol pavement markings and 'Reserved Bicycle Lane' signs.



Sample Bike Lane Cross Section; (Top Right) Source: MMM Group
 Bike Lane on Local Road, Halton Hills, ON (Bottom Left); Source: MMM Group
 Bike Lane on Local Road, Holland; (Bottom Right) Source: www.wiki.coe.neu.edu

3.3.5 Multi-use Pathways within the Road Right-of-Way

- A multi-use pathway within the road right-of-way is a bicycle path or a combined bicycle / pedestrian path physically separated from motor vehicle traffic by a landscaped space (e.g., strip of grass, plantings, etc., in the boulevard).
- Typically designed for a wide range of non-motorized users including pedestrians, cyclists, in-line skaters, and skateboarders.
- The application of a multi-use pathway immediately adjacent to a roadway should be considered when an on-road facility is not feasible or when a municipality seeks to provide a path for pedestrians and cyclists where there is high cycling demand and a large proportion of the users are youth or seniors with a low to moderate level of experience.



Sample Uni-Directional Multi-Use Path within the Road Right-of-Way Cross Section; (Top Left)
 Sample Bi-Directional Multi-Use Path within the Road Right-of-Way Cross Section; (Top Right) Source: MMM Group;
 Bi-directional Multi-use Path Example, Toronto, ON (Bottom Left) Source: MMM Group

3.3.6 Multi-use Pathway outside of the Road Right-of-Way

- Off-road multi-use pathways are shared facilities located outside the road right-of-way for use by cyclists and other non-motorized uses.
- Typically located in a park, public open space corridor, along a utility corridor, or other linear facility such as within an abandoned railway corridor.



Off-Road Multi Use Trail, Stratford ON (Top Left); Source: MMM Group
 Off-Road Multi-Use Path Cross Section (Top Right) Source: MMM Group
 Paved Off-road Multi-use Trail, Ottawa Carleton Trailway (Bottom Left); Source: ontariotrails.on.ca

3.3.7 Reallocation of Road Space “Road Diet”

- In many cases, roadways identified as potential cycling routes may not be candidates for reconstruction. However, redistributing existing road space may prove to be an appropriate and affordable solution for the implementation of bicycle facilities. Retrofitting existing roadways without roadway widening involves the re-allocation of space for the implementation of bicycle facilities. Re-allocation of existing roadway space may include:
 - Narrowing of vehicular travel lane where practical and safe;
 - Reducing the number of through vehicular travel lanes; or
 - Reconfiguring on-street parking or removing it on roadways with low demand.



3.4 THE RECOMMENDED BIKE & PEDESTRIAN NETWORK

The proposed Bike and Pedestrian Network and associated facility types is illustrated in **Figure 3.6**. A few of the key features of the network include:

Table 3-1: Bike and Pedestrian Network by Facility Type

Facility Type	Existing (km)	Proposed (km)	Total (km)
Bicycle Lane	1.3	12.8	14.1
Sharrow	0	1.3	1.3
Signed-only Cycling Route	0	49.6	49.6
Paved Shoulder	0	4.7	4.7
Multi-use Trail	2.9	36.2	39.2
Total	4.2	104.6	108.9

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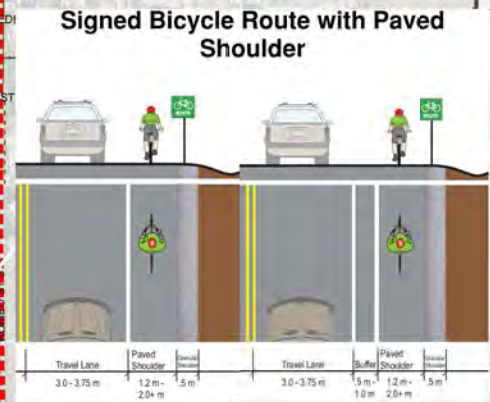
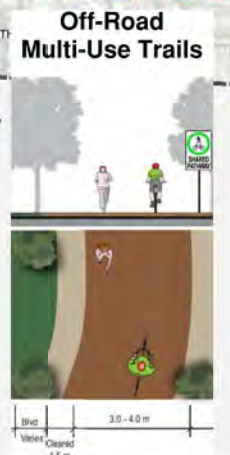
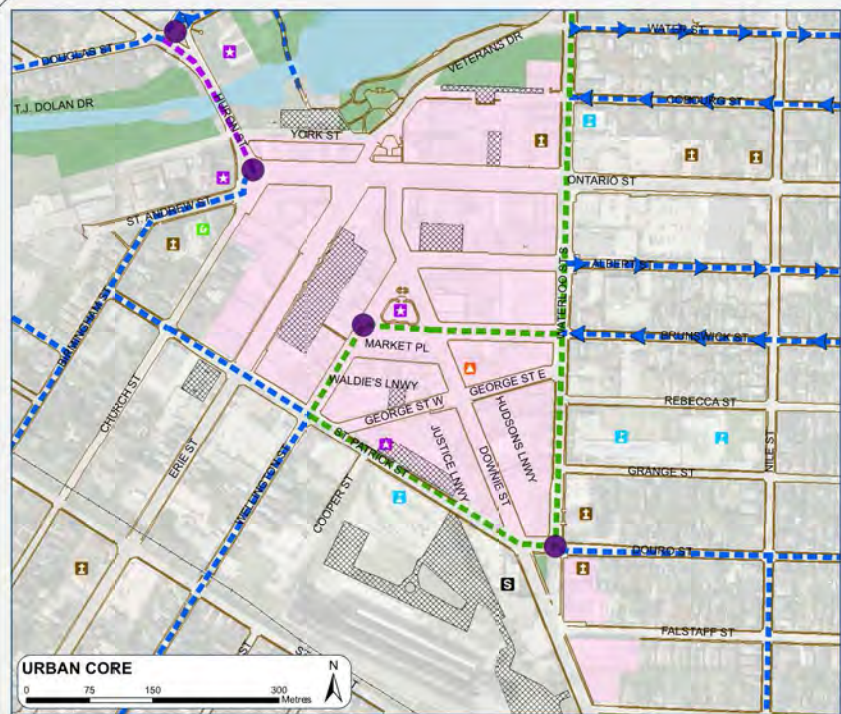
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- Legend**
- Proposed Bike and Pedestrian Connections**
- Proposed Signed Route
 - Proposed Signed Route with Paved Shoulder
 - Proposed Sharrow
 - Proposed Bike Lane
 - Proposed Multi-Use Trail²
 - Proposed Sidewalks
 - Inter-Municipal Linkages
 - Intra-Municipal Linkages
- Existing Bike and Pedestrian Connections**
- Existing Bike Lane
 - Existing Multi-Use Trail¹
 - Existing Sidewalks
 - Footbridges
 - Existing Bridge Improvements
 - New Crossings / Bridges
 - Proposed Intersection Improvements
- Key Municipal Destinations**
- Churches
 - Community Centres
 - Hospitals
 - Libraries
 - Schools
 - Transit Hubs
 - Sport Facilities
 - Theatres / Art Galleries / Museums
 - Other Community Destinations
- Other**
- Railway
 - Parks / Open Spaces
 - Parking Lots
 - Urban Core
 - Watercourses
- Land Use Considerations**
- Future Development
 - Parcel Property
 - City Boundary

¹ Existing Multi-Use Trails include segments of the T.J. Dolan Trail
² Proposed Multi-Use Trails along existing T.J. Dolan Trail are proposed to be rehabilitated from woodchip to asphalt surface.



Recommendation 3-3: The bike and pedestrian network illustrated in the City of Stratford Bike and Pedestrian Master Plan should be adopted by the City as the blueprint for the development of active transportation facilities throughout the City. Consideration should be given to including the bike and pedestrian network a schedule in future updates of the City and County Official Plans.

Recommendation 3-4: The City recognizes that the Bike and Pedestrian Network will change over time as new opportunities offered by unopened road allowances, hydro rights-of-way, abandoned rail corridors, open space and future roadway improvements become available. To respond to new opportunities that become available from time to time, changes to the network can be approved at the Director level without the need for an Official Plan Amendment.

3.5 ADDITIONAL CONSIDERATION FOR THE BIKE & PEDESTRIAN NETWORK

3.5.1 Route Maintenance

Maintenance costs and liabilities involved with the installation of a City-wide bike and pedestrian network must be acknowledged. The following should be considered when the City addresses route maintenance:

- Poor quality on and off-road infrastructure can present a major risk to users.
- Effective route and system design can decrease maintenance costs and deter liability risks.
- Bicycle and pedestrian facilities must be kept clear of debris to provide a viable route for bicycle travel.
- Diligence is required when managing any asset.

To ensure maintenance practices are up to date and consistent with current standards, the bike and pedestrian network and its amenities should be inspected on a regular basis as a minimum through an annual audit including structures such as bridges and culverts. These inspections will identify hazardous conditions as well as issues related to maintenance, repairs and events of vandalism.



Litter Removal / Trail Maintenance; Source: www.canals.ny.gov

An absolute dollar value for maintenance costs was not calculated for the bike and pedestrian network as the budget for maintenance will need to grow in an incremental fashion along with the incremental growth of the network.



Narrow Brushing Device, Cycle Track Maintenance
Credit: City of Toronto

1

As each new network segment is added (either on or off-road) impacts to the operations budget should be calculated by municipal staff. The information below provides information regarding current maintenance costs and standards for bike and pedestrian facilities based on best practices and emerging trends.

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- Maintenance costs for on-road facilities are estimated to range from \$5,000 to \$9,000 km/year depending on the facility type (paved shoulder with edgelines /signs, bike lane in urban area, painted lines vs. thermo plastic stencils etc.) and economies of scale gained from incorporating cycling facility maintenance in the current road maintenance programs.

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- Annual maintenance can include but is not limited to line and stencil reapplication, replacement of bike lane and bike route signs, minor asphalt repairs (pothole patching and crack sealing), sweeping, snow plowing and replacement of older style catch basic grates with bicycle friendly grates.

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- Maintenance of mature off-road multi-use trails in an urban setting, particularly in greenways and parks can range between \$4,000 to \$6,000 per linear kilometre of trail (3.0 m wide), depending on the level of service standard of a municipality.

5

- Annual maintenance can include drainage and storm channel maintenance, sweeping, clearing of debris, trash removal, weed control and vegetation management, mowing of grass along shoulders, minor surface repairs, repairs to trail fixtures (benches, signs) and other general repairs.

6

- Annual maintenance costs for off road-multi-use trails in rural areas such as those along abandoned railway lines can be significantly less (e.g. as low as \$300 to \$800 per kilometre per year).

Recommendation 3-5: The City of Stratford should review and revise their annual maintenance budgets to accommodate the maintenance of bike and pedestrian infrastructure. These budgets should be increased over time to accommodate the increases in the number of kilometres of hard infrastructure.



Maintenance of Trail Overgrowth; Source: www.squamishtrails.ca

Obstruction of Bike Lanes by Leaves; Source: dailyemerald.com

3.5.2 Risk Management & Liability

Exposure to potential lawsuits, and concerns from private landowners who grant easements or who are located adjacent to off-road facilities are sometimes perceived as liability concerns. Bike lanes, paved shoulder bikeways and signed only routes generally fall into the same liability pattern as roadways and sidewalks, meaning that the City only becomes liable if the facility is improperly designed, constructed, or maintained.

Even though multi-use trails are separated from the roadway, they still may legally fall under the definition of a “highway”, since bicycles are legally defined as vehicles. This is important to consider because if the courts support this interpretation, it means that cycling facilities are covered under many of the same basic immunities as other highways. It also illustrates the importance of adhering to provincial, national or other established design and construction guidelines, as this will provide the greatest legal protection.

Aside from proper design and operation of pedestrian and cycling facilities, the City of Stratford should address potential hazards associated with these facilities including accidents, theft, vandalism, and other problems. This becomes much more acute when these facilities are located along waterways and residential backyard fences.

The following methods of reducing risk are proposed for the City of Stratford and its partners to help minimize the liability associated with providing designated active transportation (pedestrian and cycling) facilities:

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- Improve the physical environment, increase public awareness of the rights and obligations of cyclists and pedestrians and improve access to educational programs in order to demonstrate that efforts are being taken to reduce the likelihood of accidents occurring and lawsuits being initiated by injured parties;
- Select, design and designate facilities in compliance with the highest prevailing standards. Regulatory signs, as identified by the MTO Manual of Uniform Traffic Control Devices, should be used to indicate the applicability of legal requirements that might not otherwise be apparent;
- Design concept(s) should comply with all applicable laws and regulations (e.g. Ontario Highway Traffic Act, current municipal by-laws etc.);
- Maintenance operations should conform to acceptable standards. If a hazard cannot be removed, it must be isolated with barriers or notified by clear warning signage;
- Monitor on a regular basis the physical conditions and operations of roadways and pathway facilities. All reports of hazardous conditions received from cyclists, pedestrians, police or others should be promptly and thoroughly investigated;
- Keep written records of monitoring and maintenance activities;
- Avoid describing or promoting routes or pathways as “safe” or “safer” than alternatives. Industry practices suggest that it is preferable for facility users to assess their capabilities themselves and govern their choices accordingly; and
- Maintain proper insurance coverage as a safeguard against having to draw payment for damages from the public treasury.

Recommendation 3-6: The City of Stratford should consider the proposed methods of reducing risk when designing and implementing bike and pedestrian facilities. The City should also reference Crime Prevention through Environmental Design (CPTED) standards as an additional method of mitigating risk and liability concerns.

CHAPTER 4.0 PROMOTING & MARKETING THE NETWORK



By adopting the Master Plan, the City of Stratford has the opportunity to create a more cycling and pedestrian friendly environment for residents and visitors. However, the implementation of hard infrastructure such as paved shoulders, bike lanes and signed-bike routes will not alone support a successful and safe pedestrian and cycling environment. Building on the work completed for the master plan, the City of Stratford should develop and implement a promotion and outreach program City-wide. It is recommended that the City establish an Inter-Departmental Working Group (see [Chapter 5.0](#)). Once established, they will be responsible for the development and implementation of an outreach and promotion program.

Program Goal: To help educate residents about the importance of improving air quality and reducing greenhouse gas emissions, pedestrian and cycling safety, and to encourage residents to walk and cycle more often for both utilitarian and recreational purposes.

A successful AT network is actively and properly used. A complete strategy to promote and facilitate walking and cycling needs to address **“Five E’s”**, including:

Engineering	Education
<p>The way walking and cycling facilities and amenities are planned, designed, constructed and maintained.</p>	<p>Providing users with key information regarding how and where to safely use active transportation infrastructure.</p>

Design Concept for Cycle Track, Sherbourne Street, Toronto, ON; Source: MMM Group

CanBike2; Source: stjohn’s.ca

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Encouragement
 Promoting the use of the active transportation network as well as active forms of transportation on a daily basis.



Car Free Day to Encourage Walking and Cycling;
 Source: pricetags.wordpress.com

Enforcement
 Ensuring the users of the AT network understand and adhere to the rules and regulations.



Trail Enforcement; Source; metroparkstoledo.com

Evaluation
 Monitoring the success of facilities and programs and making the necessary adjustments and improvements.



Monitoring Trail Use, Credit Valley Conservation;
 Source: creditvalleyca.ca

The framework set out in the following sections recommends the implementation of new programs and initiatives in the 4 of the 5 key areas. “Engineering” is to be guided by the design guidelines and existing municipal standards. These programs will support the benefits of AT and will help achieve the walking and cycling goals and priorities identified by the City. The primary objective of the promotion and outreach strategy is to develop feasible and creative programs and initiatives that specifically targeted users of all ages and abilities.

4.1 EDUCATION

Why Education can have a positive influence on the behaviour and attitudes of pedestrians, cyclists, motorists, and the general public to produce safer conditions, and provide incentives to encourage more AT.

What Formal education and training encourages people to use alternative modes, and can shift their transportation choices to walking and cycling.

How People of all ages and abilities should be educated on the proper use of the City of Stratford cycling network and pedestrian/trail system for both recreational and commuting purposes. Implementing educational programs will teach proper pedestrian habits, improve cycling skills, and raise public awareness of the benefits of walking and cycling.

The following sections outline different methods of achieving a cycling and pedestrian educational program for the City of Stratford.

4.1.1 Pedestrian and Cycling Education Information

Making pedestrian and cycling information easily available and accessible to people of all ages and abilities is a core element of any educational strategy. The City of Stratford should consider the implementation of cycling and pedestrian related education programs to educate residents on walking and cycling.

Potential Partnerships

Cooperation and collaboration are key elements in a successful education program. By engaging with contributing partners, expertise and resources can be shared which the program can build upon. Some contributing partners could include:

- Healthy Living
- Ministry of Tourism, Culture & Sport
- Transport Canada
- The Canadian Safety Council
- Share the Road Coalition
- Local School Boards
- Perth District Health Unit
- Ministry of Transportation Ontario
- Ministry of Health and Long Term Care
- Health Canada
- Green Communities Canada
- Private Sector Sponsors
- Conservation Authorities

Potential Initiatives

- The City of Stratford should look to examples of educational materials and programs from other jurisdictions across North America and Ontario based municipalities and organizations to develop a variety of educational materials that are tailored to local needs.
- When being developed, all age groups must be considered e.g. youth or elderly. Educational information should be developed in a language and style appropriate for the age group being targeted.
- Newsletters or digital e-newsletters which are specifically designed for AT education and promotion should be considered for development. Information could be included regarding:
 - *Existing and planned facilities;*
 - *Current ridership or transportation statistics;*
 - *Recommended routes and destinations;*
 - *Safety and training information;*
 - *User Guides for pedestrians and cyclists, such as etiquette and respect for private landowner's property;*
 - *Walking and cycling events (local trail organizations, charities, etc.);*

- *Bicycle parking at local destinations; and*
- *Benefits of walking and cycling.*
- The City of Stratford and its local partners could develop guides or updates to outline the information presented in the Bike & Pedestrian Master Plan. These guides could address topics such as master plan implementation, on and off-road facility types, routes for specific age groups and intermodal connections (connections between rail and transit hubs).

4.1.2 Distributing Active Transportation and Recreation Education Information

Unless educational information is properly distributed there can be a significant disconnect between those who generate the materials and those who it is intended for. There are a number of ways bike and pedestrian education information can be distributed to residents, employees, and visitors to the City of Stratford.

Potential Methods of Distribution

- The City's Inter-Departmental Working Group and Public Liaison Committee could partner with the Perth County Active Transportation Committee to develop web pages dedicated exclusively to pedestrian and cycling issues. The website could include posted information about the study and ongoing initiatives, downloadable files such as maps, and links to other relevant walking and cycling related websites from the County and the Province;
- Local community guides and tourism agencies could be used to distribute information about the network in addition to educational and promotional information;
- Hardcopy pamphlets and brochures could be developed to inform and educate residents on safe operating procedures for pedestrians, cyclists, and other road and trail users. These could be made available at municipal facilities (e.g., community centres, arenas, libraries, etc.), delivered as part of City-wide mail-outs (e.g., newsletters, resident information mailings, etc.), distributed at events (e.g., Public Works Week events, Canada Day celebrations, etc.) and circulated through community partners (e.g., City of Stratford, local police, Upper Thames River Conservation Authority, Perth District Health Unit, local school boards, etc.); and
- Partnerships could be created between members of City staff, the County, municipal agencies, members of Council and local businesses and interest groups. These partnerships could work together to strategically distribute key educational information throughout the community and use their influence to generate interest.

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4.1.3 Cycling, Walking and Children

The mobility needs of children are often overlooked in transportation and land use planning. The City of Stratford should continue to educate children on the use of sustainable modes of transportation such as walking, cycling, and public transit (where available), and reduce their auto-dependency (as experienced through their parents). Through education, children may be more inclined to choose active modes of transportation when they are adults.

Guiding Document: The University of Winnipeg-based Centre for Sustainable Transportation produced the Child and Youth Friendly Land Use Transport Planning Guidelines for Ontario. This document provides reasons why land use and transportation planning should be made more children and youth friendly by setting out 27 guidelines and identifies potential implementation issues. These guidelines should be considered when Bike and Pedestrian educational and materials geared towards children and youth are developed.

Potential Guidelines for Consideration

- Identify where children and youth want to go or need to go and provide, where possible, ways of getting there by foot;
- Examine existing routes being used by children to ensure that they are as safe and usable as possible and incorporate the same principles for the design of future routes;
- For younger children, arrange or continue to provide walking school buses and other means of supervision;
- Ensure that sidewalks are kept clear of snow;
- For older children and youth, ensure that important destinations more than a comfortable walk away are easily accessed by bicycle;
- Ensure that sidewalks are suitable for very young children with their tricycles and bicycles;
- Ensure that the operational needs of cyclists are considered at intersections and where possible provide priority to both cyclists and pedestrians over motor vehicles; and
- At destinations, provide secure, convenient bicycle parking.

4.1.4 Developing and Promoting a City-wide Cycling Map

Mapping can be one of the most overlooked opportunities to spread the word about on and off-road cycling facilities. Maps inform users where the routes are and provide an opportunity to educate trail users through messages such as “rules of the road” and trail user etiquette. Though expensive to produce initially, maps can be updated with the release of new additions as the system grows, making the initial investment pay for itself over time.

Basis for Developing the Map

The GIS Network Management Tool prepared as part of this Bike and Pedestrian Master Plan should be used as the basis to develop a City-wide cycling map. Once completed, this document will become an excellent tool to communicate to residents and visitors about the location of trails, provide educational information about tourism destinations, trail and cycling facility etiquette and bicycle friendly facilities. The map can also be used to promote City of Stratford as a destination for cycling and trail use and a place where healthy, active lifestyles can be enjoyed.

Potential for Cost Offsetting

To assist in offsetting the cost of producing the cycling or AT mapping, many other municipalities have been very successful at selling advertising space on their map. Many have found that once local businesses become aware of the opportunity, they “line up” to have their space on the map as they see the benefit of being associated with an activity that promotes green and active lifestyles. Other additional funding and partnership opportunities have been identified in **Chapter 5.0** which could be explored to support the development of a cycling map for the City.

Potential Next Steps to Develop a Cycling Map

The following are some next steps which could be used to undertake the development of a cycling map for the City of Stratford:

- Adapt the Bike and Pedestrian GIS database into existing City mapping format. Undertake research to identify the audience who would benefit most from a cycling map – this can also help to identify potential partners and funding opportunities and inform the design of the map (including the formatting and potential content);
- Discuss internally the types of cyclists that the map is intended to target (on-road, off-road, both, tourism, BMX, etc.) – this will help to identify the relevant routes, facilities and destinations to include on the map as well as discussions regarding the scale of the mapping;
- Engage with local businesses, stakeholders and the public – the public will want to have some say in the development of the cycling map, by providing them with the opportunity to give their input you will generate a map which will reflect community values and have continued support from Council and members of the public;
- Determine the locations where the map will be made available (online, local retailers, tourism destinations, B&Bs, hotels etc.) – this will help to provide some additional input on design decisions while also maximizing on the potential for advertisement within the community;
- Approach and engage local businesses and municipal / County partners – in addition to provide input this will provide the City with another opportunity to identify possible local investment in the map through business advertisement;

- Discuss the types of messaging to be included on the map – the City should consider the intent of the map and what educational information would be best included in addition to advertisements. Possible information could include key signage information, a how-to guide for cycling facilities, proper helmet use and hand signals etc.; and
- Determine the timing of development, printing, launch and distribution – local tourist seasons (i.e. festival season) could be used as a launch point for the map and provide additional exposure for local sponsors while highlighting the local cycling facilities and trails.

Recommendation 4-1: The City should partner with Perth District Health Unit to consider the development and implementation of a cycling and pedestrian education program to inform residents of the municipal walking and cycling opportunities over the short and long term as the master plan is implemented.

Recommendation 4-2: Focus should be placed on developing educational programming geared towards children and youth including but not limited to the implementation of an active and safe routes to school program or the CANBike training program.

Recommendation 4-3: The information presented in the Master Plan Design Guidelines (Appendix D) should be used by the City to inform the development of educational materials.

Recommendation 4-4: The City should consider the development of both hard copy (newsletters, posters, mapping and promotional materials) and on-line education tools geared towards users of all ages and abilities. The materials could include but are not limited to a “how to guide” on facility use, a “benefits guide” and / or trail and cycling facility mapping. The online tool would be coordinated by the City’s Recreation Services Department.

Recommendation 4-5: The City should consider partnering with municipal agencies, the Upper Thames River Conservation Authority, members of the Perth County AT Committee and other municipal partners to develop and distribute educational information.

Recommendation 4-6: The City should consider the development of a cycling map. The GIS information and database provided as part of the master plan report will be used to generate the base mapping and key information to be included on the map will be determined based on further discussions with City staff, local stakeholders and interest groups.

Recommendation 4-7: The City should consider developing a branded signage strategy. The strategy would identify key locations throughout the community to include on and off-road route signage which complements the standard on-road bike route sign. The signage strategy would be based on other City-wide branding and would be developed based on input from Tourism Stratford.

4.2 ENCOURAGEMENT

Why

Some people are hesitant to participate in active transportation activities because of a lack of encouragement which can lead to a perception of a lack of safety and in some cases fear. Through tactics of encouragement people may be more likely to get involved in active transportation both on and off-road.

What

People can be encouraged to adopt more sustainable transportation habits, including walking and cycling more often, through Community-Based Social Marketing (CBSM). CBSM is a practical approach that stresses direct contact among community members and focuses on removing structural barriers that prevent people from changing their behaviour.

How

The City of Stratford and other key municipal partners should use CBSM in marketing and promotional efforts to help encourage the use of on and off-road cycling and pedestrian infrastructure and facilities identified in the Master Plan.

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4.2.1 Strategically Using Community Based Social Marketing

Community based social marketing can be used to overcome barriers that limited the reach of traditional awareness campaigns for key community topics. CBSM is based on the importance of speaking to the interests, concerns and motivations of the community as well as key stakeholders involved at the community level. However, CBSM is not limited to 'community' geography. Although it can be used in this context, it can be extended to include members of the same denomination, those within similar socio-economic groups or community groups that share similar interest. Dr. Doug McKenzie-Mohr, the founder of the concept of Community-based Social Marketing states that:

“To promote sustainability, it is essential to have a firm grasp of how to effectively encourage individuals and businesses to adopt behaviours that are resource efficient.” (Mohr)

It is important to have an understanding of the 'geographic community' of the City of Stratford as well as the 'socio-economic community' or 'common interest community'. By understanding these groups the City is better able to develop an encouragement program geared towards walking and cycling which can be the most effective for its residents and visitors.

Potential CBSM Steps

- Identify the desired behaviour change for the 'community'. The more specific the behaviour the easier it can be to design an effective program.
- Identify the barriers that currently prevent people from changing their behaviour, including internal and external barriers.
- Designing a program which addresses the barriers and identifies tools which can be used to overcome them.
- Identifying a Pilot Program with a smaller group of people in order to identify any programs or additional barriers which may arise and have them refined.

- Evaluating and improving upon the program once the pilot is completed to observe and evaluate the actual change in behaviour as opposed to the perceived change.

Potential CBSM Tools to Influence Communities

Tool Utilized	Location & Outcome
Obtaining a Commitment	People are asked to pledge or agree to carry out a specific action. For example the City of Mississauga’s “Towards an Idle-Free Zone” anti-idling campaign asked drivers to commit to reducing the frequency and duration of engine idling and to declare their commitment by placing a decal on their vehicle’s windshield.
Personalized Communication	Information is tailored to a target audience’s specific needs, with particular information and images For example: the City of Vancouver’s “TravelSmart” program provides a form to interested households with which they can request specific materials on select topics that suit their travel needs, such as transit maps, cycling guides, trail maps, bike shop discount coupons, etc.
Word-of-mouth	Information that people hear from family, friends or colleagues, whom they often respond best to because it comes from someone they trust. For example the City of Seattle’s “In Motion” initiative provided lawn signs to participants who received information about travel options, stimulating conversation within their neighbourhoods about the program.
Overcoming Specific Barriers	Information or initiatives targeted at specific issues or groups that have been identified as significant. For example, British Columbia’s “Bike Smarts” program provided specific information about bicycle safety to parents and children, since this was identified as the primary concern for parents.
Feedback	Demonstrating the outcomes, particularly the positive impacts, or behaviour changes. For example: the successes of the City of Boulder’s “Go Boulder” program were publicized in local newspapers and on the community television channel, highlighting the results of the program’s initiatives aimed at encouraging residents to shift to more sustainable travel modes.

4.2.2 Leadership by Example

Increasing the number of utilitarian walking and cycling trips is essential to reaching future mode share targets and municipal goals. The City of Stratford and key partners can take a lead role in promoting and encouraging the use of AT modes by setting an example for others to follow. A comprehensive approach should be put in place to encourage municipal employees to engage in the use of alternative modes of transportation to get to and from work, meetings, daily errands etc.

In addition to efforts by City Staff, local employers and businesses, local employees should be provided other opportunities to increase motivation and encouragement in support of walking, cycling, and the use of carpooling and Stratford Transit. A Pollution Probe Survey in 2001 identified the number of employers in the United States and Canada with walking/cycling-supportive initiatives and programs to decrease the use of single-occupant motor vehicles for work-related trips. Some initiatives included:

- Bike Racks,
- Shower Facilities;
- Bicycle and Personal Belonging Lockers;
- Cycling Subsidies;
- Transportation Allowances; and
- Bike Share Programs.

In addition to reducing greenhouse gas emissions, these programs help to reduce personal expenses, increase workplace morale, and can be valuable for employee recruiting and retention.

Potential Encouragement Techniques

- Creating an incentive program and develop contests for employees who walk or cycle to work;
- Organizing a bicycle mentoring program that allows employees who want to cycle to work to find a colleague with whom they can share the ride;
- Making CANBike or similar courses available to staff to maximize their exposure to safe cycling skills when commuting to work and when cycling for recreation;
- Ensuring bicycle access to municipally-owned buildings by conducting an inventory of trip-end facilities available at these buildings, then create a prioritized schedule to install facilities;
- Incorporating trip-end facilities in building lease negotiations for new leased space; and
- Monitoring and evaluating cycling route usage and public feedback on their experiences to continually improve the usage for Bike and Pedestrian routes.

Recommendation 4-8: A Community-Based Social Marketing (CBSM) program geared towards the delivery of marketing and encouragement efforts related to the Bike and Pedestrian Master Plan should be explored and developed by the City based on the steps identified above.

Recommendation 4-9: The City of Stratford should work with municipal employees to develop internal programming to promote the use of sustainable transportation modes for utilitarian purposes.

Recommendation 4-10: The City should work with local employers and interest groups to identifying potential incentive programs or supportive infrastructure which could help to decrease the use of single occupancy vehicles to and from work.

Recommendation 4-11: The City should work with a Public Liaison Committee to develop priority bike valet services at key public events to encourage people to travel to events by bicycle. The valet parking will be coordinated by the committee and be based on volunteer services.

Recommendation 4-12: The City should work with local employers, businesses and key community destinations to develop a bike-parking strategy to help promote cycling throughout the community. The strategy will be based on the guidelines identified in Appendix D Design Guidelines and OTM Book 18.

4.3 ENFORCEMENT

Why

Enforcement is a critical element to overall pedestrian and cyclist safety. Ensuring that the rules and regulations and properly moderated and enforced can influence the success of a bike and pedestrian network.

What

The main goal of any enforcement program is to encourage users of the network to be aware of their rights and responsibilities. This can be an important factor in reducing incidents that cause property damage, injury, or death.

How

Enforcement initiatives should be directed at all sidewalk, road, and off-road pathway users including but not limited to pedestrians and cyclists since all users of the roadway or trail should be aware of proper operating procedures in the vicinity of pedestrians and cyclists.

Potential Partnerships

It is important that local municipal organizations and those responsible for enforcement work together to provide a safe environment for users. These partners could include:

- City Staff;
- Conservation Authorities;
- Stratford Police Service;
- Ontario Provincial Police; and
- Municipal Bylaw Enforcement.

Police officers and bylaw enforcement should regularly update their knowledge regarding safe cycling and cyclists' rights, consistent with the Highway Traffic Act. They must also understand the operating characteristics of bicycles to better identify causal factors when investigating cycling collisions. Police Officers as leaders in the community can aid in the instruction of safe cycling at special events. The City of Stratford Police Service should be encouraged to build upon current initiatives to be an active member in the development and delivery of cycling safety programs.

Municipal By-Law enforcement should be used to support and supplement the work of the Stratford Police Service. Educating users about the dangers of sidewalk cycling and enforcing permitted uses on trails and parking regulations near trail access points are two areas where local By-Law enforcement can support and complement the work of the local police service.

Potential Enforcement Actions

- The creation of cycling patrols and safety blitzes along routes and pathways enforcing safe operating procedures for pedestrians, cyclists, and other sidewalk, road and pathway users;
- The collection of accurate cycling collision data to help identify any potential problem areas as well as safety and enforcement priorities;
- The development of materials to inform pedestrians and cyclists about the steps they should take if they are involved in a collision; and
- The development and delivery of a Share the Road safety campaign to educate both cyclists and motor vehicle operators on proper and safe cycling. Halton Region in collaboration with Halton Regional Police has developed a safety campaign which includes a brochure called “Safely Sharing Halton’s Roadways” (http://www.halton.ca/cms/one.aspx?objectId=12599#Share_the_Road). A similar campaign could be developed through collaborative effort with the police services within the City of Stratford.

Recommendation 4-13: The City should work with the City’s Police Service to develop a safe cycling campaign modeled after the “Safely Sharing Halton’s Roadway” campaign.

Recommendation 4-14: Enforcement activities of the City’s Police Service should be supplemented by local By-law enforcement officers for issues relating to sidewalk cycling, misuse of bicycle and pedestrian facilities and misuse of trails, etc.

4.4 EVALUATION

Why

Ongoing monitoring and evaluation of network implementation, facilities, programs, and user satisfaction is essential to refining the delivery of Bike and Pedestrian Cycling City-wide.

What

Regular monitoring will enable planners, designers, and engineers to remain well-informed in the Bike and Pedestrian system across the City.

How

Potential Performance Measures that could provide some background data that will assist City staff in making appropriate decisions about route priorities, use, facility type, etc., can be found in **Chapter 6.0**.

CHAPTER 5.0 IMPLEMENTING THE PLAN



The City of Stratford’s Bike and Pedestrian Master Plan is intended to be the blueprint which guides future decisions and provides the City with the necessary tools and policies to implement a City-wide bike and pedestrian network.

The City of Stratford’s Bike and Pedestrian Master Plan builds upon existing pedestrian and cycling infrastructure and initiatives. The proposed infrastructure improvements and additions require a clear implementation strategy that prioritizes routes for new construction, retrofitting and rehabilitation.

The master plan includes a number of policies and recommendations to be considered for adoption by the City in partnership with key stakeholders including the Upper Thames River Conservation Authority, the Perth District Health Unit and local interest groups. These recommendations are to be used to promote safe active transportation in the City of Stratford and to recognize and promote the economic, health and quality of life benefits that this form of transportation and recreation can offer. The proposed network is supported and complemented by a number of outreach initiatives (as outlined in [Chapter 4.0](#)), suggested policies and recommendations that can be used to encourage bike and pedestrian infrastructure development and use City-wide.

This chapter outlines a suggested strategy for implementing the recommendations of the City of Stratford’s Bike and Pedestrian Master Plan. The recommended implementation strategy includes a 20 year implementation strategy consisting of three phases:

- Short Term (Years 0 – 5);
- Medium Term (Years 6-10); and
- Long Term (Beyond Year 10+ – to year 20).

5.1 THE IMPLEMENTATION STRATEGY

Stratford's Bike and Pedestrian Master Plan is more than a proposed network of on and off-road pedestrian and cycling facilities. It is a Plan that includes a set of proposed actions to promote safe cycling and walking City-wide and to recognize and share in the economic, health and quality of life benefits that these forms of transportation and recreation can offer. The Implementation of the Bike and Pedestrian Master Plan will be accomplished through both short and long-term actions and partnerships. Short-term actions include the City adopting the Master Plan and the integration of consistent bike and pedestrian policies (e.g. planning, design, maintaining and promoting) into the 2013 update of the City's Official Plan.

The phased implementation strategy outlined in this chapter includes both infrastructure and program initiatives, as well as associated costs. The strategy is intended to be integrated with the existing and planned outreach initiatives as well as the capital roads programs and should complement infrastructure works when they are scheduled or planned.

5.1.1 Who does What?: A Coordinated Approach

A successful master plan requires champions, partnerships and leadership to move from the planning and design stage to the funding and implementation stage. Maximizing participation and removing obstacles to the flow of information between participants are two of the main objectives in managing implementation.

An efficient reporting and implementation structure is vital to ensuring that the decision-making process associated with the implementation of the City's Bike and Pedestrian Master Plan is managed and all relevant City departments are appropriately engaged. To facilitate the implementation of the Bike and Pedestrian Master Plan, it is recommended that the study's Steering Committee be enhanced to facilitate ongoing communication and coordination through implementation. A suggested structure for managing the master plan at the City level is illustrated in **Figure 5.1**.



Wellington St. in Market Square & Bike Parking – Source: MMM Group

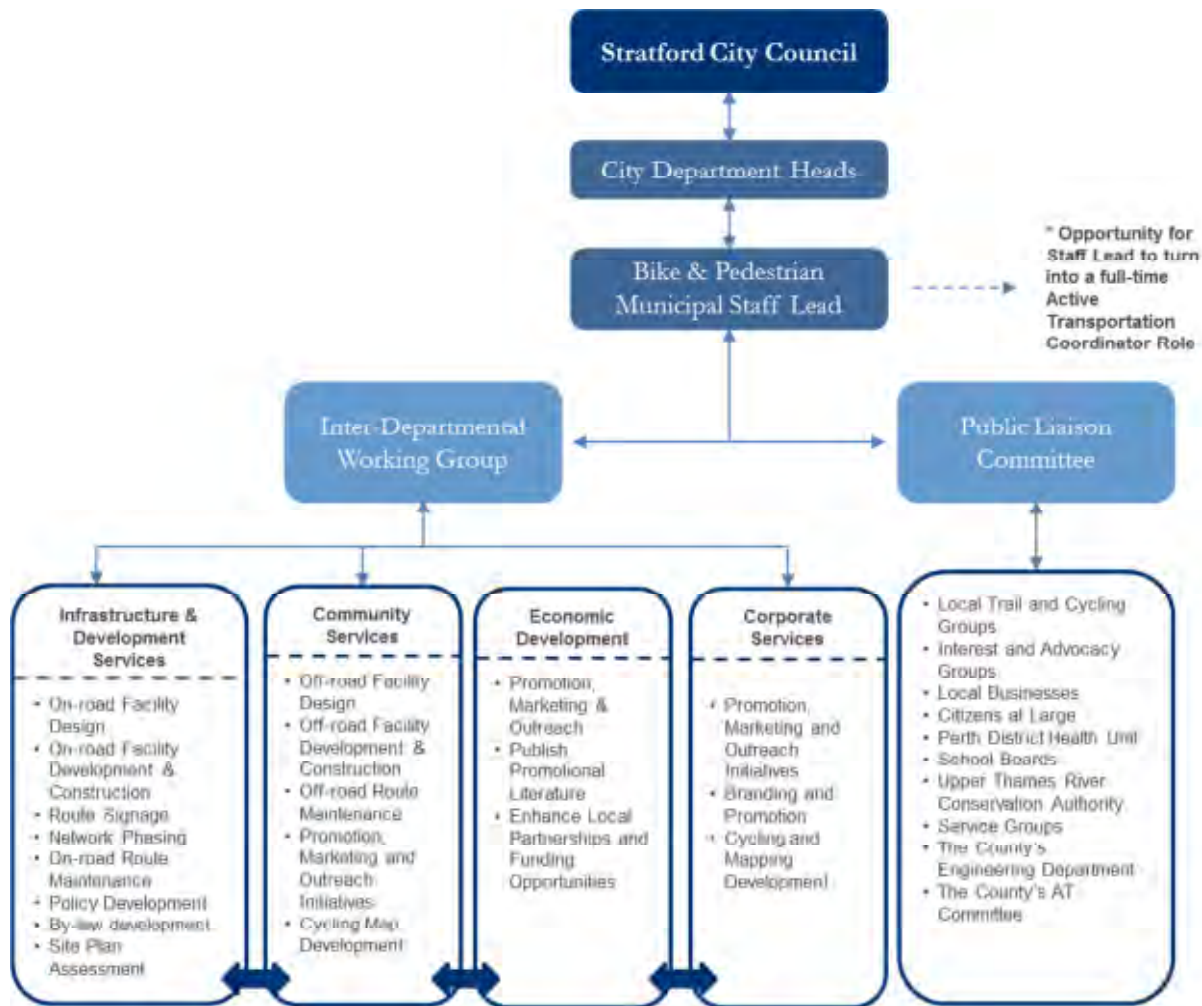


Figure 5.1 - Reporting Structure for Master Plan Implementation

This strategic and coordinated approach identifies municipal and external representatives who will be responsible for “championing” the master plan’s implementation and includes:

A Municipal Staff Lead: An existing Municipal Staff Member who would be identified to champion the implementation of the master plan. This individual(s) would also be responsible for coordinating the efforts of the inter-municipal working group and the public liaison committee. They would be a member of each group and would provide communication between the two. This individual would also be responsible for providing annual or bi-annual updates to Council regarding the status of the master plan’s implementation. The staff lead would also be responsible for providing updates to stakeholders and the public.

An Inter-Departmental Working Group: The working group would include a number of the same individuals who participated on the steering committee to develop the master plan but would be enhanced to include representatives from other municipal departments including but not limited to the communications department or public works.

The group would meet on a regular basis (e.g. quarterly) to review and discuss bike and pedestrian projects and track the implementation of the plan.

A Public Liaison Committee: The committee could be made up of representatives from local trail and cycling groups, interest and advocacy groups, citizens at large, representatives from local businesses, Perth District Health Unit, local school boards and conservation authorities. The group would be kept informed of bike and pedestrian initiatives through email and face-to-face meetings (e.g. quarterly) chaired by the municipal staff lead. The committee would serve as one of the conduits between the City and its residents and would assist with priority setting for implementation of the plan's elements. The committee will also be instrumental in planning, coordinating, participating in and rallying community members to participate in local events related to active transportation. The committee could be based on those who responded positively to the online questionnaire.

The City would be responsible for ultimately confirming the structure and composition of the inter-municipal working group and the public liaison committee and would also be responsible for identifying the Municipal Staff Lead who will lead the master plan's implementation and the coordination of the two groups.

5.1.2 A Network Management Tool

The proposed bike and pedestrian network was developed using the City's Geographic Information System (GIS) database. The GIS based network map prepared as part of the Master Plan can also be used as an asset management tool. A database is associated with the map information and includes a number of different attributes. For example, the network has been divided into segments, each specifying a length of the segment and the facility type proposed, as well as the phase in which the route and facility is proposed to be implemented.

During the implementation process, the Inter-Departmental Working Group can use this tool to assist in confirming the feasibility of cycling, pedestrian and trail routes and facilities in addition to the proposed schedule (Phases 1, 2 or 3) for implementation. The GIS tool can also be used to track and document new segments as they are implemented. Updating the facilities component of the Master Plan on a regular basis will significantly reduce the effort and cost to update the entire Plan, which is recommended to occur every five years.

If the City chooses, this GIS information, with some supplementary programming, could also be posted on the City's website in an interactive map format or use to develop a branded cycling map intended for hard copy distribution City-wide. In both forms, this accessible mapping would be useful to local residents and visitors of the City and will build upon current branding initiatives being generated by the City.

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5.1.3 A Five-Step Implementation Tool

The City of Stratford Bike and Pedestrian Master Plan is not intended to be a static document. The timing and details related to implementation, particularly the location of recommended routes and facility types should and will evolve through the environmental assessment, planning and capital budget processes.

At the same time, however, the efforts (public, stakeholder, and City staff) that established the overall direction for the master plan should be respected. A central element of the implementation process tool presented in this chapter is a proposed recommendation that the Plan be reviewed and given consideration when Municipal Roads (or County Roads identified as part of the network) and other capital infrastructure projects are identified and scheduled.

This should include Municipal asset management programs for reconstructing or resurfacing roads, as well as any investigation of potential new road alignments or the reuse and/or selling of abandoned rail and utility corridors. The objective is to ensure that the City of Stratford assets, particularly roads identified in the Plan for future cycling, pedestrian or trails routes, are given due regard when planning, designing and budgeting for road / infrastructure projects.

Figure 5.2 illustrates a process tool for guiding the implementation of bike and pedestrian facilities in the City of Stratford. It is recommended that the Inter-Departmental Working Group, once established, review this tool and adapt it as necessary to suit their needs.

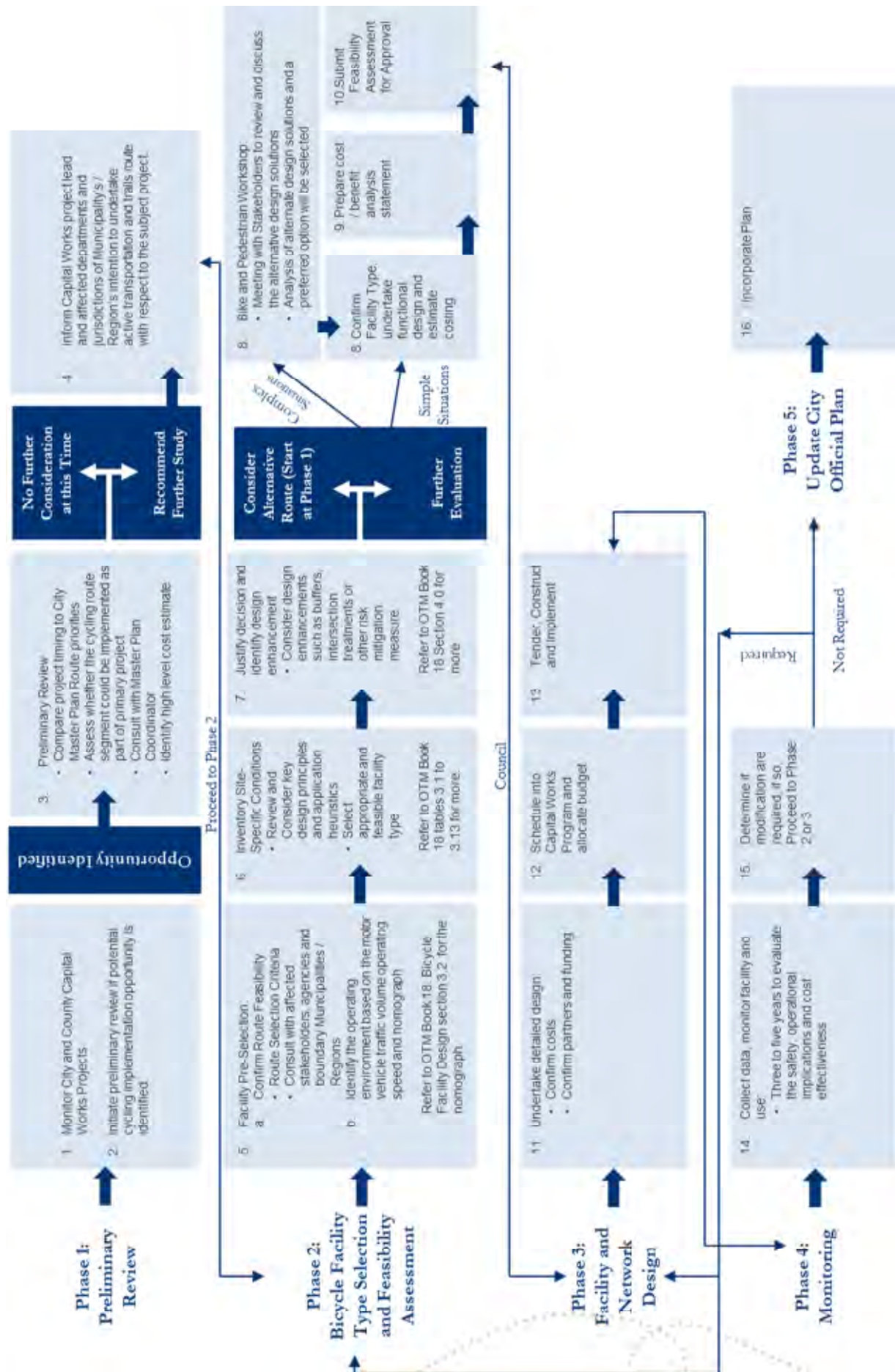
[What is the Process & Why does it Work?](#)

The process is comprised five parts and is a step-by-step mechanism to confirm the feasibility of each route recommended in the report at the time implementation is proposed. It is intended to assist City staff from affected departments to work together, to share information and to facilitate the implementation of the Master Plan. Changes to policies and the network should also be considered through the update of the City's Official Plan and Transportation Master Plan, which typically is scheduled every five-years. For segments of the proposed bike and pedestrian network that fall are under the County's jurisdiction, the City should work with Perth County to strive to apply a consistent and integrated implementation process.



Cycling in Rural Areas in Stratford, ON – Source: MMM Group

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5-6 Figure 5.2 – Five-Step Implementation Tool for Network Implementation

Each part of the network implementation is described in the following sections.

Phase I: Preliminary Review

The first step in implementing network segments of the Bike and Pedestrian Master Plan is to identify and communicate opportunities. The Inter-Department Working Group should monitor all City road projects scheduled, including the capital roads forecast.

When a project involving a corridor or road proposed as a pedestrian or cycling route in the Plan is advanced to the planning stage, or an opportunity to establish a new route not identified in the Plan comes forward, the Working Group lead by the designated City Staff Lead should undertake a Part 1 Preliminary Review.

This review should:

- Identify the jurisdictions involved in a project;
- Compare the timing of the project to the short and long term implementation priorities identified in the Plan;
- Assess whether the nature of the project may permit implementation of the preferred pedestrian or cycling facility type in a cost effective manner; and
- Inform the project lead and affected departments whether or not a feasibility assessment should be undertaken to confirm the feasibility and costs for implementing the proposed cycling route as part of the subject project.

The key aspect of this initial phase is communication. Staff from various City Departments (as outlined in [Figure 5.1](#)) should report all upcoming projects that may involve or impact a pedestrian or cycling facility designated in the Master Plan. From this point forward, the Staff Lead and the Inter-Departmental Working Group, with appropriate technical support when required, would be expected to work through the remaining three parts of the implementation process.

Phase II: Feasibility Assessment

If a pedestrian or cycling project is confirmed through the preliminary review process (Part I), the City's Staff Lead should guide and support the Inter-Departmental Working Group in undertaking a Feasibility Assessment.

This is intended to be a brief assignment and confirm the feasibility of the route based on a review of the Master Plan and supporting route selection, planning and design criteria, as well as other relevant information.

- Collect or confirm current roadway characteristic information including AADT volumes, collision data and the commercial vehicle percentage.
- Conduct a field check for both on and/or off-road route segments to identify any other issues that should be considered and to measure sight line distances (if applicable).

- Undertake a preliminary functional design for the on or off-road cycling facility segment and estimate implementation costs, including construction and signing.
- Prepare a cost/benefit analysis statement. This “statement” should comment on the following:
 - The timing for implementing the proposed pedestrian or cycling facility;
 - Costs and efficiencies achieved;
 - Identify any less costly alternatives and how they may fit within the overall pedestrian and cycling network plan;
 - Provide recommendation on how to proceed; and
 - Submit the Feasibility Assessment to the Staff Lead and Engineering Department Head.

This process may take place in conjunction with, or as input to, a roadway or public works Class EA or functional design process whereby design alternatives are prepared, or as an independent review. It is at this stage that consideration may be given to context sensitive solutions.

The design for the pedestrian and cycling portion of the facility should be in accordance with the Design Guidelines in [Appendix D](#) of this report, and OTM Book 18: Bicycle Facilities.

Bike and pedestrian network phasing should be generally consistent with the strategy outlined in the Bike and Pedestrian Master Plan. However, priorities can be adjusted in situations where there is a clear community demand for pedestrian and cycling facilities and/or other partners wish to advance a particular route segment. If site-specific circumstances prevent a facility from being constructed in association with a particular road improvement project being considered, other nearby parallel routes on City or County Roads should be closely examined at this time for their suitability.

Another possible outcome of the feasibility assessment may be a decision by the City to introduce an interim facility type in the short term to get a desirable connection or link in place earlier than proposed in the plan. An example might be to implement a signed bike route with sharrow pavement markings in the short term and then upgrade to a formal bike lane/ buffered bike lane, paved shoulder or cycle track in the longer term.

Phase III: Detailed Design, Tender & Implementation

Once approval has been obtained to implement a pedestrian and/or cycling route segment, the necessary detailed design should be completed. This step is typically done as part of the detailed design for the primary capital roads project, such as a road widening and does not require additional resources. The third part of the process should also include confirming details with regard to partners (if any) and the potential for cost sharing. The project should then be scheduled into the City Roads Program and suitable budget allocated.

The final step involves tendering the project and then construction / implementation.

It is also possible that following detailed design, the decision is made not to proceed with the facility or preferred facility type because of the cost, constraints that arise through the detailed design process or based on direction from Council. If this occurs, the network should be updated and an alternative parallel route should be proposed.

Phase IV: Monitoring

Once the facility has been constructed, the design and use should be monitored to ensure they function in the manner intended. When necessary, the facility should also be upgraded and maintained to ensure continued safe use by cyclists or pedestrians. Monitoring should also ensure that the pedestrian and cycling design guidelines are current. This step will involve collecting data to assist in the monitoring task.

Phase V: Update City Official Plan

The fifth component of the implementation process includes updating the pedestrian and cycling network schedule in the City's Official Plan(OP). The most recent OP update (2013) will need to consider the integration of pedestrian and cycling policies or should reference the Bike and Pedestrian Master Plan as the primary reference for future decision making.



“Bike and pedestrian network phasing should be generally consistent with the strategy outlined in the Bike and Pedestrian Master Plan. However, priorities can be adjusted in situations where there is a clear community demand for pedestrian / trail and cycling facilities and/or other partners wish to advance a particular route segment.”

Recommendation 5-1: The City should adopt the 10+ year bike and pedestrian network implementation plan and use it to guide the implementation of the network in five-year increments.

Recommendation 5-2: Once the City has adopted the Bike and Pedestrian Master Plan, the recommendations and proposed routes are to be considered for incorporation in a Multi-modal Strategy to help guide the future promotion of alternatives modes of transportation City-wide.

Recommendation 5-3: The City should take the lead in establishing an Inter-Departmental Working Group made up of representatives from the different municipal departments who will lead the implementation of the master plan. The Working Group will be based on the Steering Committee that guided the development of the master plan. Additional members will be selected by the City once initiated.

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Recommendation 5-4: The City should take the lead in establishing a Public Liaison Committee including but not limited to representatives from local interest groups and advocacy groups, citizens-at-large, local businesses and other key groups as determined.

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Recommendation 5-5: The City should coordinate the bike and pedestrian network implementation with the Capital Works Program. The Infrastructure and Development Services in collaboration with the Community Services department will be responsible for the implementation of hard cycling and pedestrian infrastructure including on and off-road facilities.

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Recommendation 5-6 The City should identify an existing staff member who will be responsible for “championing” the implementation of the master plan including chairing the Inter-Departmental Working Group as well as the Public Liaison Committee. This staff “lead” would also be responsible for providing updates on the progress of the study when necessary to City Council, stakeholders, the County and local interest groups, etc.

4

Recommendation 5-7: The City could explore the development of the role of an Active Transportation Coordinator, who would take on a full or part-time role and be responsible for the “championing” the implementation of the bike and pedestrian master plan.

5

Recommendation 5-8: The Inter-Departmental Working Group should review the proposed five-step tool to guide the implementation of the bike and pedestrian network and associated facilities throughout the City and adapt it as necessary.

6

Recommendation 5-9: The Bike and Pedestrian Master Plan should be reviewed and given consideration when City Roads (or County Roads as identified as part of the Bike and Pedestrian Network) and other capital infrastructure projects are identified and scheduled.

5.2 THE NETWORK IMPLEMENTATION SCHEDULE & ROUTE PRIORITIES

Input from City staff, stakeholder groups and the public combined with observations in the field helped to develop the implementation schedule for the proposed bike and pedestrian network. In addition, the study team also used number of criteria to prioritize select routes.

It is recommended that the City use the proposed implementation schedule to guide the development and prioritization of bike and pedestrian projects in the future. It is also recommended that City staff consider the schedule when:

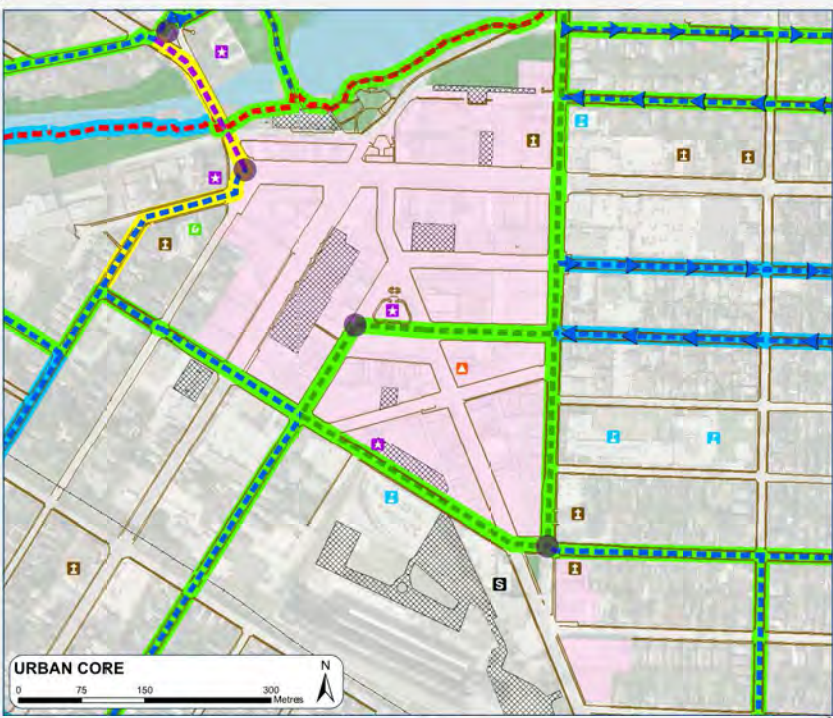
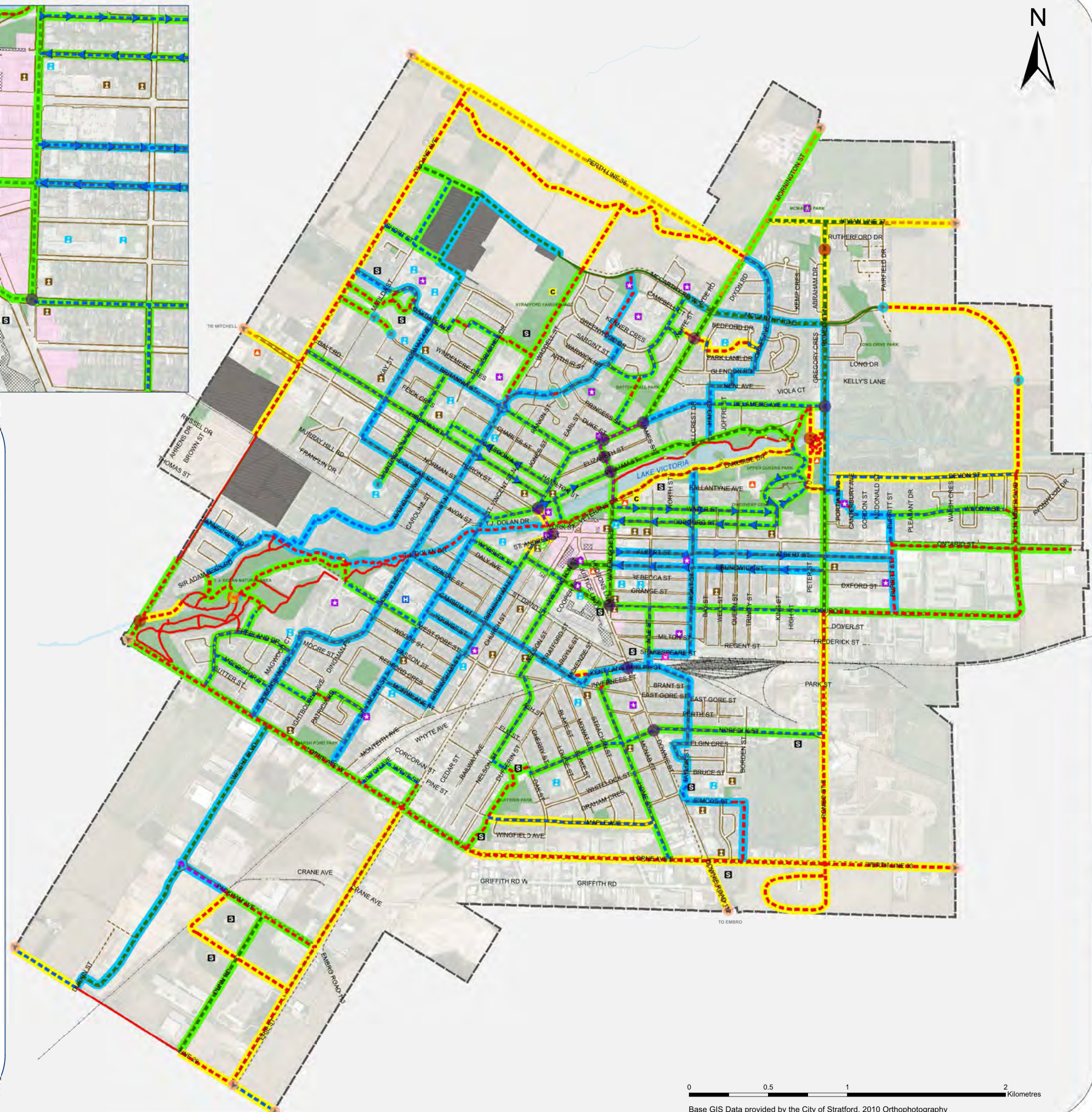
- Reviewing the approved City capital project forecasts that have been provided with the intent to maximize costs saving and implement bike and pedestrian facilities at the time capital road programs are scheduled and/ or planned.
- Closing short gaps in the existing network to develop continuous routes and important links throughout the City.
- Connecting bike and pedestrian facilities to the City's existing and proposed networks as well as those adopted by local agencies and organizations.
- Establishing an east-west and north-south spine route(s) – e.g. Waterloo Street.
- Work with partners to encourage the implementation of new routes as part of new land development at the time of construction rather than retrofitting routes at a later date.
- Develop on-road bike lanes where they can be implemented through lane reallocation, repainting pavement markings or painting new roadways where the topcoat of asphalt has been applied.
- Consider prioritizing routes based on input from the Inter-Departmental Working Group and the Public Liaison Committee.

As discussed in [Section 5.1](#), the implementation schedule and phasing plan has been broken into three timelines, short (0 – 5 years), medium (6 – 10 years) and long (10 to 20 years) term. The timelines were confirmed based on discussions with City staff regarding municipal capital works scheduling and previously planned projects.

Figure 5.3 illustrates the proposed timeline for each route and / or segment identified as part of the bike and pedestrian network. It is important to note that the timeline illustrated represents when the project is anticipated to be completed. In some cases projects may have an initiation date which occurs at an earlier time in the overall implementation schedule. For some of the more intensive studies the duration of the project from start to finish may span two phases.

FIGURE 5.3 PROPOSED FACILITY TYPES AND PHASING CITY OF STRATFORD BIKE AND PEDESTRIAN MASTER PLAN

DRAFT JUNE 2013



Legend

Phasing

- Short Term (0-5 Years)
- Medium Term (6-10 Years)
- Long Term (11-20+ Years)

Proposed Bike and Pedestrian Connections

- Proposed Signed Route
- Proposed Signed Route with Paved Shoulder
- Proposed Sharrow
- Proposed Bike Lane
- Proposed Multi-Use Trail²
- Proposed Sidewalks
- Existing Bridge Improvements
- New Crossings / Bridges
- Proposed Intersection Improvements
- Inter-Municipal Linkages
- Intra-Municipal Linkages

Existing Bike and Pedestrian Connections

- Existing Bike Lane
- Existing Multi-Use Trail¹
- Existing Sidewalks
- Footbridges

Key Municipal Destinations

- Churches
- Community Centres
- Hospitals
- Libraries
- Schools
- Transit Hubs
- Sport Facilities
- Theatres / Art Galleries / Museums
- Other Community Destinations

Other

- Railway
- Parks / Open Spaces
- Parking Lots
- Urban Core
- Watercourses

Land Use Considerations

- Future Development
- Parcel Property
- City Boundary

1 Existing Multi-Use Trails include segments of the T.J. Dolan Trail.
2 Proposed Multi-Use Trails along existing T.J. Dolan Trail are proposed to be rehabilitated from woodchip to asphalt surface.

MMM GROUP

In addition to identifying timelines for each of the network’s routes, priority projects were selected for the City to consider. The projects have been organized into three categories construction, signage and crossing related initiatives. The intent of this exercise was to identify a “menu” of project options and alternatives which could be considered by the City for initiation in the first year or two of implementation.

Though each of the projects may not be completed in the short term, **Tables 5-1 – 5-3** summarize next steps which the City could undertake to initiate implementation. **Figure 5.4** illustrates the location for each of the proposed priority projects and should be presented as a combined document should the City wish to use present these to Council for future consideration.

Table 5-1 – Construction Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Timeline for Full Build-out
C1	Wright Blvd. (Lorne Ave. W – Durkin St.) and Durkin St. (Wright Blvd. – Line 29)	<ul style="list-style-type: none"> Repaint and add pavement markings on Wright Blvd. and Durkin St. to add bike lanes. Add Reserved Bicycle Lane Signs to indicate that a lane is reserved for exclusive use by cyclists (Refer to sign code RB-90, RB-91 and RB-92 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). 	Short Term (0-5 Years)
C2	McCarthy Rd. W/E (Greenwood Dr. – Romeo St. N)	<ul style="list-style-type: none"> Implement bike lanes as part of planned improvements to McCarthy Rd. Add Reserved Bicycle Lane Signs to indicate that a lane is reserved for exclusive use by cyclists (Refer to sign code RB-90, RB-91 and RB-92 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). 	Short Term (0-5 Years)
C3	T.J. Dolan Trail	<ul style="list-style-type: none"> Upgrade existing woodchip trail surface to granular surface (e.g. limestone screening) to accommodate pedestrian and cyclist use. 	Short Term (0-5 Years)
C4	Waterloo St. S (Douro St. – Mornington St.)	<ul style="list-style-type: none"> Implement Bicycle Lanes on Waterloo St. in the medium term through the reallocation of existing space (e.g. travel lanes and on-street parking). In the short term undertake a detailed feasibility study to determine options, recommend a preferred option and develop a preliminary design. 	Medium Term (6-10 Years)

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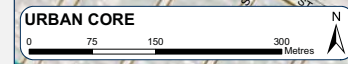
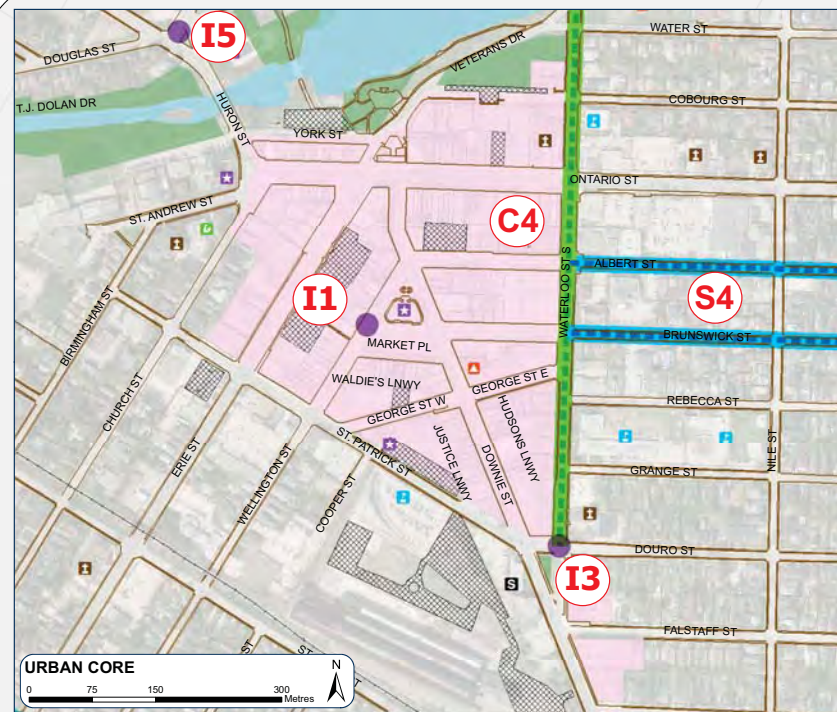
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Legend

Phasing

- Short Term (0-5 Years)
- Medium Term (6-10 Years)
- Long Term (11-20+ Years)

Existing Bike and Pedestrian Connections

- Existing Bike Lane
- Existing Multi-Use Trail¹
- Existing Sidewalks
- Footbridges

Proposed Bike and Pedestrian Connections

- Proposed Signed Route
- Proposed Signed Route with Paved Shoulder
- Proposed Sharrow
- Proposed Bike Lane
- Proposed Multi-Use Trail²
- Proposed Sidewalks

Key Municipal Destinations

- Churches
- Community Centres
- Hospitals
- Libraries
- Schools
- Transit Hubs
- Sport Facilities
- Theatres / Art Galleries / Museums
- Other Community Destinations

Other

- Railway
- Parks / Open Spaces
- Parking Lots
- Urban Core
- Watercourses

Land Use Considerations

- Future Development
- Parcel Property
- City Boundary

1 Existing Multi-Use Trails include segments of the T.J. Dolan Trail.
 2 Proposed Multi-Use Trails along existing T.J. Dolan Trail are proposed to be rehabilitated from woodchip to granular surface (i.e. limestone screenings).



Base GIS Data provided by the City of Stratford.
 2010 Orthophotography



Table 5-1 – Construction Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Timeline for Full Build-out
C5	Lakeside Dr. (Waterloo St. – Lakeside Dr. N)	<ul style="list-style-type: none"> ▪ Upgrade the existing trail in the long term. In the short term undertake a study to examine options for, and recommend a solution for a continuous pedestrian and cyclist loop around Lake Victoria. Suggested options to examine include conversion of Lakeside Dr. to one-way eastbound to better accommodate all modes (e.g. implementing bike lanes and improving the existing multi-use trail) 	Long Term (11-20+ Years)
C6	Romeo St. (McCarthy Rd. – Douro St.)	<ul style="list-style-type: none"> ▪ McCarthy Rd. to Confederation Dr. ▪ Add bicycle lanes on Romeo St. in the short term through the reallocation of existing space (i.e. repainting/remarking lanes). ▪ Add Reserved Bicycle Lane Signs to indicate that a lane is reserved for exclusive use by cyclists (Refer to sign code RB-90, RB-91 and RB-92 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). ▪ Confederation Dr. to Douro St. ▪ Implement bike lanes in the medium term. ▪ In the short term undertake a detailed feasibility study to determine options for, and recommend a preferred approach and preliminary design. 	Short Term (0-5 Years)
C7	Ontario St. (Burrith St. – Marketplace driveway east of C.H. Meier Blvd.)	<ul style="list-style-type: none"> ▪ Implement a multi-use trail in place of the sidewalk on the south side of Ontario St. Proposed to extend as far as the eastern driveway to the Canadian Tire entrance. 	Mid Term (6-10 Years)

Table 5-2 – Signage Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Proposed Timeline for Full Build-out
S1	Front St., Shakespeare St., Nile St., Guelph St., Taylor St., Simcoe St. and Proposed Multi-Use Trail	<ul style="list-style-type: none"> ▪ Lorne Ave. to Simcoe St, application of Shared Pathway signs to guide pedestrians and cyclists on the proposed multi-use trail (Refer to sign code RB-93 in the TAC Bikeway Traffic Control Guidelines for Canada, 2012). ▪ Simcoe St. to Lakeside Dr., application of Bicycle Route Marker Signs at a minimum of 330m per direction of travel (Refer to sign code IB-23 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). ▪ In addition, Bicycle Route Marker Signs should be added on the far side of intersections to guide cyclists. 	Short Term (0-5 Years)
S2	Proposed Multi-Use Trail (McCarthy Rd. – Britannia St.), John St. (Britannia St. – Queensland Rd.) and Queensland Rd. (John St. – Lorne Ave. W)	<ul style="list-style-type: none"> ▪ Application of Shared Pathway signs to guide pedestrians and cyclists on the proposed multi-use trail (Refer to sign code RB-93 in the TAC Bikeway Traffic Control Guidelines for Canada, 2012) ▪ Application of Bicycle Route Marker Signs at a minimum of 330m per direction of travel (Refer to sign code IB-23 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). ▪ In addition, Bicycle Route Marker Signs should be added on the far side of intersections to guide cyclists. 	Short Term (0-5 Years) and Medium Term (6-10 Years)
S3	Britannia St. (Forman Ave. – Mornington St.)	<ul style="list-style-type: none"> ▪ Application of Bicycle Route Marker Signs at a minimum of 330m per direction of travel (Refer to sign code IB-23 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). ▪ In addition, Bicycle Route Marker Signs should be added on the far side of intersections to guide cyclists. 	Short Term (0-5 Years) and Medium Term (6-10 Years)

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Table 5-2 – Signage Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Proposed Timeline for Full Build-out
S4	Albert St. (Waterloo St. N – Romeo St. S) and Brunswick St. (Waterloo St. N – Burritt St.)	<ul style="list-style-type: none"> Application of Bicycle Route Marker Signs at a minimum of 330m per direction of travel (Refer to sign code IB-23 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). In addition, Bicycle Route Marker Signs should be added on the far side of intersections to guide cyclists. 	Short Term (0-5 Years)
S5	Centre St. (John St. S – St. Vincent St. N) Cambria St. (St. Vincent St. N – Victoria St.) and Kent Ln. (Victoria St. – Nile St.)	<ul style="list-style-type: none"> Application of Bicycle Route Marker Signs at a minimum of 330m per direction of travel (Refer to sign code IB-23 in TAC Bikeway Traffic Control Guidelines for Canada, 2012). In addition, Bicycle Route Marker Signs should be added on the far side of intersections to guide cyclists. 	Short Term (Years 0-5)

Table 5-3 – Intersection Improvement Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Proposed Timeline for Full Build-out
I1	Market Square	<ul style="list-style-type: none"> Implement improvements to the Market Square area in the medium term, including circulation for active transportation and improvements at key intersections. In the short term undertake an urban design study to examine the entire space, ensuring that active transportation is a key aspect of the terms of reference for the study. 	Medium Term (6-10 Years)
I2	Kent Ln. & Downie St.	<ul style="list-style-type: none"> Study the options for, and implement preferred crossing improvements in the short term. 	Short Term (0-5 Years)

Table 5-3 – Intersection Improvement Priority Projects

Project No.	Project Location	Project Description & Details Proposed Timeline	Proposed Timeline for Full Build-out
I3	Waterloo St. & Douro St.	<ul style="list-style-type: none"> In conjunction with Project C4, undertake an intersection design study in the short term to improve pedestrian and cyclist movement through this intersection so that improvements can be made in the medium term, in association with network improvements proposed for St. Patrick St. and Douro St. in the medium term. 	Medium Term (6-10 Years)
I4	Delamere Ave. & Romeo St.	<ul style="list-style-type: none"> Include improved facilities for pedestrians and cyclists as part of the Delamere / Romeo intersection study and implementation currently being considered by the City. 	Short Term (0-5 Years)
I5	William St. & Douglas St.	<ul style="list-style-type: none"> Implement intersection improvements to accommodate pedestrians and cyclists at the William St. and Douglas St. intersection in the medium term. In the short term study the options for improvements and recommend a preferred approach. 	Medium Term (6-10 Years)

5.3 PLANNING FOR BIKE & PEDESTRIAN FACILITIES

5.3.1 Bike & Pedestrian Master Plan & the Official Plan

Official Plans are meant to guide the future development of a community and serve as a blueprint for future growth. The policies in Official Plan documents should align with what is being recommended in the Bike and Pedestrian Master Plan.

It is recommended that when the Official Plan is next updated existing policies pertaining to bike and pedestrian facilities be reviewed to ensure that they are consistent with and supportive of the Bike and Pedestrian Master Plan. Where possible the plan should make reference to the provision of bike and pedestrian facilities including but not limited to bicycle and pedestrian routes and supportive services. The key policies, recommendations, network and implementation strategy in the Bike and Pedestrian Master Plan should be considered for inclusion in the updated Official Plan document as a schedule.

Recommendation 5-10: When next updated, the City’s OP should be reviewed to ensure that policies are included which addresses active transportation and is consistent with the policies and recommendations found in the Bike and Pedestrian Master Plan. The City should consider making specific reference to the design guidelines found in **Appendix D** and / or including the network mapping as a schedule.

5.3.2 Community Planning & Design Strategies that Support Walking and Cycling

The design of a community can determine how and when people engage in active transportation and recreation. There is a significant amount of research that links the layout and design of communities to an increase in health, social interaction, safety and economic development for the community as well as its residents. One of the key documents which identifies this is the “Shaping Active, Healthy Communities” report completed by the Heart and Stroke Foundation. This document provides governments at all levels with a “built environment toolkit” which can be used to guide change in the design and development of communities to promote AT and AT-related benefits.

Community land-use planning deals with the layout and arrangement of housing, businesses and amenities within a community. Land-use planning can support active living when housing, businesses and amenities are arranged in a way that promotes vibrant communities.

Vibrant communities are easily accessible by walking, cycling and other active transportation modes. This can be achieved through a number of strategies including:

- Mixing housing with other land uses decreases the distance between people’s residences and their destinations of choice, thus making it more likely for them to walk or bike to their destination;
- Encouraging higher-density urban areas and situating amenities and destinations within walking distance from the residences; this can also benefit local businesses as people in walkable communities will be encouraged to shop in their own area;
- Conveniently locating schools and other amenities, enabling children to safely and securely walk or bicycle to their schools as well as key destinations. This may also provide a higher level of comfort for parents;
- Integrating active living infrastructure such as parks, trails, sidewalks, street lighting, and bike racks into community design which can encourage and support an increase in physical activity by making active transportation and recreation visible and accessible to residents;
- Making streetscapes appealing to pedestrians and cyclists through effective design with good lighting, well-maintained sidewalks, bike paths, signage, crosswalks, and improved aesthetics. Well-designed pedestrian and cyclist-friendly streetscapes encourage high levels

of use and result in vibrant atmospheres. More appealing streets also attract people, creating an “eyes on the street” result and may also contribute to a reduction in some types of crime;

- Designing streets that are safer for pedestrians and cyclists include features such as narrower streets, bicycle lanes, sidewalks, landscaping, parallel parking, and traffic calming measures. These in turn help to increase cyclist and pedestrian activity; and
- Providing recreational facilities, parks, trails, and safe places to play outside, resulting in a higher physical activity level for all age groups, particularly children and youth.

A “pedestrian first” approach to transportation planning can promote walking, cycling and other active modes of travel. Some strategies which can be used to promote a “pedestrian first” approach include:

- Increasing pedestrian and cycling connectivity to ensure that walking and cycling routes are continuous and in many cases connect with key destinations. Features which emphasize this concept include continuous sidewalks, shorter blocks, grid-like street layouts, pedestrian connectors, and accessible links to public transit;
- Creating safe routes to school. This can include well-marked and safe crossings, crossing guards, safe bicycle parking, and traffic-calming measures around schools to reduce the number of vehicles entering the school zone during morning drop-off and afternoon pick-up times, and “walking school buses” which go to and from the school along a designated route. These types of initiatives can increase the safety of walking and biking routes to school and help children get the physical activity they need; and
- Improving public transit through encouragement includes locating stops close to major residential nodes, providing frequent service, and ensuring ease of connection to key destinations throughout the community. In some cases, users of public transit achieve their daily requirement of 30 minutes of physical activity by walking to and from the transit stops.

As an alternative means of promoting and educating people on active transportation options through transportation planning, the City of Stratford should consider developing and adopting a Pedestrian, Cycling or Active Transportation Charter. The County recently adopted their AT charter which is used by local area municipalities including the City of Stratford, however, a charter specific to the City may be appropriate to guide City-wide cycling and walking priorities.

More specifically, a pedestrian or cycling charter can be used to facilitate and promote the need for a more walkable and bikeable Stratford and is an important measure of the quality of the public realm, health, and vitality. Pedestrian and cycling charters are becoming increasingly more popular throughout North America with the first one being established in Toronto, followed by those developed in Waterloo, Kitchener, Sudbury, Burlington, Montreal, and a growing number of other communities throughout Ontario.

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Recommendation 5-11 The City should explore land-use planning initiatives and policy development which supports a mixed-use, higher density urban core and continues to promote pedestrian and cyclist friendly streetscapes to facilitate an increased quality of life and liveability within the City of Stratford.

Recommendation 5-12: The City should strive to continually improve connectivity for pedestrians and cyclists through the City to key destinations (e.g. places of employment and transit hubs) and to surrounding municipalities.

Recommendation 5-13: The City should explore the development of a 'Safe Routes to School' program using the secondary route network identified as part of the master plan in collaboration with Perth District Health Unit, local school boards, the Public Liaison Committee and interest groups.

Recommendation 5-14: The City should consider the development of an active transportation charter based on the charter that was recently developed and adopted by the County. The County's document will be the basis from which the City will develop their own charter specific to the goals and objectives of the bike and pedestrian master plan.

5.3.3 Bike & Pedestrian Facilities in New Development Areas

The planning of on and off-road bike and pedestrian facilities is a critical component of the land development process. Developers should be expected to work through an iterative process with City early in the planning stages to create an appropriate Bike and Pedestrian supportive Network within their development area that reflects the intent of the City's Master Plan.

When on and off-road facilities are considered for integration in new development areas there are a number of factors which should be considered by the developer in consultation with City Staff. These can include:

- Topography
- Drainage
- Slopes
- Soil Conditions
- Plant and Animal Communities
- Microclimate and human comfort
- Heritage and Archaeological Resources
- Public Education Opportunities
- Significant Views and Vistas

Many developers understand and acknowledge the value of integrating active transportation supportive facilities into their projects and in many cases use them as selling features for their neighbourhoods.

Using the City's Bike and Pedestrian Master Plan as a vehicle to provide the development community with information about the network, desired connections and design guideline/standards will help to improve communication among all parties involved.

New development areas will need to contain links to the City-wide Bike and Pedestrian System. Connections should also be made to existing routes that are reflective of density, variety, hierarchy and character of active transportation facilities outlined in the Plan. Wherever possible, on and off-road bike and pedestrian facilities should be constructed prior to or at the same time other community infrastructure and homes are being built. When facility installation is deferred until homes are built, there can be conflict when residents adjacent to planned routes claim that they were not aware of plans for construction even if this intention has been clearly indicated in municipal planning documents.

Developers should be encouraged to be pro-active about notifying prospective buyers where off-road trails and pathways are to be located at the time they are selling lots. Providing information at sales offices, including information in sales packages and erecting signs in locations where pathways are to be constructed may help to alleviate difficulties at a later date. To achieve this objective, the following strategies should be explored and appropriate policies developed:

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- A. Requiring developers to prepare and submit for review a bike and pedestrian concept/layout plan and typical details for facilities within the boundaries of the plan of subdivision. The concept plan would be reviewed by the municipal development review team and refined by the developer prior to the approval of the Draft Plan of Subdivision. The concept/layout plan will be consistent with the approved Bike and Pedestrian Master Plan and Official Plan Schedule.
 - B. Prior to the Plan of Subdivision approval and registration of the applicable phase of a subdivision, requiring the developer to prepare and submit detailed design drawings, specifications, and a cost estimate for pathway construction, to the satisfaction of the municipal development review team.
 - C. As part of Development Agreements (Conditions of Approval), require the developer to:
 - Construct on and off-road bike and pedestrian routes within the boundaries of the applicable stage of the subdivision as part of the installation of other infrastructure such as utilities and roadways.
 - Provide a notice to home purchasers of the proposal to construct an active transportation facility or trail including identification of the pathway on plans displayed in a sales office, and a clause in agreements of purchase and sale and/or lease.
 - D. Including the trails and active transportation facilities as eligible infrastructure under Development Charges By-Laws as part of the next update(s) of these by-laws in the local municipalities.

Lastly, it is important to note that when the on and off-road AT facilities are planned for development in new communities / new development areas, no additional consultation is anticipated to be undertaken above and beyond what is being initiated as part of what has been specified for the subdivision planning and approvals process related to the subject lands.

Recommendation 5-15: The City should develop policies and processes for working with the development community to ensure that on and off-road bike and pedestrian facilities are planned, designed and constructed as part of the development process.

5.3.4 Retrofitting Bike & Pedestrian Facilities in Existing Neighbourhoods and Ongoing Public Consultation

It can be very challenging to upgrade existing bike and pedestrian facilities, implement new routes in established neighbourhoods or enhance existing off-road trails, even if the intent to do so has been clearly documented in strategic plans such as the Bike and Pedestrian Master Plan.

Even with extensive consultation at the planning stage it can be difficult to obtain public opinion related to route segments until a project reaches the implementation stage when adjacent land owners who perceive themselves as being directly affected become concerned and involved. Real and perceived concerns over increased pedestrian and cyclist traffic, access to rear yards, invasion of privacy, and a perception that there may be an increased potential for vandalism and theft are often cited as key concerns. This applies to both the urban as well as more suburban / rural areas of the City of Stratford. Where new AT or trail facilities are being implemented or significant improvements are being made to the existing routes, differing levels of consultation may be required to advance the project through the detailed design and implementation stages.

The level of consultation required for individual projects will depend on the project location, design approvals required, scope/complexity, and whether the project is identified in the City's Bike and Pedestrian Master Plan, or other planning policies. The following outlines potential levels of consultation which could be explored in further detail.

It is important to note that one aspect of a consultation program that would need to be considered and overcome is to engage residents in an open, public consultation process in the earliest possible stages of the project. In some cases, the most vocal opponent can become the greatest supporter if the process provides an effective avenue for modifications and to address concerns.

Table 5-4 – Consultation for Project Implementation

Consultation Approach	How the Approach would be Applied
<p>1. Notification of Construction</p>	<p>For bike and pedestrian projects proposed on City-owned lands that do not abut residential or commercial properties, have all necessary planning and design approvals in place and which have been tendered for construction, a public notice of the intention to proceed with construction should be published on the City's website as well as local newspaper(s). The notification should:</p> <ul style="list-style-type: none"> ▪ Briefly explain the project; ▪ Note it was approved by Council through the Bike and Pedestrian Master Plan; ▪ Identify the expected construction start and end dates; ▪ Provide a contact name and number for questions. <p>It is suggested that the notice be published at least 30 days in advance of project start up to address questions that may arise</p> <p>If a significant issue or concern is raised by residents or area property owners, staff in consultation with Councillors, may choose to schedule a local neighbourhood meeting. This process would use existing in-house resources.</p>
<p>2. Local Neighbourhood Meetings</p>	<p>A Councillor and/or staff may select to host a neighbourhood information meeting for a bike or pedestrian project that has been approved through the City's Bike and Pedestrian Master Plan and is in the final design and approvals stage (not yet tendered), if the local Councillor or staff are of the opinion that additional consultation with the public is warranted to address comments received and/or to present the recommended facility alignment and draft design details. This meeting may also serve to present proposed changes or solutions to the alignment or design form that was previously presented to area residents. This process would typically use existing in-house resources.</p> <p>Outcomes of the meeting may include a number of directions, such as:</p> <ul style="list-style-type: none"> ▪ Finalize and/or revise detailed design based on direction agreed to at the meeting, secure outstanding approvals, tender project, issue notification of construction, and proceed to construction; ▪ Revise design and report to area residents at a second neighbourhood meeting (see item 3 below); or ▪ Defer the project until staff can have time to consult further with the area Councillor, area residents and/or report back to Council with a recommended planning/design solution for the project.

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Table 5-4 – Consultation for Project Implementation

Consultation Approach	How the Approach would be Applied
<p>3. Focused Consultation as Part of the Design Process</p>	<p>One outcome of the neighbourhood meeting (as described above) may be significant revisions to the design concept or on / off-road route alignment. In this situation staff may elect to undertake this work internally or secure the assistance of outside consultants.</p> <p>With these types of projects it is expected that one or more working meetings may be scheduled with the local Councillor and/or neighbourhood residents/stakeholders to identify, review and refine design changes.</p> <p>If there is consensus to proceed, the following should be undertaken:</p> <ul style="list-style-type: none"> ▪ Finalization of the design; ▪ Securing approvals; ▪ Tendering the project; ▪ Notification of construction; and ▪ Construction of the project. <p>If there is no consensus, staff should be asked to report back to Council with a recommended course of action and request direction from Council.</p>
<p>4. Broad Consultation as Part of a Class EA or Similar Study Process</p>	<p>The development of a bike or pedestrian route does not normally require a separate Class Environmental Assessment (EA); however, there may be situations where the City elects to conduct an Environmental Assessment. These typically include situations where bike and pedestrian routes and trails are identified in the Plan and are part of an Environmental Assessment for other City infrastructure projects such as stream realignments, bridges and new roadways, etc., wherein the route and preliminary design should be an integral component of the EA process.</p> <p>As part of the consultation process for the EA, options for the bike and pedestrian route alignment and design can be reviewed and evaluated, so that an integrated solution can be developed and that the route can be implemented as part of the construction of the larger project. Integration of the route at this stage ensures that it will be properly connected to surrounding facilities. Furthermore, significant cost efficiencies can be realized by implementing the bike and / or pedestrian route as part of the construction of the larger infrastructure project. The consultation program for the EA will be tailored to meet the scale, location, and range of issues anticipated for the proposed project.</p>

5.3.5 Bike & Pedestrian Routes in Unopened Road Allowances, Abandoned Railways and Utility Corridors

Unopened road allowances, abandoned railway corridors, and utility corridors are examples of linear corridors that provide excellent opportunities for bike and pedestrian route development. In the case of some unopened road allowances which still remain in municipal ownership but have been assumed by private land owners, it may be possible to negotiate access along another parallel corridor such as a creek corridor that is not being used for farming in exchange for the unopened road allowance. [Section 5.5](#) provides additional details regarding land acquisition and securement tools for bike and pedestrian routes that can be used by the City. Moving forward, it is recommended that Stratford thoroughly examine unopened road allowances and abandoned railway corridors as potential bike and pedestrian routes prior to disposing of them.

Utility corridors in existing rural or undeveloped areas may be owned by the utility company or leased from the landowner. In the case of corridors that are owned by the utility company there may be an excellent opportunity to develop a bike and / or pedestrian route. Utility lines in urban areas often have a substantial easement, and in many cases are used informally as trail routes as they tend to provide direct connections to a variety of destinations over long distances. When the alignment and design details are properly considered, pathways can also serve as emergency and service access routes to assets within the hydro corridor. For example, a number of municipalities have adopted policies and practices to provide service and emergency access routes to utilities such as manholes along sanitary sewer lines in river valleys in case of line blockages.

Recommendation 5-16: The City of Stratford, where possible, should thoroughly examine the potential to use unopened road allowances as potential bike and / or pedestrian routes as opposed to disposing of them / selling them to adjacent land owners.

Recommendation 5-17: The City of Stratford should consider and investigate the potential to utilize, where possible, utility corridors in urban areas as potential bike and pedestrian routes.

5.3.6 Land Acquisition & Securement for Bike and Pedestrian Routes

The City of Stratford is a lower-tier municipality which is predominantly urban found within the predominantly rural Perth County. Though predominantly urban, the City still has areas which are rural in nature. Many of these areas are planned for future development and are currently owned and operated by the City.

One of the key premises of the Bike and Pedestrian Master Plan is to create routes on lands that are publically owned. However, there are some instances where future critical connections are suggested on lands that are privately owned as no public corridor exists. Some of these connections are located along natural heritage corridors (i.e., creeks and valleys) in land that is presently rural / agricultural.

At some point in the future some of these natural heritage areas may become part of the urban fabric and at that time these corridors would be set aside along with a suitable buffer. These corridors could accommodate on and / or off-road pedestrian and cycling connections at this time.

Where it is unlikely that these corridors would be incorporated into the urban fabric in the foreseeable future and the full build out of the network requires these critical connections, connections across these lands will require permission for access or a strategy to secure ownership before any plans for bike and pedestrian routes can be made. A range of strategies are available to accomplish this, from “handshake” access agreements to purchase of these lands by the County or other partner.

Recommendation 5-18: The City should consider a securement strategy for bike and pedestrian routes that are identified on lands that are currently privately owned.

5.4 THE INVESTMENT

The benefits that support why increasing bike and pedestrian activities in the City of Stratford is a sound investment have been summarized in **Chapter 1.0** and is evident through significant local, regional, provincial, national and global research. These benefits, including health and fitness, transportation, environmental, economic and tourism, not only justify why the City should support these initiatives for the longevity of infrastructure but for the quality of life of its residents.

Investment in the Bike and Pedestrian Master Plan can be expected to yield benefits in all of these areas. In addition, the costs can be justified as part of the cost of providing a more sustainable, balanced, and efficient transportation system in the City of Stratford. The public and stakeholder input received during the preparation of the Plan indicates strong support for improving pedestrian and cycling facilities and programs to promote these activities City-wide.

Appendix E lists unit costs for the construction of various elements of the Bike and Pedestrian Network. These are based on averages obtained from recent construction projects from across Ontario, and were used to develop the network implementation cost estimate presented in **Table 5-5**. For reference purposes, **Appendix E** also includes guideline unit costs for individual items/amenities that may be considered on a site specific basis. Unit costs (in 2013 dollars) are based on the following assumptions:

- The unit costs assume typical or normal/average conditions for construction;

- Estimates do not include the cost of property acquisitions, utility relocations, driveway/entrance restorations, permits or approvals for construction;
- Annual inflation, which includes increased cost of labour, materials, fuel, etc., is not included;
- Professional services and/or staff time for detailed design; and
- Applicable taxes are not included.

Table 5-5 identifies the 20+ Estimated Network Implementation and Promotion / Marketing Strategy Cost Summary.

Facility	Short Term (0-5 Years)		Medium Term (6-10 Years)		Long Term (11-20+ Years)		Total Distance (km)	Total Estimated Cost
	Total kms	Estimated Cost	Total kms	Estimated Cost	Total kms	Estimated Cost		
Signed Route	23.15	\$34,725	23.06	\$34,590	3.42	\$5,130	49.63	\$74,445
Paved Shoulder	0	0	1.24	\$68,200	3.45	\$189,750	4.69	\$257,950
Sharrow	0.38	\$1,330	0.69	\$2,415	0.19	\$665	1.26	\$4,410
Bike Lane	5.76	\$43,200	5.72	\$42,900	1.37	\$10,275	12.85	\$96,375
Multi-Use Trail	2.97	\$416,400	13.30	\$3,042,800	19.94	\$3,032,800	36.64	\$6,492,000
Network Total	32.26	\$495,655	44	\$3,190,905	28.37	\$3,238,620	104.64	\$6,928,180
Promotion / Marketing Strategy	Unit Cost	Estimated Cost	Unit Cost	Estimated Cost	Unit Cost	Estimated Cost		Total Estimated Cost
Promotion / Outreach	\$10,000 per year	\$50,000	\$10,000 per year	\$50,000	\$10,000 per year	\$100,000		\$200,000
Public City Map Development	-	\$50,000	-	\$0	-	\$0		\$50,000
Branding / Marketing Strategy	-	\$0	-	\$25,000	-	\$0		\$25,000
Program Total	-	\$100,000	-	\$75,000	-	\$100,000		\$275,000
Total Implementation Cost (Network Total + Program Total)		Total Short Term		Total Medium Term		Total Long Term		Total 20 year Investment
		\$595,655		\$3,270,905		\$3,338,620		\$7,205,180

It is estimated that the total investment to implement the bike and pedestrian network, develop an promotional and outreach program, develop City trail / cycling route maps and develop a branding and marketing strategy is approximately \$7.3 million over the next 20+ years. Out of the total estimated cost, nearly \$700,000 (10% of the total cost) is allocated in the short term phase of 0-5 years. Approximately \$3.3 million (45% of the total cost) is allocated in the medium term of 6-10 years and the remaining \$3.3 million (46% of the total cost) is allocated in the long term of 11-20+ years.

The estimated costs reported in [Table 5-5](#) do not include potential savings/reductions that may be realized through a number of avenues such as:

- Infrastructure funding programs such as future federal and provincial infrastructure programs;
- Routes that are developed with funding or partial funding available through various subsidy and grant programs (see also [Section 5.5](#));
- Partnerships with outside organizations and agencies;
- Routes developed by others that could also be used for active transportation, such as service access roads along utility corridors;
- Facilities designed and constructed by developers and/or through the use of Development Charge funds;
- Routes that are Developer-built through the land development approvals process;
- Bike and Pedestrian facilities that will be included as part of future scheduled roadway capital improvement projects.

As each network segment becomes a priority for construction, a more detailed assessment as part of the design process will be required to determine site-specific conditions and design details. Detailed cost estimates can then be developed from the more detailed assessment.

Recommendation 5-19: The City should refer to the network phasing recommendations in the Bike and Pedestrian Master Plan as a guide for implementing the City-wide Bike and Pedestrian Network throughout Stratford.

Recommendation 5-20: To implement Phase 1 i.e. 0 – 5 years, the City of Stratford should budget a total of \$595,655 (see Table 5-5) over the first 5 years. This translates to \$119,131 per year or \$3.86 / person / year assuming a municipal population of 30,886 (Statistics Canada 2011 Census Data).

5.5 FUNDING THE PLAN

To assist in reducing taxpayer costs, outside funding opportunities should be pursued. Recently, funding sources have been made available which support the development of active transportation, cycling, pedestrian and trail projects. There is a growing awareness of its increasing popularity and the relationship it plays in developing a multi-modal and sustainable transportation system which benefits community health. It is expected that this trend will continue.

Some outside opportunities that the City of Stratford may consider to help fund the implementation of the bike and pedestrian network include:

- Federal/Provincial Gas Tax;
- Transport Canada's MOST (Moving on Sustainable Transportation) and Eco Mobility (TDM) grant programs;
- Federation of Canadian Municipalities Green Municipal Fund;
- Ontario Ministry of Health grant programs and partnership streams such as the Healthy Communities Fund and promotional initiatives related to health/active living/active transportation;
- Ontario Ministry of Environment Community Go Green Fund (CGGF);
- Ontario Ministry of Transportation Demand Management Municipal Grant program;
- Various Federal and Provincial Infrastructure/stimulus programs offered from time to time;
- The Ontario Trillium Foundation that was recently expanded in response to the money collected throughout the Province by casinos;
- Human Resources Development Canada program that enables personnel positions to be made available to various groups and organizations;
- Corporate Environmental Funds such as Shell and Mountain Equipment Co-op that tend to fund small, labour-intensive projects where materials or logistical support is required;
- Corporate donations which may consist of money or services in-kind, and have been contributed by a number of large and small corporations over the years;
- Potential future funding that might emerge from the Province in rolling out the Ontario Trails Strategy;
- Service Clubs such as the Lions, Rotary, and Optimists who often assist with high visibility projects at the community level; and
- Private citizens' donations/bequeathments, and this can also include a tax receipt for the donor where appropriate.

Recommendation 5-21: In addition to capital funding, The City of Stratford should explore other outside partnerships, cost-sharing and funding opportunities for the implementation of the Bike and Pedestrian Network and supportive promotion and outreach programs.

CHAPTER 6.0 MEASURING SUCCESS & WHERE TO GO FROM HERE



6.1 MEASURING THE SUCCESS OF THE PLAN

Implementation of the City of Stratford's Bike and Pedestrian Master Plan should begin in 2014. It is recommended that the City target implementation in accordance with the phasing recommendations identified in **Chapter 5.0**, taking into consideration capital and promotion funding made available by City Council through budget review as well as additional external funding and partnership opportunities as they arise.

Collecting data to evaluate the different and changing aspects of pedestrian and cyclist behaviour will assist in evaluating the effectiveness and overall contribution of various initiatives to achieve the vision and goals of this plan. Over time, performance monitoring should examine user preference for facilities, levels of use and other key factors. This data will enable staff responsible for implementation to make adjustments to both infrastructure and programs as recommended in the Plan and to adjust them to meet local needs.

Results may be used to determine the success of implementing various types of pedestrian and cycling facilities. However, caution must be used in relying on an immediate response to a given improvement. An extended timeframe should be established to ensure that bike and pedestrian awareness initiatives are in place to assist in changing travel patterns and habits. This information should be collected every two to three years (maximum every 5 years) and at the same time/season each time it is collected. Data collected through evaluation/monitoring programs along with information collected through on-going public consultation exercises, such as user surveys and public attitude surveys (conducted every five years), will inform and assist in preparing the list of annual priorities and measuring the performance of the Plan. A component of measuring the implementation of the Plan and its success in meeting objectives is to establish performance measures and targets.

Table 6-1 provides possible performance measures that could be considered by the Inter-Department Working Group. A short-list should be developed from this suite of parameters, targets should be established and data collection should begin in 2014 so that a baseline for Cycling and Walking can be established in the City of Stratford. In addition to staff time, the collection and analysis of data, development of relevant recommendations and adjustments to performance targets could be part of a scope of work for seasonal staff and/or students from post-secondary institutions who are studying community design, public health, transportation planning or engineering. Results of any such work should be reported to Council as part of an annual information report so they can remain informed about the progress being made on the Bike and Pedestrian Master Plan as well as the challenges encountered along the way and proposed budget for the upcoming year.

Table 6-1 Potential Performance Measures for Consideration by the City of Stratford.

Table 6-1 Potential Performance Measures for Consideration

1.	Number of kilometres of built active transportation infrastructure (Measurement: kilometres of existing routes)
2.	Number of kilometres of built trails and facilities as part of the Active Transportation Initiative (Measurement: kilometres of existing routes)
3.	Number of destination points found along or within the general area of an AT route
4.	Kilometres of new on and off-road AT and trail facilities implemented as per the City of Stratford Active Transportation Initiative.
5.	Available signage and features that contribute to overall trail attractiveness and use along the trail (e.g., trail heads, waste receptacles, seating areas, etc.)
6.	Percentage of children that walk or bike to school in the City of Stratford or who participate in pedestrian or bicycle safety education programs.
7.	Number of bicycle parking spaces located at businesses, schools and community facilities
8.	Average amount of time spent on the Active Transportation and trail systems during an average trip/outing
9.	Number of visitors and amount of money spent on average who come to the City of Stratford to use the Active Transportation and trail system
10.	Number of events organized around trail use and Active Transportation
11.	Availability and consistency of mapping with regard to actual trail and route distances, etc., between all guides, websites, Council documents, etc.

Recommendation 6-1: As part of creating a performance monitoring plan for bike and pedestrian activities, the City should consider confirming the performance measures listed in the Plan as a starting point from which a standard set of measures will be applied and used to evaluate the master plan’s implementation.

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6.2 SUMMARY OF RECOMMENDATIONS

For ease of reference, this section provides a consolidated list of recommendations found in **Chapters 3.0 – 6.0** of the Bike and Pedestrian Master Plan. Additional information regarding the recommendations has also been included and presented in **Table 6-2 – 6-4** including the proposed timeline, responsibilities, funding alternatives and potential partners which could be explored in further detail by the City upon implementation.

Table 6-2 – Short Term Recommendations (0-5 years)				
Recommendation	Page Reference	Responsibility	Funding	Potential Partners
3-1: The guidelines prepared as part of the City of Stratford Bike and Pedestrian Master Plan are intended to inform the detailed design and construction of bike and pedestrian facilities and should be referenced in coordination with OTM Book 18 as well as the TAC Bikeway Control Guidelines.	3-6	City of Stratford	Existing Municipal Resources	Inter-Departmental Working Group
				Perth County
Key Consideration: Recommendation to be implemented in the short term but is an ongoing recommendation to be implemented over the medium and long-term. Implementation should be immediate once the master plan has been adopted.				
3-2: Staff responsible for the design and construction of bike and pedestrian facilities should remain current regarding best practices as they related to bicycle facility design including updates to existing design guidelines, information presented at conferences and innovative design alternatives in Canada and internationally.	3-6	City of Stratford	Existing Resources	Inter-Departmental Working Group
Key Consideration: Recommendation to be implemented in the short term but be an ongoing recommendation over the medium and long-term.				

Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>3-3: The bike and pedestrian network illustrated in the City of Stratford Bike and Pedestrian Master Plan should be adopted by the City, as the blueprint for the development of active transportation facilities throughout the City. Consideration should be given to including the bike and pedestrian network as schedules in future updates of the City and County Official Plans.</p>	3-11	City of Stratford	Existing Resources	Inter-Departmental Working Group
<p>Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term.</p>				
<p>3-5: The City of Stratford should review and revise their annual maintenance budgets to accommodate the maintenance of bike and pedestrian infrastructure. These budgets should be increased over time to accommodate the increases in the number of kilometres of hard infrastructure.</p>	3-13	City of Stratford	To be Determined	Upper Thames River Conservation Authority ----- Perth County
<p>Key Considerations: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term so that maintenance can keep pace with the increase in number of kilometres of facilities.</p>				
<p>3-6: The City of Stratford should consider the proposed methods of reducing risk when designing and implementing bike and pedestrian facilities. The City should also reference Crime Prevention through Environmental Design standards as an additional method of mitigating risk and liability concerns.</p>	3-14	City of Stratford	Existing Resources	CPTED Ontario ----- Upper Thames River Conservation Authority ----- Perth County
<p>Key Consideration: Recommendation to be implemented on the short-term but is an ongoing recommendation over the medium and long-term. The City should audit their existing trail conditions as an initial priority to see where additional enhancements can be made to decrease risk and liability.</p>				

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Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>4-1: The City should partner with Perth District Health Unit to consider the development and implementation of a cycling and pedestrian education program to inform residents of the municipal walking and cycling opportunities over the short and long term as the master plan is implemented.</p>	4-7	Perth District Health Unit with support from City of Stratford	Existing Resources City contribution \$10,000 / year from the City of Stratford	Upper Thames River Conservation Authority
				Perth District Health Unit
				City of Stratford Police
				Public Liaison Committee
<p>Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. An initial priority would be to identify representatives from the Perth District Health Unit to continue discussions with the bike and pedestrian committee and team members.</p>				
<p>4-2: Focus should be placed on developing educational programming geared towards children and youth including but not limited to the implementation of an active and safe routes to school program or the CANbike training program.</p>	4-7	Perth District Health Unit with support from City of Stratford	Existing Resources or part of a budget for Cycling and Walking Education (TBD)	Perth District Health Unit
				CANbike
				Public Liaison Committee
<p>Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. The Bike and Pedestrian committee should include a youth representative (where possible) on the public liaison committee to identify potential educational programs as well as school board representatives who can initiate discussions.</p>				
<p>4-3: The information presented in the Master Plan Design Guidelines (Appendix D) should be used by the City to inform the development of educational materials.</p>	4-7	City of Stratford	To be Determined	Inter-Departmental Working Group
				Perth District Health Unit
<p>Key Consideration: Recommendation to be initiated in the short-term and continued into the medium-term. Full completion of implementation is the medium-term. The City should explore initial discussions regarding a branded educational strategy based on design applications.</p>				

Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>4-4: The City should consider the development of both hard copy (newsletters, posters, mapping and promotional materials) and on-line education tools geared towards users of all ages and abilities. The materials could include but are not limited to a “how to guide” on facility use, a “benefits guide” and / or trail and cycling facility mapping. The online tool would be coordinated by the City’s Recreation Services Department.</p>	4-7	Perth District Health Unit with support from City of Stratford	Existing Resources or based on future funding opportunities i.e. Trillium Foundation	Perth District Health Unit
				Inter-Departmental Working Group
				Public Liaison Committee
<p>Key Consideration: Recommendation to be initiated in the short-term and continued into the medium-term. Full completion of implementation is the medium-term. The City should consult with the Public Liaison Committee regarding the user expectations.</p>				
<p>4-5: The City should consider partnering with municipal agencies, the Upper Thames River Conservation Authority, members of the Perth County AT Committee and other municipal partners to develop and distribute educational information.</p>	4-7	Perth District Health Unit with support from City of Stratford	Existing Resources	Perth District Health Unit
				Inter-Departmental Working Group
				Cycling and Walking Interest Groups
				Upper Thames River Conservation Authority
				School Boards
<p>Key Consideration: Recommendation to be initiated in the short-term and continued into the medium-term. Full completion of implementation is the medium-term.</p>				

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Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>4-6: The City should consider the development of a cycling map. The GIS information and database provided as part of the master plan report will be used to generate the base mapping and key information to be included on the map will be determined based on further discussions with City staff, local stakeholders and interest groups.</p>	4-7	City of Stratford	To be Determined ~\$50,000 to prepare map. Cost of printing dependent on advertising and size of print run.	Inter-Departmental Working Group
				Public Liaison Committee
				External Consultant (as necessary)
<p>Key Consideration: The Inter-Department Working Group should use the next steps identified in the master plan report and should explore the development of a Request for Proposal (RFP) to prepare a bike and pedestrian network map which integrates promotion and tourism elements.</p>				
<p>4-8: A Community-Based Social Marketing (CBSM) program geared towards the delivery of marketing and encouragement efforts related to the Bike and Pedestrian Master Plan should be explored and developed by the City based on the steps identified above.</p>	4-10	City of Stratford	Existing Resources	Perth District Health Unit
				Inter-Departmental Working Group
<p>Key Consideration: Refer to page 4-11 for the Community Based Social Marketing techniques which could be applied throughout the City.</p>				
<p>4-9: The City of Stratford should work with municipal employees to develop internal programming to promote the use of sustainable transportation modes for utilitarian purposes.</p>	4-10	City of Stratford	Existing Resources	Inter-Departmental Working Group
<p>Key Considerations: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. The City should work with the educational materials prepared for the general public and tailor it for local employers.</p>				
<p>4-11: The City should work with a Public Liaison Committee to develop priority bike valet services at key public events to encourage people to travel to events by bicycle. The valet parking will be coordinated by the committee and be based on volunteer services.</p>	4-10	City of Stratford	Existing Resources	Public Liaison Committee
				Inter-Departmental Working Group
				Tourism Stratford
<p>Key Considerations: The Inter-Departmental Working Group collaboratively with the Public Liaison Committee should look at other best practices to develop their bike valet approach.</p>				

Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
4-13: The City should work with the City's Police Service to develop a safe cycling campaign modeled after the "Safely Sharing Halton's Roadway" campaign.	4-12	City of Stratford	Existing Resources	City of Stratford Police Service
Key Consideration: The City's Police Service should be consulted as part of the Public Liaison committee to provide their insight into the development of a Share the Roadway Campaign.				
5-1: The City should adopt the 10+ year bike and pedestrian network implementation plan and use it to guide the implementation of the network in five-year increments.	5-10	City of Stratford	To be Determined Subject to Annual Budget Deliberations	N/A
Key Considerations: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. Once the first 5-10 years has been implemented the City is recommended to explore updating the phasing identified.				
5-2: Once the City has adopted the Bike and Pedestrian Master Plan, the recommendations and proposed routes are to be considered for incorporation in a Multi-modal Strategy to help guide the future promotion of alternatives modes of transportation City-wide.	5-10	City of Stratford	To be Determined Subject to Annual Budget Deliberations	N/A
Key Consideration: The development of the multi-modal strategy and / or master plan for the City is to be initiated within the first 5 years but is contingent of available funds from the City and political investment.				
5-3: The City should take the lead in establishing an Inter-Departmental Working Group made up of representatives from the different municipal departments who will lead the implementation of the master plan. The Working Group will be based on the Steering Committee that guided the development of the master plan. Additional members will be selected by the City once initiated.	5-10	City of Stratford	Existing Resources	Representation from all Departments found within the City of Stratford
Key Consideration: The study team who developed the master plan should be responsible for identifying representatives from other departments who can generate the working group.				

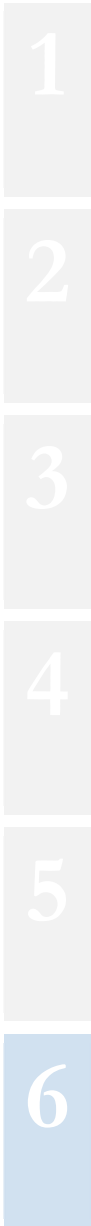


Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>5-4: The City should take the lead in establishing a Public Liaison Committee including but not limited to representatives from local interest groups and advocacy groups, citizens-at-large, local businesses and other key groups as determined.</p>	5-10	City of Stratford	Existing Resources	<p>Walking and Cycling Clubs</p> <p>Interest Groups</p> <p>Developers</p> <p>Upper Thames River Conservation Authority</p> <p>Tourism Stratford</p> <p>Citizen at Large</p> <p>School Boards</p> <p>Perth District Health Unit</p> <p>BIA</p>
<p>Key Considerations: The study team who developed the master plan should be responsible for coordinating a group of individuals to form the public liaison committee. The committee could build on those representatives who identified themselves as part of the online questionnaire.</p>				
<p>5-5: The City should coordinate the bike and pedestrian network implementation with the Capital Works Program. The Infrastructure & Development Services Department in collaboration with the Community Services department will be responsible for the implementation of hard cycling and pedestrian infrastructure including on and off-road facilities.</p>	5-10	City of Stratford	Existing Resources	<p>Stratford Infrastructure & Development Service & community Services Department</p>
<p>Key Consideration: The Inter-departmental working group representatives from the infrastructure and development services and community services department should communicate on an ongoing basis to ensure that on-road and off-road projects are coordinated based on input from the capital works program. Once the master plan has been adopted and the network implementation has commenced this initiative should start and should continue as a form of practice / communication at the City level.</p>				

Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>5-6: The City should identify an existing staff member who will be responsible for “championing” the implementation of the master plan including chairing the Inter-Departmental Working Group as well as the Public Liaison Committee. This staff “lead” would also be responsible for providing updates on the progress of the study when necessary to City Council, stakeholders, the County and local interest groups, etc.</p>	5-10	City of Stratford	To be Determined	N/A
<p>Key Consideration: The study team should build on the efforts of the study team who developed the master plan to identify one of those individuals who will be responsible for implementing the plan. It is suggested that someone from the engineering department be the lead for the plan’s implementation.</p>				
<p>5-7: The City could explore the development of the role of an Active Transportation Coordinator, who would take on a full or part-time role and be responsible for the “championing” the implementation of the bike and pedestrian master plan.</p>	5-10	City of Stratford	To be Determined	N/A
<p>Key Consideration: Recommendation to be initiated in the short-term and continued into the medium-term. Full completion of implementation is the medium-term. After the first couple years of implementation this recommendation must be reassessed by the inter-departmental working group.</p>				
<p>5-8: The Inter-Departmental Working Group should review the proposed five-step tool to guide the implementation of the bike and pedestrian network and associated facilities throughout the City and adapt it as necessary.</p>	5-10	City of Stratford	Existing Resources	Inter-Departmental Working Group
<p>Key Consideration: As necessary, the inter-departmental working group should work together to adapt and learn how to apply the tool appropriately. Future training on the use of the master plan and design guidelines may be explored in the initial stages.</p>				

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Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
5-9: The Bike and Pedestrian Master Plan should be reviewed and given consideration when City Roads (or County Roads as identified as part of the Bike and Pedestrian Network) and other capital infrastructure projects are identified and scheduled.	5-10	City of Stratford	Existing Resources	Inter-Departmental Working Group
Key Considerations: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term.				
5-15: The City should develop policies and processes for working with the development community to ensure that on and off-road bike and pedestrian facilities are planned, designed and constructed as part of the development process.	5-21	City of Stratford	Existing Resources	Inter-Departmental Working Group ----- Public Liaison Committee
Key Consideration: Recommendation to be initiated in the short-term and continued into the medium-term. The City should identify a representative from the development community to be included in the public liaison committee to ensure ongoing discussions re: cycling and walking facilities in new neighbourhoods.				
5-16: The City of Stratford, where possible, should thoroughly examine the potential to use unopened road allowances as potential bike and / or pedestrian routes as opposed to disposing of them / selling them to adjacent land owners.	5-24	City of Stratford	To be Determined	Inter-Departmental Working Group ----- Local Developers ----- Private Land Owners
Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium-term. As part of the proposed network some potential priorities have been identified. These should form the basis to identify these future opportunities.				
5-17: The City of Stratford should consider and investigate the potential to utilize, where possible, utility corridors in urban areas as potential bike and pedestrian routes.	5-24	City of Stratford	To be Determined	Inter-Departmental Working Group
Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium-term. As part of the proposed network some potential priorities have been identified. These should form the basis to identify these future opportunities.				

Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
5-18: The City should consider a securement strategy for bike and pedestrian routes that are identified on lands that are currently privately owned.	5-26	City of Stratford	Existing Resources	Inter-Departmental Working Group Upper Thames River Conservation Authority Private Landowners
Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium-term. As part of the proposed network some potential priorities have been identified. These should form the basis to identify these future opportunities.				
5-19: The City should refer to the network phasing recommendations in the Bike and Pedestrian Master Plan as a guide for implementing the City-wide Bike and Pedestrian Network throughout Stratford.	5-27	City of Stratford	To be Determined Subject to Annual Budget Deliberations	Inter-Departmental Working Group
Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. The City, however, is encouraged to update the master plan and the proposed network every 5 years. The revised network will for the updated guide for implementation.				
5-20: To implement Phase 1 i.e. 0 – 5 years, the City of Stratford should budget a total of \$495,655 (see Table 5-5) over the first 5 years. This translates to \$99,131 per year or \$3.21 / person / year assuming a municipal population of 30,886 (Statistics Canada 2011 Census Data).	5-17	City of Stratford	To be Determined based on Budget Available	N/A
Key Consideration: None				
5-21: In addition to capital funding, The City of Stratford should explore other outside partnerships, cost-sharing and funding opportunities for the implementation of the Bike and Pedestrian Network and supportive promotion and outreach programs.	5-28	City of Stratford	Existing Resources	Inter-Departmental Working Group Perth District Health Unit
Key Consideration: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. Those potential funding and partnership opportunities identified in the master plan should form the basis of future exploration by the City. Additional resources should be identified as they become available.				

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Table 6-2 – Short Term Recommendations (0-5 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>6-1: A part of creating a performance monitoring plan for bike and pedestrian activities, the City should consider confirming the performance measures listed in the Plan as a starting point from which a standard set of measures will be applied and used to evaluate the master plan’s implementation.</p>	6-2	City of Stratford	Existing Resources	<p>Inter-Departmental Working Group</p> <hr/> <p>Students from Post secondary institutions that are studying community planning</p>
<p>Key Considerations: Recommendation to be implemented in the short-term but is an ongoing recommendation over the medium and long-term. Examples from other communities e.g. County of Wellington should be explored to form the City’s performance measures and evaluation criteria.</p>				
<p>4-7: The City should consider developing a branded signage strategy. The strategy would identify key locations throughout the community to include on and off-road route signage which complements the standard on-road bike route sign. The signage strategy would be based on other City-wide branding and would be developed based on input from Tourism Stratford.</p>	4-7	City of Stratford	<p>Suggest \$30,000 Budget</p> <p>To be determined based on Annual Budget Deliberation</p>	<p>Inter-Departmental Working Group</p> <hr/> <p>Public Liaison Committee</p> <hr/> <p>Upper Thames River Conservation</p>
<p>Key Considerations: Once the city has implemented the green-bike route sign on routes identified as signed-bike routes, the City should consider work with the Inter-departmental Working Group and Public Liaison Committee to prepare a signage strategy for the City’s cycling and pedestrian routes.</p>				

Table 6-3 – Medium Term Recommendations (6-10 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
4-10: The City should work with local employers and interest groups to identifying potential incentive programs or supportive infrastructure which could help to decrease the use of single occupancy vehicles to and from work.	4-10	City of Stratford	Existing Resources	Inter-Departmental Working Group
				Public Liaison Committee
				Local Employers
Key Consideration: Once the City has explored the promotion of sustainable transportation for employers in the City. Once completed, the city should explore possible incentive programs to decrease motor vehicle use.				
4-12: The City should work with local employers, businesses and key community destinations to develop a bike-parking strategy to help promote cycling throughout the community. The strategy will be based on the guidelines identified in Appendix D Design Guidelines and OTM Book 18.	4-11	City of Stratford	To be Determined Subject to Annual Budget Deliberations	Inter-Departmental Working Group
				Public Liaison Committee
Key Considerations: None				
4-14: Enforcement activities of the City's Police Service should be supplemented by local By-law enforcement officers for issues relating to sidewalk cycling, misuse of bicycle and pedestrian facilities and misuse of trails, etc.	4-12	City of Stratford	Existing Resources	Inter-Departmental Working Group
				City By-law Enforcement and Police Services
Key Consideration: A program of trail enforcement should be explored when the City's police force and bylaw officers have been educated and informed of how to properly enforce trail and cycling activities.				

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Table 6-3 – Medium Term Recommendations (6-10 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
5-10: When next updated, the City's OP should be reviewed to ensure that policies are included which addresses active transportation and is consistent with the policies and recommendations found in the Bike and Pedestrian Master Plan. The City should consider making specific reference to the design guidelines found in Appendix D and / or including the network mapping as a schedule.	5-17	City of Stratford	Existing Resources	N/A
Key Consideration: It is acknowledged that the OP update being completed in 2013 was commented on by the bike and pedestrian master plan study team. As they have been completed in the same year both plans should be updated simultaneously in a collaborative manner.				
5-11: The City should explore land-use planning initiatives and policy development which supports a mixed-use, higher density urban core and continues to promote pedestrian and cyclist friendly streetscapes to facilitate an increased quality of life and liveability within the City of Stratford.	5-19	City of Stratford	Existing Resources	Inter-Departmental Working Group
				Bordering Municipalities
				Perth District Health Unit
Key Considerations: None				
5-12: The City should strive to continually improve connectivity for pedestrians and cyclists through the City to key destinations (e.g. places of employment and transit hubs) and to surrounding municipalities.	5-19	City of Stratford	Existing Resources	Inter-Departmental Working Group
				Public Liaison Committee
				Key Community Destination Coordinators
				Local Transit Providers
				Bordering Municipal Representatives
Key Considerations: The City should work with the Public Liaison Committee to identify key destinations or assess the frequency of use for major community destinations.				

Table 6-3 – Medium Term Recommendations (6-10 years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
5-13: The City should explore the development of a 'Safe Routes to School' program using the secondary route network identified as part of the master plan in collaboration with Perth District Health Unit, local school boards, the Public Liaison Committee and interest groups.	5-19	Perth District Health Unit & Schools Boards with Support from City	Forms part of Education & Promtoion Budget (Recommendation 4.1)	Public Liaison Committee
				Inter-Departmental Working Group
				Safe Routes to School Program
				Perth District Health Unit
Key Consideration: The City should engage with local school boards and a champion from local schools.				
5-14: The City should consider the development of an active transportation charter based on the charter that was recently developed and adopted by the County. The County's document will be the basis from which the City will develop their own charter specific to the goals and objectives of the bike and pedestrian master plan.	5-19	City of Stratford	Existing Resources	Inter-Departmental Working Group
				Public Liaison committee
Key Consideration: The City should explore the different types of pedestrian and cyclist charters that have been developed for other municipalities and should use these as the basis for the development of a City specific charter.				

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Table 6-4 – Long Term Recommendations (11 – 20+ years)

Recommendation	Page Reference	Responsibility	Funding	Potential Partners
<p>3-4: Recognize that the Bike and Pedestrian Network will change over time as new opportunities offered by unopened road allowances, hydro rights-of-way, abandoned rail corridors, open space and future roadway improvements become available. To respond to new opportunities that become available from time to time, changes to the network can be approved at the Director level without the need for an Official Plan Amendment.</p>	3-11	City of Stratford	To be Determined as Opportunities Arise	<p>Inter-Departmental Working Group</p> <hr/> <p>Hydro 1 or Hydro Providers</p> <hr/> <p>CN Rail or VIA Rail</p>
<p>Key Consideration: It is important to note that some opportunities may arise in the first two phases of implementation. These should be identified and explored when possible.</p>				

6.3 WHERE DO WE GO FROM HERE?

There are a number of recommended next steps that the City of Stratford should take in 2014 to advance the implementation of the City-wide Bike and Pedestrian Master Plan. These include:

- Submitting the draft Master Plan report to Council with a recommendation that it be adopted open for public review between June 2013 and December 2013. The draft report should be posted in digital format on the City and County’s websites so that it can be viewed and downloaded by the public and copies made available at the City’s offices. All stakeholders and agencies that were invited to comment during the study should be emailed the link to the Master Plan along with an invitation to review and provide comments;
- Copies of the Master Plan report would be provided to each City Department with a copy forwarded to Perth County; and
- Issue a digital copy of the City-wide Bike and Pedestrian Master Plan report to adjacent municipalities, the Upper Thames River Conservation Authority, Perth District Health Unit and local school boards for information and as input to their long range planning initiatives.

APPENDIX A | SUMMARY OF BACKGROUND INFORMATION



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APPENDIX A

SUMMARY OF BACKGROUND INFORMATION



A successful bike and pedestrian master plan needs to be founded on policy at all levels of government in order to provide the tools and mechanisms necessary to implement it. The following provides the existing policy framework for walking and cycling that would be built upon in the development of the City of Stratford Bike and Pedestrian Master Plan.

1.1 FEDERAL POLICIES & PLANS

1.1.1 Transport Canada

Transport Canada in 2005 report titled **“Strategies for Sustainable Transportation Planning: a review of practices and options”** recommends a set of guidelines to incorporate sustainable transportation principles into municipal transportation plans. Proposed principles include the creation of policies related to walking and cycling that can be used to develop effective, implementable transportation plans to promote sustainable transportation on a federal level. Strategies and policies within the report which address sustainable transportation include:

Integration with Land Use Planning

- Encourage desirable land use form and design (e.g. compact, mixed-use, pedestrian/bike-friendly) through transportation plan policies.

Environment & Health

- Identify strategies to mitigate the air quality impacts of transportation activities.
- Identify strategies to mitigate noise impacts of transportation activities.
- Identify ways that transportation systems influence the achievement of the community's economic or social objectives. Provide support in the plan's strategic directions.
- Recognize the importance of ensuring access to opportunities for disabled and low-income persons, recent immigrants, youth and the elderly. Set goals and objectives for reducing the need to travel, improving transit mobility, and preserving minimum levels of service on roadways. Identify related strategies.

- Address the transportation needs of persons with disabilities, notably with regard to public transit service and barrier-free design in public rights-of-way.
- Recognize the public health impacts of transportation activity arising through road safety, pollution and physical activity levels. Identify effective strategies to strengthen positive impacts and lessen negative ones.
- Recognize the impact of transportation-related death and injury on quality of life and the economy. Set goals and objectives for multimodal road safety. Identify effective road safety strategies.

Modal Sustainability

- Identify strategies, policies, facilities and services to increase walking, cycling, other active transportation, transit, ridesharing and teleworking.
- Recognize synergies and tensions among different modes (e.g. potential for multimodal cycling-transit trips, potential for modal shift from transit to ridesharing). Address possible implications for transportation objectives.
- Include objectives, strategies, policies, facilities and services to make transit operations more sustainable.

The publishing of this document and the recommended policies and strategies identified within it illustrate the federal government’s commitment to developing national standards and practices which will help to improve conditions for walking and cycling throughout the City.

1.1.2 Federation of Canadian Municipalities



The Federation of Canadian Municipalities (FCM) has considered itself the national voice for municipal government since 1901 representing 1,775 members which fall within the federal jurisdiction. Members include Canada’s largest cities, small urban and rural communities, and 18 provincial and territorial municipal associations. The organization fosters sustainable communities enjoying a high quality of life by promoting strong, effective and accountable municipal government.

FCM has recently developed the Communities in Motion: Bringing Active Transportation to Life Initiative. This document is a key resource for all Canadian municipalities which sets out goals for promoting active transportation options, eliminating barriers to different travel mode choices and promoting active transportation modes such as walking and cycling as part of everyday life. With regard to the provision of on and off-road walking and cycling facilities, the document notes that “some pedestrians and cyclists stick to city streets to reduce travel time and distance. Others, however, prefer less stressful off-road routes that let them connect with nature. Lighting on trails improves safety and security, wayfinding systems help people get where they’re going, bike ramps let cyclists get up and down staircases with ease, and dedicated bridges help everyone

cross waterways, ravines and railway lines. Off-road routes are also important for recreation, and many communities are expanding their trails systems to boost tourism”. As such, the document promotes the design and development of walking and cycling facilities including both on and off-road alternatives.

1.1.3 Federal and Provincial Organizations

Applicable Federal and Provincial Organizations	Description of Key Policies	
Trans Canada Trails Association	<p>The Trans Canada Trail is a non-profit, registered charity. Its mission is to promote and assist in the development and use of the Trail in every province and territory. They also provide funding to local trail builders to support the development of trails. Today, more than 16,500 kilometres of trail have been developed. When completed, the Trail will stretch 22,000 kilometres from the Atlantic to the Pacific to the Arctic Oceans, linking 1,000 communities and all Canadians</p>	
The Ontario Trails Council	<p>The Ontario Trails Council (OTC), a not for profit organization, promotes the development of trails in Ontario. The Trillium Trail Network (TTN) is an initiative of the OTC and represents an opportunity for trails to link together between regions and communities in Ontario. The TTN consists of OTC member trails registering their trail as a network member. Trillium Trail Network (TTN) is designed to be a province-wide network of trails; overall, the TTN works to:</p> <ul style="list-style-type: none"> • Make Ontario a more attractive place to live and visit; • Promote trail travel and tourism; • Increase the number of trails available for use; • Improve trail management as TTN trails will work to implement accepted trail standards; • Promote ecological conservation; • Provide access to local history and community culture; and • Promote accessibility and use to disabled persons. 	

Applicable Federal and Provincial Organizations	Description of Key Policies	
<p>Share the Road Coalition</p>	<p>With cycling a burgeoning mode of transportation across the globe, and communities looking to enhance the health and wellbeing of their citizens, Share the Road Coalition is developing partnerships with like-minded stakeholders across Ontario and has focused on developing partnerships geared to building a Bicycle Friendly Ontario. Share the Road Cycling Coalition is a provincial cycling advocacy organization created to unite cycling organizations from across Ontario and work with and on behalf of municipalities to enhance their ability to make their communities more bicycle-friendly. The organization's mandate is province-wide with a specific focus on developing public policy at the provincial level in order to provide the kind of legislative, programmatic and funding instruments such as exist in other Canadian provinces notably Quebec and British Columbia.</p> <p>Since its inception, the Coalition has focused on outreach work with a view to building partnerships with active transportation stakeholders such as: cycling advocates, local cycling clubs, organizations and municipal advisory groups, municipal leaders and officials, law enforcement, planners, provincial politicians and officials, public health professionals, and funders. By uniting Ontarians who share a common set of objectives Share the Road Coalition is committed to leveraging the resources of those who have those common interests, with the objective of making Ontario the most bicycle friendly jurisdiction in the world.</p>	 

1.2 PROVINCIAL POLICIES & PLANS

Applicable Provincial Policies	Description of Key Policies	
<p>Provincial Policy Statement (Revised Draft 2012)</p>	<p>The Provincial Policy Statement (PPS), currently under review, sets the foundation for regulating land use and development within the Province of Ontario while supporting provincial goals and objectives. The PPS provides guidelines for appropriate development and protects resources of provincial interest. The vision of the land use planning system outlined in the PPS states that “long-term prosperity and social well-being of Ontarians depends on maintaining strong communities, a clean healthy environment and a strong economy”.</p>	

Applicable Provincial Policies	Description of Key Policies
	<p>The PPS promotes transportation choices that facilitate pedestrian and cycling mobility and other modes of travel. “Transportation systems” as defined in the PPS is a system consisting of corridors and rights-of-way for the movement of people and goods as well as the associated transportation facilities, which include cycling lanes and park’n’ride lots. Policies pertaining to transportation, such as cycling, pedestrians and transit are dispersed throughout the PPS. The draft PPS update was released in September 2012 for public comment. Within this document references to the provision of active transportation (pedestrian and cycling) facilities to encourage the growth of the province and its local communities. These include but are not limited to:</p> <ul style="list-style-type: none"> • Supporting active transportation to increase connectivity within and among transportation modes to build strong, healthy communities (Page 5) • As part of the Vision for Ontario’s Land Use Planning System, the province is committed to developing land patterns which promote and increased use of active transportation modes (Page 11). This concept is repeated frequently throughout the document as different land uses are discussed. • In section 1.4, “Housing”, it is encouraged that new housing areas be developed to promote densities which support the use of active transportation (Page 18) • Section 1.6, “Infrastructure”, notes that active transportation be included as part of public service facilities which are to be located within community hubs to promote cost-effectiveness (Page 19) • Section 1.8, “Energy Conservation, Air Quality and Climate Change”, identifies the importance of the promotion of active transportation between residential, employment and other land uses to support energy conservation and efficiency. • Section 1.5 speaks to “Public spaces, recreation, parks, trails and open space” which is based around the promotion and facilitation of active transportation development to ensure that communities are successfully connected for recreation as well as utilitarian purposes. <p>Section 6.0 provides definitions for key terms used throughout the document. As identified by the Province of Ontario, Active Transportation “means human-powered travel, including but not limited to, walking, cycling, inline skating and travel with the use of mobility aids, including motorised wheelchairs and other power-assisted devices moving at a comparable speed”. It is important to note that this definition is reflected in other provincial and local planning documents and should here-on in be used as the standard definition of active transportation.</p>
<p>Bill 51 – Plan Reform</p>	<p>Bill 51 was approved in January of 2007 and reforms the Planning Act, which provides the legislative framework for land use planning in Ontario. The document outlines changes to the planning process that are intended to support intensification, sustainable development and the protection of green space by giving municipalities greater power, flexibility and tools to use land, resources and infrastructure more efficiently.</p> <p>Bill 51 is consistent with Ontario’s recent policy shift towards sustainable land use development and planning. For instance, Bill 51 permits municipalities to require environmentally sustainable design for both individual buildings and entire neighbourhoods. It also adds sustainable development as a provincial goal and objective in the Provincial Policy Statement.</p>

Applicable Provincial Policies	Description of Key Policies
Municipal Act (2001)	<p>The Municipal Act (2001) gives municipalities flexibility when dealing with local circumstances. It also requires these municipalities to react quickly to local, economic, environmental or social changes. It recognizes municipalities as responsible and accountable governments with respect to matters within their jurisdictions. The Municipal Act sets out policies pertaining to municipalities' jurisdiction over municipal highways and the maintenance of those highways, which has an impact on the design and development of cycling facilities.</p>
Highway Traffic Act	<p>Bicycles are recognized as a vehicle, as defined in the Ontario Highway Traffic Act (HTA), and can operate on public roadways with the same rights and responsibilities as a motor vehicle. However, bicycles are not permitted on controlled access freeways such as the 400 series highways and / or any roadway designated for "no cycling" by a municipal bylaw. The Highway Traffic Act contains a number of policies relating to bicycles, including vehicles interacting with bicycles, bicycles being overtaken, and regulating or prohibiting bicycles on highways.</p>
<p>Accessibility for Ontarians with Disabilities Act (2005)</p>	<p>The Accessibility for Ontarians with Disabilities Act was passed on June 13, 2005 and is a provincially legislated policy which calls on the business community, public sector, not-for-profit sector and people with disabilities or their representatives to develop, implement and enforce mandatory standards. This policy makes Ontario the first jurisdiction in Canada to develop, implement and enforce accessibility standards which can be applied to both private and public sectors. These standards are the guidelines that businesses in Ontario should follow to identify, remove and prevent barriers to accessibility. The Built Environment is the most relevant standard that can be applied to trail planning, design and construction. The final draft of the standard was submitted to the Minister of Community and Social Services in 2010 but has yet to receive final approval. Conservation Lands staff at the TRCA are incorporating the recommendations provided in the final draft as minimum standards for trail design.</p> <p>The former Ministry of Health Promotion were integrated into the Ministry of Health and Long-Term Care in 2011 and serves as the lead Ministry for trails in Ontario. It is this ministry which ultimately has the responsibility for the coordination of recreational trail issues, policy development and planning. The Ministry of Health and Long-Term Care mission is to:</p> <ul style="list-style-type: none"> • Champion health promotion in Ontario, and inspire individuals, organizations, communities and governments to create a culture of health and wellbeing. • Provide programs, services, tools and incentives that will enhance health and wellbeing. • Make healthy choices easier. • Harness the energy and commitment of other ministries, other levels of government, community partners, the private sector, the media and the public to promote health and well-being for all Ontarians. • To make Ontario a leader in health promotion within Canada and internationally. <p>The Ministry of Health Promotion drafted a vision for Ontario's trails which states that: <i>"A world class system of trails that capture the uniqueness and beauty of Ontario's vast open spaces and natural and built cultural/heritage resources. People and places are connected through quality, diverse, safe, accessible and environmentally sensitive urban, rural and wilderness experience trails for recreational enjoyment, active living and tourism development."</i></p>

Applicable Provincial Policies	Description of Key Policies
<p>The Ontario Trails Strategy</p>	<p>The Provincial government developed the Ontario Trails Strategy in response to the increasing popularity of trail activities and infrastructure, the need for government leadership, the need to protect provincial investment in trails and the need to mitigate significant provincial trail issues or challenges. The Ontario Trails Strategy is a long-term plan that will establish a strategic direction for government and stakeholders involved in the planning, management, promotion and use of trails, toward a healthier and more prosperous Ontario. Developed in collaboration with other ministries and stakeholders, the strategy supports continued cooperation among governments and the not-for-profit and private sectors. There are five strategic directions that are outlined in the Ontario Trails Strategy:</p> <ul style="list-style-type: none"> • Improving collaboration among stakeholders; • Enhancing the sustainability of Ontario's trails; • Enhancing the trail experience; • Educating Ontarians about trails; and • Fostering better health and a strong economy through trails. <p>A number of goals and strategies have also been identified to support each of the five strategic directions. The Ontario Trails Strategy recommends that trail organizations develop common standards to guide the development and use of trails. This would help the trail system evolve to meet the particular needs of new users. Trail organizations also need more effective tools and better ways of distributing information to Ontarians. As these challenges require coordination at all levels, the provincial government and the public, not-for-profit and private sectors will continue to collaborate on priorities, roles and responsibilities, timeframes, and methods to strengthen and enhance existing and future trails in Ontario.</p>
<p>Transit Supportive Guidelines (2012)</p>	<p>In 1992, the Ontario Ministries of Transportation and Municipal Affairs and Housing published the Transit-Supportive Land Use Planning Guidelines document. The focus of the document was to provide guidelines for the development of transit-friendly land use and urban design. More recently, the MTO undertook an update to the guidelines in order to support continued progress in the development of more compact, transit-supportive communities. The updated report documents the most current thinking on transit-supportive urban planning and design in addition to current best practices in transit planning and the delivery of custom-oriented transit service throughout the Province of Ontario. The documents builds upon the policies, plans and initiatives developed by the Ministry over the past 10 + years including the Growth Plan for the Greater Golden Horseshoe (2006) and the updated Provincial Policy Statements (2005).</p> <p>The guidelines consist of over 50 guidelines and approximately 450 specific strategies to guide urban planners, transit planners, developers etc. in creating an environment supportive of transit and transit ridership. The document also supports the development of pedestrian and cycling connections throughout urban and rural communities to help enhance transit infrastructure and usage. Specific guidelines and strategies can be identified throughout the document which references the application of a complete street approach when designing transportation facilities including the provision of safe and accessible pedestrian and cycling connections to and from transit stops and stations.</p>

1.3 COUNTY POLICIES & PLANS

Applicable Provincial Policies	Description of Key Policies
County of Perth Corporate Strategic Plan 2012 – 2017 (2012)	<p>In 2010, the County of Perth along with four municipalities of North Perth, West Perth, Perth South and Perth east developed a corporate strategic plan. The development of this plan recognizes the need for distinct and cohesive strategies to effectively serve and reflect each municipality. The focus of the plan is to provide a collective agenda to move forward as a community among mutual goals, recognize the purpose of the community upon its defined goals and balance the community's goals with municipal and local resources. The County's Corporate Strategic plan documents a five year initiative to create sustainable communities, promote economic growth, provide opportunities for businesses, encourage healthy lifestyles, and preserve cultural and social destinations. There are four goals outlined in the County of Perth Corporate Strategic Plan 2012 – 2017:</p> <ul style="list-style-type: none"> • Ensure residents are being served by an efficient, cohesive and comprehensive service delivery model; • Create an environment that supports and engages a diverse range of local businesses; • Support the continued strength and success of our agricultural businesses; and • Support existing and new opportunities to engage the county's residents and visitors. <p>The document further highlights and implementation plan which provides a defined timelines; appropriate actions and initiatives; the department lead; and potential contributing partners to achieve the defined goal.</p>
Perth County Policy Scan (2010) (Healthy Living)	<p>In 2010, the Ontario Heart Health Network (OHHN) Collaborative Policy Scan Work Group developed a report which documents the existing provincial policies which influence the development and sustainability of healthy communities. The scan was implemented across three sectors, government, education and health care to create a baseline inventory of the policies, and programs available. The report also distinguishes between those policies which have been implemented as well as those which could potentially benefit Perth County in the future.</p> <p>With respect to active transportation, the report provides baseline information on overall access to recreation and physical activity, active transportation and the built environment. The information presented will create a baseline of existing information for the development of future bike and pedestrian policies for the City of Stratford. In addition, recommendations and next steps identified within the report should be considered when developing additional policies for implementation as part of the City's master plan.</p>
Creating Walking and Bikeable Communities – A Perth County MovingON community Planning Guide (2011)	<p>In 2011, Perth County MovingON developed a Community Planning Guide to support and guide the future development of more walkable and bikeable communities. Responding to the increasing interest in making communities better for walking and cycling by providing the public spaces, programs and infrastructure to enable physically active communities the County has identified four categories which will help to guide future development which supports this overall goal.</p>

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Applicable Provincial Policies	Description of Key Policies
	<p>The guide was been developed based on the following principles:</p> <ul style="list-style-type: none"> • The guide will build upon the value-based statements described in the Walk 21 International Charter for Walking and the Active Communities Charter which have been signed by various local municipalities; • It will focus on modes of human powered active transportation. • It will outline clear action steps and criteria as opposed to more general, value-based principles. • Issues related to public transportation and the built environment will be included within the guide strategies. <p>The overall intent of the planning guide is to make the process of planning for active transportation simpler and easier. The goals and objectives identified for the four categories (land use planning and development, infrastructure, design standards, safety and maintenance, and culture, education and programming) are described in further detail on pages 11 – 17 of the report and should be considered when developing the City’s master plan network, policies and recommendations.</p>
<p>Perth County Take a Hike Guide (2004)</p>	<p>Updated in 2004 (the 4th Edition), the Take a Hike Guide provides an overview of walking, cycling and skiing trails throughout Perth County including specific details on the existing trails within the City of Stratford. User information is also provided including recommendations on the level of difficulty and trail users’ code of conduct. The information provided is a tool to identify existing infrastructure but should also be considered for future outreach. The city’s master plan could recommend the development of a guide similar to this specific for Stratford or a bike and pedestrian map which could be incorporated when the guide is updated in the future.</p>
<p>Perth County a Community Picture Report</p>	<p>Developed and published by Perth County Healthy Communities Partnership in August 2011, the Community Picture report provide an overview of the socio-demographic information for the communities found within Perth County. The report was developed to meet the requirements of the Healthy Community Partnership submission to the Ministry of Health Promotion and Sport in 2009. The report is meant to be a preliminary profile of local municipalities including information re: demographics, health status, as well as current initiatives which have an impact on health and wellness. Following the documentation of existing conditions, the report outline recommended actions and policy goals for each of the Ministry’s priority areas including but not limited to: healthy eating, physical activity, sport and recreation including active transportation, injury prevention etc.</p> <p>The recommendations developed as part of this report were informed by a number of consultation sessions with members of the community including residents and stakeholders. The information and input provided will be reviewed in further detail to be considered as part of the bike and pedestrian master plan report. It is important to note that a number of strategic priorities were proposed for consideration including but not limited to community mobilization, partnership and programming options for active transportation and healthy community workshops among others. Recommended actions and policy goals were provided for active transportation within the County and its local communities. They include:</p>

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Applicable Provincial Policies	Description of Key Policies
	<ul style="list-style-type: none"> • Increasing access to local recreational opportunities; • Increasing the percentage of the population who are achieving recommended levels of physical activity; • Increasing municipality, community organization and public support for walkable and bikeable communities; • Policies that increase opportunities to participate in physical activity regardless of age, income and physical ability; and • Policies that agree land use planning and infrastructure that make it easier and safer for people of all ages to walk and bike and use other forms of human powered active transportation. <p>The information presented in the report is influential in the development of the City of Stratford's bike and pedestrian master plan. The socio-demographic information provides develop a baseline of information which can be used to develop future performance measures and better gauge the impact of the implementation of active transportation (bike and pedestrian) infrastructure, policies and recommendations. In addition, the recommended actions and policy goals identified for active transportation will help to guide the development of City initiatives, policies and recommendations.</p>

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1.4 UPPER THAMES RIVER CONSERVATION AUTHORITY

Applicable Conservation Authority Policies & Plans	Description of Key Policies
Upper Thames River Conservation Authority	<p>The Upper Thames River Conservation Authority was formed in 1947 and covers the upper watershed of the Thames Rivers, rural areas and urban areas including the City of Stratford. The Upper Thames River Conservation Authority offers several hiking and biking trails for different level of users throughout surrounding conservation areas and is responsible for the maintenance and operation of trails in Pittock Conservation Area, Wildwood Conservation Area and Fanshawe Conservation Area within and around the City of Stratford.</p>

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1.5 CITY POLICIES & PLANS

Applicable City Policies	Description of Key Policies
City of Stratford Official Plan	<p>The City of Stratford is currently in the process of updating their Official Plan which is anticipated to be completed in 2013. Until this time, the City will use / reference their 2003 Official Plan document. The 2003 iteration is the fourth Official Plan for the City and replaces the 1978 document to reflect emerging trends in urban planning identifies a long-term vision for community development and addresses current issues such as economic development, environmental protection, tourism, heritage, residential intensification, urban design and transit supportive planning. The Official Plan document applies to those lands found within the municipal boundary of the City of Stratford.</p>

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Applicable City Policies	Description of Key Policies
	<p>The vision for the City of Stratford addresses long-term goals for the City pertaining to recreational activities such as increased opportunities for outdoor recreational and leisure time activities and the expansion of public transit and alternate modes of transportation. The report provides a documentation of existing facilities as well as an approach to address future transportation alternatives. Cycling and pedestrian activities are addressed throughout the Official Plan document including the provision of cycling and pedestrian linkages, facility development and compatible land uses.</p> <p>Section 12.0 “Transportation” sets out goals and objectives for the future of transportation throughout the City. The City aims “to reduce the dependency on the automobile as the primary means of transportation through enhancing public transit, cycling and other alternative modes” and “to recognize cycling as a viable alternative to other modes of transportation”. Section 12.3 speak to the development of bikeways specifically and provides a more detailed vision, measures to accommodate bicycle parking and bike lanes and the development of a bikeway plan.</p> <p>The development of a bike and pedestrian master plan for the City of Stratford is supported by the goals, objectives and initiatives identified in the Official Plan document.</p>

<p>Stratford Master Transportation Plan (2010)</p>	<p>A Master Transportation Plan for the City of Stratford was developed and adopted in August 2010. Based on the 1992 Report “Stratford Area Transportation Study”, the study was undertaken to assess the existing transportation conditions and issues and develop future solutions, recommendations and initiatives to be considered for implementation. The study was developed to address eight objectives. Within these objectives, cycling and pedestrian conditions were considered, including the “identification of streets that can incorporate options for alternative travel modes such as cycling lanes and widening sidewalks or trails” and researching and reviewing opportunities and options for pedestrian and cycling strategies”.</p> <p>As part of the master plan, active transportation conditions and facilities were assessed and proposed for consideration including a map of on-road bicycle routes identified “as an alternative to main arterial roads”. They key routes include Ontario Street, Huron Street, Romeo Street and most of Lorne Avenue. The current pedestrian facilities include a system of sidewalks and trail facilities provided as part of the road network within the City. A system of trail facilities and linkages to new development areas (i.e. subdivisions) are proposed for consideration to ensure that gaps and missing links are closed. Lastly, the report provides some urban design, maintenance standards and proposed bicycle parking facilities which could be used to support cycling and walking activities. The information / recommendations found within the report has been used to inform the development the deliverables for the bike and pedestrian master plan report.</p>
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Applicable City Policies	Description of Key Policies
Accessibility Plan (2012)	<p>Adopted in 2012, the Accessibility Plan was developed to address key barriers and issues for those with disabilities throughout the community. Though the plan does not specifically address issues pertaining to pedestrian and cycling activities, it is important to consider all those within the community when developing a master plan such as this. Where possible, those with mobility issues should be able to use these facilities to the best of their ability.</p> <p>The report provides documentation of legislative requirements that are necessary for an Accessibility Plan, such as Ontarians with Disabilities Act and Accessibility for Ontarians with Disabilities. The information provides initiatives and plans to promote accessibility in Stratford.</p>
A Tourism Study for the City of Stratford (2005)	<p>The Tourism Study was developed and completed in 2005 to address the increasing need for a strategic approach to tourism within the City of Stratford. The report summarizes key findings from group discussions, public meetings and research papers on how tourism operates in Stratford. Key findings are identified in six sections which propose initiatives and programming which could be explored for implementation to support the tourism industry in Stratford.</p> <p>Although the study does not directly address pedestrian and cycling activities, it is important to note that the availability of active transportation facilities may provide accessibility and links between tourist destinations.</p>
A Community Vision for the 21st Century (1997)	<p>In 1997, A Community Vision for the 21st Century was published to be used as a reference guide over the following ten to fifteen years for decision-making and strategic actions in Stratford. The report identifies responsibilities and role of council and city staff in the development of a community vision for Stratford. The Community Vision for the 21st Century outlines plans beyond 2010 to implement active transportation initiatives and activities such as; vibrant downtown area with adequate places for pedestrians and bicyclists; road systems that encourage active transportation facilities; and an healthy and active community. Immediate and mid-term priorities are defined in the report as initiatives to further encourage and support the goals in the Community Vision for Stratford.</p>
Strategic Master Plan to Provide for Leisure Services and Facilities (2005)	<p>In 2005, the Strategic Master Plan to Provide for Leisure Services and Facilities was published to review leisure services including aging facilities, utilization growth, changing population demographics and leisure service developments. The report has been structured into two parts outlining a Situational Analysis that aggregates several research activities, and a Leisure Services Master Plan which provides context of policy framework, implementation strategies, and specific recommendations. The growing demand for active transportation facilities in Stratford is identified in the Master Plan as a measure of participation as it pertains to accessing leisure activities from key destinations and communities.</p>

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1.6 COUNTY & CITY COMMITTEES, ORGANIZATIONS & STAKEHOLDERS

There are a number of interest groups which address cycling and pedestrian related issues throughout the City of Stratford as well as Perth County. These groups have been actively involved in work leading up to the development of the Bike and Pedestrian Master Plan. In addition, there are also a number of County and Municipal committees which provide input on related municipal matters i.e. Accessibility Committees.

There is great potential for political leadership and citizen involvement with members of these groups as the master plan is implemented. Below are some County as well as City organizations, stakeholders and committees that could potentially be involved in the implementation of the bike and pedestrian master plan.

Local Municipal Committees, Organizations & Stakeholders	County Committees, Organizations & stakeholders
<ul style="list-style-type: none"> • Accessibility Advisory Committee • Citizen Groups • Civic Beautification and Environmental Awareness Committee • Community Services Sub-committee • Economic Development and Tourism sub-committee • Energy & Environment Committee • Festival City Cycling Club • Parks Board • Public Works Sub-committee • Stratford and District Leisure Activity Council • Stratford Field Naturalists • Stratford Perth YMCA • Stratford RAW (Runners and Walkers) • Stratford Police • Stratford City Centre • Tourism Stratford 	<ul style="list-style-type: none"> • Avon Trail Association • County of Perth • Perth District Health Unit • Cycle Ontario • Huron Perth Catholic District School Board • Huron Perth Student Transportation Services • MovingON • Perth County Active Transportation and Trails Committee • Perth County Visitors Association • Related Provincial Ministries • Upper Thames River Conservation Authority

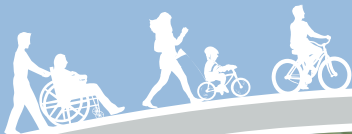
Some of these groups, stakeholder, organizations, committees etc. have developed documents and resources which speak to the development of active transportation facilities and programming.

Applicable County & Local Committee, Organization & Stakeholder Documents	Description of Key Policies
<p>Bicycle Friendly Master Plan Committee</p>	<p>Published in 2008, the Final Report of the City of Stratford Bicycle Friendly Master Plan Committee outlines a process for developing a bicycle friendly master plan. The Bicycle Friendly Master Plan Committee (BFMPC) organized their work into the following parts:</p> <ul style="list-style-type: none"> • Recommendations for the development and building of mixed use active transportation paths separate from the road system; • Recommendations regarding the development and installation of bicycle lanes, sign, lines on painted roads, bike locking facilities, and any other physical changes to city streets, sidewalks and other existing facilities; and • Recommendations which will promote safe ‘bicycle culture’. <p>The information presented in the report is a key reference document in the development of City of Stratford’s Bike and Pedestrian Master Plan as it provides recommendations and initiatives which could be considered for integration into the formal master plan document.</p>
<p>Perth County Healthy Communities Partnership “Perth County – A Community Picture Report” (2011)</p>	<p>Published in 2011 as a result of the 2009 Ministry of Health Promotion and Sport’s Healthy Communities Fund, this community picture report, developed by the Perth District Health Unit, provides an overview of existing County and local municipal socio-demographic and health conditions and characteristics.</p> <p>Section 5.1 speaks to physical activity, sport and recreation and transportation. It outlines the various health impacts of physical activity, the local resources available (including key committees / interest groups) and a local analysis of physical activity based on the report completed by what is now Huron-Perth <i>in motion</i> called <i>Increasing Sport and Physical Activity in Huron and Perth Counties</i>. Findings included:</p> <ul style="list-style-type: none"> • Significant array of high quality recreation and fitness facilities and programs distributed throughout the area; • Significant numbers of residents who participated in physical activity and sport • Significant proportion of the population remained uninvolved • Most of the physical activity and sport programs are of a traditional nature, involving minor sport and adult sport, walking etc. <p>Overall, the document concluded that more could be done to emphasize the importance of activity in day to day activities and that more of an investment should be made to provides the necessary programming and initiatives to support this.</p>

As evident by the information presented in the summary above, there exists a strong policy framework at all levels of government including at the City of Stratford and County of Perth that supports active transportation (walking and cycling). The City of Stratford Bike and Pedestrian Master Plan will build upon this existing policy base and will recommend additional policies where needed to strengthen the policy framework so that it can support the City’s new Bike and Pedestrian Master Plan.

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APPENDIX B | PERTH COUNTY ATTITUDES SURVEY



SURVEY SUMMARY REPORT



2010 Huron Perth *in motion* Survey

Huron-Perth *in motion* Steering Committee

September 2010

Prepared by:



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1. Summary

Introduction

- The overall purpose of this telephone survey was to provide representative data on the physical activity of Huron and Perth County residents, as well as to gauge their awareness of the importance of physical activity for health benefits, their recognition of local messaging promoting physical activity, and their use of local recreation facilities.
- Overall results for the full sample of 761 respondents are accurate to within +/-3.6% at the 95% confidence level, while the accuracy for Huron County results (n=380) is +/-5.0% and Perth County results (n=381) is +/-5.0%.

Highlights of Results

Demographics

- The gender distribution was equal for both Huron and Perth counties (50% male, 50% female). The mean age for Huron respondents was 51 years (median = 51), with a range of 18 to 91 years of age, while the mean age for Perth respondents was 49 years (median = 48), with a range of 18 to 93 years of age.
- Respondents most commonly reported their household composition as married/common-law with one or more children (40% for Huron, 45% for Perth) or two adults with no children (36% for Huron, 33% for Perth).
- Approximately half of respondents in both counties reported they were employed full-time (49% for Huron, 55% for Perth).
- When asked about the industry of their employment, the most common response for Huron was Agriculture or Other Resource-based (18%), while for Perth it was Manufacturing (15%), Agriculture or Other Resource-based (15%), or Health Care and Social Services (15%).

General Physical Activity Levels

- About four out of five respondents from Huron (81%) and Perth (83%) reported they are physically active on a regular basis. The large majority of these respondents reported being physically active on a regular basis for the past 6 months or more (95% for Huron, 92% for Perth).
- Only about one in three of those who were not physically active on a regular basis reported that they planned to begin regular physical activity in the next 30 days (32% for Huron, 39% for Perth).

Participation in Light, Moderate, and Vigorous Effort Activities

- Most respondents who were physically active reported participating in light effort activities over the past 7 days (91% for Huron, 86% for Perth), while about three out of five respondents reported participating in moderate effort activities in the past 7 days

(64% for Huron, 62% for Perth), and about one-third of respondents participated in vigorous effort activities in the past 7 days (30% for Huron, 35% for Perth).

Kilocalorie Per Kilogram Per Day (KKD) Levels

- Similar proportions of males and females were found to be achieving a KKD score of 3 or greater from light, moderate, and vigorous activity for both Huron (69% of males and 66% of females meeting 3 KKD) and Perth Counties (70% of males and 66% of females meeting 3 KKD).
- A greater proportion of male respondents from Perth County were meeting 3 KKD from moderate or vigorous activity (59%) as compared to females from Perth County (44%).

Activity Summary

- Walking and lawn and garden activities were the most commonly reported light activities by males and females in both Huron and Perth Counties.
- About seven in ten respondents reported that their activity level in the past week was reflective of what they normally do each week throughout the year (72% for Huron, 70% for Perth).
- The majority of respondents did *not* participate in physical activity at a recreation or fitness centre in the last 7 days (83% for Huron, 80% for Perth).

Health Conditions

- Only about three in ten respondents reported having a physical or mental health condition that has affected them for longer than 6 months (31% for Huron, 27% for Perth). Of those who did, the most commonly reported condition was muscle, bone, or joint problems (56% for Huron, 52% for Perth). These respondents tended to report that this condition kept them from being physically active (71% for Huron, 64% for Perth).

Campaign Awareness

- About one in five respondents reported they had recently read, seen or heard messages about Huron-Perth *in motion* (21% for Huron, 21% for Perth). The most common source was through the mass media (newspaper, radio, TV, magazine) (46% for Huron, 61% for Perth).
- Of those who had recently heard about *in motion*, less than half reported that the campaign had encouraged them to become more physically active for health benefits (40% for Huron, 35% for Perth). Similar proportions reported that *in motion* had prompted them to eat a healthier diet (37% for Huron, 35% for Perth) and be more physically active (35% for Huron, 41% for Perth).

2. Introduction

2.1. Background

The Huron-Perth *in motion* Network is a group of health, recreation, and education partners that work together to promote and support physical activity opportunities in Huron and Perth Counties. This network conducts a physical activity telephone survey every two years to collect information on:

- Physical activity levels of residents
- Awareness of the importance of physical activity for health benefits
- Recognition of local messaging promoting physical activity
- Use of local recreation facilities

The Huron-Perth *in motion* Network uses the data collected from each survey to identify priority areas and direct future projects and programs.

2.2. Survey Objectives

The objectives of this *in motion* Survey project were to:

1. Evaluate the *in motion* physical activity program in Huron and Perth Counties
2. Measure current levels of physical activity in residents of Huron and Perth Counties
3. Compare baseline indicators of physical activity levels (2008) with current physical activity levels for Huron and Perth County residents
4. Measure public awareness levels of the *in motion* strategy and activities
5. Investigate the association between key demographic variables (e.g. income, age, gender) and levels of physical activity

3. Methodology

3.1. Survey Instrument Design

Representatives of the Huron-Perth *in motion* Steering Committee, in conjunction with CCI Research Inc., modified the survey instrument that had been used in 2008 in order to reflect current information needs. The modified survey contained new questions related to the recognition of local messaging promoting physical activity and on the use of local recreation facilities. Removed from the survey were questions related to fruit and vegetable consumption and questions regarding the activity level of children. Participation in light, moderate, and vigorous physical activity was measured in the same manner as the previous survey in order to ensure comparability of results.

A copy of the complete survey instrument is attached as Appendix A.

3.2. Target Populations and Sampling

The target population for this survey included respondents in Huron County and Perth County who were 18 years of age or older.

The survey sample consisted of individual random-listed household telephone numbers for Huron County and Perth County supplied by Survey Sampling International (SSI).

Screeners were applied during fielding to ensure equal proportions of male and female respondents in each county, as well as proportions approximating the 2006 Census for age in both counties.

3.3. Survey Pilot

A pilot test of the survey was conducted by CCI Research on May 4th, 2010 to check the flow and logic of the survey. For the pilot, experienced interviewers used a Computer-Assisted Telephone Interview (CATI) system to complete a total of 40 surveys (20 in Huron County and 20 in Perth County). No major changes to the survey were required on the basis of the pilot results. Pilot results are included in the final dataset.

3.4. Data Collection

3.4.1. Interviewer Training

A standardized procedure was employed to ensure that all telephone interviewers had complete familiarity with the details of the survey and the CATI system of data entry. Each interviewer was thoroughly trained prior to interviewing and was supervised throughout the interviewing process.

Each interviewer was provided with a comprehensive training package, which detailed the procedure for telephone interviews. The package provided specific directives and resource information needed to ensure proper handling of all calls, including: handling of all types of call attempts and call-backs, respondent refusals, unease, questions, comments, and provision of contact information.

3.4.2. Calling Period

Data collection for the Huron Perth *in motion* Survey took place during the period of May 5th to June 30th, 2010. Trained interviewers used a CATI system to complete a total of 761 surveys with respondents from Huron County and Perth County (380 from Huron, 381 from Perth). Calls were made at various times of the day and week; on weekdays between 9:00 a.m. and 9:00 p.m., and weekends between 11:00 a.m. and 4:00 p.m., Eastern time. All data for the survey were entered via CCI Research's customized CATI system, which includes automatic skips and verifications to ensure accuracy. Respondents were free to refuse to answer any question in the survey, or to end the interview at any time.

3.4.3. Average Survey Lengths

The average survey length was 13 minutes and 7 seconds for Huron County and, similarly, 13 minutes and 10 seconds for Perth County.

3.4.4. Call Monitoring

A minimum of 10% of all completed calls for each survey were monitored by CCI Research supervisors or management to ensure that the survey was being administered as intended. During monitoring, interviewers were checked for the following: (1) proper qualification of respondents, (2) proper data entry of answers, (3) correct reading of the survey, and (4) lack of bias (not leading respondents). Interviewers were monitored more intensely during their first several interviews, and additional monitoring of all interviewers took place throughout the entire survey process.

3.4.5. Call Dispositions

Up to 5 call attempts were made to each of the sample telephone numbers in order to obtain the required number of completed surveys, unless the telephone number was coded at some earlier point into a category such as "not in service." A table of call dispositions for the project is shown below in Table 3-1.

For each survey, the overall response rate was calculated according to the following formula:

$$\text{response rate} = x / (x + z),$$

$$\text{where } x = \text{CO}, \text{ and } z = (\text{AM} + \text{CB} + \text{CA} + \text{HU} + \text{LA} + \text{IR} + \text{LB} + \text{NA} + \text{NR} + \text{PT} + \text{RF} + \text{RO} + \text{TE}).^1$$

¹ Not eligible numbers (NE), business numbers (BU), wrong numbers (WN), not in service numbers (NS), moved – no new number given (MV), and fax/computer line numbers (FX) are not included in calculation of the response rate.

Table 3-1 Call Dispositions for the 2010 Huron Perth <i>in motion</i> Survey			
Call Type	Abbreviation	Frequency	Percent
Complete	CO	761	12%
Answering Machine	AM	26	0%
Business Number	BU	44	1%
Call Back, no specific time	CA	34	1%
Call Back	CB	13	0%
Fax/Computer line	FX	50	1%
Hang Up	HU	614	9%
Interpreter Required	IR	0	0%
Language Barrier	LA	24	0%
Line is Busy	LB	1	0%
Moved, no new number given	MV	5	0%
No Answer	NA	46	1%
Not Eligible	NE	1,212	19%
Not in Service	NS	676	10%
Number Removed at Respondent's Request	NR	43	1%
Refused	RF	1,142	18%
Refused by Someone Other than Qualified Respondent	RO	102	2%
Wrong Number	WN	2	0%
Partial/Continue Survey Later	PT	0	0%
Terminate	TE	1,696	26%
Total Call Dispositions		6,491	
Total Calls Made		17,945	
Total Records		7,599	
Response Rate		17%	
*The "terminate" call disposition means that a survey was not completed after 10 call attempts to that number. Note: Percentages may not add exactly to 100% due to rounding.			

3.5. Statistical Accuracy

Overall results for the full sample of 761 respondents are accurate to within +/-3.6% in the worst-case scenario (i.e., results measuring proportions near 50%) at the 95% confidence level. Accuracies for each county overall and by gender are shown in Table 3-2 below.

Table 3-2 Accuracies			
	Huron (n=380)	Perth (n=381)	Total (n=761)
Overall	+/-5.0%	+/-5.0%	+/-3.6%
Males	+/-7.1%	+/-7.1%	+/-5.0%
Females	+/-7.1%	+/-7.1%	+/-5.0%

Based on a similar accuracy of +/-5.0% for each county in 2008, a difference of 11% or greater was required before results are described as different when considering trends over time. When looking at results by gender in the current year, differences of 15% or greater were required before results are described as different, based on the accuracy of results for males and females. Similarly, for gender differences over time (i.e., males 2008 vs. males 2010), differences of 15% or greater were required, assuming similar accuracies for gender for each county in 2008.

4. Analysis

For the purposes of this report, first-level data analysis includes the presentation of descriptive statistics (frequencies) for survey items in text, tables, and figures, as appropriate. The following should be noted with regard to the presentation of frequency data:

- The results in this report are generally presented in the order of the questions as they appear on the current survey. However, there were a minimal number of questions which could be logically grouped with other related items and are therefore presented out of order.
- Percentages are based on all responses for each item (i.e., “don’t know” and “refused” are included in the calculations).
- All percentages are rounded to the nearest whole number based on computer-generated analysis. For single response items, percentages may not total to 100% due to rounding. Similarly, rounded percentages for individual response options may not total exactly to combined percentages due to rounding. Therefore, percentages in text and tables may appear to differ by 1% due to rounding.
- Each activity reported by the respondent was recorded verbatim by the interviewers. One independent coder was used to review the verbatim activities and code them into the appropriate activity code as defined by the updated Compendium of Physical Activities: Energy Cost of Human Movements document. A second independent coder reviewed the assigned codes and any discrepancies were reconciled after discussion. Where necessary, new codes and corresponding Metabolic Equivalent (MET) values were created to facilitate the coding of general activities.
- To calculate KKD:
 - Each activity was assigned an MET value.
 - The MET value was multiplied by the frequency and duration indicated for each activity.
 - The product of MET value, frequency, and duration was then divided by 420. This produces a KKD value for each activity.
 - All KKD values for each activity for each respondent were then added together, creating a Total KKD score for each respondent.
- Historical frequency data are presented for all items which have been asked in previous years where they can be found. All historical data are taken from the 2008 report.

Detailed frequencies for each item on the survey are available in the accompanying data tables. These data tables show the overall results for the *in motion* Survey, along with breakdowns by county, region, household type, age group, highest level of education,

employment status, household income, total KKD score, and awareness of Huron-Perth *in motion*.

5. Sample Demographics

5.1. Community of Residence

Table 5-1 shows the demographic information for community of residence for Huron and Perth Counties. Respondents from Huron most commonly reported living in Goderich (17%) or Exeter (11%), while respondents from Perth most commonly reported living in Stratford (39%) or St. Marys (19%).

Table 5-1 Demographics – Community					
Huron (n=380)			Perth (n=381)		
Community	n	%	Community	n	%
Goderich	66	17%	Stratford	150	39%
Exeter	43	11%	St. Marys	72	19%
Clinton	24	6%	Listowel	37	10%
Wingham	24	6%	Mitchell	21	6%
Seaforth	21	6%	Perth East Twp.	13	3%
Bayfield	16	4%	Atwood	9	2%
Bluewater Twp.	15	4%	Perth South Twp.	9	2%
Brussels	14	4%	Shakespeare	9	2%
Blyth	12	3%	Milverton	8	2%
Grand Bend	12	3%	North Perth Twp.	8	2%
Zurich	12	3%	Gowanstown	7	2%
Ashfield Colborne Wawanesh Twp.	10	3%	West Perth	5	1%
Huron East Twp.	10	3%	Other*	32	8%
Belgrave	8	2%	Refused	1	0%
Central Huron Twp.	8	2%			
Auburn	6	2%			
Bluevale	6	2%			
Hensall	6	2%			
Morris Turnburry Twp.	6	2%			
Huron Park	5	1%			
Vanastra	5	1%			
Other*	50	13%			
Don't know	1	0%			

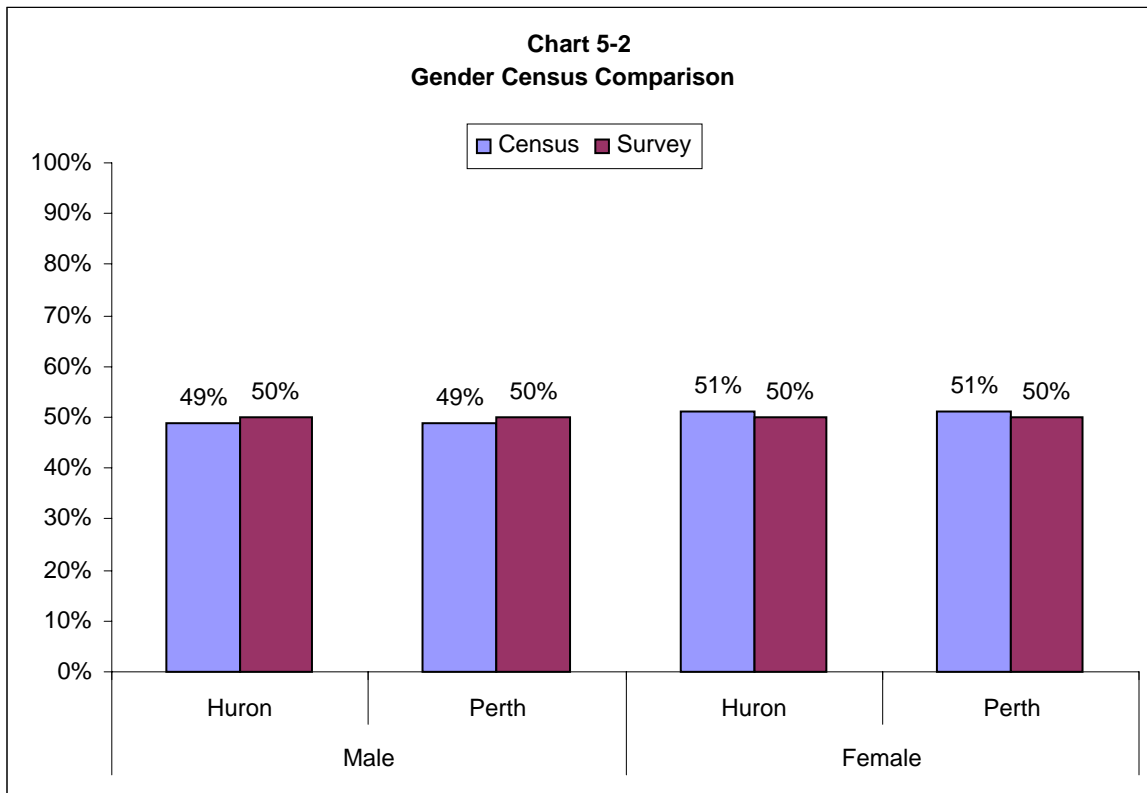
*Note that only those communities with at least 5 responses are shown in this table. Communities with less than 5 responses have been collapsed together and are shown with the "Other" category.

5.2. Gender

Table 5-2 shows the demographic information for gender for Huron and Perth Counties, while Chart 5-2 displays the gender breakdown in comparison to the available 2006 Census information. Half (50%) of the respondents from each region were male and half (50%) were female.

Table 5-2 Demographics - Gender						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Gender						
Male	189	50%	189	50%	378	50%
Female	191	50%	192	50%	383	50%

As shown in Chart 5-2, gender results for each region are comparable to the 2006 census results.

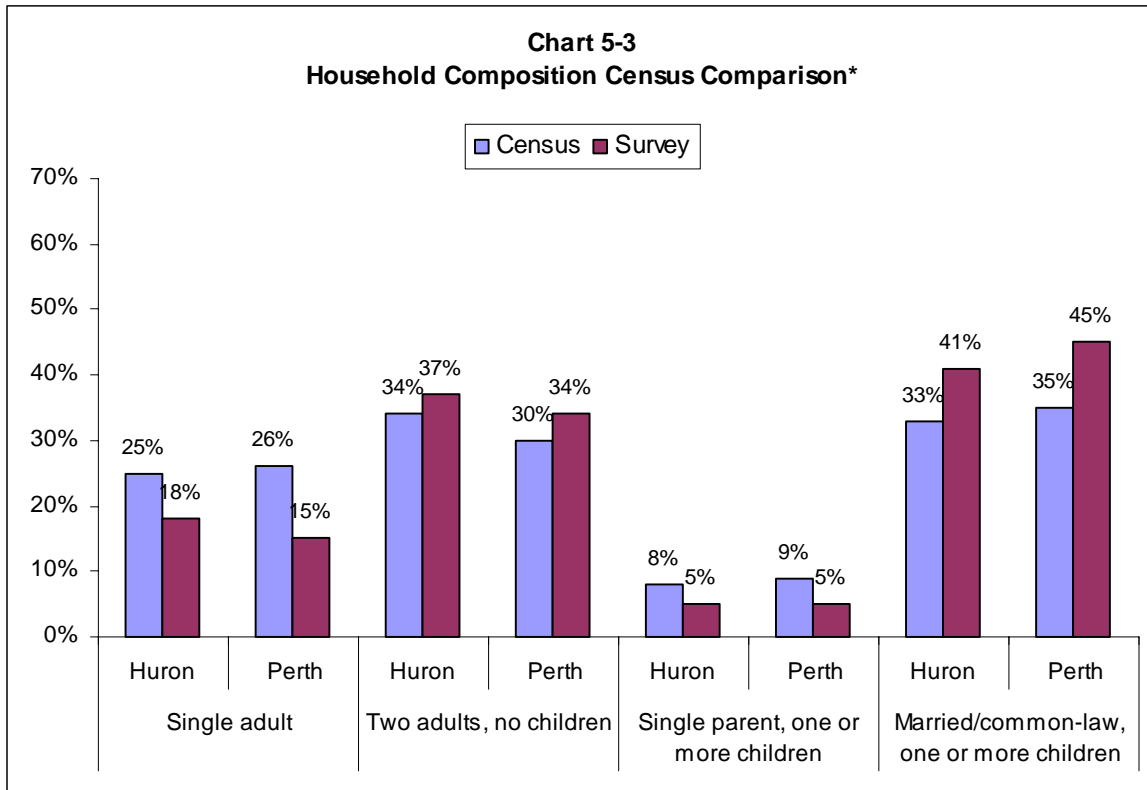


5.3. Household Composition

Table 5-3 shows the demographic information for household composition for Huron and Perth Counties, while Chart 5-3 displays the breakdowns in comparison to the available 2006 Census information. Married/common-law with one or more children was the most common household type (40% for Huron, 45% for Perth), followed by two adults with no children (36% for Huron, 33% for Perth).

Table 5-3 Demographics – Household Composition						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Household Composition						
Single adult	66	17%	57	15%	123	16%
Two adults, no children	136	36%	125	33%	261	34%
Single parent, one or more children	19	5%	18	5%	37	5%
Married/common-law, one or more children	151	40%	170	45%	321	42%
Other	4	1%	6	2%	10	1%
Refused	4	1%	5	1%	9	1%

Generally, the survey samples for both Huron and Perth Counties appear to have smaller proportions of single adult households in comparison to the 2006 Census and larger proportions of married/common-law with one or more children households in comparison to the Census (Chart 5-3).



*Note that survey results exclude "Refused" and "Other" responses for the purposes of census comparison.

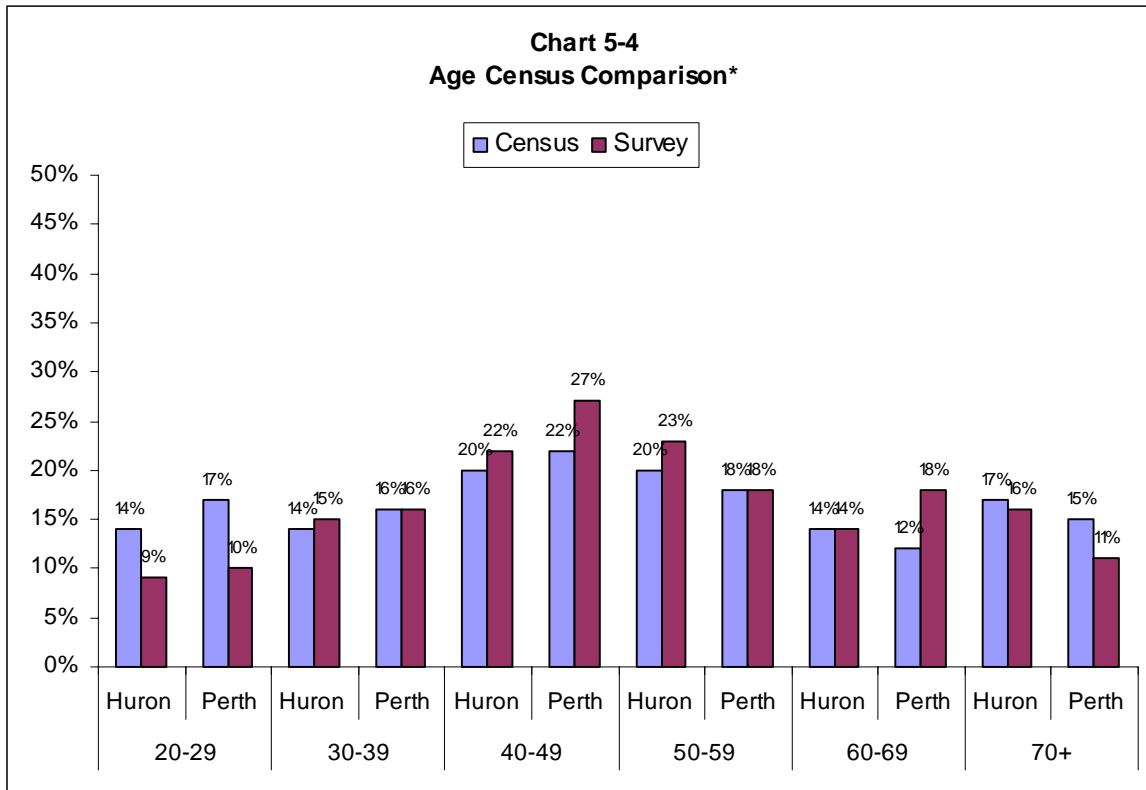
5.4. Age

Table 5-4 shows the demographic information for age for Huron and Perth Counties, while Chart 5-4 displays the age breakdowns in comparison to the available 2006 Census information.

The mean age for Huron respondents was 51 years (median = 51), with a range of 18 to 91 years of age, while the mean age for Perth respondents was 49 years (median = 48), with a range of 18 to 93 years of age.

Table 5-4 Demographics – Age						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Age						
18-29	40	11%	47	12%	87	11%
30-39	57	15%	59	15%	116	15%
40-49	81	21%	100	26%	181	24%
50-59	85	22%	65	17%	150	20%
60-69	53	14%	67	18%	120	16%
70+	58	15%	40	10%	98	13%
Refused	6	2%	3	1%	9	1%

In comparison to the 2006 Census information, Huron and Perth Counties appear to be somewhat under-sampled in the 20-29 age category, while Perth County appears to be somewhat over-sampled in the 60-69 age category (Chart 5-4).



*Note that survey results exclude “Refused” responses for the purposes of census comparison. In addition, the survey results exclude respondents aged 18-19 (n=6 for Huron and n=9 for Perth) in order to be comparable to census categories.

5.5. Education

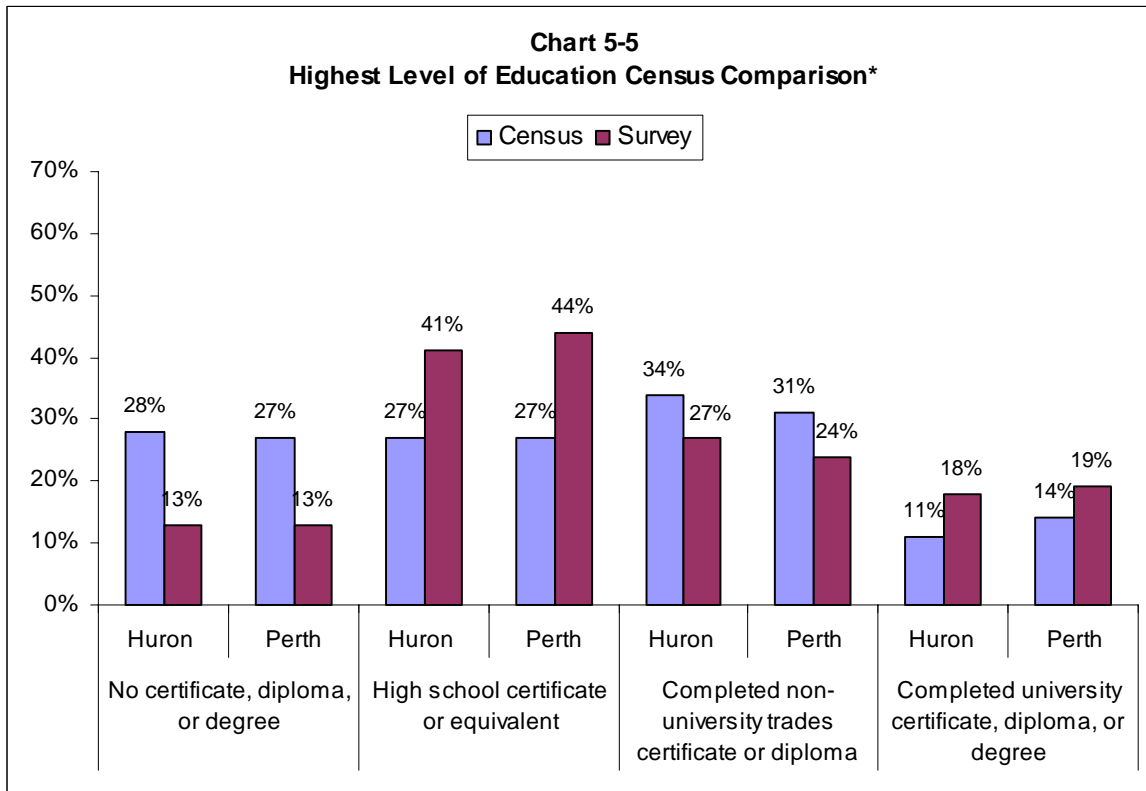
The following tables show highest level of education using two different groupings of responses. As shown in Table 5-5a, 40% of Huron respondents and 44% of Perth respondents reported having a high school education or less, while approximately one-quarter had completed a non-university trades certificate or diploma (28% for Huron, 23% for Perth).

Table 5-5a Demographics - Education						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Education						
High school or less	153	40%	169	44%	322	42%
Some post-secondary	52	14%	47	12%	99	13%
Completed non-university	106	28%	87	23%	193	25%
Completed university	65	17%	72	19%	137	18%
Other	4	1%	3	1%	7	1%
Don't know/Refused	0	0%	3	1%	3	0%

Table 5-5b Demographics – Education*						
	Huron (n=350)		Perth (n=351)		Total (n=701)	
	n	%	n	%	n	%
Education						
No certificate, diploma, or degree	46	13%	45	13%	91	13%
High school certificate or equivalent	145	41%	155	44%	300	43%
Completed non-university trades certificate or diploma	96	27%	84	24%	180	26%
Completed university certificate, diploma, or degree	63	18%	67	19%	130	19%

*Note that survey results exclude “Don’t know/Refused” and “Other” responses. In addition, the survey results exclude respondents aged 18-24 (n=22 for Huron and n=22 for Perth), as well as those who refused to provide their age (n=6 for Huron and n=3 for Perth), in order to be comparable to census categories.

In comparison to the 2006 Census, both Huron and Perth Counties appear to be under-sampled in the lowest education category (no certificate, diploma, or degree) but are over-sampled in the high school certificate or equivalent category (Chart 5-5). In addition, the category of non-university trades certificate or diploma appears to be somewhat under-sampled and the category of completed university certificate, diploma or degree appears to be somewhat over-sampled in both counties.



*Note that survey results exclude "Don't know/Refused" and "Other" responses for the purposes of census comparison. In addition, the survey results exclude respondents aged 18-24 (n=22 for Huron and n=22 for Perth), as well as those who refused to provide their age (n=6 for Huron and n=3 for Perth), in order to be comparable to census categories.

5.6. Employment

The following tables show employment status as well as labour force activity for both Huron and Perth Counties. Approximately half of respondents were employed full-time (49% for Huron, 55% for Perth), while smaller proportions were employed part-time (12% for Huron, 13% for Perth) (Table 5-6a).

Table 5-6a Demographics - Employment						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Employment						
Employed FT	186	49%	208	55%	394	52%
Employed PT	45	12%	49	13%	94	12%
Unemployed	17	4%	13	3%	30	4%
Student/retired/ homemaker	120	32%	101	27%	221	29%
Other	7	2%	8	2%	15	2%
Don't know/Refused	5	1%	2	1%	7	1%

As shown in Table 5-6b, the labour force participation, employment, and unemployment rates for Huron and Perth Counties are comparable to the 2006 Census results.

Table 5-6b Demographics – Labour Force Activity*				
	Huron		Perth	
	Huron	Census	Perth	Census
Employment				
Population 25 years and older	352	39,790	356	48,595
In the labour force	231	26,060	249	34,230
Employed	216	25,260	238	33,430
Unemployed	15	800	11	890
Not in the labour force	111	13,730	98	14,275
Participation rate	65.6%	65.5%	69.9%	70.6%
Employment rate	61.4%	63.5%	66.9%	68.8%
Unemployment rate	6.5%	3.1%	4.4%	2.6%

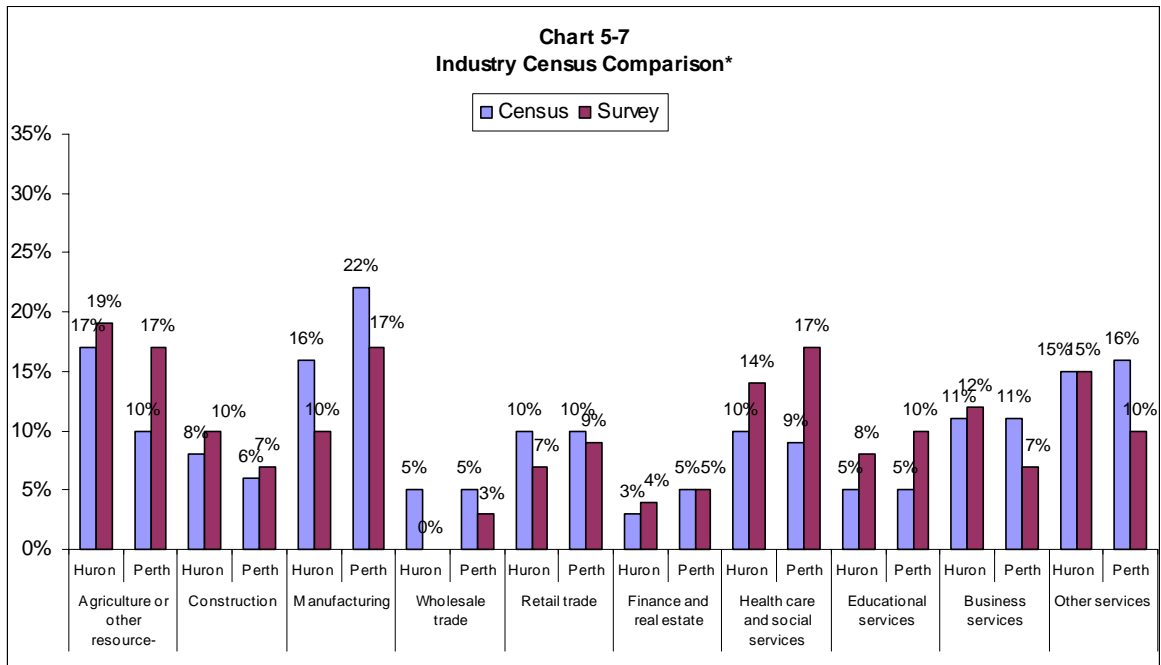
*Note that survey results exclude "Don't know/Refused" and "Other" responses for the purposes of census comparison. In addition, the survey results exclude respondents aged 18-24 (n=22 for Huron and n=22 for Perth), as well as those who refused to provide their age (n=6 for Huron and n=3 for Perth), in order to be comparable to census categories.

5.7. Industry

Table 5-7 shows the demographic information for occupational industry for Huron and Perth Counties, while Chart 5-7 displays the breakdown in comparison to the available 2006 Census information. Agriculture (18%), Other Services (14%), and Health Care (13%) were the most common industries among employed respondents in Huron County, while Agriculture (15%), Manufacturing (15%), and Health Care (15%) were the most common among employed respondents in Perth County.

Table 5-7 Demographics - Industry						
	Huron (n=231)		Perth (n=257)		Total (n=488)	
	n	%	n	%	n	%
Industry						
Agriculture or Other Resource-based	41	18%	38	15%	79	16%
Construction	22	10%	15	6%	37	8%
Manufacturing	21	9%	39	15%	60	12%
Wholesale Trade	1	0%	6	2%	7	1%
Retail Trade	14	6%	21	8%	35	7%
Finance and Real Estate	9	4%	12	5%	21	4%
Health Care and Social Services	29	13%	39	15%	68	14%
Educational Services	18	8%	22	9%	40	8%
Business Services	26	11%	16	6%	42	9%
Other Services	33	14%	22	9%	55	11%
Unable to Code	17	7%	27	11%	44	9%

In comparison to the 2006 Census, Agriculture and the Health Care industry for Perth appear to be over-sampled, while Manufacturing for Huron and Other Services for Perth appear to be somewhat under-sampled (Chart 5-7).



*Note that survey results exclude "Unable to code" for the purposes of census comparison.

5.8. Income

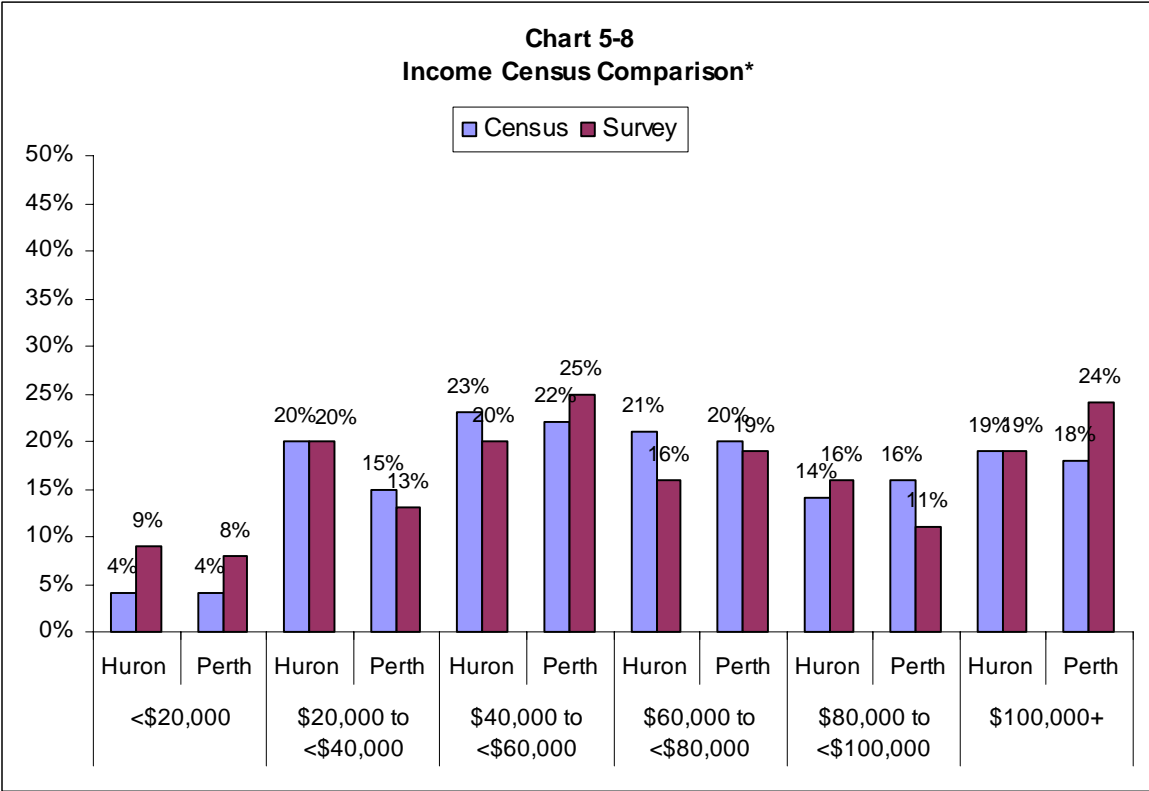
The following tables show household annual income using two different groupings of responses. In general, the proportions were spread relatively equally among the income categories for both Huron and Perth.

Table 5-8a Demographics - Income						
	Huron (n=380)		Perth (n=381)		Total (n=761)	
	n	%	n	%	n	%
Income						
<\$30,000	58	15%	35	9%	93	12%
\$30,000 to <\$50,000	56	15%	60	16%	116	15%
\$50,000 to <\$70,000	54	14%	57	15%	111	15%
\$70,000 to <\$90,000	46	12%	46	12%	92	12%
\$90,000 to <\$120,000	46	12%	32	8%	78	10%
\$120,000+	35	9%	45	12%	81	11%
Don't know/Refused	85	22%	105	28%	190	25%

Table 5-8b Demographics - Income						
	Huron (n=295)		Perth (n=276)		Total (n=571)	
	n	%	n	%	n	%
Income						
<\$20,000	26	9%	21	8%	47	8%
\$20,000 to <\$40,000	59	20%	36	13%	95	17%
\$40,000 to <\$60,000	60	20%	68	25%	128	22%
\$60,000 to <\$80,000	48	16%	53	19%	101	18%
\$80,000 to <\$100,000	46	16%	31	11%	77	13%
\$100,000+	56	19%	67	24%	123	22%

*Note that survey results exclude "Don't know/Refused" and "Other" responses.

As shown in Chart 5-8, representation by income is relatively comparable between the 2006 Census and the survey results for both counties, with the exception of the highest income category (\$100,000+) for Perth, which appears somewhat over-sampled.



*Note that survey results exclude "Don't know/Refused" responses for the purposes of census comparison. Also note the Census numbers shown in the chart are approximations based on results from the previous report.

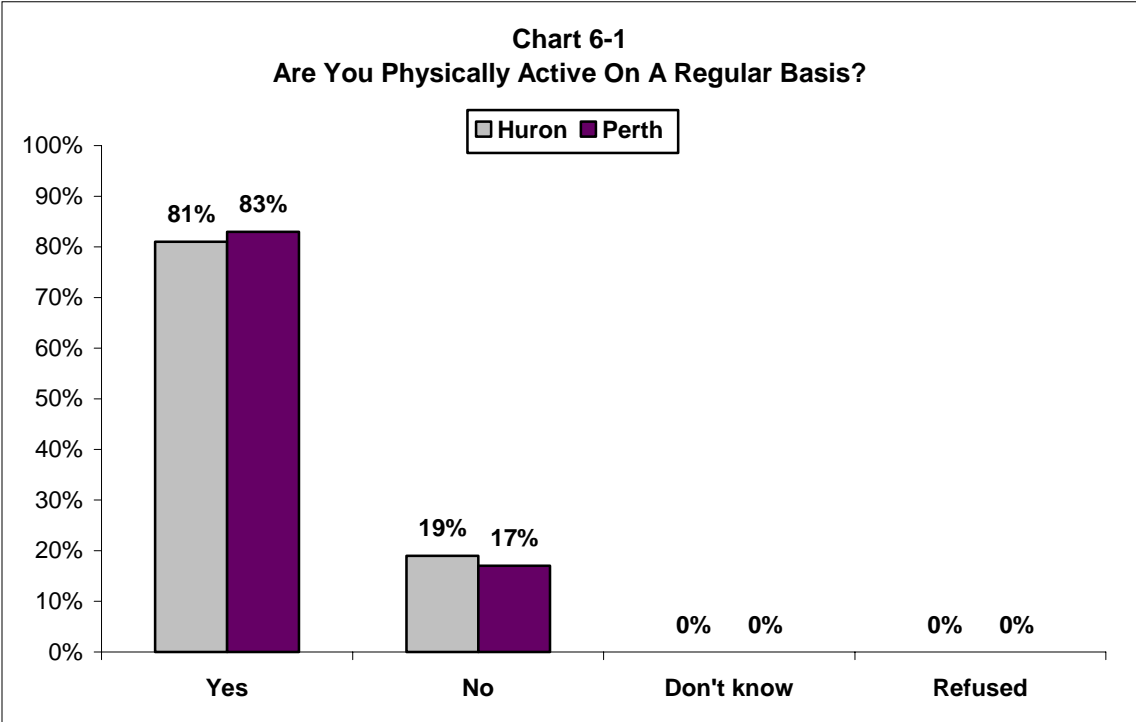
5.9. Demographics Summary

The results in the previous sections show that respondents to the 2010 Huron Perth *in motion* Survey were diverse in terms of their demographic characteristics. Although comparison to the 2006 Census revealed a number of attributes where particular demographic categories appear to have been over- or under-sampled, the general patterns of demographic results for the survey were similar to those of the Census and, therefore, it would appear that the respondents to the survey are reasonably representative of the populations of Huron and Perth Counties.

6. Survey Results

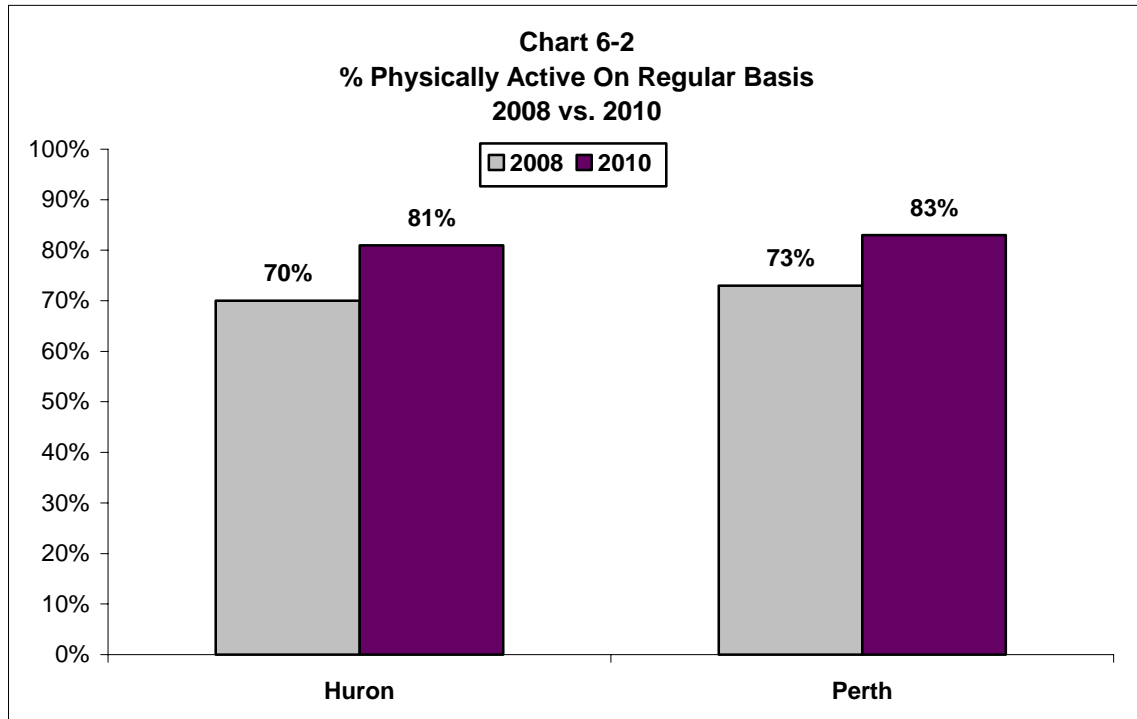
6.1. General Physical Activity Levels

Overall, the majority of respondents from both counties reported being physically active on a regular basis (Chart 6-1). Specifically, about four out of five respondents from Huron County (81%) and Perth County (83%) reported they are regularly physically active.

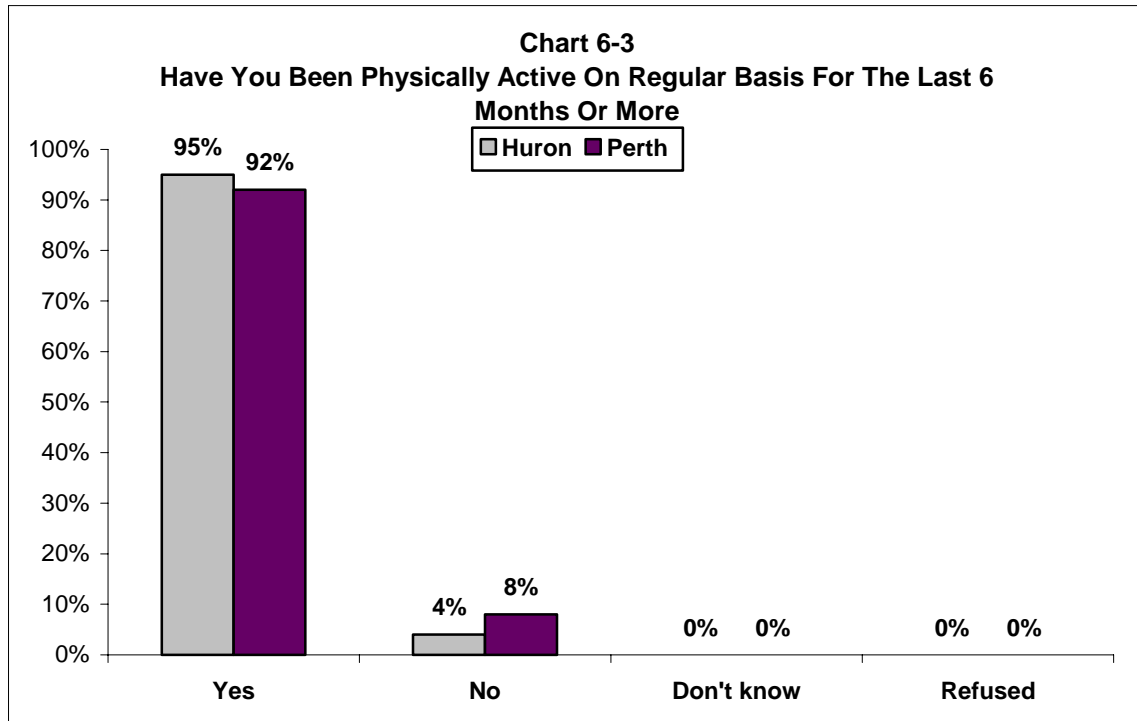


n=761

Comparison of results from 2008 shows an increase in 2010 in the proportion of Huron County respondents who reported being physically active on a regular basis (70% vs. 81%) (Chart 6-2). Note, that in 2008 this question was worded “Do you exercise regularly?”, while in 2010 it was worded “Are you physically active on a regular basis?”. As a result of this wording revision, results between 2008 and 2010 may not be directly comparable.

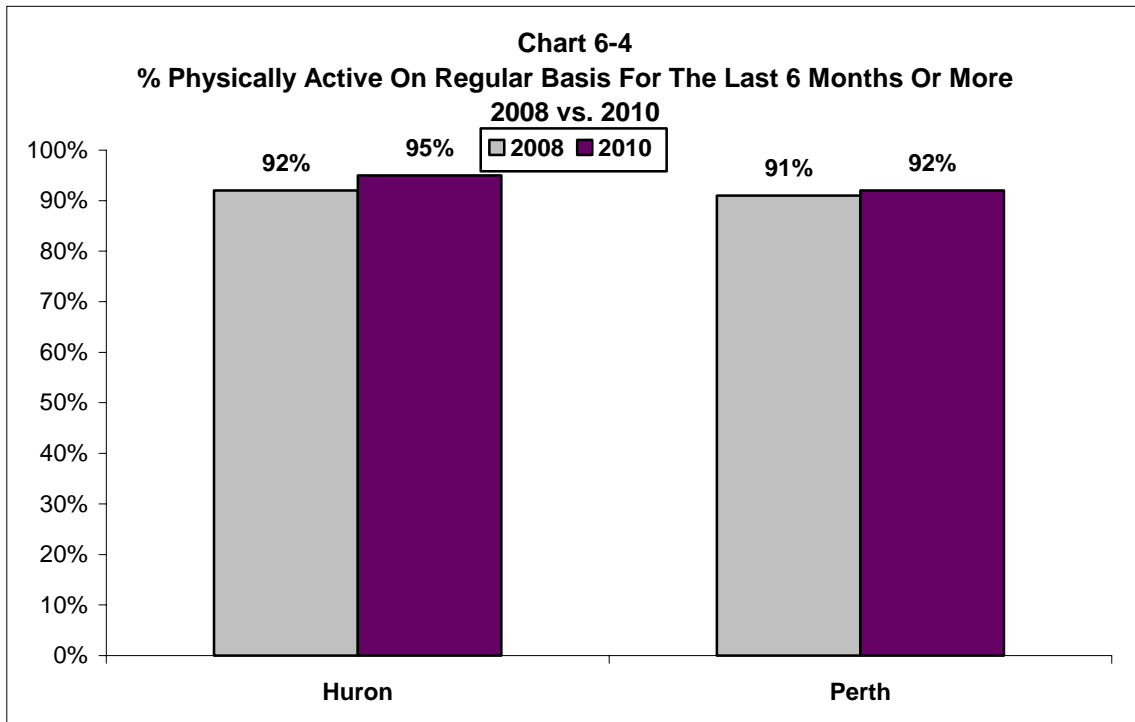


Respondents who reported that they are physically active on a regular basis (n=625), were next asked if they have been physically active on a regular basis for the last 6 months or more (Chart 6-3). Overall, 95% of respondents from Huron County and 92% of those from Perth County reported being physically active on a regular basis for the last 6 months or more.

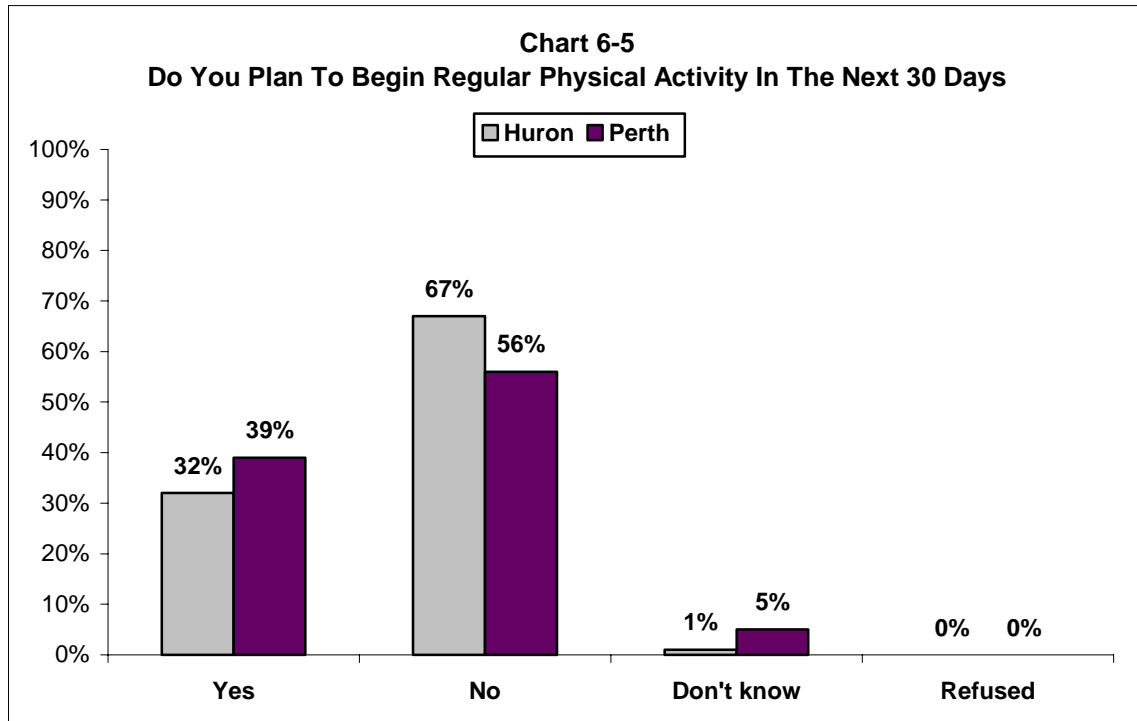


n=625

The proportions of respondents who have reported regular physical activity for 6 months or more before the survey period has remained similar to that of 2008 (Chart 6-4).

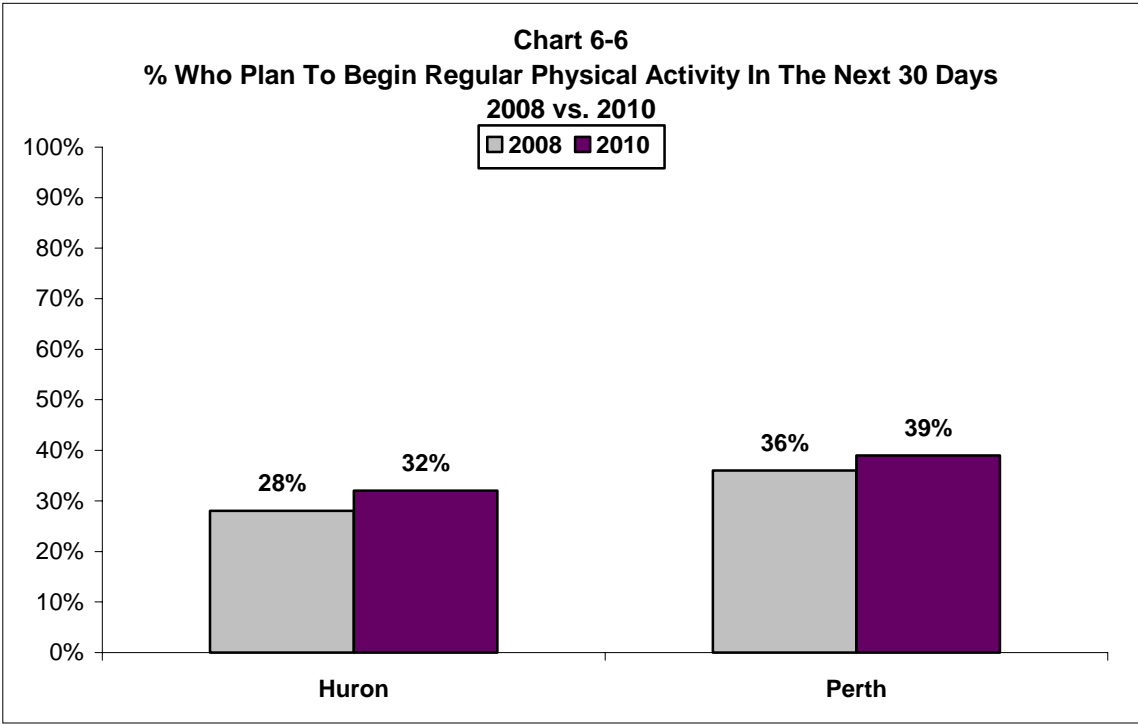


Of those respondents who reported they were not physically active on a regular basis (n=136), less than half (32% for Huron, 39% for Perth) reported that they planned to begin physical activity in the next 30 days (Chart 6-5). Note that a greater proportion of respondents from Huron County (67%) reported they were *not* planning on beginning regular physical activity in the next 30 days, as compared to Perth County (56%).

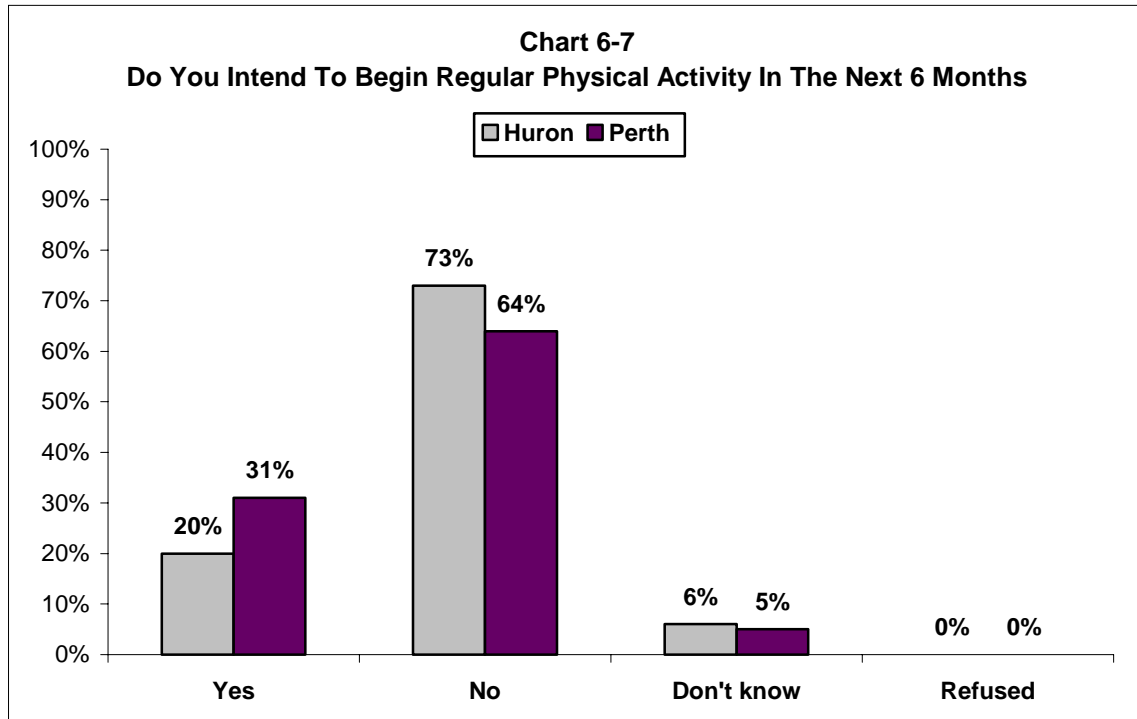


n=136

The proportion of respondents planning to begin regular physical activity in the 30 days following the survey has remained similar to that of 2008 for both counties (Chart 6-6).

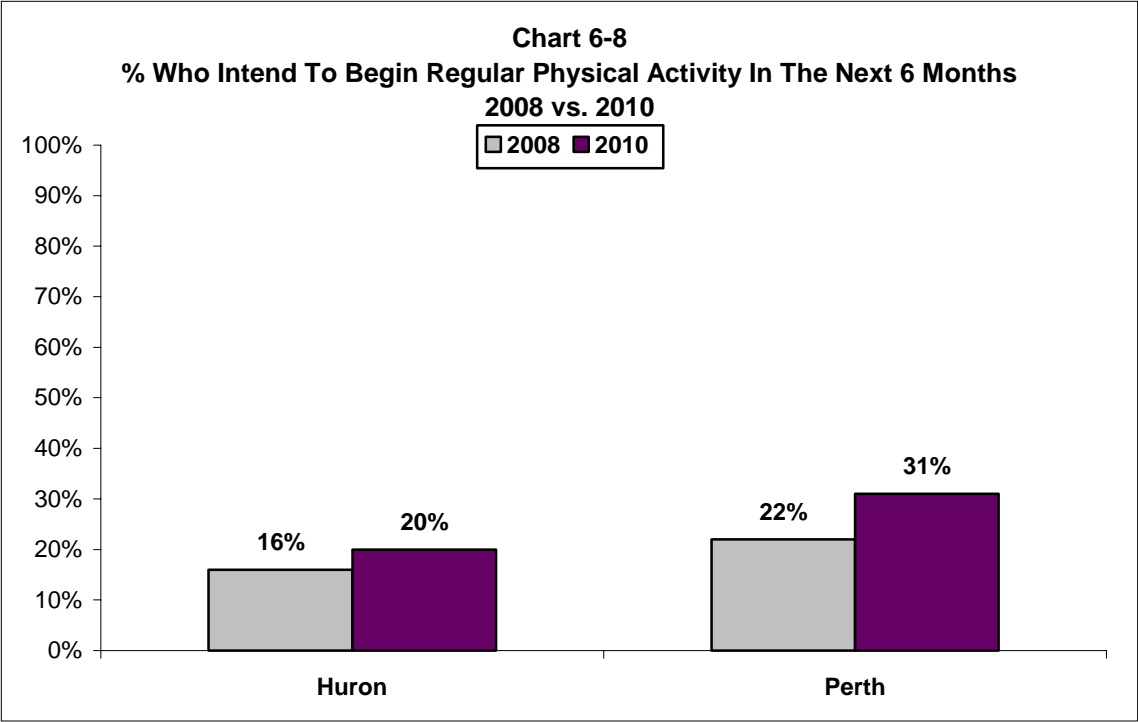


Respondents who reported they were not planning to begin regular physical activity in the next 30 days or who were not sure (n=88), were asked if they planned to begin regular activity in the next 6 months (Chart 6-7). One in five respondents from Huron County (20%) reported they intended to begin regular physical activity in the next 6 months, while a somewhat larger proportion of respondents from Perth (31%) reported they were intending to begin regular physical activity in that timeframe.



n=88

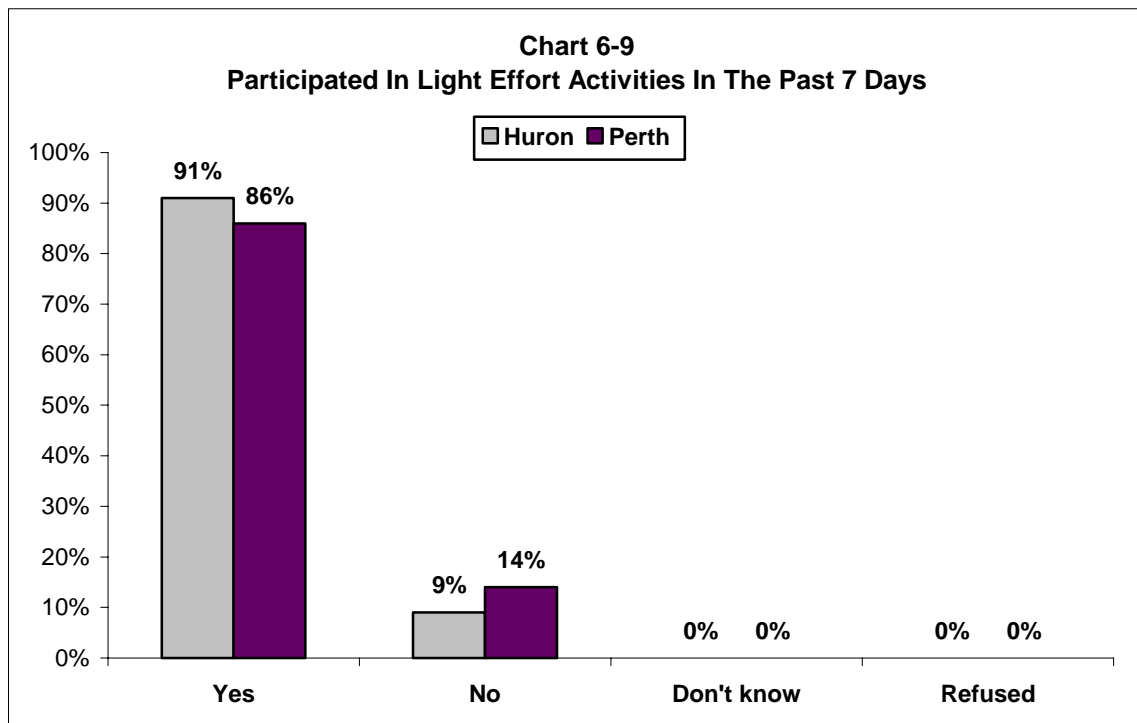
As shown in Chart 6-8, the proportions who intend to begin regular physical activity in the next 6 months have remained relatively similar for each county from 2008 to 2010.



6.2. Participation in Light, Moderate, and Vigorous Effort Activities

Respondents who reported earlier in the survey that they were physically active were next asked a series of questions about their participation in light, moderate, and vigorous effort activities. Respondents who reported participating in these activities were asked about the number of times they had participated in the activity in the past seven days (frequency) and for how long they participated in the activity on average (duration).

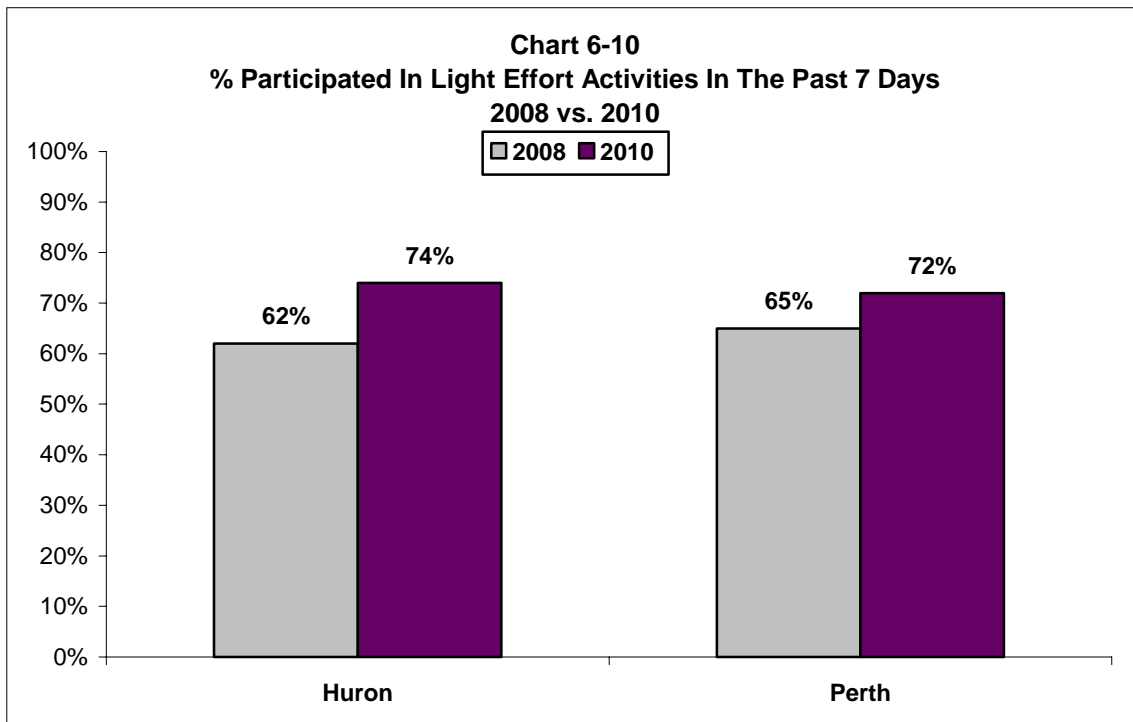
Most respondents who had been physically active (n=625) reported participating in light effort activities over the past 7 days (91% for Huron, 86% for Perth) (Chart 6-9).



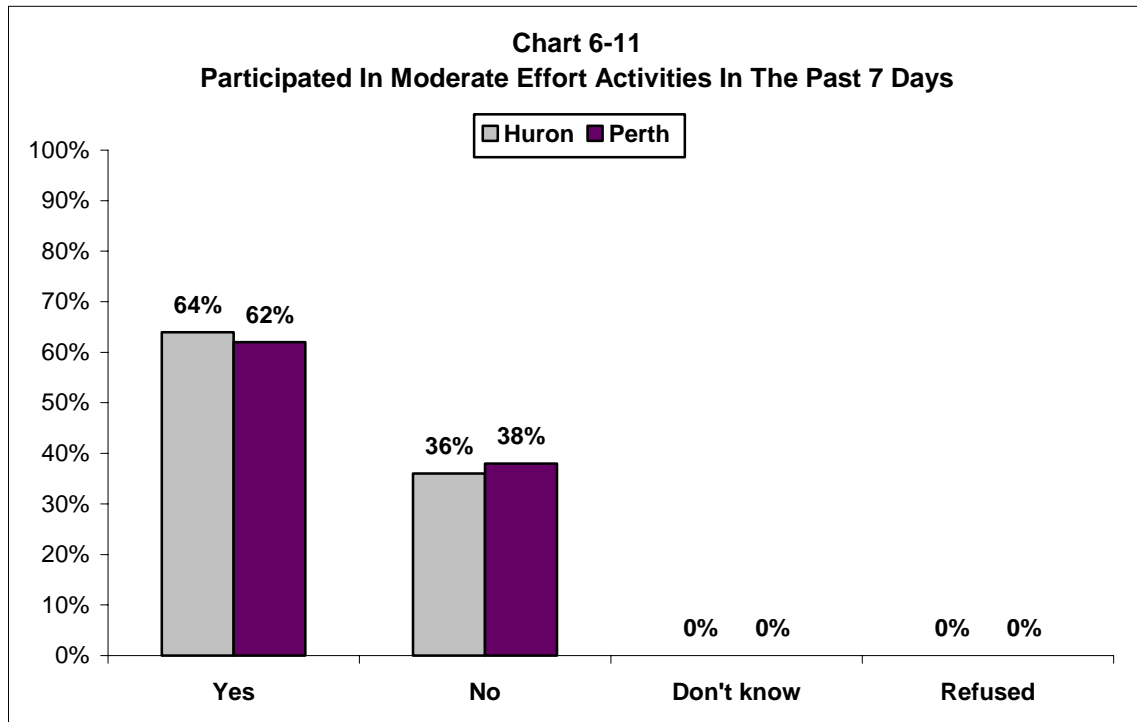
n=625

In order to facilitate comparison to the 2008 survey, the results for the activity participation questions (light, moderate, vigorous) were recalculated to represent participation out of all respondents (i.e., including those who did not participate in any activities, and thus were not asked these questions). As such, the trending comparison charts will have different results than the charts for the current years.

Respondents from Huron County reported slightly higher levels of participation in light effort activities in 2010 (74%) as compared to 2008 (62%), while respondents from Perth County had relatively similar levels of participation (Chart 6-10).

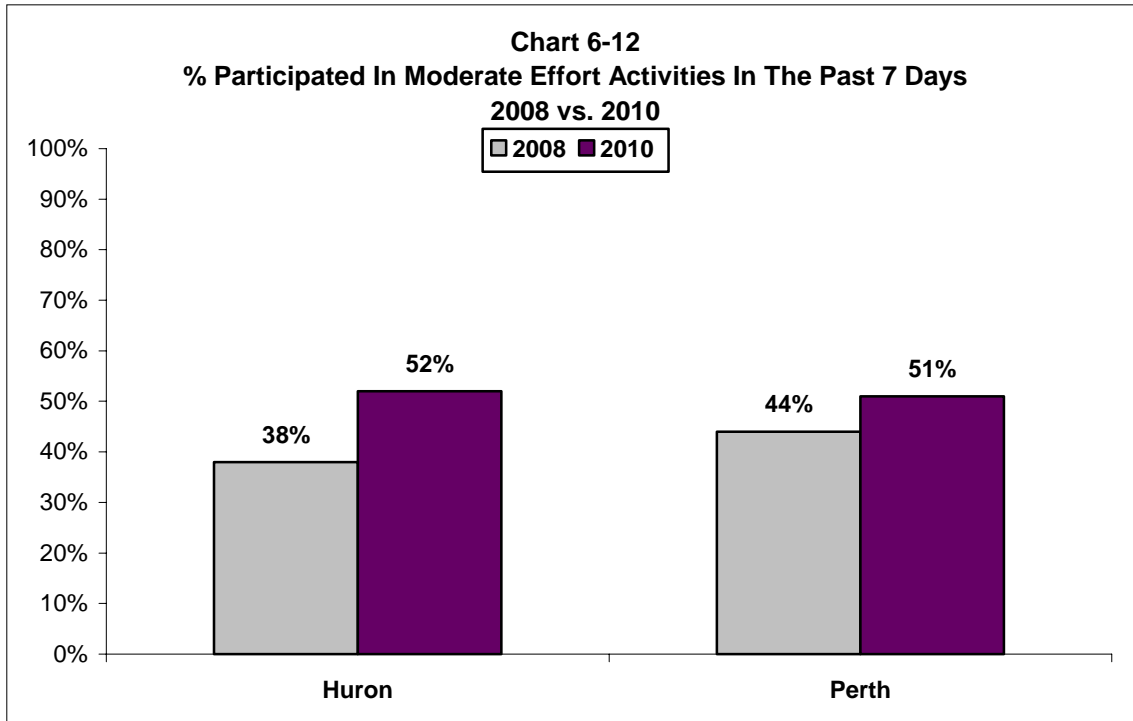


Well over half of all respondents who were physically active reported participating in moderate effort activities in the past 7 days (64% for Huron, 62% for Perth) (Chart 6-11).

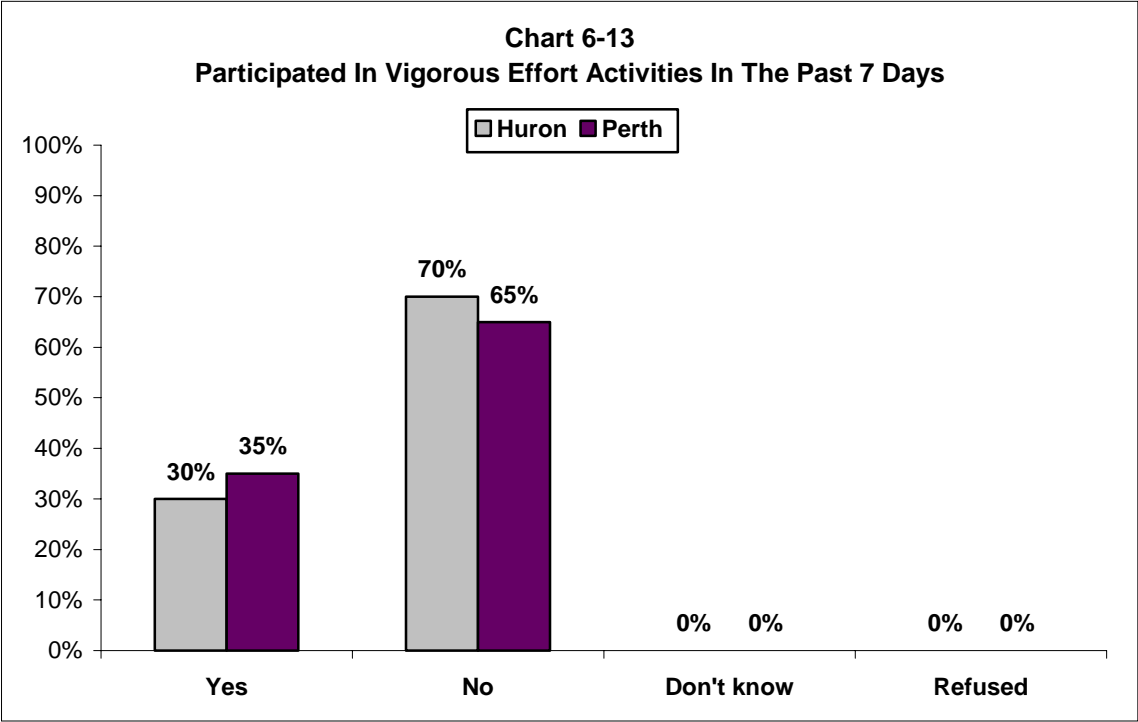


n=625

Similar to the results for light effort activities, respondents from Huron County reported slightly higher levels of participation in moderate effort activities in 2010 (52%) as compared to 2008 (38%) while respondents from Perth County had relatively similar levels of participation (Chart 6-12).



About one-third of respondents (30% for Huron, 35% for Perth) who were physically active reported participating in vigorous effort activities in the past 7 days (Chart 6-13).



n=625

Respondents from Huron and Perth reported relatively similar levels of participation in vigorous activities in 2008 and 2010 (Chart 6-14).

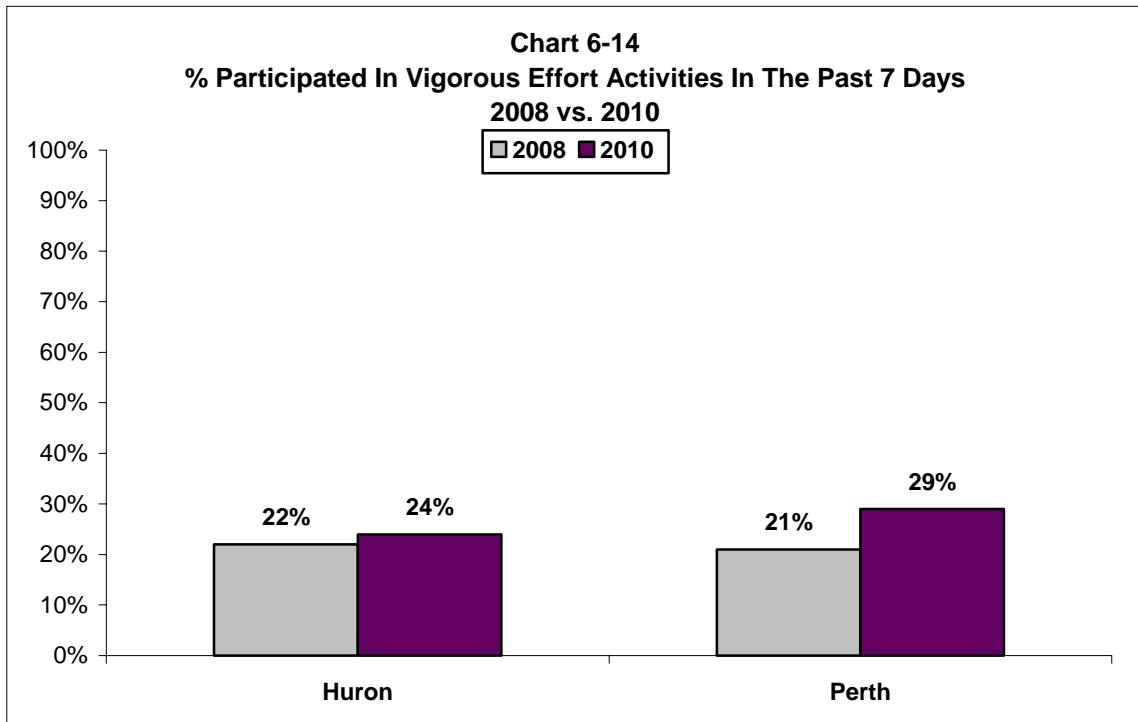
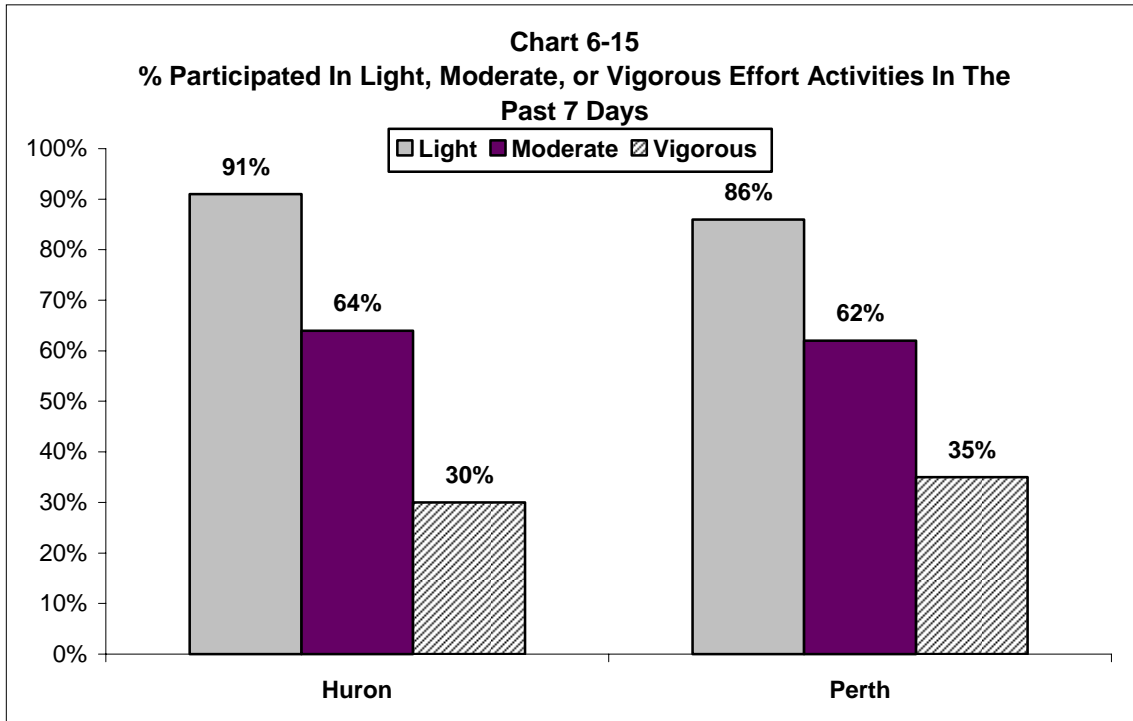


Chart 6-15 displays the participation rates in light, moderate, or vigorous activities for both counties. The pattern of participation is the same in Huron and Perth; most participate in some type of light activities, over half participate in moderate activities, and about one in three report participating in vigorous effort activities.

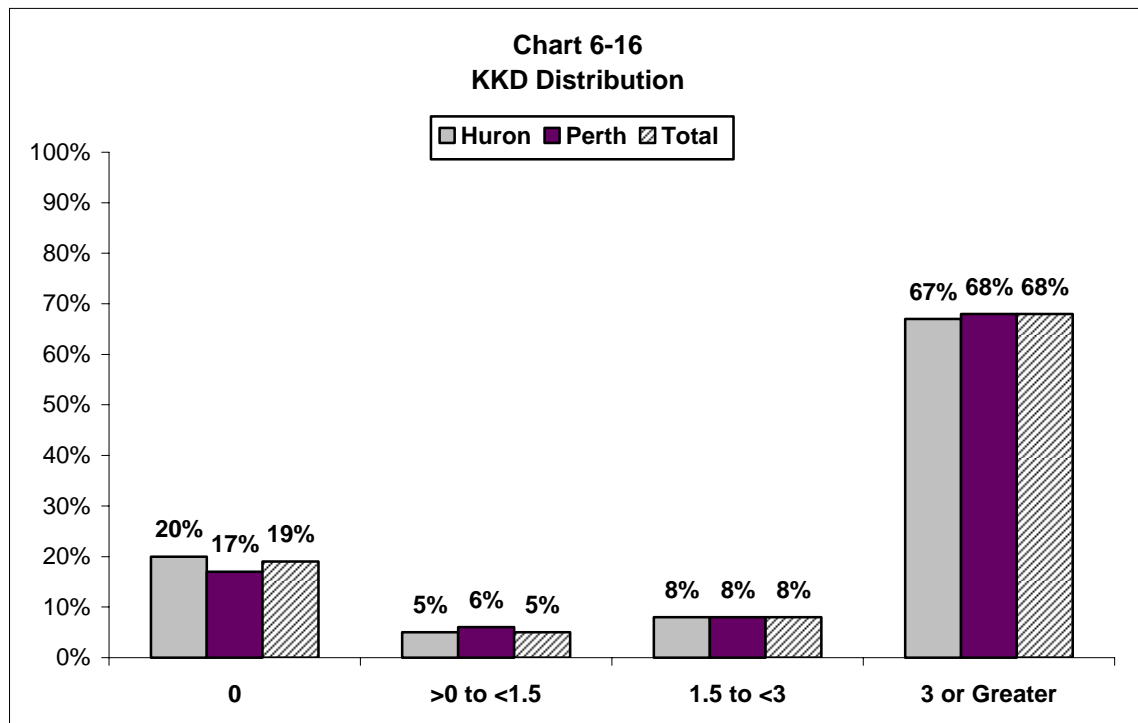


n=625

6.3. KKD Levels

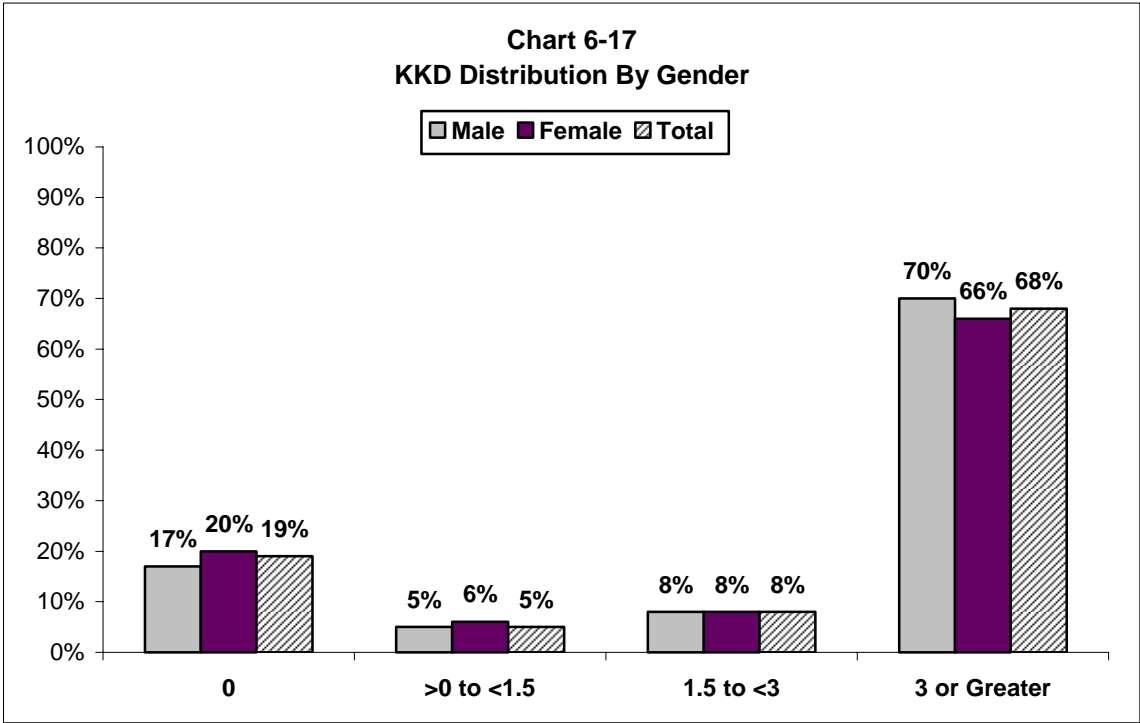
One of the desired outcomes of the activity participation questions was to calculate a total KKD score for each eligible survey respondent. Similar to 2008, each activity was assigned an MET value, which was then multiplied by the frequency and duration of the activity. This product was then divided by 420, creating a KKD value per activity. All KKD values for each activity were then summed together to create a KKD score per respondent.

Chart 6-16 shows the KKD distribution by county and combined. Overall, about one in five respondents had a KKD score of 0 (generally respondents who reported they were not physically active on a regular basis). Approximately two-thirds of respondents achieved a KKD score of 3 or greater through their participation in light, moderate or vigorous activities. As defined by the Canadian Fitness and Lifestyle Research Institute, a KKD of 3 or greater corresponds to a classification of “active”.



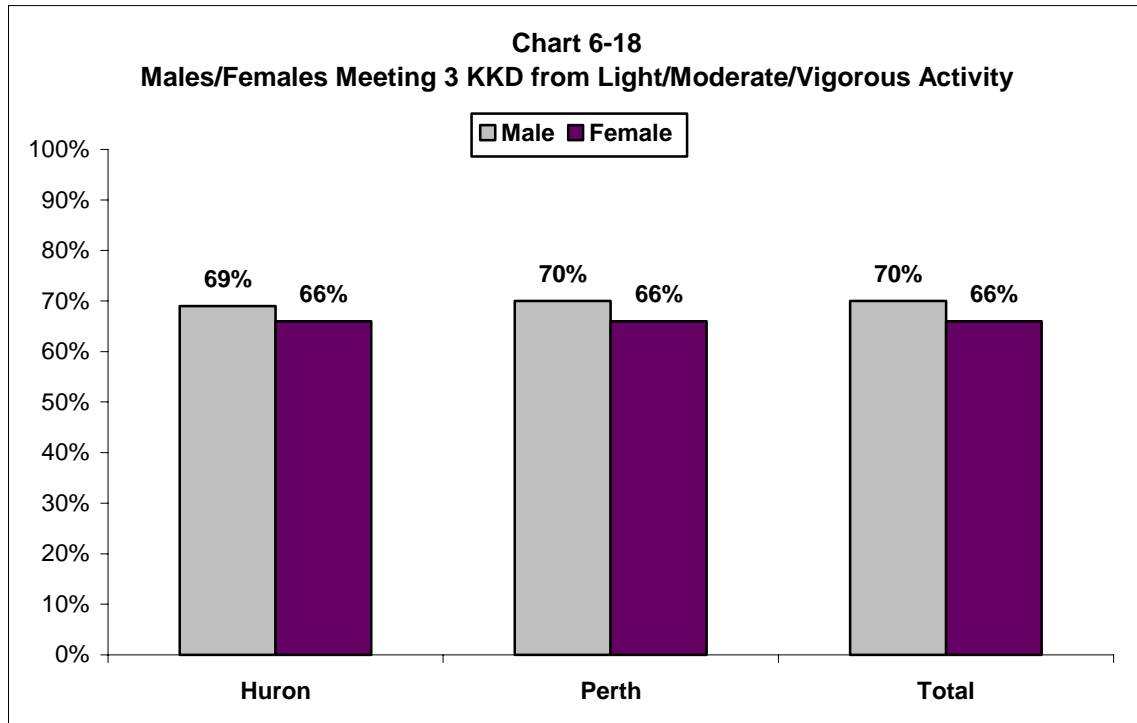
n=736

Chart 6-17 shows the KKD distribution by gender, as well as for the total sample. Similar to the previous chart, about one in five have a KKD score of 0 while approximately two-thirds have a KKD score of 3 or greater.



n=736

Chart 6-18 shows the proportions of males and females meeting 3 KKD from light, moderate, or vigorous activity by county, as well as for the total sample. Similar proportions of males and females are achieving a KKD score of 3 for both Huron (69% of males and 66% of females meeting 3 KKD) and Perth counties (70% of males and 66% of females meeting 3 KKD).

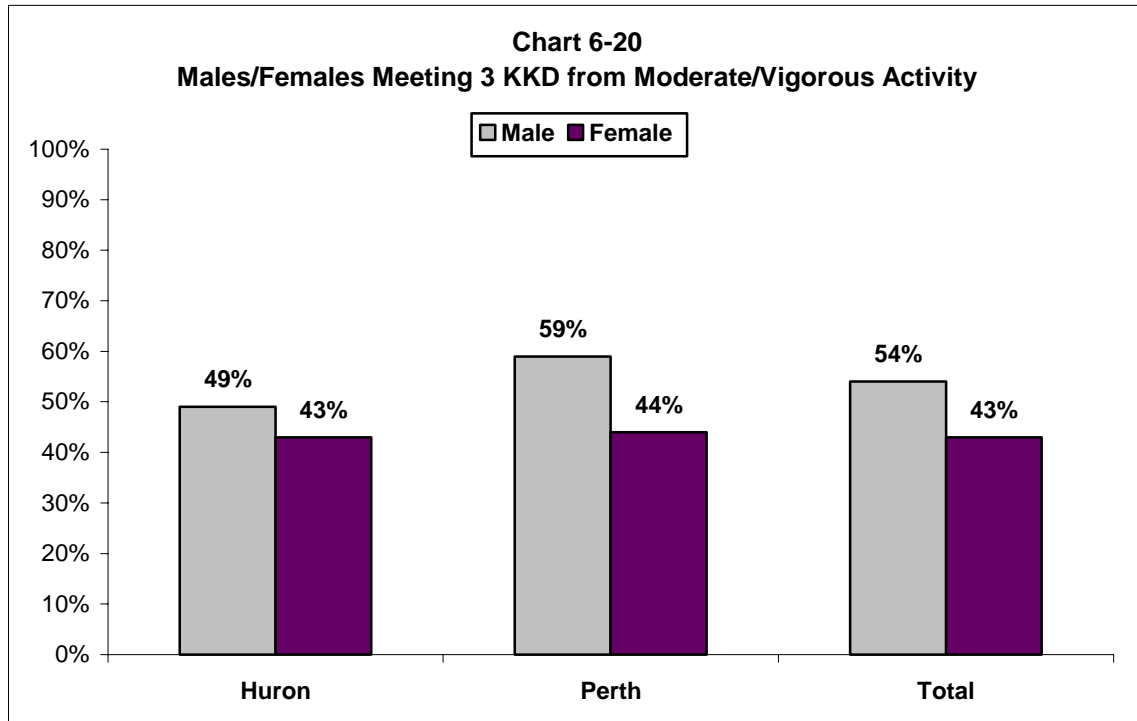


n=736

The proportion of Huron County females meeting 3 KKD has increased in 2010 by 16%, while the results for males in Huron have remained relatively similar (Table 6-19). The proportions of Perth county males and females meeting 3 KKD have remained relatively similar from 2008 to 2010.

	Huron		Perth	
	2008	2010	2008	2010
Male	58%	69%	60%	70%
Female	50%	66%	54%	66%

Chart 6-20 shows the proportions of males and females meeting 3 KKD from moderate or vigorous activity (i.e. not including light activity) by county, as well as for the total sample. A greater proportion of male respondents from Perth were meeting 3 KKD from moderate or vigorous activity (59%) as compared to females from Perth (44%). Similar proportions of males and females from Huron were meeting 3 KKD from moderate or vigorous activity (49% males, 43% females).



n=578

The proportion of Huron County females meeting 3 KKD from moderate or vigorous activity has increased by 22% in 2010, while the proportion of males meeting the requirement has remained relatively stable (41% in 2008 vs. 49% in 2010) (Table 6-21). The proportion of Perth County males and females meeting 3 KKD has increased by 19% and 21%, respectively, in 2010.

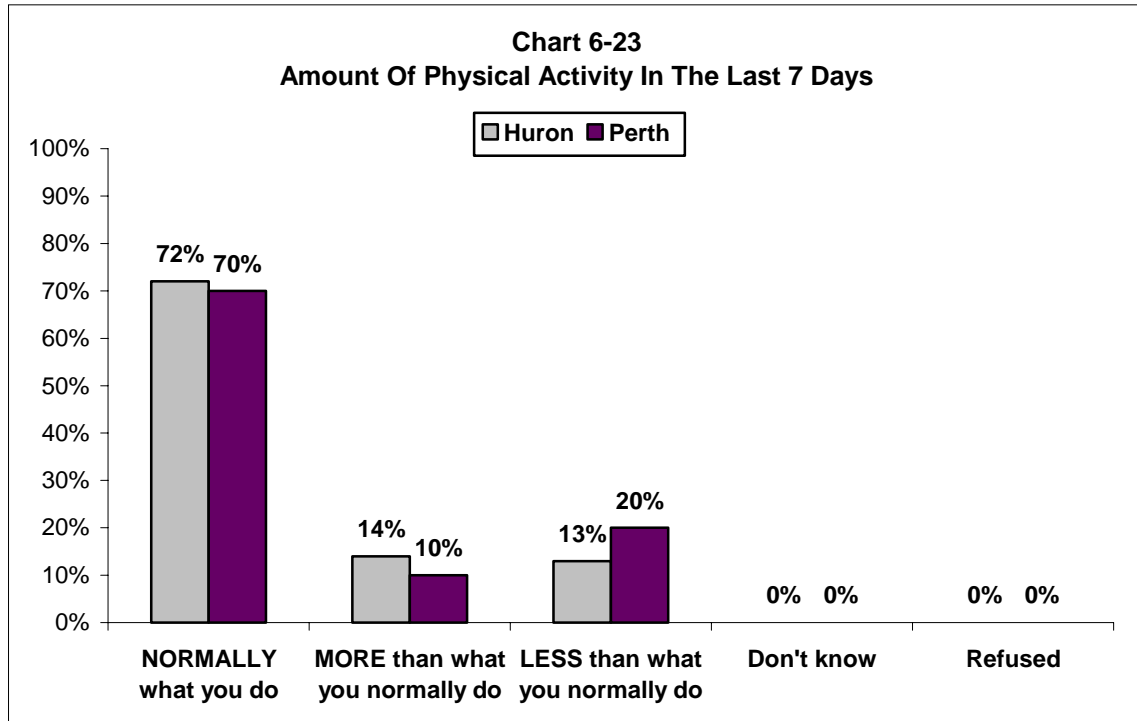
	Huron		Perth	
	2008	2010	2008	2010
Male	41%	49%	40%	59%
Female	21%	43%	23%	44%

6.4. Activity Summary

Table 6-22 displays the most commonly reported light, moderate, and vigorous activities by gender for each county. Walking and lawn and garden activities were the most commonly reported light activities by males and females in both Huron and Perth Counties. Female respondents in both Huron and Perth also commonly mentioned housework, cleaning, vacuuming, etc., as a common light effort activity. The most common vigorous activities reported by males in Huron and Perth Counties included occupation-related activities, conditioning exercises, and running, while the most common vigorous activities for females included running and conditioning exercises. It is interesting to note the predominance of occupation-related activities (regardless of effort) reported by male respondents in both Huron and Perth Counties.

Table 6-22 Most Common Activities By Gender			
County	Activity Level	Male	Female
Huron	Light	Walking, lawn and garden activities, occupation related (e.g., farming, walking on the job), and sports (e.g., golf, baseball)	Walking, lawn and garden activities, home activities (e.g., housework, cleaning, vacuuming, dusting)
	Moderate	Occupation related (e.g., lifting, farming), bicycling, walking, conditioning exercises (e.g., stationary bike, elliptical machine, weight training)	Walking, conditioning exercises (e.g., weight training, stationary bike), bicycling, lawn and garden activities
	Vigorous	Occupation related (e.g., construction, farming), conditioning exercises (e.g., weight training), running, sports (e.g., soccer, hockey)	Running, conditioning exercises (e.g., weight training, elliptical machine), dancing, occupation
Perth	Light	Walking, lawn and garden activities, occupation related (e.g., farming, walking on the job, lifting), sports (e.g., golf, baseball)	Walking, lawn and garden activities, home activities (e.g., housework, cleaning, vacuuming, dusting)
	Moderate	Occupation related (e.g., lifting, farming), lawn and garden activities, bicycling, condition exercises (e.g., weight training, stationary bike)	Conditioning exercises (e.g., weight training, stationary bike, elliptical), walking, lawn and garden activities, bicycling
	Vigorous	Conditioning exercises (e.g., weight training), running, occupation related (e.g., lifting, farming)	Running, conditioning exercises (e.g., weight training, boot camp, stationary bike)

Of those respondents who reported that they participated in any light, moderate, or vigorous activities over the last 7 days (n=604), about seven in ten reported that their activity level in the past week is reflective of what they normally do each week throughout the year (72% for Huron, 70% for Perth) (Chart 6-23).

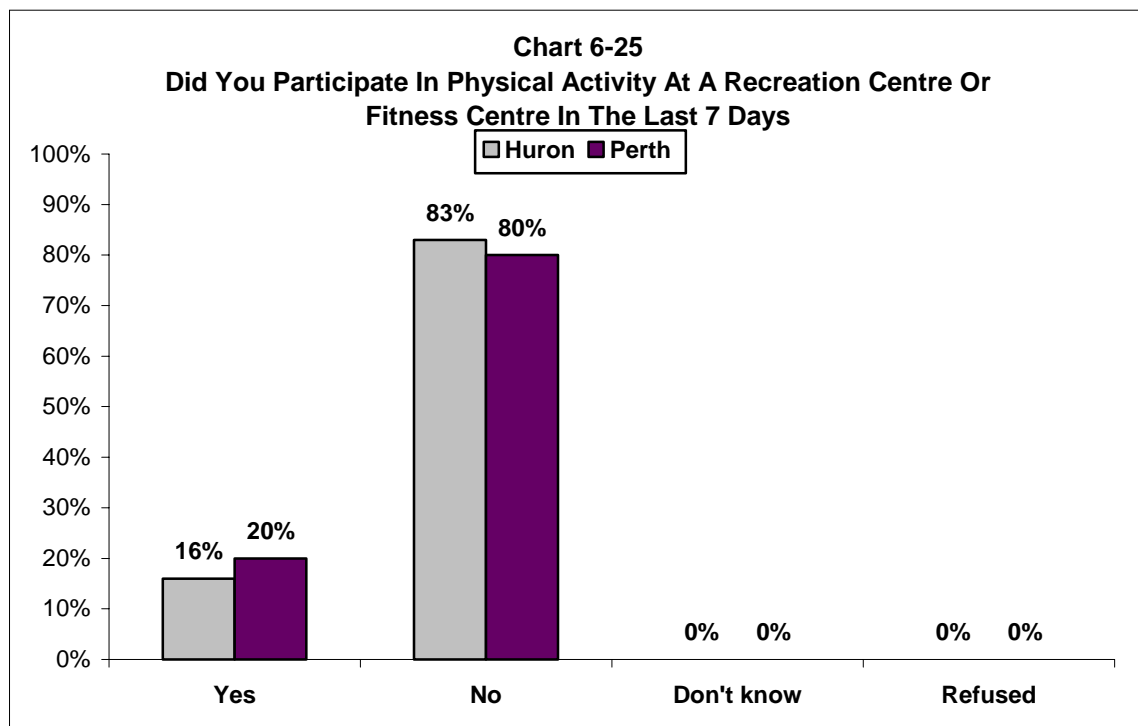


n=604

Respondents' perceptions of their own physical activity levels for the 7 days before the survey (being similar, more, or less than what they normally do) have remained similar for Huron and Perth Counties over the two survey periods (Table 6-24).

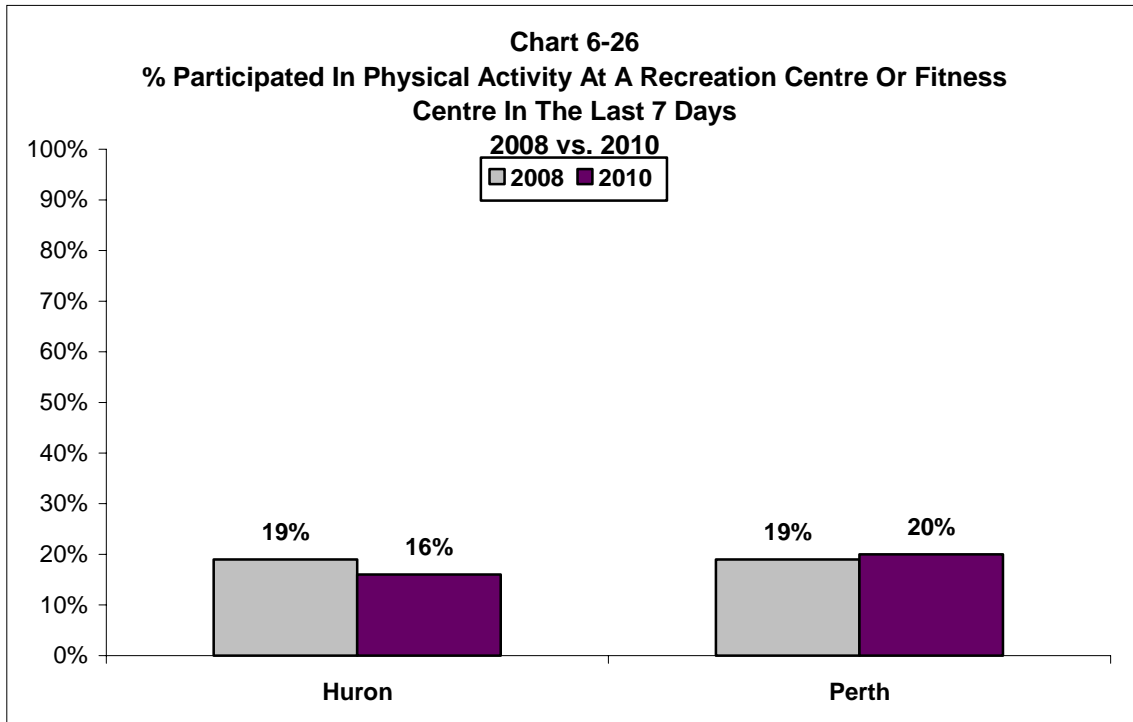
Table 6-24 Amount Of Physical Activity In The Last 7 Days 2008 vs. 2010				
	Huron		Perth	
	2008	2010	2008	2010
NORMALLY what you do	74%	72%	70%	70%
MORE than what you normally do	10%	14%	10%	10%
LESS than what you normally do	15%	13%	20%	20%

As shown in Chart 6-25, the large majority of those who reported that they participated in any light, moderate, or vigorous activities over the last 7 days (n=604) did not participate in physical activity at a recreation or fitness centre (83% for Huron, 80% for Perth).



n=604

Participation in physical activity at recreation or fitness centres has remained similarly low for both counties between 2008 and 2010 (Chart 6-26).



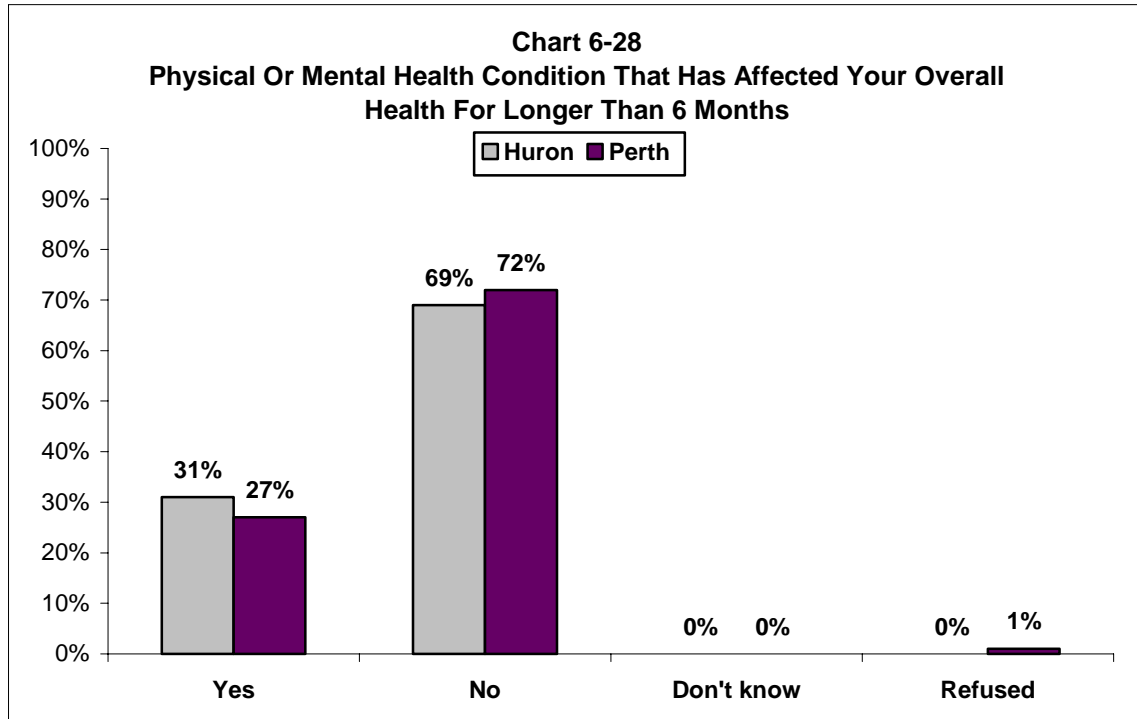
For respondents who reported not using a recreation or fitness centre (n=493), the most common reason for not doing so for both counties was lack of time (32% for Huron, 29% for Perth), followed by a preference to be physically active at home (22% for Huron, 17% for Perth) (Table 6-27). The next most frequently mentioned reasons were cost (13% for Huron, 16% for Perth), a preference to be physically active outdoors or other places (15% for Huron, 16% for Perth), and accessibility (15% for Huron, 5% for Perth).

Table 6-27 Reasons For Not Using A Recreation Or Fitness Centre		
	Huron	Perth
Lack of time	32%	29%
Preference to be physically active at home	22%	17%
Accessibility	15%	5%
Preference to be physically active outdoors or other places	15%	16%
Cost	13%	16%
Health or age related issues	8%	8%
No need for or interest in being physically active	4%	6%
No membership at a facility	1%	3%
Other	13%	14%
Don't know	0%	2%
Refused	0%	0%

n=493

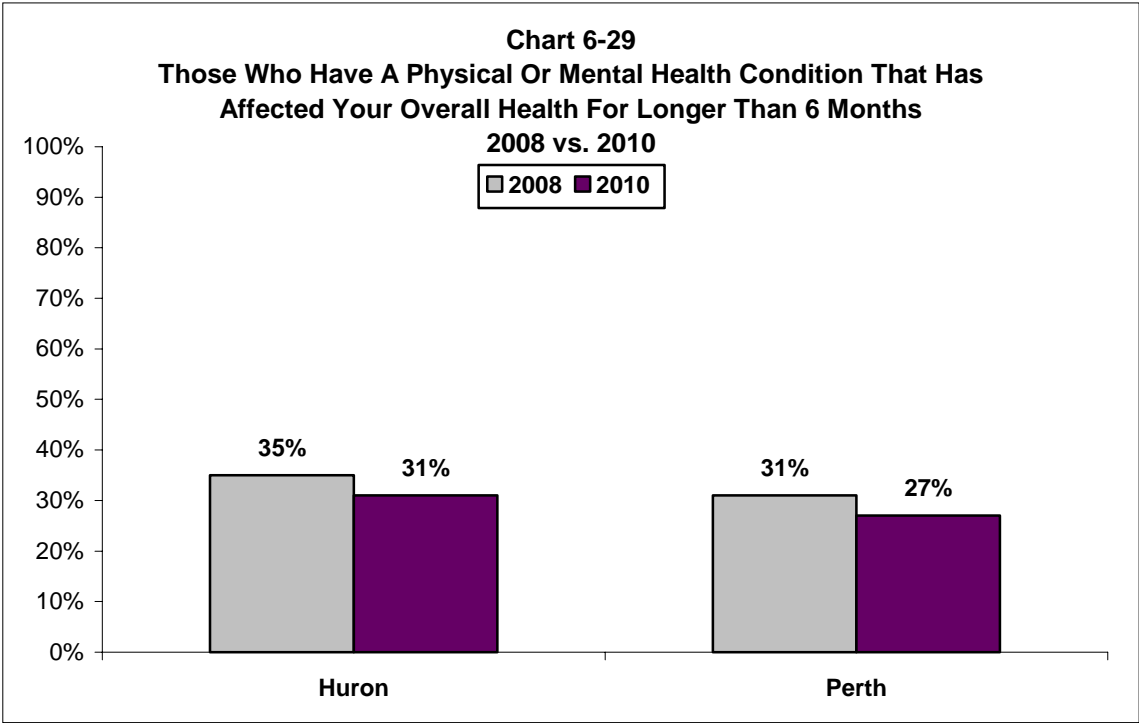
6.5. Health Conditions

Most respondents in Huron County (69%) and Perth County (72%) reported they did not have a physical or mental health condition that has affected their overall health for longer than 6 months, while 31% of Huron respondents and 27% of Perth respondents reported they did have a condition (Chart 6-28).



n=761

The proportions of respondents in 2010 reporting they had a physical or mental health condition that has affected their overall health has remained similar to that of 2008 (Chart 6-29).

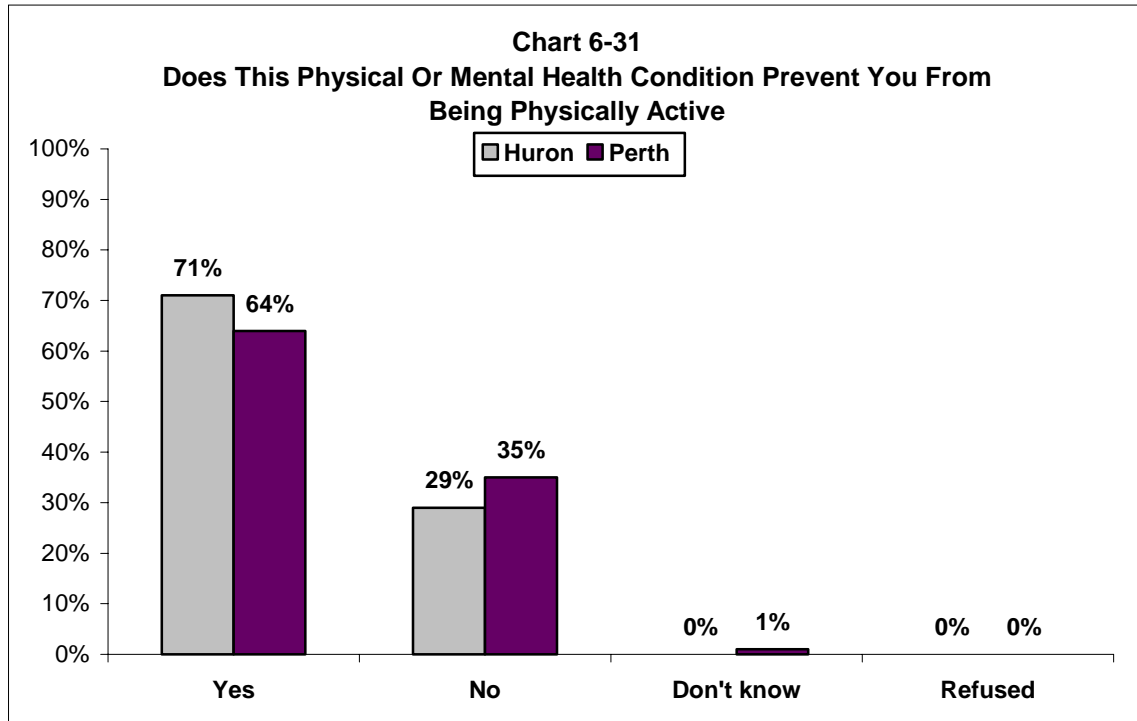


Those respondents who reported having a physical or mental health condition (n=220) were asked to describe the condition they had (Table 6-30). The most common type of condition described for both Huron County (56%) and Perth County (52%) was muscle, bone, or joint problems (e.g., osteoarthritis, osteoporosis), followed by heart & circulation problems (e.g., angina, heart valve problems) (14% for Huron, 13% for Perth).

Table 6-30 Type Of Physical Or Mental Health Condition That Has Affected Your Overall Health For Longer Than 6 Months		
	Huron	Perth
Muscle, bone, or joint problems	56%	52%
Heart & circulation problems	14%	13%
Breathing problems	9%	8%
Diabetes	7%	7%
Mental or emotional problems	6%	8%
Neurological problems	5%	3%
Cancer	5%	4%
High blood pressure	5%	4%
Digestive system problems	3%	2%
Kidney, bladder, or urinary problems	3%	3%
Eye problems	3%	1%
Blood problems	1%	3%
Other	9%	14%
Don't know	1%	1%
Refused	1%	2%

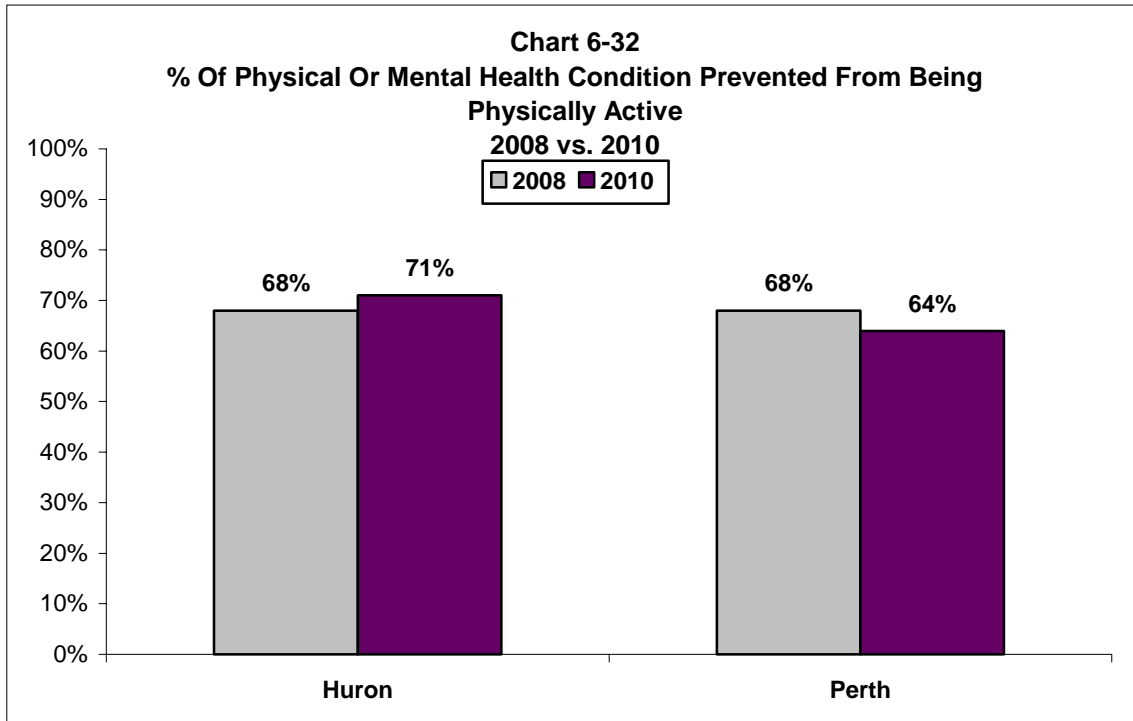
n=220

The majority of those who reported having physical or mental health conditions also reported that their condition prevents them from being physically active (71% for Huron, 64% for Perth) (Chart 6-31).

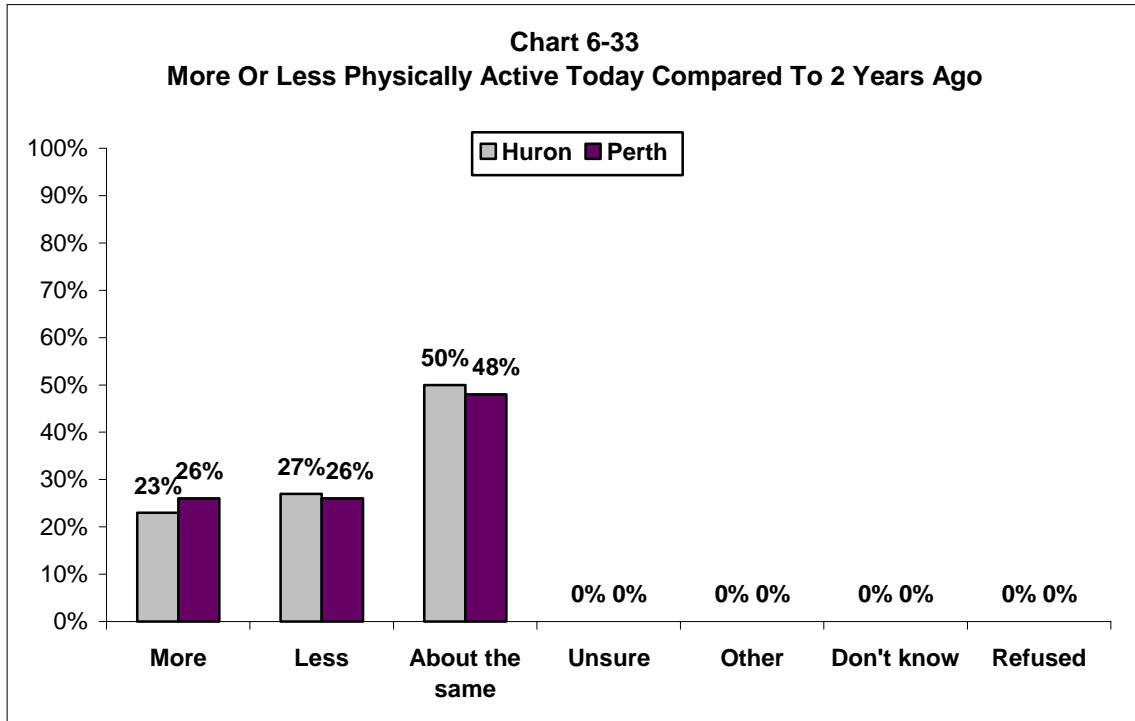


n=220

As shown in Chart 6-32, the proportions in 2008 and 2010 who reported that their physical or mental health condition prevents them from being physically active has remained stable for both counties.



Approximately half of all respondents (50% for Huron, 48% for Perth) reported that their physical activity level of today is about same as it was 2 years ago (Chart 6-33). About one in four reported they are more physically active than they were 2 years ago (23% for Huron, 26% for Perth), and similar proportions reported they are less active than they were 2 years ago (27% for Huron, 26% for Perth).



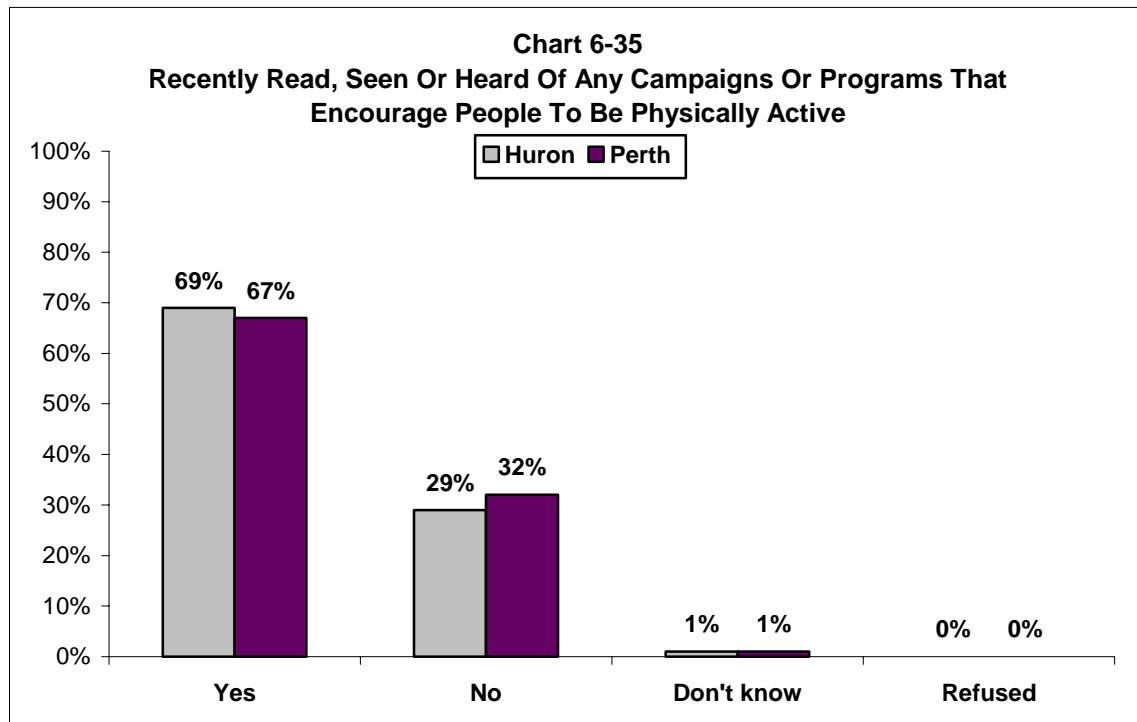
n=761

Respondents' perceptions of their physical activity level now as compared to 2 years ago have remained fairly consistent for both Huron and Perth Counties from 2008 to 2010 (Table 6-34).

Table 6-34 More Or Less Physically Active Today Compared To 2 Years Ago 2008 vs. 2010				
	Huron		Perth	
	2008	2010	2008	2010
More active than 2 years ago	21%	23%	24%	26%
Less active than 2 years ago	31%	27%	28%	26%
About the same as 2 years ago	48%	50%	48%	48%

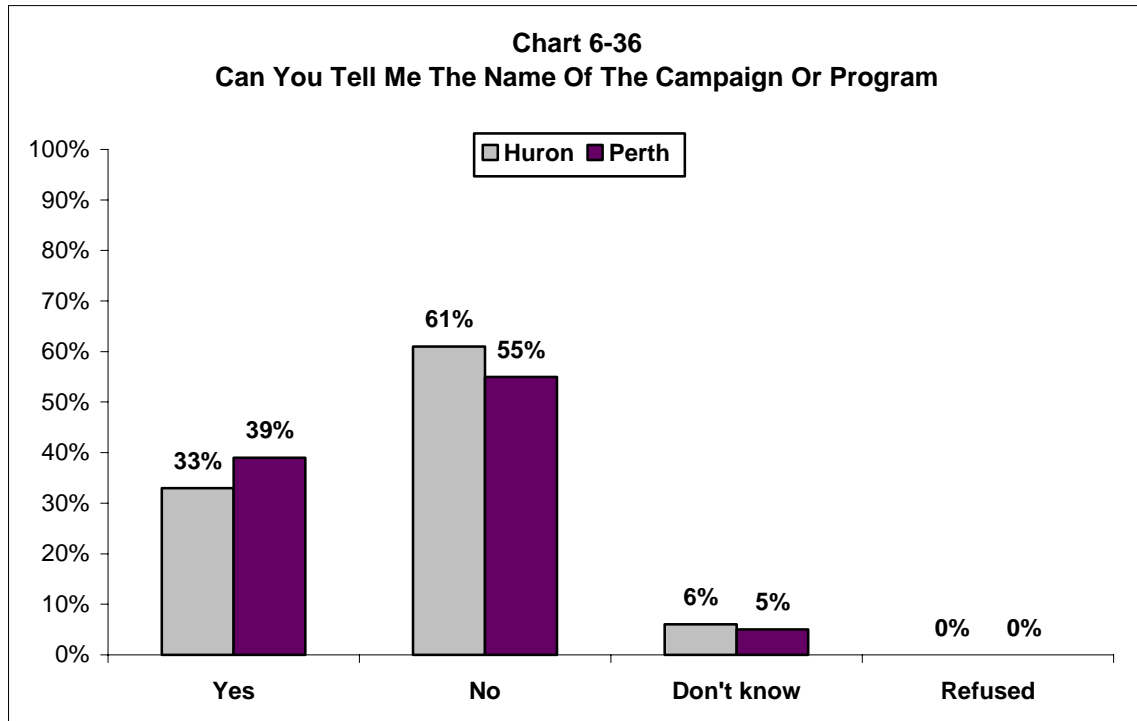
6.6. Campaign Awareness

Overall, about two thirds of respondents (69% for Huron, 67% for Perth) reported that they have recently read, seen, or heard of campaigns or programs that encourage people to be physically active (Chart 6-35). Note that the questions relating to campaign awareness, and more specifically awareness of Huron Perth *in motion*, were added to the survey in 2010, and therefore trending information is not available for these items.



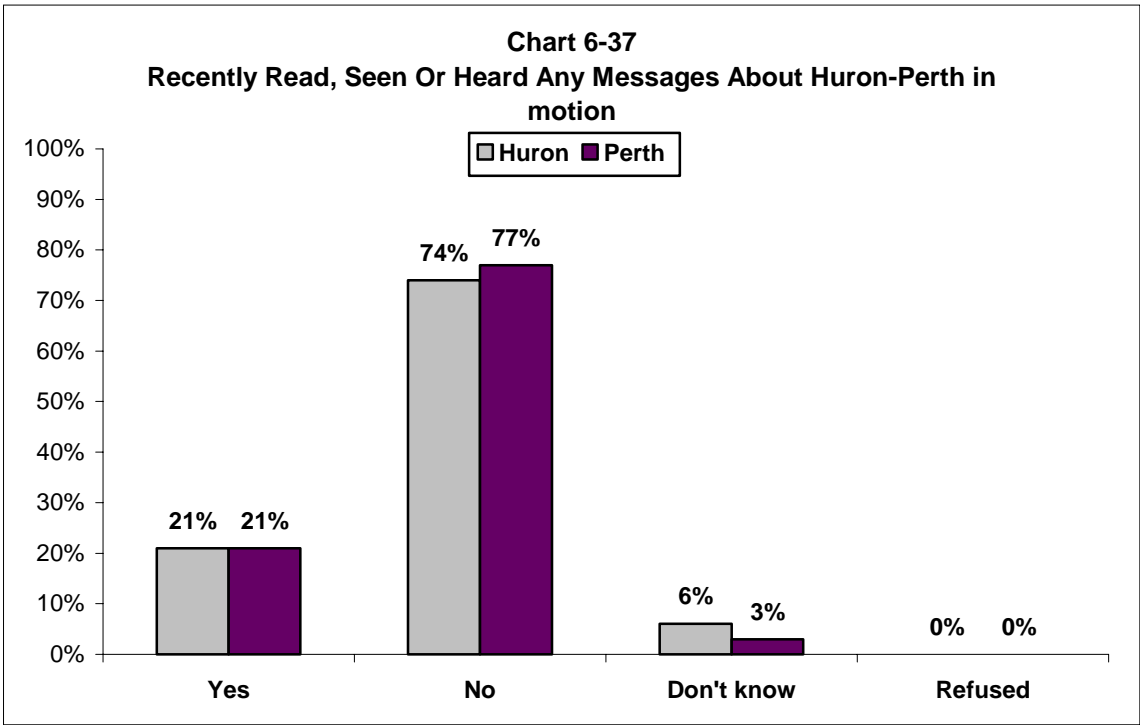
n=761

Of those respondents who reported they had recently read, seen, or heard about a campaign on physical activity (n=519), about one in three (33% for Huron, 39% for Perth) could name the program (Chart 6-36). Commonly mentioned campaign/program names included: Participaction (17%), various walks/rides for charity (11%), *in motion* (6%), and programs through the YMCA (5%).



n=519

Overall, about one in five respondents (21% for both Huron and Perth) reported that they had recently read, seen, or heard any messages about Huron Perth *in motion* (Chart 6-37).



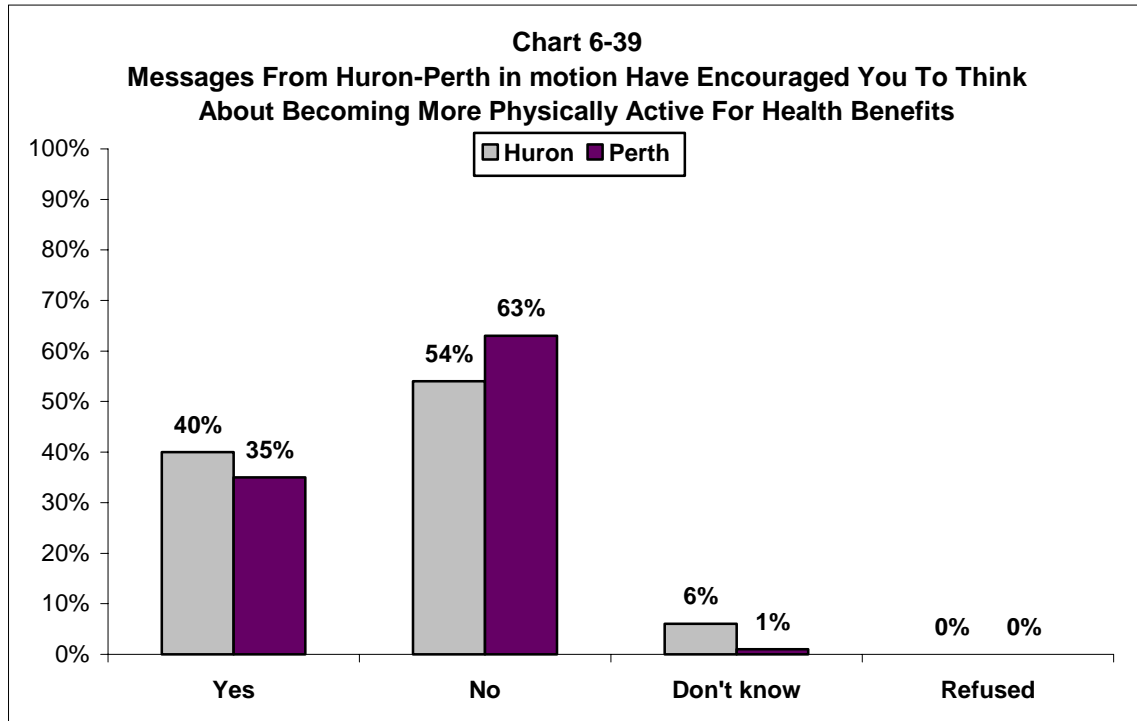
n=761

Of those who had heard of *in motion* (n=157), they most commonly heard from mass media (newspapers, radio, TV, magazines) (46% for Huron, 61% for Perth) or from the workplace (15% for Huron, 10% for Perth) (Table 6-38). Respondents from Perth County were more likely to report having heard from the mass media (61%) than those from Huron County (46%).

Table 6-38 Heard About Huron-Perth <i>in motion</i> From		
	Huron	Perth
Mass media (newspaper, radio, TV, magazine)	46%	61%
Workplace	15%	10%
School	8%	3%
Print material	6%	6%
Community location	5%	8%
Doctor/Nurse/Health care professional/Case worker/Counsellor	5%	3%
Internet/On-line/Website	5%	4%
Friend/Family	3%	3%
Poster/Display/Mall display/Billboard	3%	0%
Mayor/Councillor	0%	0%
Other	5%	5%
Don't know	4%	9%
Refused	0%	0%

n=157

Less than half of those who had heard of *in motion* (n=157) reported that the campaign had encouraged them to become more physically active for health benefits (40% for Huron, 35% for Perth) (Chart 6-39).



n=157

Respondents who indicated they had heard of *in motion* (n=157) were then asked to answer whether *in motion* had prompted them to participate in a variety of physical activity-related actions and behaviours (Table 6-40). In general, only a minority (6% up to 41%) reported that Huron-Perth *in motion* had prompted them to participate in any of the actions or behaviours. *In motion* appeared to have the biggest effect on respondents in the areas of eating a healthier diet, being more physically active, encouraging family/friends/co-workers to become physically active, and providing opportunities for their family to be active together. The program appeared to have least effect on respondents regarding contacting a recreation department, seniors club, or fitness center, and in purchasing clothing or equipment for physical activity.

Table 6-40 Huron-Perth <i>in motion</i> Prompted You To Do Any Of The Following:						
	Yes		No		Don't know	
	Huron	Perth	Huron	Perth	Huron	Perth
Eat a healthier diet	37%	35%	63%	65%	0%	0%
Be more physically active	35%	41%	65%	59%	0%	0%
Encourage family, friends and co-workers to become physically active	32%	29%	65%	70%	3%	1%
Provide opportunities for family to be active together	29%	35%	67%	57%	4%	8%
Look for information on health, recreation, nutrition etc.	24%	24%	76%	76%	0%	0%
Reduce screen time for yourself/your children	24%	32%	76%	68%	0%	0%
Speak up for more physical activity opportunities in your community	19%	13%	81%	87%	0%	0%
Visit a recreation facility	18%	10%	82%	90%	0%	0%
Contact a recreation department, seniors club, fitness centre or other service provider	13%	13%	87%	87%	0%	0%
Purchase physical activity clothing/equipment	6%	6%	94%	94%	0%	0%

n=157

When asked where they would go to get information on physical activity, respondents most commonly mentioned the internet (41% for Huron, 46% for Perth) (Table 6-41). The next most commonly reported sources of information were visiting/calling a local recreation facility (22% for Huron, 15% for Perth) or discussing with their doctor/physician/health care specialist (15% for Huron, 11% for Perth).

Table 6-41 Where Would You Go To Get Information On Physical Activity		
	Huron	Perth
Internet	41%	46%
Visit/call local recreation facility	22%	15%
Doctor/physician/health care specialist	15%	11%
Newspaper	5%	7%
Recreation, leisure or tourism guides	3%	5%
Visit/call municipal office	3%	3%
Other	18%	18%
Don't know	12%	13%
Refused	0%	0%

n=761

6.7. Conclusions and Recommendations

Overall, respondents in both Huron and Perth Counties reported being physically active on a regular basis (81% for Huron, 83% for Perth), that this physical activity is a habitual part of their life (95% of Huron respondents and 92% of Perth respondents reported they have been physically active on a regular basis for the past 6 months or more), and that their physical activity levels of today are at least the same or more than they were two years ago (23% more, 50% the same for Huron; 26% more, 48% the same for Perth).

Respondents from both counties reported participating in a wide variety of activities at the light, moderate, and vigorous effort level, leading to approximately two-thirds of respondents having a KKD score of 3 or greater (67% for Huron, 68% for Perth; or by gender 70% of males overall, 66% of females overall). The proportions of male respondents from Huron County, and male and female respondents from Perth County meeting 3 KKD has remained relatively similar from 2008 to 2010, while the proportion of female respondents from Huron County meeting 3 KKD has increased by 16% in 2010. Thus, it would appear that based on the current survey instrument and methods of analysis, that relatively high proportions of Huron and Perth County residents are achieving appropriate levels of physical activity.

In general, awareness of the Huron-Perth *in motion* campaign was relatively low (21% for Huron, 21% for Perth). In view of this result, a continued focus should be placed on improved messaging to generate awareness at all levels. Evaluation of current messaging strategies and placement of these messages should provide evidence on what is effective, and equally as important, what is not. Messages on the internet (e.g., municipal website, local sports associations websites, local paper website, business association website) as well as placement in local recreation facilities and in the offices of doctors/physicians/health care specialists should be investigated as these are the most frequently mentioned places respondents reported they would go for information on physical activity. Careful attention should be paid to messages in the newspaper, radio, TV, and magazines as these were the most common message sources that respondents reported. Furthermore, an evaluation of the content of the messages should be undertaken. Of those respondents who had recently read, seen, or heard messages about *in motion*, only about 40% or less reported that *in motion* had any effect on a number of positive physical activity-related actions and behaviours (i.e., even those who do see the messages are not reporting that they are affecting their behaviour).

Appendix A – Survey Instrument

Huron Perth in motion Survey PHONE VERSION

INTRODUCTION

I1. Hello, my name is _____. I am calling from CCI Research on behalf of Huron County Health Unit and Perth District Health Unit.

I would like to speak with someone in the household who is 18 years of age or older and who will have the next birthday. Would that be you?

(Interviewer note: If respondent requests contact information:

“Perth County residents can call the Perth District Health Unit infoline at 519-271-7600 ext. 267 for more information.”

“Huron County residents can call the Huron County Health Unit Communications Coordinator at (519) 482-3416 ext. 2289 for more information.”)

1. Yes
Go to I2
2. No - goes to get them
Go to I2a
3. Not available - later
Go to call back
4. Refused
Thank you for your time. Good bye (RF)

I2. We’re conducting a survey of over 700 households to help us better understand physical activity levels of adults in the region.

Are you willing to participate in this survey with me now?

(Interviewer note: If respondent requests contact information:

“Perth County residents can call the Perth District Health Unit infoline at 519-271-7600 ext. 267 for more information.”

“Huron County residents can call the Huron County Health Unit Communications Coordinator at (519) 482-3416 ext. 2289 for more information.”)

1. Yes
Go to I3
2. No later
Go to call back
3. Refused
Thank you for your time. Good bye (RF)

I3. The information that you provide today is voluntary and confidential. You may refuse to answer any question or end the survey at any time. This survey could take anywhere from 10 to 15 minutes of your time depending

on your answers. This call may be monitored for quality assurance purposes.

May I continue?

(Interviewer note: If respondent requests contact information:

“Perth County residents can call the Perth District Health Unit infoline at 519-271-7600 ext. 267 for more information.”

“Huron County residents can call the Huron County Health Unit Communications Coordinator at (519) 482-3416 ext. 2289 for more information.”)

1. Yes

Go to Q1

2. No later

Go to Call Back

3. Refused

Thank you for your time. Good bye (RF)

I2a. Hello, my name is _____. I am calling from CCI Research Inc. on behalf of Huron County Health Unit and Perth District Health Unit. I have been told that you are the one in the household that is 18 years of age or older and who will have the next birthday. Is this correct?

(Interviewer note: If respondent requests contact information:

“Perth County residents can call the Perth District Health Unit infoline at 519-271-7600 ext. 267 for more information.”

“Huron County residents can call the Huron County Health Unit Communications Coordinator at (519) 482-3416 ext. 2289 for more information.”)

1. Yes

Go to I2

3. Not available - later

Go to call back

4. Refused

Thank you for your time. Good bye (RF)

First Question

1. To begin with can you tell me what County you live in?

(Interviewer note: if the respondent does not live in Huron or Perth County, thank the respondent for his/her time and terminate the survey)

- | | |
|---------------|------------------------|
| 1. Huron | Go to 2a |
| 2. Perth | Go to 2b |
| 3. Other | (terminate the survey) |
| 4. Don't know | (terminate the survey) |
| 5. Refused | (terminate the survey) |

2. Can you tell me what community you live in?

2.a. (Huron)

2.b. (Perth)

1. Ashfield Colborne
Wawanesh Twp
2. Auburn
3. Bayfield
4. Belgrave
5. Benmiller
6. Bluewater Twp
7. Bluevale
8. Brussels
9. Blyth
10. Brucefield
11. Central Huron Twp
12. Centralia
13. Clinton
14. Crediton
15. Dashwood
16. Dungannon
17. Egmondville
18. Exeter
19. Goderich
20. Gorrie
21. Grand Bend
22. Hensall
23. Howick Twp
24. Huron East Twp
25. Huron Park

26. Kintail
27. Kippen
28. Londesborough
29. Lucknow
30. Morris Turnburry Twp
31. Port Albert
32. Seaforth
33. Vanastra

1. Atwood
2. Bornholm
3. Brunner
4. Dublin
5. Gads Hill
6. Gowanstown
7. Henfryn
8. Kirkton
9. Listowel
10. Millbank
11. Milverton
12. Mitchell
13. Monkton
14. Newton
15. North Perth Twp
16. Palmerston
17. Perth East Twp
18. Perth South Twp
19. Sebastopol
20. Sebringville
21. Shakespeare
22. St Marys (ADD AN S)
23. Staffa
24. Stratford
25. Wallace
26. West Perth
27. Other (please specify)
28. Don't know
29. Refused

- 34. Whitechurch
- 35. Wingham
- 36. Zurich
- 37. Other (please specify)
- 38. Don't know
- 39. Refused

3. What is your postal code?

(Interviewer Prompt: If the respondent questions why we need their postal code information, respond with "We use the postal code data to determine how well our survey results represent the entire geographic area of our study.")

- 1. Yes Verify
- 2. Don't know Go to 4
- 3. Refused Go to 4

PC Verification of Postal code

First three characters (e.g. N1H)
Last three characters (e.g. 4
Y3)

I would like to begin by asking about your general physical activity.

4. Are you physically active on a regular basis?

(Interviewer note: regular exercise is self defined by the respondent.

IT IS CRUCIAL THAT YOU DO NOT PROVIDE ANY PROMPTS TO THE RESPONDENT ON THIS QUESTION. DO NOT REFER TO ANY OF THE ACTIVITIES THAT WE PROMPT FOR LATER IN THE SURVEY. IF THE RESPONDENT PROVIDES YOU WITH AN EXAMPLE OF AN ACTIVITY/EXERCISE, DO NOT CONFIRM THAT THIS IS THE TYPE OF ACTIVITY/EXERCISE THAT WE ARE INTERESTED IN.

(Interviewer Prompt: "FOR THE PURPOSE OF THIS QUESTION, REGULAR PHYSICAL ACTIVITY IS WHAT YOU YOURSELF CONSIDER TO BE REGULAR PHYSICAL ACTIVITY")

- 1. Yes
- 2. No (Skip to Q6)
- 3. Don't know (Skip to Q6)
- 4. Refused (Skip to Q6)

5. Have you been physically active on a regular basis for the last 6 months or more?

- 1. Yes (Skip to Q8 Text)
- 2. No (Skip to Q8 Text)
- 3. Don't know (Skip to Q8 Text)
- 4. Refused (Skip to Q8 Text)

6. Do you plan to begin regular physical activity in the next 30 days?

1. Yes (Skip to Q42)
2. No
3. Don't know
4. Refused

7. Do you intend to begin regular physical activity in the next 6 months?

1. Yes (Skip to Q42)
2. No (Skip to Q42)
3. Don't know (Skip to Q42)
4. Refused (Skip to Q42)

Q8 Text. I'd now like to ask you about your physical activity during the past 7 days - that is the last 5 weekdays and last weekend. So I would like you to think about all your physical activities between this evening and the start of ____ <calculated field based on day of the week> ____ last week.

(Interviewer note: use the following guide...
If today is Monday . . . the start of last Tuesday
If today is Tuesday . . . the start of last Wednesday
If today is Wednesday . . . the start of last Thursday
If today is Thursday... the start of last Friday
If today is Friday... the start of last Saturday
If today is Saturday... the start of last Sunday
If today is Sunday... the start of last Monday)

Improving or maintaining your health can be achieved by participating in regular physical activity. This can be accomplished through 60 minutes of "light effort" activity 7 days a week, or through 30-60 minutes of "moderate effort" activity 5-6 days a week, or 20 -30 minutes of "vigorous effort " activity 4 days a week.

I'd like to start with light effort activity. This type of activity causes a slight increase in breathing, heartbeat, and body temperature. Some examples of light activity are curling, walking and bowling.

(Interviewer note: activities such as easy gardening, light yard work, and informal play with children are also acceptable responses - HOWEVER, do not prompt for these responses - only record these responses if the respondent inquires if these types of activities can be included and/or if the respondent suggests that they consider these types of activities to be light effort)

LIGHT ACTIVITIES

8. Have you participated in any light effort activities in the past 7 days?

(Interviewer prompt: If respondent asks if a particular type of activity is a light effort activity, then say:

"_____ is a light effort activity if it causes a slight increase in breathing, heartbeat, and body temperature for you. We will be asking about moderate and vigorous activities separately.")

1. Yes
2. No (Skip to Q17)
3. Don't know (Skip to Q17)
4. Refused (Skip to Q17)

9. Could you list all of the light effort activities that you participated in during the last 7 days?

(Interviewer note: record all of the responses in the following box and then follow-up with each individual activity with respect to the frequency and duration questions.)

(Interviewer prompt: If respondent asks if a particular type of activity is a light effort activity, then say:

"_____ is a light effort activity if it causes a slight increase in breathing, heartbeat, and body temperature for you. We will be asking about moderate and vigorous activities separately.")

(Interviewer prompt: If respondent mentions a very general type of activity like "exercise" or "work", then say:

"What kind of exercise/work activity did you do?" Or "I need to record a specific type of activity.")

1. Record up to 6 activities
2. Don't know
3. Refused

(If none go to moderate section)

Adult light activity #1

10a. I'd like to discuss your light activities in a little more detail starting with...(enter activity)

(Interviewer note: for all frequency and duration questions, please enter '0' (zero) if the respondent indicates that he/she does not participate in the activity during weekdays or on weekends)

During the past 5 weekdays how many times did you participate in this activity?

1. Record answer

2. Don't know
3. Refused

10b. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per week.")

1. Record answer
2. Don't know
3. Refused

10c. On the most recent weekend, how many times did you participate in (enter activity)?

(Interviewer note: weekend is the last weekend – if today is Saturday the last weekend is last Sunday and today, if today is Sunday, the last weekend is yesterday (Saturday) and today).

1. Record answer
2. Don't know
3. Refused

10d. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per weekend.")

1. Record answer
2. Don't know
3. Refused

Repeat for each activity listed

Adult light activity #2, Q11a, 11b, 11c, 11d

Adult light activity #3, Q12a, 12b, 12c, 12d

Adult light activity #4, Q13a, 13b, 13c, 13d

Adult light activity #5, Q14a, 14b, 14c, 14d

Adult light activity #6, Q15a, 15b, 15c, 15d

If less than 6 activities listed go to 16

16. Did you participate in any other light effort activities within the past 7 days? <This only comes up once after they have answered questions about the last light activity on their list>

1. Yes
2. No (Skip to Q17)
3. Don't know (Skip to Q17)
4. Refused (Skip to Q17)

16a. Record additional light activities. (this loops around to record the remaining activities from Q9 for a total of 6 activities in all Q10 - 15)

(Interviewer note: Record all of the activities in the following box and then follow up with each individual activity with respect to frequency and duration questions)

ADULT MODERATE ACTIVITY

17. I'd now like to ask you about your MODERATE effort physical activity during the past 7 days.

This type of activity is intense enough to cause heavy breathing, increase heart rate, and body temperature. Some examples of moderate activity include fast walking, swimming, dancing, biking (outdoor or stationary biking), and walking on a treadmill.

Have you participated in any moderate effort activities in the past 7 days?

(Interviewer prompt: If respondent asks if a particular type of activity is a moderate effort activity, then say:

"_____ is a moderate effort activity if it is intense enough to cause heavy breathing, heart rate, and increased body temperature for you. We will be asking about more vigorous activities separately.")

1. Yes
2. No (Skip to Q26)
3. Don't know (Skip to Q26)
4. Refused (Skip to Q26)

18. Could you list all of the moderate effort activities that you participated in during the last 7 days?

(Interviewer note: record all of the responses in the following box and then follow-up with each individual activity with respect to the frequency and duration questions.)

(Interviewer prompt: If respondent asks if a particular type of activity is a moderate effort activity, then say:

"_____ is a moderate effort activity if it is intense enough to cause heavy breathing, heart rate, and increased body temperature for you. We will be asking about more vigorous activities separately.")

(Interviewer prompt: If respondent mentions a very general type of activity like "exercise" or "work", then say:

"What kind of exercise/work activity did you do?" Or "I need to record a specific type of activity.")

1. Record up to 6 activities
2. Don't know
3. Refused

(If none go to vigorous section)

Adult moderate activity #1

19a. I'd like to discuss your moderate activities in a little more detail starting with...(enter activity)

(Interviewer note: for all frequency and duration questions, please enter '0' (zero) if the respondent indicates that he/she does not participate in the activity during weekdays or on weekends)

During the past 5 weekdays how many times did you participate in this activity?

1. Record answer
2. Don't know
3. Refused

19b. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per week.")

1. Record answer
2. Don't know
3. Refused

19c. On the most recent weekend, how many times did you participate in ...(enter activity)? (Interviewer note: weekend is the last weekend – if today is Saturday the last weekend is last Sunday and today, if today is Sunday, the last weekend is yesterday (Saturday) and today).

1. Record answer
2. Don't know
3. Refused

19d. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per weekend.")

1. Record answer
2. Don't know
3. Refused

Repeat for each activity listed

Adult moderate activity #2, Q20a, 20b, 20c, 20d

Adult moderate activity #3, Q21a, 21b, 21c, 21d

Adult moderate activity #4, Q22a, 22b, 22c, 22d

Adult moderate activity #5, Q23a, 23b, 23c, 23d

Adult moderate activity #6, Q24a, 24b, 24c, 24d

If less than 6 activities listed go to Q25

25. Did you participate in any other moderate effort activities within the past 7 days?
<This only comes up once after they have answered questions about the last moderate activity on their list>

1. Yes
2. No (Skip to Q26)
3. Don't know (Skip to Q26)
4. Refused (Skip to Q26)

25a. Record additional moderate activities. (this loops around to record the remaining activities
from Q18 for a total of 6 activities in all Q19 – Q24)

(Interviewer note: Record all of the activities in the following box and then follow up with each individual activity with respect to frequency and duration questions)

ADULT VIGOROUS ACTIVITY

26. I'd now like to ask you about your VIGOROUS effort physical activity during the past 7 days.

This type of activity is intense enough to cause heavy breathing, a rapid heart rate, and sweating. Some examples of vigorous activity include aerobics, jogging, hockey, broomball, ice hockey, and fast swimming.

Have you participated in any vigorous effort activities in the past 7 days?

(Interviewer prompt: If respondent asks if a particular type of activity is a vigorous effort activity, then say:

"_____ is a vigorous effort activity if it is intense enough to cause heavy breathing, a rapid heart rate, and sweating for you.")

1. Yes
2. No (Skip to Q35)
3. Don't know (Skip to Q35)
4. Refused (Skip to Q35)

(Note: If respondent has no light, moderate, or vigorous activities – i.e., no reported activities, then skip to Q42)

27. Could you list all of the vigorous effort activities that you participated in during the last 7 days?

(Interviewer note: record all of the responses in the following box and then follow-up with each individual activity with respect to the frequency and duration questions.)

(Interviewer prompt: If respondent asks if a particular type of activity is a vigorous effort activity, then say:

"_____ is a vigorous effort activity if it is intense enough to cause heavy breathing, a rapid heart rate, and sweating for you.")

(Interviewer prompt: If respondent mentions a very general type of activity like "exercise" or "work", then say:

"What kind of exercise/work activity did you do?" Or "I need to record a specific type of activity.")

1. Record up to 6 activities
2. Don't know
3. Refused

Adult vigorous activity #1

28a. I'd like to discuss your vigorous activities in a little more detail starting with...(enter activity)

(Interviewer note: for all frequency and duration questions, please enter '0' (zero) if the respondent indicates that he/she does not participate in the activity during weekdays or

on weekends)

During the past 5 weekdays how many times did you participate in this activity?

1. Record answer
2. Don't know
3. Refused

28b. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per week.")

1. Record answer
2. Don't know
3. Refused

28c. On the most recent weekend, how many times did you participate in...(enter activity)?

(Interviewer note: weekend is the last weekend – if today is Saturday the last weekend is last Sunday and today, if today is Sunday, the last weekend is yesterday (Saturday) and today)

1. Record answer
2. Don't know
3. Refused

28d. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per weekend.")

1. Record answer
2. Don't know
3. Refused

Repeat for each activity listed

Adult vigorous activity #2, Q29a, 29b, 29c, 29d

Adult vigorous activity #3, Q30a, 30b, 30c, 30d

Adult vigorous activity #4, Q31a, 31b, 31c, 31d

Adult vigorous activity #5, Q32a, 32b, 32c, 32d

Adult vigorous activity #6, Q33a, 33b, 33c, 33d

If less than 6 activities listed go to Q34

34. Did you participate in any other vigorous effort activities within the past 7 days?
<This only comes up once after they have answered questions about the last vigorous activity on their list>

1. Yes
2. No (Skip to Q35)
3. Don't know (Skip to Q35)
4. Refused (Skip to Q35)

34a. Record additional vigorous activities. (this loops around to record the remaining activities from Q27 for a total of 6 activities in all Q28 – Q34)

(Interviewer note: Record all of the activities in the following box and then follow up with each individual activity with respect to frequency and duration questions)

35. Are there any additional physical activities that you participated in the last 7 days that we haven't discussed?

1. Yes
2. No (Skip to Q38)
3. Don't know (Skip to Q38)
4. Refused (Skip to Q38)

35a. Enter Additional activities (up to two)

(Interviewer prompt: "Was that activity light, moderate, or vigorous?")

(Interviewer note: Enter light, moderate, or vigorous after the activity.)

Additional Activity (#1)...

36a. During the past 5 weekdays how many times did you participate in (enter activity)?

(Interviewer note: for all frequency and duration questions, please enter '0' (zero) if the respondent indicates that he/she does not participate in the activity during weekdays or on weekends)

1. Record answer
2. Don't know
3. Refused

36b. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per week.")

1. Record answer
2. Don't know
3. Refused

36c. On the most recent weekend, how many times did you participate in (enter activity)?

(Interviewer note: weekend is the last weekend – if today is Saturday the last weekend is last Sunday and today, if today is Sunday, the last weekend is yesterday (Saturday) and today).

1. Record answer
2. Don't know
3. Refused

36d. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per weekend.")

1. Record answer
2. Don't know
3. Refused

Additional Activity (#2)...

37a. During the past 5 weekdays how many times did you participate in (enter activity)?

(Interviewer note: for all frequency and duration questions, please enter '0' (zero) if the respondent indicates that he/she does not participate in the activity during weekdays or on weekends)

1. Record answer
2. Don't know
3. Refused

37b. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per week.")

1. Record answer
2. Don't know
3. Refused

37c. On the most recent weekend, how many times did you participate in (enter activity)?

(Interviewer note: weekend is the last weekend – if today is Saturday the last weekend is last Sunday and today, if today is Sunday, the last weekend is yesterday (Saturday) and today).

1. Record answer
2. Don't know
3. Refused

37d. On average, how many minutes per day did you spend on this activity?

(Interviewer note: We are looking for average per day NOT total hours. If the respondent answers with 90 minutes or more, you should verify by saying: "I just would like to verify that you are reporting an average number of minutes per day for this activity, not total minutes per weekend.")

1. Record answer
2. Don't know
3. Refused

Overall reflection on activity

38. Reflecting on all of your physical activities in the last 7 days, would you say that this amount of activity is...

1. Normally what you do each week throughout the year
(Skip to Q40)
2. More than what you normally do each week throughout the year
3. Less than what you normally do each week throughout the year
4. Don't know (Skip to Q40)
5. Refused (Skip to Q40)

Reason for more or less activity

39. Why was this more / less than you normally do?

1. Record answer
2. Refused

Recreation centre

40. Did you participate in any physical activity at a recreation or fitness centre in the last 7 days?

1. Yes (Skip to Q42)
2. No
3. Don't know
4. Refused

Reason for not using recreation centre

41. Can you elaborate on the reason(s) why you don't use a recreation or fitness centre?

1. Lack of time
2. Cost
3. Accessibility
4. Preference to be physically active at home
5. Preference to be physically active outdoors or other places
6. Health or age related issues
7. No need for or interest in being physically active
8. No membership at a facility
9. Other
10. Don't know
11. Refused

Physical or mental health conditions

42. Do you have a physical or mental health condition that has affected your overall health for longer than 6 months?

1. Yes
2. No (Skip to Q45)
3. Don't know (Skip to Q45)
4. Refused (Skip to Q45)

Type of physical and/or mental condition

43. Can you please describe that condition for me?

(Interviewer note: do not read the list - select all that apply)

1. Muscle bone or joint problems (osteoarthritis, osteoporosis, others)
2. Breathing problems (asthma, bronchitis, others)
3. Heart & circulation problems (angina, heart valve problems, others)
4. Digestive system problems (stomach ulcers, hiatus hernia, others)
5. Kidney, bladder or urinary problems (kidney failure, prostate, others)
6. Neurological problems (stroke, Parkinson's, Alzheimer's, others)
7. Mental or emotional problems (depression, anxiety, substance abuse)
8. Cancer (breast, lung, stomach, others)
9. Blood problems (anemia, leukemia, others)
10. Eye problems (cataracts, glaucoma)
11. High blood pressure
12. Diabetes
13. Other (please specify)
14. Don't know
15. Refused

44. Does this health condition prevent you from being physically active?

1. Yes
2. No
3. Don't know
4. Refused

History of physical activity

45. Are you more or less physically active today than you were two years ago?

1. More
2. Less
3. About the same

4. Unsure
5. Other (please specify)
6. Don't know
7. Refused

Awareness

46. Have you recently read, seen or heard of any campaigns or programs that encourage people to be physically active?

(Interviewer prompt: physical activity is any activity that makes you sweat or breathe faster or increases your heart rate)

1. Yes
 2. No
 3. Don't know (Skip to Q48)
 4. Refused (Skip to Q48)
- (Skip to Q48)

47. Can you tell me the name of the campaign or program?

(Interviewer Prompt: If respondent says something very general like newspaper, radio, tv or a book, then say: "Do you happen to know the specific name of the campaign or program?")

1. Yes [Fill in name of campaign or program]
2. No
3. Don't know
4. Refused

48. Have you recently read, seen or heard any messages about Huron-Perth in motion?

(Interviewer Prompt: If asked what in motion is, respond with: "in motion is a community network that provides physical activity form Huron Perth residents".)

1. Yes
2. No
3. Don't know Unsure (Skip to Q52)
4. Refused Unsure (Skip to Q52)

49. How did you hear about Huron-Perth in motion? (Ask open-ended and have interviewer fill in based on response provided. (Select all that apply))

1. Community Location (Ontario Early Years' Centre / Day Care / Parent Resource Centre / Library / Store / Recreation Centre/ Community Centre)
2. Doctor / Nurse / Health Care Professional / Case Worker / Counsellor
3. Friend / Family
4. Internet / On-line / Website

5. Mass Media (Newspaper / Radio / TV / Magazine)
6. Mayor / Councillor
7. Poster / Display / Mall Display / Billboard
8. Print Material (Pamphlet/Brochure/Colouring Book/Newsletter/Flyer etc.)
9. School (includes pamphlet or printed material brought home from school)
10. Workplace
11. Other, specify
12. Don't know
13. Refused

50. Do you think messages from the Huron-Perth in motion campaign have encouraged you to think about becoming more physically active for health benefits?

1. Yes
2. No
3. Don't know
4. Refused

Has Huron-Perth in motion prompted you to do any of the following?

51a. Purchase physical activity clothing/equipment?	Yes/No/DK/R
51b. Encourage family, friends, and co-workers etc. to become physically active?	Yes/No/DK/R
51c. Provide opportunities for family to be active together?	Yes/No/DK/R
51d. Visit a recreation facility?	Yes/No/DK/R
51e. Contact a recreation department, seniors club, fitness centre or other service provider?	Yes/No/DK/R
51f. Look for information on health, recreation, nutrition etc.?	Yes/No/DK/R
51g. Speak up for more physical activity opportunities in your community (workplace/schools)?	Yes/No/DK/R
51h. Reduce screen time (watching television, video games, computer etc.) for yourself/your children	Yes/No/DK/R
51i. Be more physically active?	Yes/No/DK/R
51j. Eat a healthier diet?	Yes/No/DK/R

52. If you wanted information on physical activity, where would you go to get it?

(Select all that apply – Do not read list)

1. Internet
2. Newspaper

3. Recreation, leisure or tourism guides
4. Doctor/physician/health care specialist
5. Visit/call local recreation facility
6. Visit/call municipal office
7. Other please specify
8. Don't know
9. Refused

Demographics

The next few questions of this survey are about your background. This information will help us describe the population who took part in the survey. Feel free to skip any questions that you are uncomfortable answering.

53. Gender

(Interviewer note: do not ask the respondent)

1. Male
2. Female

54. Could you please tell me your age?

(Interviewer note: If the respondent declines to answer, leave the cell empty)

1. Record response
2. Refused

55. What is the highest level of education that you completed?

1. Less than high school
2. Secondary (high) school graduation
3. Some non -university trades certificate or diploma
4. Completed non -university trades certificate or diploma
5. Some university
6. Completed Bachelor's degree (e.g. B.A., B.Sc., B.S.W.)
7. Completed Master's or Doctoral degree (e.g. M.A., M.Sc., D.D.S., Ph.D.)
8. Other (please specify)
9. Don't know
10. Refused

Household profile

56. Which of the following categories best describes your household?

1. Single adult household
2. Two adults without children
3. Single parent with one or more children living at home
4. Married couple/common law with one or more children living at home
5. Other (please specify)
6. Don't know
7. Refused

Employment

57. Which of the following categories best describes your current employment status?

1. Employed full time (includes self -employment)
2. Employed part time (includes self -employment)
3. Unemployed (Skip to Q59)
4. Student (Skip to Q59)
5. Retired (Skip to Q59)
6. Homemaker / stay at home caregiver (Skip to Q59)
7. Other (please specify) (Skip to Q59)
8. Don't know (Skip to Q59)
9. Refused (Skip to Q59)

Industry sector

58. Which of the following best describes the industry or field you work in? Is your job in:

(Interviewer note: Use documentation to assist respondent if necessary.)

1. Agriculture or other resource-based industries
2. Construction
3. Manufacturing
4. Wholesale trade
5. Retail trade
6. Finance and real estate
7. Health care and social services
8. Educational services
9. Business services
10. Other services
11. Don't know
11. Don't know how to code (please specify)

(Interviewer to type response to be coded later – as much

information as possible with respect to industry/field of work)

12. Refused

Family income

59. Considering all members of your family living in your household, which one of the following income categories best describes your total family income in 2009 before taxes?

(Interviewer Prompt: If asked who is included in a household, response is: "We are only asking about the family members that live in your household including those related by blood, marriage, common-law relationship or adoption.")

(Interviewer Prompt: Total income refers to the total money income received from the following sources during calendar year 2009 by persons 15 years of age and over:

- wages and salaries (total);
- net farm income; - net non-farm income from unincorporated business and/or professional practice; - Canada Child Tax benefits;
- Old Age Security pension and Guaranteed Income Supplement; - benefits from Canada or Quebec Pension Plan;
- benefits from Employment Insurance;
- other income from government sources;
- dividends, interest on bonds, deposits and savings certificates, and other investment income;
- retirement pensions, superannuation and annuities, including those from RRSPs and RRIFs;
- other money income.)

1. Less than \$20,000
2. \$20,000 to less than \$30,000
3. \$30,000 to less than \$40,000
4. \$40,000 to less than \$50,000
5. \$50,000 to less than \$60,000
6. \$60,000 to less than \$70,000
7. \$70,000 to less than \$80,000
8. \$80,000 to less than \$90,000
9. \$90,000 to less than \$100,000
10. \$100,000 to less than \$120,000
11. \$120,000 to less than \$150,000
12. \$150,000 or more
13. Don't know
14. Refused

60 Do you have any final comments that you would like to provide?

1. Yes Record verbatim
2. No

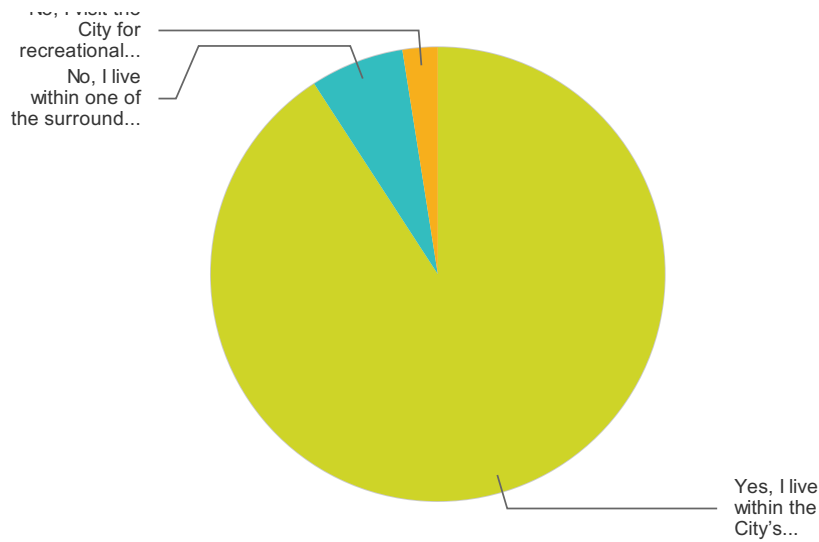
We have now come to the end of the survey. On behalf of Huron County Health Unit and Perth District Health Unit I would like to thank you for your participation today in this study. Thanks again and have a good day/evening.

APPENDIX C | STRATFORD BIKE & PEDESTRIAN MASTER PLAN ONLINE QUESTIONNAIRE RESULTS



Q1 Do you reside within the City of Stratford?

Answered: 120 Skipped: 4

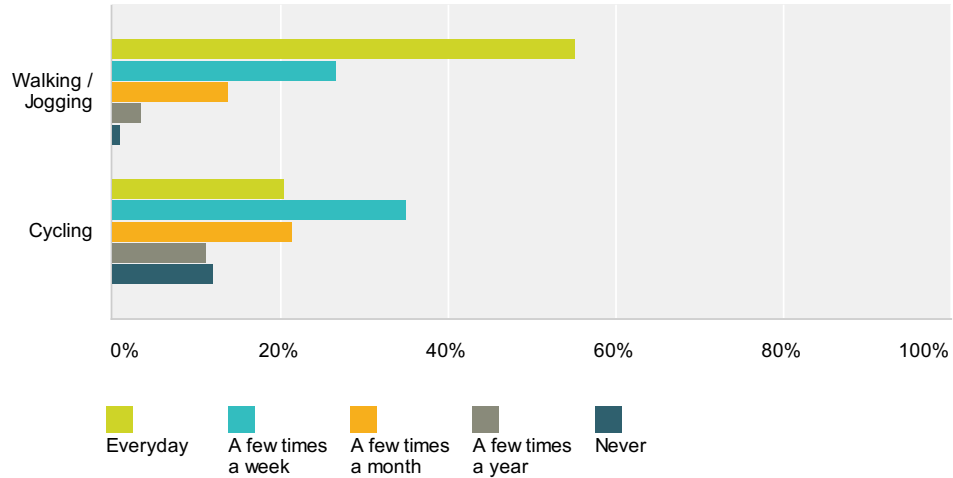


Answer Choices	Responses	
Yes, I live within the City's Municipal Boundary	90.83%	109
No, I live within one of the surrounding communities (e.g. North Perth, Perth East, South Perth and West Perth)	6.67%	8
No, I visit the City for recreational purposes	2.50%	3
Total		120

#	If you reside outside of the City of Stratford please specify	Date
1	perth east	1/24/2013 7:35 PM
2	St. Marys	1/14/2013 4:13 PM
3	Perth South	11/21/2012 3:36 PM
4	Gadshill	11/2/2012 2:34 PM
5	Woodstock	11/1/2012 3:40 PM
6	Melrose Ont.	11/1/2012 3:08 PM

Q2 How often do you walk or cycle for commuting, recreation, fitness, tourism, travel or other purposes? (Please select one of the following frequencies for each type of mode)

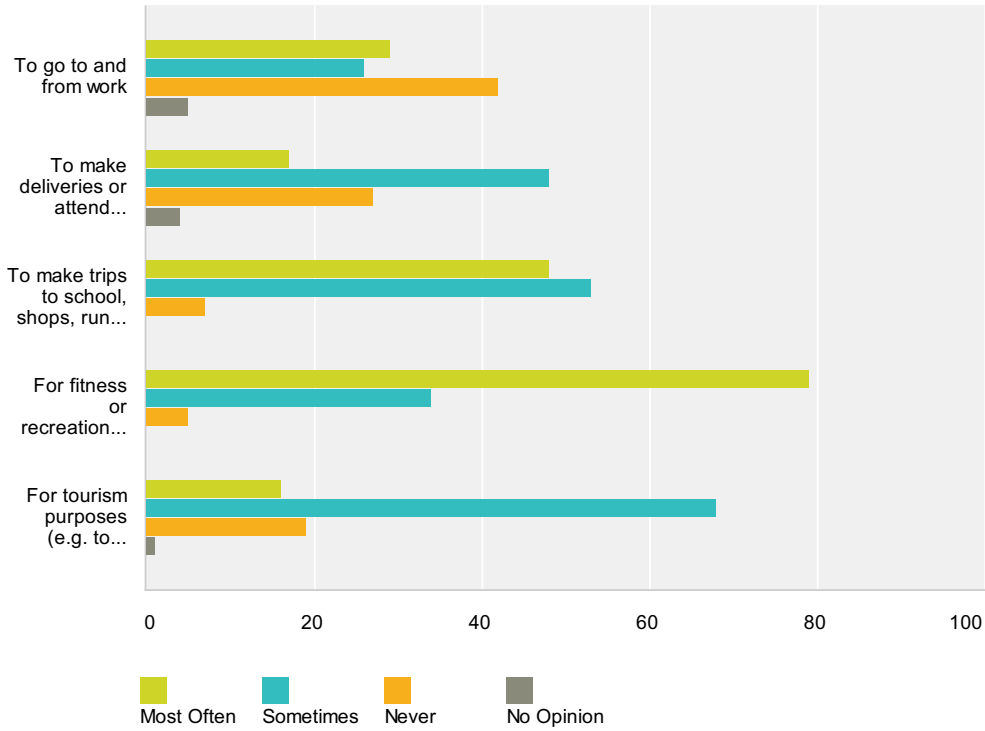
Answered: 121 Skipped: 3



	Everyday	A few times a week	A few times a month	A few times a year	Never	Total
Walking / Jogging	55.17% 64	26.72% 31	13.79% 16	3.45% 4	0.86% 1	116
Cycling	20.51% 24	35.04% 41	21.37% 25	11.11% 13	11.97% 14	117

Q3 Please select the reasons why you walk within the City of Stratford.

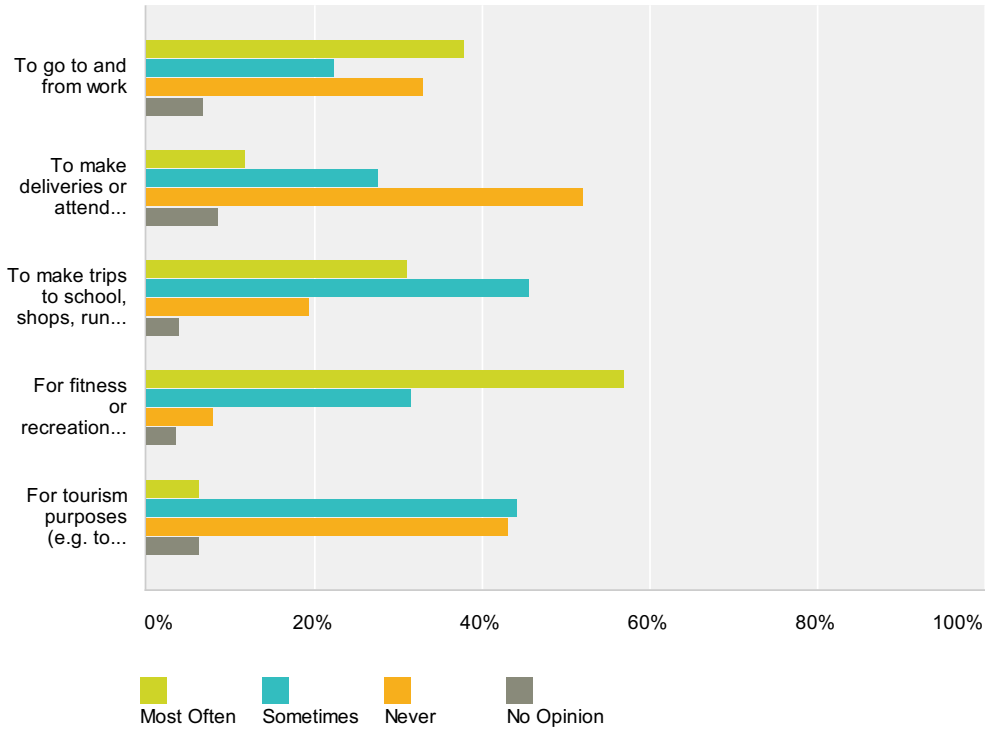
Answered: 120 Skipped: 4



	Most Often	Sometimes	Never	No Opinion	Total
To go to and from work	28.43% 29	25.49% 26	41.18% 42	4.90% 5	102
To make deliveries or attend meetings during work hours	17.71% 17	50% 48	28.13% 27	4.17% 4	96
To make trips to school, shops, run errands and visit friends	44.44% 48	49.07% 53	6.48% 7	0% 0	108
For fitness or recreational pursuits	66.95% 79	28.81% 34	4.24% 5	0% 0	118
For tourism purposes (e.g. to local theatres etc.)	15.38% 16	65.38% 68	18.27% 19	0.96% 1	104

Q4 Please select the reasons why you cycle within the City of Stratford.

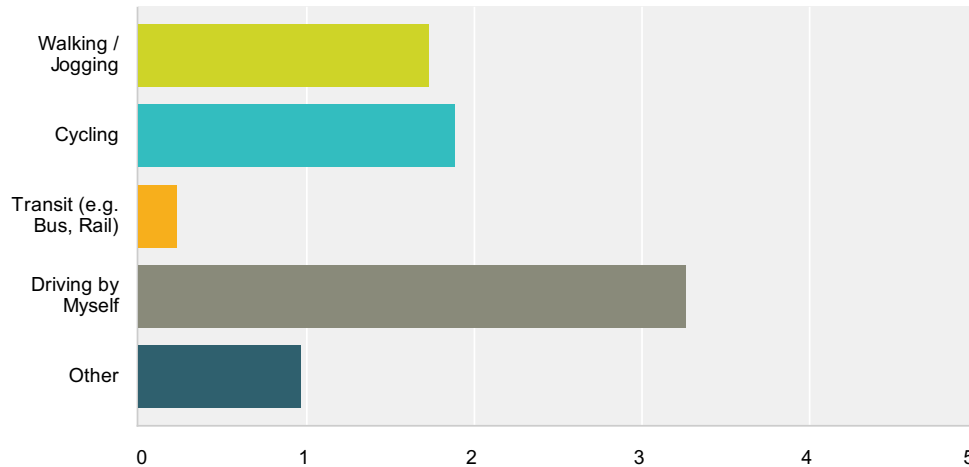
Answered: 119 Skipped: 5



	Most Often	Sometimes	Never	No Opinion	Total
To go to and from work	37.86% 39	22.33% 23	33.01% 34	6.80% 7	103
To make deliveries or attend meetings during work hours	11.70% 11	27.66% 26	52.13% 49	8.51% 8	94
To make trips to school, shops, run errands and visit friends	31.07% 32	45.63% 47	19.42% 20	3.88% 4	103
For fitness or recreational pursuits	57.02% 65	31.58% 36	7.89% 9	3.51% 4	114
For tourism purposes (e.g. to local theatres etc.)	6.32% 6	44.21% 42	43.16% 41	6.32% 6	95

Q5 Thinking about your typical work or school week, please identify the number of days a week (between 0 and 7) you travel to and from your place of work or school using the following modes of transportation.

Answered: 103 Skipped: 21



Answer Choices	Average Number	Total Number	Responses
Walking / Jogging Responses	1.73	163	94
Cycling Responses	1.89	181	96
Transit (e.g. Bus, Rail) Responses	0.23	18	79
Driving by Myself Responses	3.26	297	91
Other Responses	0.97	62	64

Total Respondents: 103

#	Walking / Jogging	Date
1	0	4/13/2013 11:06 AM
2	1	4/9/2013 11:50 AM
3	0	3/26/2013 8:22 PM
4	0	3/17/2013 7:17 PM
5	7	2/20/2013 10:54 AM
6	6	2/19/2013 8:01 PM
7	2	2/18/2013 11:36 PM
8	3	1/31/2013 11:41 AM
9	0	1/25/2013 6:26 PM
10	1	1/24/2013 4:27 PM
11	0	1/24/2013 3:58 PM
12	0	1/24/2013 12:58 PM
13	2	1/23/2013 11:34 PM
14	0	1/17/2013 2:59 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Walking / Jogging	Date
15	0	1/17/2013 1:58 PM
16	0	1/14/2013 4:13 PM
17	2	1/13/2013 9:19 PM
18	2	1/13/2013 10:32 AM
19	0	1/12/2013 2:25 PM
20	2	1/12/2013 10:48 AM
21	6	1/11/2013 8:26 AM
22	0	1/10/2013 6:36 PM
23	0	1/10/2013 1:51 PM
24	0	1/8/2013 1:54 PM
25	5	1/4/2013 4:00 PM
26	0	1/3/2013 3:12 PM
27	7	1/3/2013 2:53 PM
28	7	1/3/2013 11:16 AM
29	0	1/2/2013 5:17 PM
30	2	12/21/2012 7:58 PM
31	1	12/21/2012 6:46 AM
32	0	12/20/2012 7:56 AM
33	1	12/17/2012 8:03 PM
34	0	12/17/2012 1:41 PM
35	0	12/16/2012 4:10 PM
36	0	12/16/2012 10:40 AM
37	1	12/15/2012 2:17 PM
38	0	12/15/2012 9:51 AM
39	1	12/7/2012 11:38 AM
40	4	12/7/2012 11:19 AM
41	4	12/4/2012 1:32 PM
42	0	12/2/2012 1:57 PM
43	0	12/1/2012 12:14 PM
44	1	11/23/2012 10:59 AM
45	0	11/21/2012 3:55 PM
46	3	11/20/2012 11:35 PM
47	2	11/16/2012 9:09 AM
48	5	11/15/2012 11:13 PM
49	7	11/15/2012 7:40 PM
50	3	11/15/2012 4:10 PM
51	0	11/8/2012 8:03 PM
52	2	11/8/2012 5:39 PM
53	2	11/5/2012 3:36 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Walking / Jogging	Date
54	2	11/5/2012 12:54 PM
55	2	11/4/2012 8:10 PM
56	0	11/4/2012 9:46 AM
57	1	11/4/2012 9:12 AM
58	1	11/3/2012 4:42 PM
59	0	11/3/2012 11:09 AM
60	2	11/2/2012 10:25 PM
61	6	11/2/2012 6:37 PM
62	0	11/2/2012 6:27 PM
63	0	11/2/2012 5:59 PM
64	2	11/2/2012 2:34 PM
65	0	11/2/2012 12:58 PM
66	0	11/2/2012 12:41 PM
67	1	11/2/2012 11:50 AM
68	0	11/2/2012 9:43 AM
69	2	11/2/2012 8:25 AM
70	0	11/2/2012 12:28 AM
71	2	11/1/2012 11:01 PM
72	2	11/1/2012 9:50 PM
73	0	11/1/2012 9:26 PM
74	3	11/1/2012 9:07 PM
75	3	11/1/2012 9:00 PM
76	5	11/1/2012 8:25 PM
77	7	11/1/2012 6:58 PM
78	0	11/1/2012 5:54 PM
79	3	11/1/2012 4:51 PM
80	5	11/1/2012 4:50 PM
81	2	11/1/2012 4:18 PM
82	1	11/1/2012 3:57 PM
83	0	11/1/2012 3:40 PM
84	1	11/1/2012 3:30 PM
85	0	11/1/2012 2:56 PM
86	2	11/1/2012 2:52 PM
87	2	11/1/2012 2:43 PM
88	1	11/1/2012 2:42 PM
89	5	11/1/2012 2:36 PM
90	4	11/1/2012 2:35 PM
91	3	11/1/2012 2:29 PM
92	1	11/1/2012 2:11 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Walking / Jogging	Date
93	0	11/1/2012 1:26 PM
94	0	11/1/2012 1:12 PM
#	Cycling	Date
1	1	4/13/2013 11:06 AM
2	5	4/9/2013 11:50 AM
3	2	3/26/2013 8:22 PM
4	4	3/17/2013 7:17 PM
5	5	2/22/2013 9:06 AM
6	0	2/20/2013 10:54 AM
7	1	2/19/2013 8:01 PM
8	3	2/18/2013 11:36 PM
9	1	1/25/2013 6:26 PM
10	5	1/24/2013 4:27 PM
11	1	1/24/2013 3:58 PM
12	0	1/24/2013 12:58 PM
13	1	1/23/2013 11:34 PM
14	5	1/17/2013 2:59 PM
15	0	1/17/2013 1:58 PM
16	0	1/14/2013 4:13 PM
17	5	1/13/2013 9:19 PM
18	1	1/13/2013 10:32 AM
19	5	1/12/2013 2:25 PM
20	0	1/12/2013 10:48 AM
21	1	1/11/2013 8:26 AM
22	1	1/10/2013 6:36 PM
23	0	1/10/2013 1:51 PM
24	0	1/8/2013 1:54 PM
25	0	1/4/2013 4:00 PM
26	2	1/3/2013 3:12 PM
27	0	1/2/2013 5:17 PM
28	5	12/21/2012 7:58 PM
29	1	12/21/2012 6:46 AM
30	2	12/20/2012 7:56 AM
31	6	12/17/2012 8:07 PM
32	3	12/17/2012 8:03 PM
33	0	12/17/2012 1:41 PM
34	0	12/16/2012 4:10 PM
35	0	12/16/2012 10:40 AM
36	6	12/15/2012 2:17 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Cycling	Date
37	0	12/15/2012 9:51 AM
38	3	12/7/2012 11:38 AM
39	2	12/7/2012 11:19 AM
40	2	12/4/2012 1:32 PM
41	0	12/2/2012 1:57 PM
42	0	12/1/2012 12:14 PM
43	4	11/23/2012 10:59 AM
44	0	11/21/2012 3:55 PM
45	1	11/21/2012 3:36 PM
46	3	11/20/2012 11:35 PM
47	0	11/16/2012 9:09 AM
48	0	11/15/2012 11:13 PM
49	0	11/15/2012 7:40 PM
50	4	11/8/2012 8:03 PM
51	0	11/8/2012 5:39 PM
52	0	11/5/2012 3:36 PM
53	0	11/5/2012 12:54 PM
54	5	11/4/2012 8:10 PM
55	0	11/4/2012 9:46 AM
56	2	11/4/2012 9:12 AM
57	5	11/3/2012 6:28 PM
58	0	11/3/2012 4:42 PM
59	0	11/3/2012 11:09 AM
60	4	11/2/2012 10:25 PM
61	1	11/2/2012 6:37 PM
62	0	11/2/2012 6:27 PM
63	0	11/2/2012 5:59 PM
64	3	11/2/2012 4:57 PM
65	3	11/2/2012 2:34 PM
66	2	11/2/2012 2:24 PM
67	0	11/2/2012 12:58 PM
68	0	11/2/2012 12:41 PM
69	6	11/2/2012 11:50 AM
70	2	11/2/2012 9:43 AM
71	1	11/2/2012 8:25 AM
72	0	11/2/2012 12:28 AM
73	5	11/1/2012 11:01 PM
74	1	11/1/2012 9:50 PM
75	0	11/1/2012 9:26 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Cycling	Date
76	4	11/1/2012 9:07 PM
77	3	11/1/2012 9:00 PM
78	2	11/1/2012 8:25 PM
79	0	11/1/2012 6:58 PM
80	0	11/1/2012 5:54 PM
81	2	11/1/2012 4:51 PM
82	2	11/1/2012 4:50 PM
83	4	11/1/2012 4:18 PM
84	5	11/1/2012 3:57 PM
85	5	11/1/2012 3:40 PM
86	5	11/1/2012 3:30 PM
87	0	11/1/2012 2:56 PM
88	5	11/1/2012 2:52 PM
89	2	11/1/2012 2:43 PM
90	0	11/1/2012 2:42 PM
91	2	11/1/2012 2:36 PM
92	3	11/1/2012 2:35 PM
93	2	11/1/2012 2:29 PM
94	4	11/1/2012 2:11 PM
95	0	11/1/2012 1:26 PM
96	0	11/1/2012 1:12 PM
#	Transit (e.g. Bus, Rail)	Date
1	0	4/13/2013 11:06 AM
2	0	4/9/2013 11:50 AM
3	0	3/26/2013 8:22 PM
4	0	3/17/2013 7:17 PM
5	0	2/20/2013 10:54 AM
6	0	2/19/2013 8:01 PM
7	0	1/25/2013 6:26 PM
8	0	1/24/2013 4:27 PM
9	0	1/24/2013 3:58 PM
10	0	1/24/2013 12:58 PM
11	0	1/23/2013 11:34 PM
12	0	1/17/2013 2:59 PM
13	0	1/17/2013 1:58 PM
14	0	1/14/2013 4:13 PM
15	0	1/13/2013 10:32 AM
16	0	1/12/2013 2:25 PM
17	0	1/12/2013 10:48 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Transit (e.g. Bus, Rail)	Date
18	5	1/11/2013 11:45 AM
19	0	1/11/2013 8:26 AM
20	0	1/10/2013 6:36 PM
21	0	1/10/2013 1:51 PM
22	0	1/8/2013 1:54 PM
23	0	1/4/2013 4:00 PM
24	0	1/3/2013 3:12 PM
25	0	1/2/2013 5:17 PM
26	0	12/21/2012 6:46 AM
27	0	12/20/2012 7:56 AM
28	0	12/17/2012 8:03 PM
29	0	12/17/2012 1:41 PM
30	0	12/16/2012 4:10 PM
31	0	12/16/2012 10:40 AM
32	0	12/15/2012 9:51 AM
33	0	12/7/2012 11:38 AM
34	0	12/2/2012 1:57 PM
35	0	12/1/2012 12:14 PM
36	0	11/23/2012 10:59 AM
37	0	11/21/2012 3:55 PM
38	0	11/16/2012 9:09 AM
39	0	11/15/2012 11:13 PM
40	0	11/15/2012 7:40 PM
41	0	11/8/2012 8:03 PM
42	0	11/8/2012 5:39 PM
43	0	11/5/2012 3:36 PM
44	0	11/5/2012 12:54 PM
45	0	11/4/2012 9:46 AM
46	0	11/4/2012 9:12 AM
47	0	11/3/2012 4:42 PM
48	0	11/3/2012 11:09 AM
49	0	11/2/2012 10:25 PM
50	7	11/2/2012 6:27 PM
51	0	11/2/2012 5:59 PM
52	5	11/2/2012 2:24 PM
53	0	11/2/2012 12:58 PM
54	0	11/2/2012 12:41 PM
55	0	11/2/2012 9:43 AM
56	0	11/2/2012 12:28 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Transit (e.g. Bus, Rail)	Date
57	0	11/1/2012 9:50 PM
58	0	11/1/2012 9:26 PM
59	0	11/1/2012 9:07 PM
60	0	11/1/2012 9:00 PM
61	0	11/1/2012 8:25 PM
62	0	11/1/2012 6:58 PM
63	0	11/1/2012 5:54 PM
64	0	11/1/2012 4:51 PM
65	0	11/1/2012 4:50 PM
66	0	11/1/2012 4:18 PM
67	0	11/1/2012 3:57 PM
68	0	11/1/2012 3:40 PM
69	0	11/1/2012 3:30 PM
70	0	11/1/2012 2:56 PM
71	0	11/1/2012 2:52 PM
72	1	11/1/2012 2:43 PM
73	0	11/1/2012 2:42 PM
74	0	11/1/2012 2:36 PM
75	0	11/1/2012 2:35 PM
76	0	11/1/2012 2:29 PM
77	0	11/1/2012 2:11 PM
78	0	11/1/2012 1:26 PM
79	0	11/1/2012 1:12 PM

#	Driving by Myself	Date
1	1	4/13/2013 11:06 AM
2	1	4/9/2013 11:50 AM
3	5	3/26/2013 8:22 PM
4	3	3/17/2013 7:17 PM
5	2	2/22/2013 9:06 AM
6	0	2/20/2013 10:54 AM
7	0	2/19/2013 8:01 PM
8	1	2/18/2013 11:36 PM
9	4	1/31/2013 11:41 AM
10	6	1/25/2013 6:26 PM
11	1	1/24/2013 4:27 PM
12	4	1/24/2013 3:58 PM
13	5	1/24/2013 12:58 PM
14	4	1/23/2013 11:34 PM
15	2	1/17/2013 2:59 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Driving by Myself	Date
16	0	1/17/2013 1:58 PM
17	7	1/14/2013 4:13 PM
18	3	1/13/2013 10:32 AM
19	5	1/12/2013 5:45 PM
20	0	1/12/2013 2:25 PM
21	0	1/12/2013 10:48 AM
22	0	1/11/2013 8:26 AM
23	6	1/10/2013 6:36 PM
24	3	1/10/2013 1:51 PM
25	7	1/8/2013 1:54 PM
26	2	1/4/2013 4:00 PM
27	5	1/3/2013 3:12 PM
28	0	1/2/2013 5:17 PM
29	5	12/21/2012 6:46 AM
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31	3	12/17/2012 8:03 PM
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33	5	12/16/2012 4:10 PM
34	7	12/16/2012 10:40 AM
35	7	12/15/2012 9:51 AM
36	2	12/7/2012 11:38 AM
37	0	12/7/2012 11:19 AM
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39	5	12/2/2012 1:57 PM
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41	7	11/29/2012 9:39 AM
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43	7	11/21/2012 3:55 PM
44	4	11/21/2012 3:36 PM
45	1	11/20/2012 11:35 PM
46	5	11/16/2012 9:09 AM
47	0	11/15/2012 11:13 PM
48	0	11/15/2012 7:40 PM
49	4	11/15/2012 4:10 PM
50	3	11/8/2012 8:03 PM
51	5	11/8/2012 5:39 PM
52	5	11/5/2012 3:36 PM
53	5	11/5/2012 12:54 PM
54	7	11/4/2012 9:46 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Driving by Myself	Date
55	4	11/4/2012 9:12 AM
56	2	11/3/2012 6:28 PM
57	6	11/3/2012 4:42 PM
58	7	11/3/2012 11:09 AM
59	1	11/2/2012 10:25 PM
60	0	11/2/2012 6:27 PM
61	6	11/2/2012 5:59 PM
62	4	11/2/2012 4:57 PM
63	2	11/2/2012 2:34 PM
64	5	11/2/2012 12:58 PM
65	7	11/2/2012 12:41 PM
66	5	11/2/2012 9:43 AM
67	4	11/2/2012 8:25 AM
68	7	11/2/2012 12:28 AM
69	4	11/1/2012 9:50 PM
70	7	11/1/2012 9:26 PM
71	0	11/1/2012 9:07 PM
72	1	11/1/2012 9:00 PM
73	0	11/1/2012 8:25 PM
74	0	11/1/2012 6:58 PM
75	7	11/1/2012 5:54 PM
76	2	11/1/2012 4:51 PM
77	0	11/1/2012 4:50 PM
78	0	11/1/2012 4:18 PM
79	1	11/1/2012 3:57 PM
80	2	11/1/2012 3:40 PM
81	1	11/1/2012 3:30 PM
82	7	11/1/2012 2:56 PM
83	0	11/1/2012 2:52 PM
84	2	11/1/2012 2:43 PM
85	6	11/1/2012 2:42 PM
86	0	11/1/2012 2:36 PM
87	0	11/1/2012 2:35 PM
88	2	11/1/2012 2:29 PM
89	1	11/1/2012 2:11 PM
90	5	11/1/2012 1:26 PM
91	7	11/1/2012 1:12 PM
#	Other	Date
1	5	4/13/2013 11:06 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

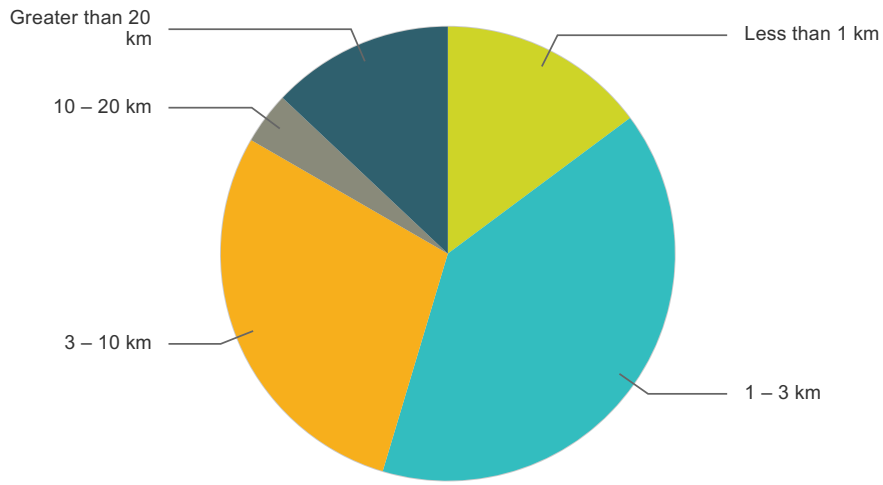
#	Other	Date
2	0	3/26/2013 8:22 PM
3	0	3/17/2013 7:17 PM
4	0	2/20/2013 10:54 AM
5	0	2/19/2013 8:01 PM
6	1	2/18/2013 11:36 PM
7	0	1/25/2013 6:26 PM
8	0	1/24/2013 4:27 PM
9	2	1/24/2013 3:58 PM
10	2	1/24/2013 12:58 PM
11	0	1/23/2013 11:34 PM
12	0	1/17/2013 2:59 PM
13	7	1/17/2013 1:58 PM
14	0	1/14/2013 4:13 PM
15	1	1/13/2013 10:32 AM
16	2	1/12/2013 5:45 PM
17	2	1/12/2013 2:25 PM
18	5	1/12/2013 10:48 AM
19	2	1/11/2013 11:45 AM
20	0	1/11/2013 8:26 AM
21	4	1/10/2013 1:51 PM
22	0	1/8/2013 1:54 PM
23	0	1/4/2013 4:00 PM
24	0	1/3/2013 3:12 PM
25	7	1/2/2013 5:17 PM
26	0	12/21/2012 6:46 AM
27	1	12/17/2012 8:07 PM
28	2	12/17/2012 1:41 PM
29	2	12/16/2012 4:10 PM
30	1	12/7/2012 11:38 AM
31	1	12/7/2012 11:19 AM
32	2	12/2/2012 1:57 PM
33	0	12/1/2012 12:14 PM
34	2	11/23/2012 10:59 AM
35	0	11/21/2012 3:55 PM
36	2	11/21/2012 3:36 PM
37	2	11/15/2012 11:13 PM
38	0	11/15/2012 7:40 PM
39	0	11/8/2012 8:03 PM
40	0	11/8/2012 5:39 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Other	Date
41	0	11/5/2012 3:36 PM
42	0	11/4/2012 9:46 AM
43	0	11/3/2012 11:09 AM
44	0	11/2/2012 10:25 PM
45	0	11/2/2012 6:27 PM
46	1	11/2/2012 5:59 PM
47	2	11/2/2012 12:58 PM
48	0	11/2/2012 9:43 AM
49	0	11/2/2012 12:28 AM
50	0	11/1/2012 9:26 PM
51	0	11/1/2012 8:25 PM
52	0	11/1/2012 6:58 PM
53	0	11/1/2012 5:54 PM
54	0	11/1/2012 4:50 PM
55	1	11/1/2012 4:18 PM
56	0	11/1/2012 3:57 PM
57	0	11/1/2012 3:40 PM
58	0	11/1/2012 3:30 PM
59	0	11/1/2012 2:56 PM
60	0	11/1/2012 2:43 PM
61	0	11/1/2012 2:36 PM
62	0	11/1/2012 2:35 PM
63	1	11/1/2012 2:11 PM
64	2	11/1/2012 1:26 PM

**Q6 What is the approximate distance from your home to your workplace / school?
(Please select one of the following)**

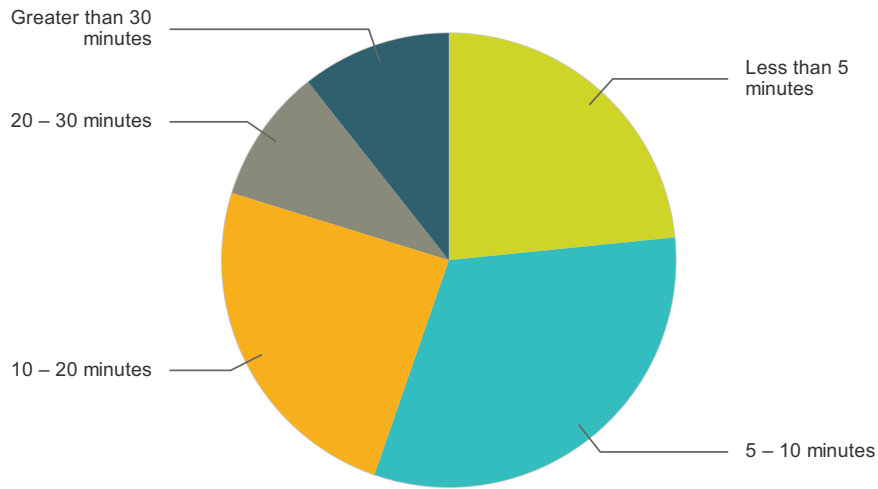
Answered: 108 Skipped: 16



Answer Choices	Responses	
Less than 1 km	14.81%	16
1 - 3 km	39.81%	43
3 - 10 km	28.70%	31
10 - 20 km	3.70%	4
Greater than 20 km	12.96%	14
Total		108

Q7 How long does it normally take you to access the nearest major bicycle facility or trail on foot or by bike? (Please select one of the following)

Answered: 94 Skipped: 30



Answer Choices	Responses	
Less than 5 minutes	23.40%	22
5 – 10 minutes	31.91%	30
10 – 20 minutes	24.47%	23
20 – 30 minutes	9.57%	9
Greater than 30 minutes	10.64%	10
Total		94

#	Please indicate the major bicycle facility or trail that you are accessing.	Date
1	City streets	4/13/2013 11:06 AM
2	Queens Park	3/26/2013 8:22 PM
3	T.J. Dolan - because it's the only one in Stratford	3/17/2013 7:17 PM
4	pathway between Glendon & Neal	2/22/2013 9:06 AM
5	Lake Victoria lakeside trail	2/20/2013 2:08 PM
6	Avon River parkland.	2/20/2013 10:54 AM
7	TJ Dolan trail	2/19/2013 8:01 PM
8	TJ Dolan	2/16/2013 6:08 PM
9	I use country roads to cycle on.. and know of no protected bike lanes on these roads. I feel at risk everytime I am on the road..	1/31/2013 11:41 AM
10	TJ Dolan	1/25/2013 6:26 PM
11	trans canada trail	1/24/2013 7:35 PM
12	Avon River loop	1/24/2013 4:27 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

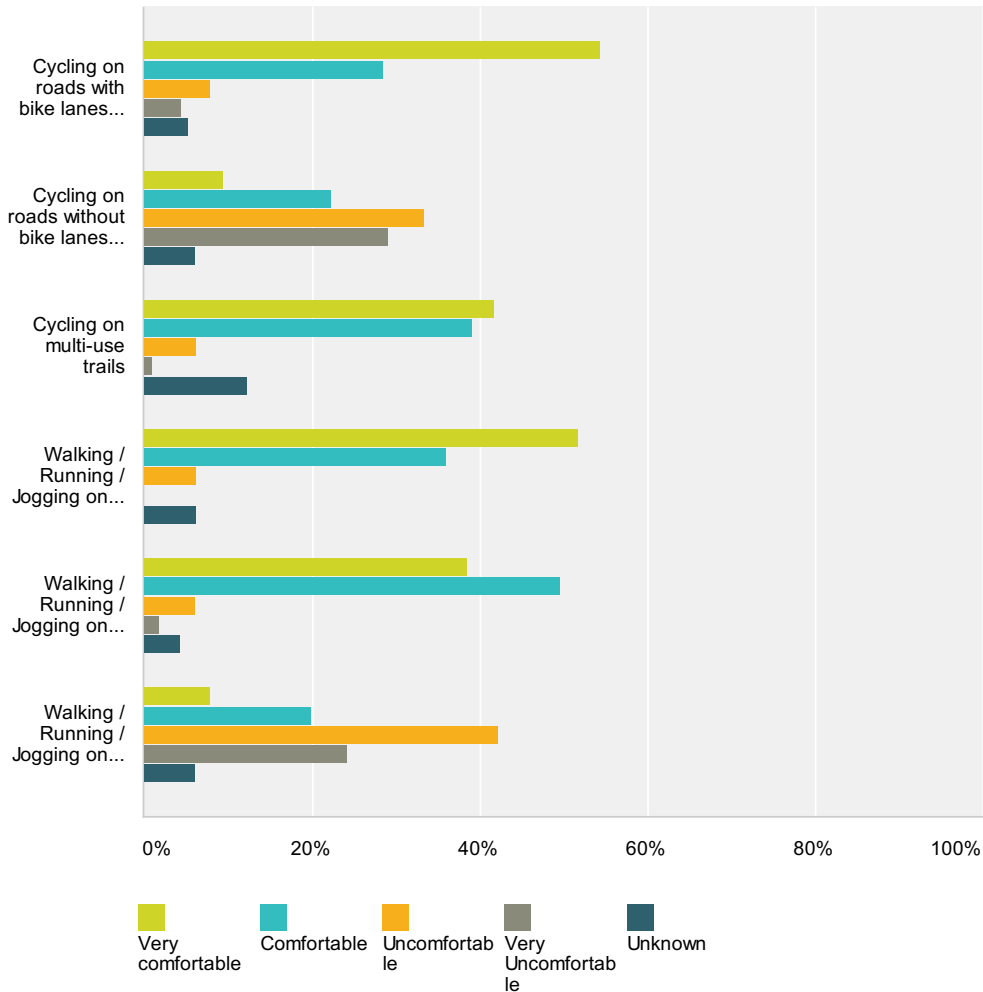
#3	Please indicate the major bicycle facility or trail that you are accessing.	Date
		2013 3:58 PM
14	McCarthy Rd. in Fields Subdivision	1/24/2013 12:58 PM
15	TJ Dolan area from John Street (walking)	1/23/2013 11:34 PM
16	trail around avon river. are there any others?	1/17/2013 2:59 PM
17	TJ Dolan	1/15/2013 11:00 AM
18	What major bicycle facility or trail??	1/13/2013 10:32 AM
19	The street in front of my house??	1/12/2013 5:45 PM
20	Avon Trail - depends on which section is being hiked	1/12/2013 2:46 PM
21	TJ Dolan	1/12/2013 10:48 AM
22	Dolan area	1/11/2013 8:26 AM
23	I don't know what you mean by "bicycle facility"	1/10/2013 6:36 PM
24	The Avon River Path	1/4/2013 4:00 PM
25	I use the back streets to get uptown to my work - it's safer than cycling on the Erie St. roadway	1/3/2013 3:12 PM
26	T.J. Dolan	1/3/2013 11:16 AM
27	TJ Dolan Natural Area	1/2/2013 5:17 PM
28	River path	12/21/2012 7:58 PM
29	Old grove	12/21/2012 6:46 AM
30	River drive	12/20/2012 7:56 AM
31	for work there is none	12/17/2012 8:07 PM
32	where are they?	12/17/2012 8:03 PM
33	TJ Dolan	12/17/2012 1:41 PM
34	TJ Dolan	12/16/2012 4:10 PM
35	Lakeside Drive	12/15/2012 2:17 PM
36	Bike path on west end of Lorne Ave.	12/7/2012 11:38 AM
37	the street or sidewalk	12/7/2012 11:19 AM
38	county roads	12/3/2012 8:17 PM
39	McCarthy Street	12/2/2012 1:57 PM
40	Avon River Trail	11/29/2012 9:39 AM
41	Don't know one	11/28/2012 12:02 PM
42	TJ Dolan	11/23/2012 10:59 AM
43	TJ Dolan	11/21/2012 3:55 PM
44	Erie St. bike path	11/21/2012 3:36 PM
45	River Park, TJ Dolan	11/20/2012 11:35 PM
46	a bike shop	11/19/2012 3:07 PM
47	Lake Victoria	11/19/2012 12:05 AM
48	Around Avon River walking trail	11/16/2012 9:09 AM
49	riverside drive	11/15/2012 4:26 PM
50	around town	11/15/2012 4:10 PM
51	path around the river	11/12/2012 4:06 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#2	Please indicate the major bicycle facility or trail that you are accessing.	Date
		2012 8:03 PM
53	TJ Dolan	11/5/2012 3:36 PM
54	There aren't any of use to us in Stratford.	11/5/2012 3:11 PM
55	Old Grove	11/5/2012 12:54 PM
56	Millbank Rail Trail, Goderich Rail Trail,London Bike Trails	11/4/2012 8:10 PM
57	William St to river	11/4/2012 9:46 AM
58	TJ Dolan	11/3/2012 11:09 AM
59	TJ Dolan	11/2/2012 10:25 PM
60	there is no major bicycle facility except the roads and highway. we go to Cambridge to ride the grand river trails by car to get there.	11/2/2012 6:37 PM
61	Side walk	11/2/2012 6:27 PM
62	Avon River / Lower Queen's Park	11/2/2012 5:59 PM
63	Either Wildwood Mountain bike trails or Hydrocut in Waterloo	11/2/2012 12:58 PM
64	I bike on city streets	11/2/2012 11:50 AM
65	Old Grove	11/2/2012 9:43 AM
66	Wildwood	11/2/2012 8:25 AM
67	There aren't any for my commuting. For my recreational biking I travel to Wildwood or Waterloo trails.	11/1/2012 11:01 PM
68	river trail	11/1/2012 9:50 PM
69	Old grove	11/1/2012 9:07 PM
70	? there are no bicycle trails or facilities nearby other than Wildwood	11/1/2012 4:51 PM
71	TJ Dolan	11/1/2012 4:50 PM
72	T.J Dolan(old grove)	11/1/2012 4:18 PM
73	There are non on my way to work	11/1/2012 3:57 PM
74	Springbank Park London	11/1/2012 3:08 PM
75	there are none for me to access in Stratford	11/1/2012 2:52 PM
76	Where in Stratford is there a bicycle facility or trail??!!	11/1/2012 2:36 PM
77	T.J Dolan, path around Avon River	11/1/2012 2:29 PM
78	There aren't any - I ride on the road.	11/1/2012 2:11 PM
79	old grove	11/1/2012 1:26 PM
80	T.J. Dolan	11/1/2012 1:12 PM

Q8 For each of the following activities please indicate how comfortable you are participating in each.

Answered: 120 Skipped: 4



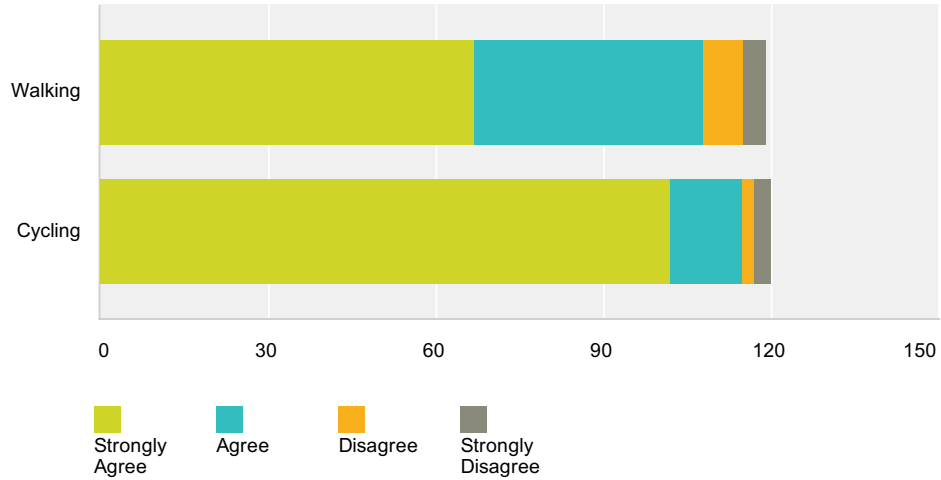
	Very comfortable	Comfortable	Uncomfortable	Very Uncomfortable	Unknown	Total
Cycling on roads with bike lanes or paved shoulders	54.31% 63	28.45% 33	7.76% 9	4.31% 5	5.17% 6	116
Cycling on roads without bike lanes where cyclists share the road with motor vehicles (e.g. sharrows or signed bike route)	9.40% 11	22.22% 26	33.33% 39	29.06% 34	5.98% 7	117
Cycling on multi-use trails	41.74% 48	39.13% 45	6.09% 7	0.87% 1	12.17% 14	115
Walking / Running / Jogging on multi-use trails	51.75% 59	35.96% 41	6.14% 7	0% 0	6.14% 7	114

Stratford Bike and Pedestrian Master Plan Online Questionnaire

Walking / Running / Jogging on sidewalks	38.46% 45	49.57% 58	5.98% 7	1.71% 2	4.27% 5	117
Walking / Running / Jogging on paved or gravel roadway shoulders	7.76% 9	19.83% 23	42.24% 49	24.14% 28	6.03% 7	116

Q9 Should the City of Stratford invest in improvements to provide more cycling and walking opportunities throughout the City and to surrounding communities? (Please select one response)

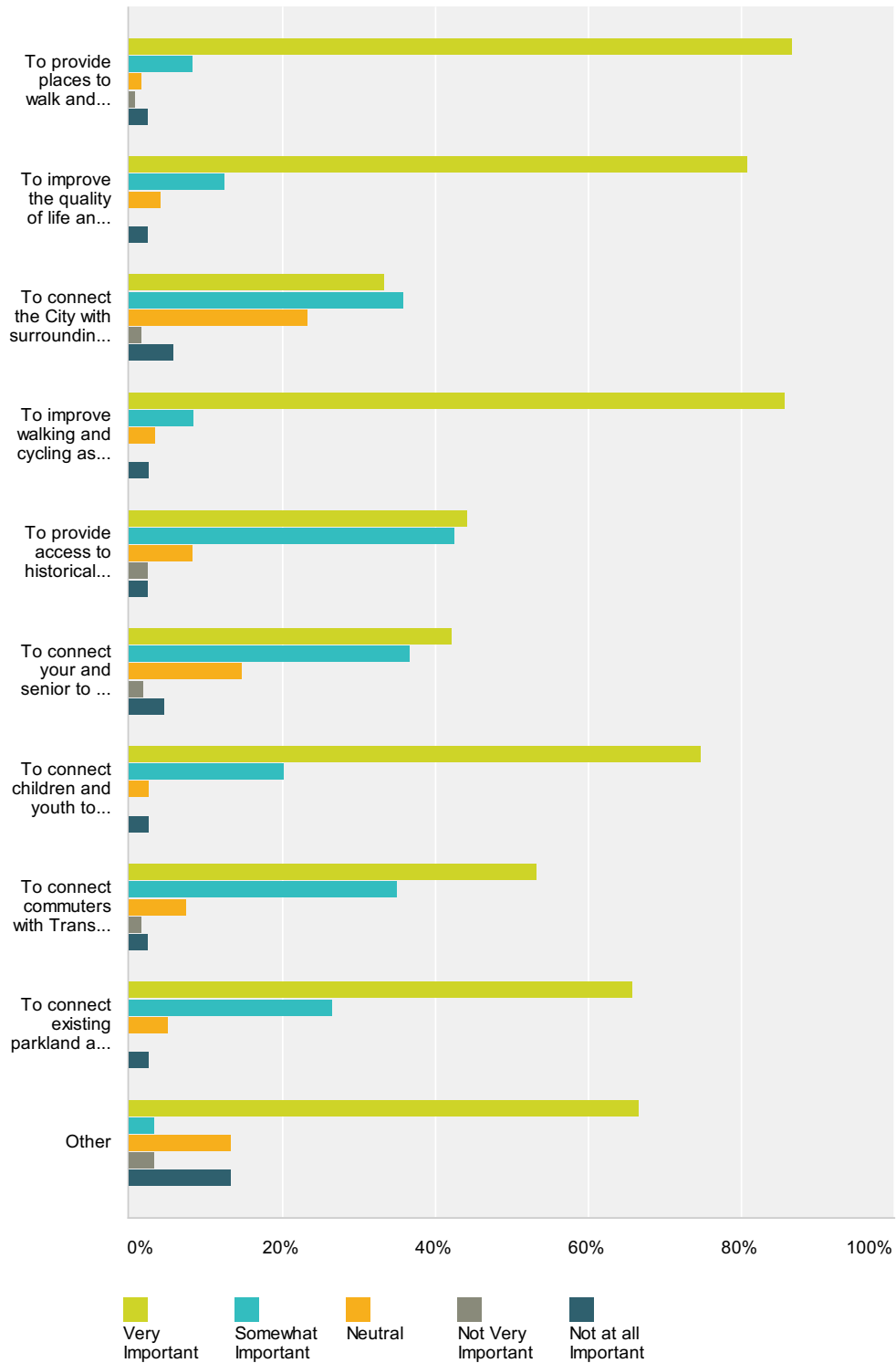
Answered: 121 Skipped: 3



	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
Walking	56.30% 67	34.45% 41	5.88% 7	3.36% 4	119
Cycling	85% 102	10.83% 13	1.67% 2	2.50% 3	120

Q10 Please indicate how important each of the following reasons are for developing a long-term Bike and Pedestrian Master Plan for the City of Stratford.

Answered: 120 Skipped: 4



Very Important Somewhat Important Neutral Not Very Important Not at all Important Total

Stratford Bike and Pedestrian Master Plan Online Questionnaire

To provide places to walk and cycle within the community	86.67% 104	8.33% 10	1.67% 2	0.83% 1	2.50% 3	120
To improve the quality of life and health of citizens	80.83% 97	12.50% 15	4.17% 5	0% 0	2.50% 3	120
To connect the City with surrounding municipalities	33.33% 40	35.83% 43	23.33% 28	1.67% 2	5.83% 7	120
To improve walking and cycling as transportation options in the City	85.71% 102	8.40% 10	3.36% 4	0% 0	2.52% 3	119
To provide access to historical / cultural destinations and support tourism	44.17% 53	42.50% 51	8.33% 10	2.50% 3	2.50% 3	120
To connect your and senior to key locations throughout the City	42.20% 46	36.70% 40	14.68% 16	1.83% 2	4.59% 5	109
To connect children and youth to schools	74.79% 89	20.17% 24	2.52% 3	0% 0	2.52% 3	119
To connect commuters with Transit and alternate modes of transportation	53.33% 64	35% 42	7.50% 9	1.67% 2	2.50% 3	120
To connect existing parkland and recreational facilities	65.81% 77	26.50% 31	5.13% 6	0% 0	2.56% 3	117
Other	66.67% 20	3.33% 1	13.33% 4	3.33% 1	13.33% 4	30

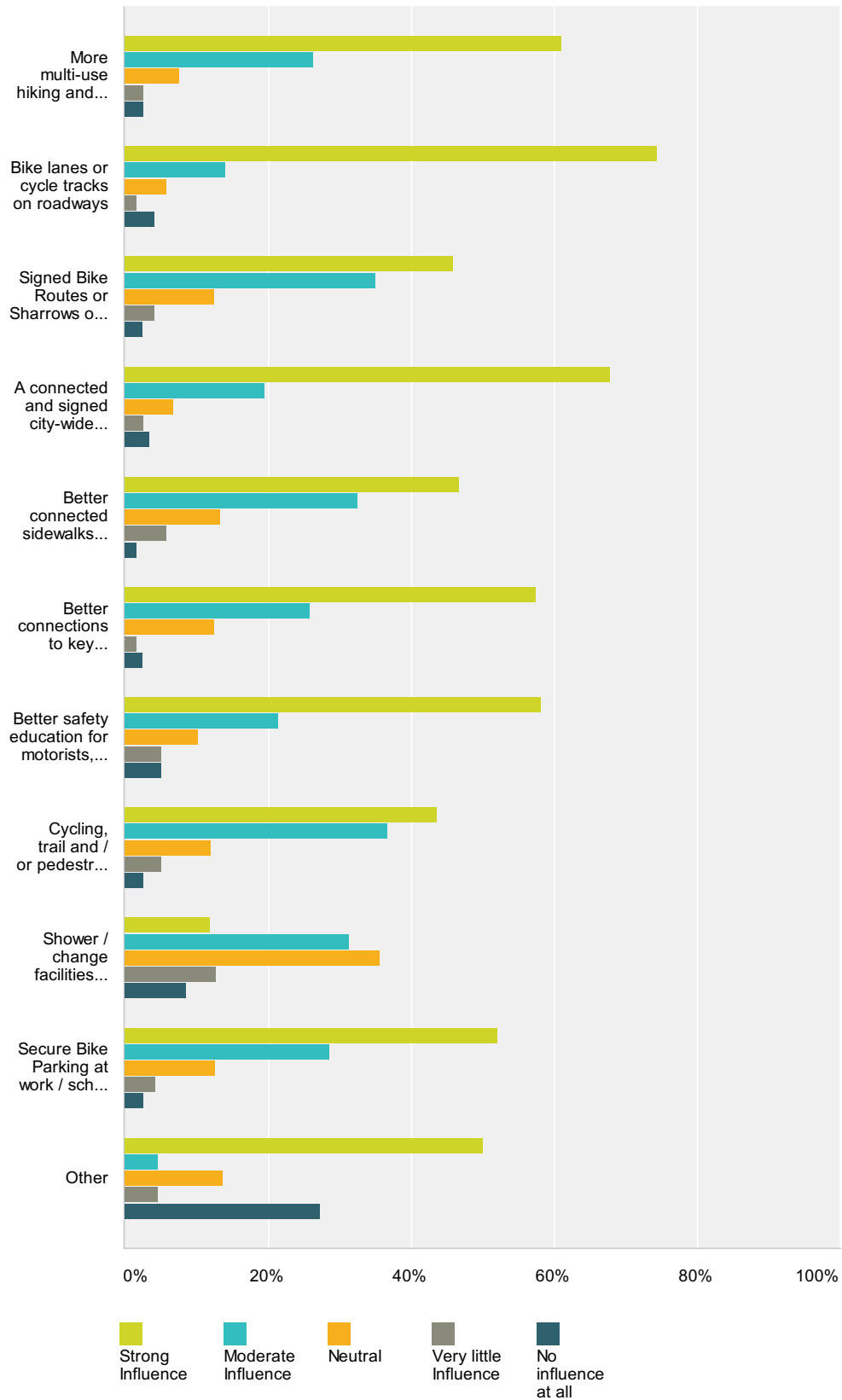
#	If Other (please specify)	Date
1	Get a lot of lazy residents of Stratford from using their cars, and learn how to walk...	2/20/2013 10:54 AM
2	cycle tourism is great business	2/19/2013 8:01 PM
3	to ensure there are safe rural bike lanes for road cyclists like myself to meet health and fitness goals	1/31/2013 11:41 AM
4	attract active tourists	1/25/2013 6:26 PM
5	Accessible safe travel through city for wheelchairs, strollers, scooters, etc.	1/24/2013 12:58 PM
6	rollerblading/roller skating trails for fitness	1/15/2013 11:00 AM
7	Improve child/youth mobility throughout the City	1/13/2013 10:32 AM
8	to get cars out of the downtown core	1/10/2013 6:36 PM
9	option 6 is messed up	1/9/2013 5:51 PM
10	To provide a continuous linked system. Fragmented or unsigned routes do not work very well.	1/8/2013 1:54 PM
11	making sure our cross walks and side walks are set up the best is more important than adding additional pathways for recreation. If the day to day accessibility is good, people will use them for needed and desired activities.	1/4/2013 4:00 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	If Other (please specify)	Date
12	to make it safer for winter walkers on sidewalks and where they intersect with roads	1/3/2013 2:53 PM
13	Don't understand this question : To connect your and senior to key locations throughout the City	12/20/2012 7:56 AM
14	east end shopping area for shopping	12/4/2012 1:32 PM
15	Important way to attract more tourists to Stratford	12/2/2012 1:57 PM
16	safety in recreation	11/19/2012 12:05 AM
17	To provide safe parking of bikes	11/8/2012 8:03 PM
18	safety safety safety- we are already cycling to these destinations- unsafely. (and - #6 above doesn't make sense)	11/5/2012 3:11 PM
19	To provide safe biking routes (separate from vehicular traffic) across the city.	11/5/2012 12:54 PM
20	Connecting safe cycling routes between Stratford and surrounding communities would increase the time some tourists spend within Stratford and would give tourists another reason to base their stay in Stratford.	11/3/2012 2:13 PM
21	to get cyclists OFF THE SIDEWALKS	11/2/2012 6:37 PM
22	Cleaner air, reduced congestion, safer streets, and lower noise levels are just a few of the benefits. Safer paths will help individuals in our city shifting from car dependence to simply deciding to get on their bikes.	11/2/2012 2:24 PM
23	To provide a safe way to enjoy all the merits of cycling in particular, as there are plenty of sidewalks for walking. Cycling on most of the roads in Stratford is quite dangerous due to poor paving, narrow lanes, and poor driving habits	11/2/2012 12:58 PM
24	roads are not safe for cyclist. driver training needed.	11/2/2012 11:50 AM
25	would help to remove car traffic on city streets	11/2/2012 9:43 AM
26	Recreational bike trails and skills area would encourage others to ride	11/1/2012 11:01 PM
27	So my son won't be accidentally hit by a car.	11/1/2012 3:30 PM
28	I don't know what "your and senior" refers to above.	11/1/2012 2:36 PM
29	All new development should automatically incorporate trails and trails that connect to others in Stratford	11/1/2012 1:12 PM

Q11 How much of an influence might each of the following possible improvements have in encouraging to walk or cycle more often?

Answered: 121 Skipped: 3



Stratford Bike and Pedestrian Master Plan Online Questionnaire

	Strong Influence	Moderate Influence	Neutral	Very little Influence	No influence at all	Total
More multi-use hiking and cycling trails	61.02% 72	26.27% 31	7.63% 9	2.54% 3	2.54% 3	118
Bike lanes or cycle tracks on roadways	74.38% 90	14.05% 17	5.79% 7	1.65% 2	4.13% 5	121
Signed Bike Routes or Sharrows on roadways	45.83% 55	35% 42	12.50% 15	4.17% 5	2.50% 3	120
A connected and signed city-wide bike network	67.80% 80	19.49% 23	6.78% 8	2.54% 3	3.39% 4	118
Better connected sidewalks (eliminate missing links)	46.67% 56	32.50% 39	13.33% 16	5.83% 7	1.67% 2	120
Better connections to key destinations (e.g. schools, employment, community centres, theatres etc.)	57.50% 69	25.83% 31	12.50% 15	1.67% 2	2.50% 3	120
Better safety education for motorists, cyclists and pedestrians	58.12% 68	21.37% 25	10.26% 12	5.13% 6	5.13% 6	117
Cycling, trail and / or pedestrian route maps	43.59% 51	36.75% 43	11.97% 14	5.13% 6	2.56% 3	117
Shower / change facilities at work / school	11.86% 14	31.36% 37	35.59% 42	12.71% 15	8.47% 10	118
Secure Bike Parking at work / school and other key destinations (e.g. train stations etc.)	52.10% 62	28.57% 34	12.61% 15	4.20% 5	2.52% 3	119
Other	50% 11	4.55% 1	13.64% 3	4.55% 1	27.27% 6	22

#	If Other (please specify)	Date
1	Market Stratford as the most walk-friendly small city in North America.	2/20/2013 10:54 AM
2	better education for professional drivers ie taxi, bus, construction trucks	2/19/2013 8:01 PM
3	place to lock up bikes at all locations	1/17/2013 2:59 PM
4	dedicated segregated bike lanes along major routes where shopping is located, eg. Zehrs, Food Basics, Giant Tiger	1/12/2013 2:46 PM
5	What is a 'sharrow'? Don't use technical terms without explanation.	1/9/2013 5:51 PM
6	Wayfinding signs	1/8/2013 1:54 PM
7	safer winter walking on sidewalks and where they intersect with roads	1/3/2013 2:53 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	If Other (please specify)	Date
8	Drivers already have training, we need to train how to walk, run and cycle. Roads are designed for cars not walking, running or cycling.	12/15/2012 9:51 AM
9	Cycle trails that actually go somewhere or connect to something and aren't just created were convenient and suddenly end whern not convenient.	12/2/2012 1:57 PM
10	gps route maps, if that isn't already subsumed in #8	11/5/2012 3:11 PM
11	Driver awareness and respect of bikes being present	11/4/2012 9:46 AM
12	Paving sholder's of the highway - there are grants to cover the cost.	11/2/2012 6:37 PM
13	Proper Cross Walk	11/1/2012 2:29 PM
14	Pedestrian crosswalks	11/1/2012 1:26 PM

Q12 What are the top 3 locations in the City of Stratford or within the surrounding communities that you would like to bike or walk to? (Enter up to three responses in order of importance – maximum 100 characters for each response)

Answered: 104 Skipped: 20

Answer Choices	Responses	
1	Responses 100%	104
2	Responses 94.23%	98
3	Responses 89.42%	93

Total Respondents: 104

#	1	Date
1	Major shopping malls	4/13/2013 11:06 AM
2	Sebringville	4/9/2013 11:50 AM
3	Around river from lower Queens Park to Lorne, O'Loane Ave corner to bike	3/26/2013 8:22 PM
4	Roadways around the City for riding distances	3/17/2013 7:17 PM
5	city centre	2/22/2013 9:06 AM
6	T J Dolan Natural Area	2/20/2013 2:08 PM
7	Make the Avon Trail, the trail linking us to other communities, like the Bruce Trail. This would not only benefit locals, but, be marketable to adventure tourists.	2/20/2013 10:54 AM
8	the downtown for my work, shopping	2/19/2013 8:01 PM
9	shopping centres found at both ends of city	2/18/2013 11:36 PM
10	Safely to downtown in winter	2/16/2013 6:08 PM
11	rural county roads surrounding Stratford and routes to St. Marys, Mitchell, Tavistock etc	1/31/2013 11:41 AM
12	library	1/25/2013 6:26 PM
13	park	1/24/2013 7:35 PM
14	Stratford Festival Theatres	1/24/2013 4:27 PM
15	Grocery stores	1/24/2013 3:58 PM
16	Bike city limits safely	1/24/2013 12:58 PM
17	Festival Marketplace shopping mall and immediate area	1/23/2013 11:34 PM
18	safe cycling paths around the downtown area, especially for children and young people with parents	1/17/2013 2:59 PM
19	FIO (Dunn Road)	1/15/2013 11:00 AM
20	avon river	1/13/2013 9:19 PM
21	Safe access along/across Mornington Street from Huron Street to Hwy 119	1/13/2013 10:32 AM
22	Downtown	1/12/2013 5:45 PM
23	Train Station - need to have a place to park bike overnight when going to Toronto	1/12/2013 2:46 PM
24	Work - Griffith Ave.	1/12/2013 2:25 PM
25	Stratford Central Secondary School	1/12/2013 10:48 AM
26	Downtown	1/11/2013 8:26 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
27	Downtown core (Ontario/Downie/Wellington/York)	1/10/2013 6:36 PM
28	Library	1/10/2013 1:51 PM
29	bike lane along Perth line 36 from stratford up to road 135 (Sebringville)	1/8/2013 1:54 PM
30	Along Douro St (by the factories)	1/4/2013 4:00 PM
31	from Sobey's to uptown	1/3/2013 3:12 PM
32	downtown	1/3/2013 2:53 PM
33	Downtown core shopping district	1/3/2013 11:16 AM
34	Kiwanis Community Centre (already bike and walk there - needs another bike rack)	1/2/2013 5:17 PM
35	Downtown	12/21/2012 7:58 PM
36	Rotary complex and farmers market	12/21/2012 6:46 AM
37	Packham Road, Ball Park, Dog Park	12/20/2012 7:56 AM
38	Wildwood consevation area	12/17/2012 8:07 PM
39	Ability to ride safely downtown	12/17/2012 8:03 PM
40	Downtown	12/17/2012 1:41 PM
41	Mitchell	12/16/2012 4:10 PM
42	from the fields subdivision to downtown core	12/16/2012 10:40 AM
43	Stratford Market @ Rotary Complex	12/15/2012 2:17 PM
44	Brunswick Centre (Stratford Festival)	12/7/2012 11:38 AM
45	work Spruce Lodge on West Gore	12/7/2012 11:19 AM
46	east end shopping	12/4/2012 1:32 PM
47	Lower Queen's Park and along the Avon River	12/3/2012 8:17 PM
48	Downtown	12/2/2012 1:57 PM
49	work	12/1/2012 12:14 PM
50	Improvements made to the Avon Trail around the river. Better signage link to the Old Grove	11/29/2012 9:39 AM
51	Along Lake	11/28/2012 12:02 PM
52	East End Shopping from Downtown	11/23/2012 10:59 AM
53	TJ Dolan	11/21/2012 3:55 PM
54	Rotary Complex	11/21/2012 3:36 PM
55	Stratford Market	11/20/2012 11:35 PM
56	Library	11/19/2012 3:07 PM
57	St Marys and Wildwood. It would be great to have a safe route to cycle to them	11/19/2012 12:05 AM
58	Work/office	11/16/2012 9:09 AM
59	park / around river	11/15/2012 11:13 PM
60	Rotary Arena	11/15/2012 7:40 PM
61	river Stratford	11/15/2012 4:26 PM
62	a bike trail within the city itself maybe in the periphery of the city	11/15/2012 4:10 PM
63	All intersections	11/8/2012 8:03 PM
64	cycle to Sebringville	11/8/2012 5:39 PM
65	Around the Stratford Park Areas	11/5/2012 3:36 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
66	to our three key retail centres (town centre, west end, east end) and now to the Sunday Market on the South end- category: shopping destinations	11/5/2012 3:11 PM
67	SERC site	11/5/2012 12:54 PM
68	develop the rail trails to anywhere. It would be great to have a good stretch to pedal on without stress of traffic. I am jealous of the rail trails around Brantford, Goderich, Orillia and even London to name a few	11/4/2012 8:10 PM
69	St Mary's	11/4/2012 9:46 AM
70	rotary complex	11/4/2012 9:12 AM
71	place of employment	11/3/2012 6:28 PM
72	Avon river	11/3/2012 4:42 PM
73	Ride my bike around around Victoria lake	11/3/2012 4:17 PM
74	Sebringville to downtown Stratford	11/3/2012 2:13 PM
75	Mccarthy Road including the new extension (this would allow safer access between Mornington Street and the two high schools as well as the rotary complex)	11/3/2012 11:09 AM
76	Farmer's market	11/2/2012 10:25 PM
77	Shakesphere - with paved sholders	11/2/2012 6:37 PM
78	downtown	11/2/2012 5:59 PM
79	Lions Pool	11/2/2012 5:07 PM
80	Rotary Arena	11/2/2012 4:57 PM
81	Ontario Street. - able to bike from the mall to down town core	11/2/2012 2:24 PM
82	biking downtown or to the river parks. The downtown area is not bike friendly in the extreme. Ontario street at the Downie/Erie street junction is a nightmare. Pretty much forget trying to ride on Erie, Huron or ONtario streets to get anywhere. The lanes are too narrow and cars are too impatient to wait to pass wth any room. Also, what happened to a 50km/hr speed limit? Most people do at least 65 and no enforcement in sight. Too dangerous.	11/2/2012 12:58 PM
83	the main arteries in the city need dedicated bike lanes	11/2/2012 11:50 AM
84	Good Life Fitness on Romeo St	11/2/2012 9:43 AM
85	Lake	11/2/2012 8:25 AM
86	Cooper Standard Automotive Douro St.	11/1/2012 11:01 PM
87	downtown	11/1/2012 9:50 PM
88	Downtown	11/1/2012 9:07 PM
89	Downtown (near city hall)	11/1/2012 6:58 PM
90	Market Square	11/1/2012 5:54 PM
91	The Downtown Core - to be able to bike there safely from other parts of the city; safe access along Ontario and Huron St.	11/1/2012 4:51 PM
92	Downtown	11/1/2012 4:50 PM
93	Cinema	11/1/2012 4:18 PM
94	Downtown core	11/1/2012 3:57 PM
95	Totally Spoked Bike Shop	11/1/2012 3:40 PM
96	My child's school	11/1/2012 3:30 PM
97	Bike to the river (we live off Lorne Ave)	11/1/2012 2:56 PM
98	Downtown Core	11/1/2012 2:52 PM
99	Downtown	11/1/2012 2:36 PM
100	anywhere downtown	11/1/2012 2:35 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
101	Shopping for groceries	11/1/2012 2:29 PM
102	My children's school.	11/1/2012 2:11 PM
103	Around river	11/1/2012 1:26 PM
104	Patricia Road to Lorne to O'Loane and then down to the new development for a large block to walk there is some sidewalk but it's missing connecting links	11/1/2012 1:12 PM
#	2	Date
1	Festival Theater/Park Avon river	4/13/2013 11:06 AM
2	Kitchener	4/9/2013 11:50 AM
3	Completely around city limits	3/26/2013 8:22 PM
4	Main arteries into the city core and park system	3/17/2013 7:17 PM
5	market	2/22/2013 9:06 AM
6	Lakeside trail system	2/20/2013 2:08 PM
7	Stratford Farmer's Market: only way to get to it, is to drive... Not cool.	2/20/2013 10:54 AM
8	the Ontario St. stores	2/19/2013 8:01 PM
9	The Local Community Food Centre on Erie St	2/18/2013 11:36 PM
10	Safely on TJ Dolan and around lake	2/16/2013 6:08 PM
11	to downtown core and around river	1/31/2013 11:41 AM
12	ymca	1/25/2013 6:26 PM
13	coffee shops or restaurants	1/24/2013 7:35 PM
14	Rotary Community Centre	1/24/2013 4:27 PM
15	Along river and beyond city (connecting with surrounding municipalities)	1/24/2013 3:58 PM
16	Wheel/walk from Vivian/Romeo around river and Upper Queens and back	1/24/2013 12:58 PM
17	Lower Queens Park and Victoria Lake area (from hospital district)	1/23/2013 11:34 PM
18	route to T.J. Dolan and any other natural area that may exist within Stratford	1/17/2013 2:59 PM
19	Downtown (shopping, YMCA, etc.)	1/15/2013 11:00 AM
20	downtown stratford	1/13/2013 9:19 PM
21	Rotary Complex	1/13/2013 10:32 AM
22	City perimeter / rural areas for biking	1/12/2013 5:45 PM
23	Ontario Street cycling to go shopping - need dedicated segregated bike lane between road and sidewalk	1/12/2013 2:46 PM
24	Uptown	1/12/2013 2:25 PM
25	TJ Dolan Natural Area	1/12/2013 10:48 AM
26	School	1/11/2013 8:26 AM
27	Library	1/10/2013 6:36 PM
28	Malls (east end)	1/10/2013 1:51 PM
29	bike lane along Vivian Street/Perth line 37 to Shakespeare	1/8/2013 1:54 PM
30	From Britannia to the Rotary Complex	1/4/2013 4:00 PM
31	bike path on truck route	1/3/2013 3:12 PM
32	theatre	1/3/2013 2:53 PM
33	Library	1/3/2013 11:16 AM
34	Downtown (needs more bike racks - there's nothing on Market Square)	1/2/2013 5:17 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
35	River	12/21/2012 7:58 PM
36	Packham sports fields	12/21/2012 6:46 AM
37	Connect the bike path on Erie Street to some sort of crossing at Lorne Ave.	12/20/2012 7:56 AM
38	Safely ride to work	12/17/2012 8:03 PM
39	Avon River	12/17/2012 1:41 PM
40	East end, mall, etc.	12/16/2012 4:10 PM
41	around the trails behind north point estates	12/16/2012 10:40 AM
42	Downtown Stratford	12/15/2012 2:17 PM
43	Festival Theatre	12/7/2012 11:38 AM
44	Farmer's market	12/7/2012 11:19 AM
45	Milverton/Milbank Kissing Bridge trail	12/4/2012 1:32 PM
46	The malls	12/2/2012 1:57 PM
47	school	12/1/2012 12:14 PM
48	This could lead to a marked trail to Sebringville	11/29/2012 9:39 AM
49	East on Ontario st from downtown	11/28/2012 12:02 PM
50	West End Shopping and Theatre from Downtown	11/23/2012 10:59 AM
51	Around Lake Victoria	11/21/2012 3:55 PM
52	Festival Theatre/tennis Club	11/21/2012 3:36 PM
53	East End malls	11/20/2012 11:35 PM
54	YMCA	11/19/2012 3:07 PM
55	Festival Mall	11/19/2012 12:05 AM
56	Schools	11/16/2012 9:09 AM
57	safe bike route around the city perimeter	11/15/2012 11:13 PM
58	Slow Food Market	11/15/2012 7:40 PM
59	downtown Stratford	11/15/2012 4:26 PM
60	a bike path on quinlin road going towards st. marys	11/15/2012 4:10 PM
61	cycle to St. Pauls	11/8/2012 5:39 PM
62	Biking to St. Mary's	11/5/2012 3:36 PM
63	recreational biking for fitness and learning - looping trails, connecting trails, SAFE trails, heritage trails, nature trails	11/5/2012 3:11 PM
64	Rotary complex	11/5/2012 12:54 PM
65	Wildwood	11/4/2012 9:46 AM
66	downtown	11/4/2012 9:12 AM
67	downtown	11/3/2012 6:28 PM
68	Ride along the Avon River	11/3/2012 4:17 PM
69	Sebringville to St Marys	11/3/2012 2:13 PM
70	Ontario street (safer access from homes to downtown to support our economy)	11/3/2012 11:09 AM
71	Shopping	11/2/2012 10:25 PM
72	St. Marys - We have a B&B and a off road rail trail would be great	11/2/2012 6:37 PM
73	river	11/2/2012 5:59 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
74	Downtown	11/2/2012 5:07 PM
75	Festival Market Place	11/2/2012 4:57 PM
76	Huron Street - able to bike from down town core to movie theater or SNSS	11/2/2012 2:24 PM
77	a bike ride to locations such as the day facilities at Shakespeare pond, or a bike ride to Mitchell shouldn't cause someone to have to take out extra life insurance. I have had several near misses even though I ride alone and at the edge of the road. Motorists do not leave enough room to pass and are generally impatient even if nothing is coming the other way	11/2/2012 12:58 PM
78	Downtown Core, River Dr Park System	11/2/2012 9:43 AM
79	South end	11/2/2012 8:25 AM
80	Downtown (Make it bike friendly, right now I always walk as it is too scary to bike)	11/1/2012 11:01 PM
81	river area	11/1/2012 9:50 PM
82	Shopping centres	11/1/2012 9:07 PM
83	Huron St Businesses (GT, KW, Shoppers etc)	11/1/2012 6:58 PM
84	Festival Marketplace	11/1/2012 5:54 PM
85	Stratford Shakespeare Festival Theatres and parkland - currently very heavily congested with car traffic	11/1/2012 4:51 PM
86	Theatres	11/1/2012 4:50 PM
87	Sputnick	11/1/2012 4:18 PM
88	Queens park	11/1/2012 3:57 PM
89	Balzacs Coffee House	11/1/2012 3:40 PM
90	My workplace in the downtown core	11/1/2012 3:30 PM
91	Work (too much downtown traffic)	11/1/2012 2:56 PM
92	Festival Mall	11/1/2012 2:52 PM
93	Park system	11/1/2012 2:36 PM
94	Rotary complex	11/1/2012 2:35 PM
95	Kids activities(ie Museum)	11/1/2012 2:29 PM
96	Downtown shops and services.	11/1/2012 2:11 PM
97	Downtown	11/1/2012 1:26 PM
98	walking out Douro St. the sidewalk stops on the south side by the old Dominion Chain building could walk to the factory or mall	11/1/2012 1:12 PM
#	3	Date
1	Downtown core	4/13/2013 11:06 AM
2	London	4/9/2013 11:50 AM
3	To City centre from all directions	3/26/2013 8:22 PM
4	To surrounding towns on secondary highways	3/17/2013 7:17 PM
5	south end from the north	2/22/2013 9:06 AM
6	Downtown Stratford	2/20/2013 2:08 PM
7	The Local Community Food Centre Stratford: again, the only convenient way to get to this, is to drive...	2/20/2013 10:54 AM
8	the farmers' markets, both Saturday's and Sunday's	2/19/2013 8:01 PM
9	Service Canada; CCAC etc on Lorne Ave	2/18/2013 11:36 PM
10	City sidewalks from cyclists/adequate bike lanes	2/16/2013 6:08 PM
11	to shopping areas east (Ontario St or Douro)	1/31/2013 11:41 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	3	Date
12	festival theater	1/25/2013 6:26 PM
13	friends' houses	1/24/2013 7:35 PM
14	Soccer Fields on Packham Road	1/24/2013 4:27 PM
15	Longer loop around town (really, the only nice place to cycle now is along the river)	1/24/2013 3:58 PM
16	from Vivian Line to Avon Ward and back	1/24/2013 12:58 PM
17	St. Mike's and Northwestern area	1/23/2013 11:34 PM
18	safe routes to major shopping areas, like grocery stores	1/17/2013 2:59 PM
19	TJ Dolan, best natural trails in city	1/15/2013 11:00 AM
20	festival marketplace	1/13/2013 9:19 PM
21	Stratford to St Marys/Wildwood	1/13/2013 10:32 AM
22	River / park area	1/12/2013 5:45 PM
23	Ontario Street, walking - need benches and trees along Ontario Street - need a place to rest on the way to and from shopping	1/12/2013 2:46 PM
24	Mall	1/12/2013 2:25 PM
25	Rotary Complex	1/12/2013 10:48 AM
26	Supermarket	1/11/2013 8:26 AM
27	Primary and Elementary Schools	1/10/2013 6:36 PM
28	Movie theatre (west end)	1/10/2013 1:51 PM
29	Bike lane along Perth line 32 from Avonton Road to Hwy #59	1/8/2013 1:54 PM
30	from Sobey's to the Avon river uptown	1/3/2013 3:12 PM
31	east end shopping	1/3/2013 2:53 PM
32	Hospital	1/3/2013 11:16 AM
33	West End (back streets are fine until O'Loane - then it's challenging to get to Giant Tiger)	1/2/2013 5:17 PM
34	Thames River Trail	12/21/2012 7:58 PM
35	Downtown	12/21/2012 6:46 AM
36	Access to the east and west ends of town	12/17/2012 8:03 PM
37	TJ Dolan	12/17/2012 1:41 PM
38	St Mary's	12/16/2012 4:10 PM
39	Sebringville/Mitchell/Goderich Routeway	12/15/2012 2:17 PM
40	Avon Theatre	12/7/2012 11:38 AM
41	west end of the city Giant Tiger, etc.	12/7/2012 11:19 AM
42	Waterloo region	12/4/2012 1:32 PM
43	A perimter bike ride around stratford	12/2/2012 1:57 PM
44	downtown	12/1/2012 12:14 PM
45	North end of the city. Poor walking to and from new recreation complex for residents who live in the area. Lack of sidewalk in places	11/29/2012 9:39 AM
46	north on Mornington	11/28/2012 12:02 PM
47	North End Rec Complex and Farmers market from Downtown	11/23/2012 10:59 AM
48	side streets	11/21/2012 3:55 PM
49	Downtown	11/21/2012 3:36 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	3	Date
50	Festival Theatre	11/20/2012 11:35 PM
51	Shakespeare	11/19/2012 3:07 PM
52	West end stores	11/19/2012 12:05 AM
53	Daycare	11/16/2012 9:09 AM
54	designated bike lanes on all main roads	11/15/2012 11:13 PM
55	Stratford Public Library	11/15/2012 7:40 PM
56	mall east end and west end when established	11/15/2012 4:26 PM
57	a bike path going on Erie St. going towards St.Marys	11/15/2012 4:10 PM
58	cycle to downtown	11/8/2012 5:39 PM
59	Biking towards Sebringville and beyond	11/5/2012 3:36 PM
60	note development of Guelph to Goderich Trail, currently in planning stages- natural connection for Stratford Tourism- and us :)	11/5/2012 3:11 PM
61	Festival Marketplace Mall	11/5/2012 12:54 PM
62	use old railway lines to connect many communities - don't really need a destination, as much as a safe stretch to ride with seniors and kids that have no risk of car traffic	11/4/2012 9:46 AM
63	mall	11/4/2012 9:12 AM
64	queens park	11/3/2012 6:28 PM
65	Ride safely in the downtown area	11/3/2012 4:17 PM
66	Sebringville to Stratford parks and walking paths	11/3/2012 2:13 PM
67	Romeo Street (would allow safe commute from new Fields subdivision, past golf course, all the way to Goodlife)	11/3/2012 11:09 AM
68	Trails (exercise/recreation)	11/2/2012 10:25 PM
69	Within the city to commute downtown and to the fair grounds, etc.	11/2/2012 6:37 PM
70	circuit around edge of the city	11/2/2012 5:59 PM
71	Bike around the city limits	11/2/2012 5:07 PM
72	Giant Tiger	11/2/2012 4:57 PM
73	I'd like to be able to bike to Shakespeare or a back line out of recreational purposes	11/2/2012 2:24 PM
74	Roads around the perimeter of Stratford	11/2/2012 9:43 AM
75	East end	11/2/2012 8:25 AM
76	River and surrounding park area	11/1/2012 11:01 PM
77	Train station	11/1/2012 9:07 PM
78	Upper Queens Park	11/1/2012 6:58 PM
79	Rotary Complex	11/1/2012 5:54 PM
80	Schools - our children currently have to ride on sidewalks as the roads are not safe for children. This is particularly true of children who border cross (French Immersion)	11/1/2012 4:51 PM
81	Restaurants	11/1/2012 4:50 PM
82	Mall	11/1/2012 4:18 PM
83	Shopping East and West end	11/1/2012 3:57 PM
84	Rhea Martins	11/1/2012 3:40 PM
85	The river	11/1/2012 3:30 PM
86	Kids school	11/1/2012 2:56 PM
87	Pakham Road Recreation Area	11/1/2012 2:52 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	3	Date
88	Shopping at Zehr's (but I don't currently do this because of the unsafe traffic on Ont. St.)	11/1/2012 2:36 PM
89	TJ Dolan	11/1/2012 2:35 PM
90	Park	11/1/2012 2:29 PM
91	Grocery shopping.	11/1/2012 2:11 PM
92	Hospital	11/1/2012 1:26 PM
93	Patricia Road to Boston Pizza on Erie St. need sidewalks to connect for walking	11/1/2012 1:12 PM

Q13 What are the 3 most important locations where improvements need to be made that will make the City of Stratford more walkable? This might be a repair or improvement at a particular location, or it could be a new walking or cycling connection that needs to be made. Please provide details (e.g. name specific location, indicate starting and ending points for new connections – maximum 100 characters for each response)

Answered: 80 Skipped: 44

Answer Choices	Responses	Percentage	Count
1	Responses	100%	80
2	Responses	70%	56
3	Responses	47.50%	38

Total Respondents: 80

#	1	Date
1	A safe cycling route to the major shopping malls. Duro and C H Meir are nerve wracking to ride on.	4/13/2013 11:06 AM
2	Full length of Lorne Ave. going from Romeo to O'Loane Ave	3/26/2013 8:22 PM
3	Mornington/Romeo streets towards the downtown core	3/17/2013 7:17 PM
4	More walkable? what? we have sidewalks everywhere pretty much	2/21/2013 7:50 PM
5	Trail along Avon River east of Romeo Street	2/20/2013 2:08 PM
6	From the core of Stratford, going North.	2/20/2013 10:54 AM
7	the Saturday Farmers' Market, the parking lot is a minefield for pedestrians	2/19/2013 8:01 PM
8	more sidewalks and more connecting sidewalks	2/18/2013 11:36 PM
9	Stop through traffic on TJ Dolan and McClachlan for safer lake to TJ Dolan reserve /cemetary connection (both sidesof river)	2/16/2013 6:08 PM
10	along William Street - there is no sidewalk on the river side.. this should be in place for walkers	1/31/2013 11:41 AM
11	Huron St.	1/25/2013 6:26 PM
12	Vivian Line north side	1/24/2013 7:35 PM
13	Longer path than just around the river	1/24/2013 3:58 PM
14	widening the bridge over Court Drain on Romeo St N. by As You Like It Motel. Dangerous to walk/bike here for anyone	1/24/2013 12:58 PM
15	Erie Street is a major route, but the fumes from traffic are offensive. A much nicer, quieter parallel route would be appreciated.	1/23/2013 11:34 PM
16	Lorne/Erie area - lack of sidewalks, had to walk this once with infant daughter and was scared of being hit	1/15/2013 11:00 AM
17	Downtown to Rotary Complex	1/13/2013 10:32 AM
18	city should add walking trails near storm water collection ponds - especially at end of Romeo	1/12/2013 5:45 PM
19	more trees and benches along major routes where there is shopping	1/12/2013 2:46 PM
20	Lorne Ave.	1/12/2013 2:25 PM
21	Ontario St...Crossing at Church St. Need to make this more visible to motorists when poeple walk there.	1/11/2013 8:26 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
22	(caution) lights at intersection of Church/Ontario/Huron/York	1/10/2013 6:36 PM
23	bike paths in city centre for bikes so they are OFF the streets	1/10/2013 1:51 PM
24	Pedestrian controlled crosswalks on Downie and Erie within 500m to 1km of Ontario	1/9/2013 5:51 PM
25	Roads which act as truck routes need bike lanes or very wide paved shoulders and sidewalks	1/8/2013 1:54 PM
26	along industrial areas for employees and they are connector areas f- Douro, Erie, Lorne Ave,	1/4/2013 4:00 PM
27	not too sure.....	1/3/2013 3:12 PM
28	market square: make it solely pedestrian here	1/3/2013 2:53 PM
29	Need to have sidewalks on both sides of Erie Street - there's nothing now near House of Blessing	1/2/2013 5:17 PM
30	make a series of interesting loop/interconnecting trail system for a long hike, Dolan trail end, cemetery	12/21/2012 7:58 PM
31	Missing sidewalks on Erie south of West Gore	12/21/2012 6:46 AM
32	Sidewalks leading to the hospital on that property	12/17/2012 8:03 PM
33	Pedestrian crossings on Waterloo Street	12/17/2012 1:41 PM
34	Rotary Complex	12/16/2012 4:10 PM
35	bridge on romeo street north has no sidewalk so walking from fields subdivision along romeo street is dangerous	12/16/2012 10:40 AM
36	Burrit St sidewalk and lights at Duoro St.	12/7/2012 11:19 AM
37	crossing Cooper site north south (St David to St Patrick)	12/4/2012 1:32 PM
38	Lorne avenue	12/2/2012 1:57 PM
39	Avont Trail around the river. The one side is uneven and poor quality. Needs to be safer for those people who are walking	11/29/2012 9:39 AM
40	Erie Street - All the services on the East side of the road do not have access for wheel chairs or pedestrians but house the food shelter and Salvation Army	11/23/2012 10:59 AM
41	I think the City is quite easy to bike and walk around in generally	11/21/2012 3:55 PM
42	Erie St bike path extend to West Gore at least-existing section needs repairs	11/21/2012 3:36 PM
43	Repair uneven sidewalks	11/20/2012 11:35 PM
44	install paving stones around the waterfall next to Romeo Street	11/19/2012 3:07 PM
45	The path around Lake Victoria is too narrow to walk side by side and often muddy	11/19/2012 12:05 AM
46	sidewalk Britannia St. between John and Mornington. Level the walks.	11/15/2012 4:26 PM
47	continuous sidewalks on Romeo St. N & on Mornington St	11/12/2012 4:06 PM
48	All intersections	11/8/2012 8:03 PM
49	crossing Mornington St. near Waterloo or Glendon	11/8/2012 5:39 PM
50	The streets along TJ Dolan are pretty rough between John Street and Huron.	11/5/2012 3:36 PM
51	sidewalks where they don't exist, particularly where trucks may be present- south end of CH Meier, Ontario St. far E	11/5/2012 3:11 PM
52	Walking uptown is treacherous. Perhaps having crossings when only pedestrains cross in all directions at once and traffic stands still.	11/5/2012 12:54 PM
53	Could extend river walks east and west beyond the city limits, combined with a bike trail	11/4/2012 8:10 PM
54	city maps - provide distance and describe historic significance.	11/4/2012 9:46 AM
55	romeo at devon, needs slopped curb on park side of side of street	11/3/2012 6:28 PM
56	none, we already have 100's of miles of trails, they're called sidewalks.	11/3/2012 4:42 PM
57	walking to all the schools --Bedford public school especially	11/3/2012 4:17 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
58	All of Matilda Street	11/3/2012 11:09 AM
59	bike lane on Lorne Ave along the south edge of the city - perhaps a parallel path	11/2/2012 10:25 PM
60	Ontario Street from Cdn. Tire to city hall - ENFORCE THE TRUCK BYPASS - they are a threat to walkers	11/2/2012 6:37 PM
61	wider sidewalks, especially on major streets outside of downtown (e.g., Huron St.)	11/2/2012 5:59 PM
62	Trying to cross from romeo street to devon street can sometimes be impossible with cars always turning right or left at devon stop light. Perhaps an overpass with walkable bik	11/2/2012 2:24 PM
63	TJ dolan nature area. This is a great area to go walk with family in nature, but most people drive there. Why is that? anybody that doesn't live within walking distance doesn't have a place to lock up a bike if they ride there	11/2/2012 12:58 PM
64	Duro St from Copper Standard plt 2 to Romeo St	11/2/2012 9:43 AM
65	Oloane	11/2/2012 8:25 AM
66	I feel walking is fairly well structured	11/1/2012 11:01 PM
67	Downtown	11/1/2012 9:07 PM
68	some bike/pedestrian ONLY zones in the City Centre (anywhere in the city centre!)	11/1/2012 6:58 PM
69	paved multi-use trail on north shore of lake victoria from Orr Dam to bridge at east end	11/1/2012 5:54 PM
70	Mornington and Delamere - very difficult to cross for children who border cross and bike to school	11/1/2012 4:51 PM
71	More vegetation around the Avon river to limit the bird droppings and improve water quality (smell)	11/1/2012 4:18 PM
72	Ontario St , Erie St and Huron St should have proper pedestrian crossings installed. Ones that will stop traffic if needed.	11/1/2012 3:57 PM
73	Our main roadways do not encourage biking	11/1/2012 2:56 PM
74	School Zones	11/1/2012 2:52 PM
75	I feel it's already very walkable.	11/1/2012 2:36 PM
76	Albert and Brunswick streets are a mess	11/1/2012 2:35 PM
77	Cross walk on Mornington at Princess St.	11/1/2012 2:29 PM
78	Crosswalks at many locations in the city: Mornington, Downie/Albert St, West Gore, John St/Cambria	11/1/2012 2:11 PM
79	Main streets have no marked crosswalks	11/1/2012 1:26 PM
80	connecting sidewalks St. Vincent St to Lorne Avenue from Patricia Road currently no sidewalk	11/1/2012 1:12 PM
#	2	Date
1	Full length going North on O'Loane going from Lorne Ave to Quinlan Road	3/26/2013 8:22 PM
2	Keep the areas along th Avon River public	2/20/2013 2:08 PM
3	From the core of Stratford, going South.	2/20/2013 10:54 AM
4	SAFE crosswalks that are located conveniently to popular destinations	2/18/2013 11:36 PM
5	Adequate snow removal on sidewalks especially close to Downtown and at traffic light crosswalks	2/16/2013 6:08 PM
6	the path along the north side of the river is pretty rough for older people and impossible for people with disabilities	1/31/2013 11:41 AM
7	Lorne Ave	1/25/2013 6:26 PM
8	Romeo where you have to take the road to get across bridge	1/24/2013 7:35 PM
9	need sidewalk from McCarty/Mornington lights to Vivian Line for accessibility. Common route for Respite House clients with disabilities.	1/24/2013 12:58 PM
10	Ontario Street is also major route, but the fumes from traffic are offensive. A much nicer, quieter parallel route would be appreciated.	1/23/2013 11:34 PM
11	Hospital - have to cross road to get to sidewalks, badly planned	1/15/2013 11:00 AM
12	Repairs to sidewalks to south of downtown	1/13/2013 10:32 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
13	pedestrians / cyclists only in Marketplace Square, TJ Dolan and McLagan Drives	1/10/2013 6:36 PM
14	defined bike and walk paths to keep them separate around the lake/river	1/10/2013 1:51 PM
15	continuous walking path around lake victoria/ Avon River	1/8/2013 1:54 PM
16	make sure all streets have one side with a side walk available	1/4/2013 4:00 PM
17	have parking lots at the edges of town for use in peak season and provide shuttle buses to downtown area and the theatres for daytrippers - like they do in Oxford, England.	1/3/2013 2:53 PM
18	That's it - I think the City is quite walkable.	1/2/2013 5:17 PM
19	connect with the Thames River trail or other lesser known trails, or less obvious trails	12/21/2012 7:58 PM
20	Missing sidewalks on Lorne Ave	12/21/2012 6:46 AM
21	Ability to walk all the way around the Avon River (both sides connected from start to finish)	12/17/2012 1:41 PM
22	lights on John St/West Gore. at the hospital	12/7/2012 11:19 AM
23	Sidewalk all the way out Romeo street to Goodlife fitness	12/2/2012 1:57 PM
24	Mornington Street needs walking paths on both sides on the street until the end of city limits	11/29/2012 9:39 AM
25	Erie and Lorne ave intersection has no pedestrian access to the plazas, again no sidewalk	11/23/2012 10:59 AM
26	a bike lane would be nice around the lake so walkers and bikers are in the way of each other. ie Lakeside drive.	11/21/2012 3:55 PM
27	entrances from the south from Britannia to Agriplex/Rotary Complex	11/21/2012 3:36 PM
28	create a crosswalk at Romeo and Devon, into the park	11/19/2012 3:07 PM
29	There is no direct route to the Rotary Arena from the west end	11/19/2012 12:05 AM
30	crossing at Romeo and the park at Devon	11/15/2012 4:26 PM
31	safe places to cross streets mid block or where there isn't a controlled intersection	11/12/2012 4:06 PM
32	Downtown coridor	11/8/2012 8:03 PM
33	crossing Huron St. at Huntingdon	11/8/2012 5:39 PM
34	the intersections from Hell: turn light sequencing, pedestrian crosswalks- Ontario/Erie/York and Ontario + Romeo and CH Meier	11/5/2012 3:11 PM
35	It would be very helpful to have the pedestrian cross lights count down as in other communities. Very helpful for pedestrians & also traffic.	11/5/2012 12:54 PM
36	use the great pictures and stories from the Archives as an APP or handy paper guide	11/4/2012 9:46 AM
37	put crosswalk at bus stop at festval marketplace driveway and ontario st where bus lets people off to jay walk across ontario	11/3/2012 6:28 PM
38	Hamlet public school	11/3/2012 4:17 PM
39	All of McCarthy Street including extension	11/3/2012 11:09 AM
40	multi-use trails in the North West of the city	11/2/2012 10:25 PM
41	sidewalks on both sides of big hills (e.g., John St.)	11/2/2012 5:59 PM
42	There is part of Romeo street by Vivian line that needs a side walk. Hard to share road with cars on the bridge	11/2/2012 2:24 PM
43	Rome St north to south	11/2/2012 9:43 AM
44	Ontario st non sidewalk	11/2/2012 8:25 AM
45	Snow removal for walking first instesd of cars first	11/1/2012 9:07 PM
46	car free market square	11/1/2012 6:58 PM
47	paved multi-use trail for TJ Dolan Drive, McLagan Drive, around the TJ Dolan natural area	11/1/2012 5:54 PM
48	Elizabeth and Waterloo - very challenging to cross Waterloo in the morning as children are attempting to bike or walk to school who border cross. All motorists speed on Waterloo	11/1/2012 4:51 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
49	A continued path along heading towards T J Dolan	11/1/2012 4:18 PM
50	Sidewalk installed on Erie St by Cooper Standard	11/1/2012 3:57 PM
51	Connect Farmer's Market through old fairgrounds	11/1/2012 2:52 PM
52	Crossing areas for busy streets are a key priority, especially for school children who are currently unsafe.	11/1/2012 2:36 PM
53	Cross walk downtown in front of City Hall	11/1/2012 2:29 PM
54	Complete missing sidewalks: Mornington, Delamere, St. Vincent, Burritt, Dawson...The traffic circle at Britannia/John - sidewalk curbs aren't even ramped	11/1/2012 2:11 PM
55	John St. and Cambria need sidewalk on both sides of street	11/1/2012 1:26 PM
56	Erie St from West Gore to Lorne Avenue no sidewalk on the East Side	11/1/2012 1:12 PM
#	3	Date
1	Full Length of Romeo going from Vivian to Lorne Ave.	3/26/2013 8:22 PM
2	From the core of Stratford, going West.	2/20/2013 10:54 AM
3	get highway traffic out of downtown	2/18/2013 11:36 PM
4	Path behind William St on Lake (Waterloo to Mornington) that is not muddy	2/16/2013 6:08 PM
5	McCarthy Rd.	1/25/2013 6:26 PM
6	car free market square	1/24/2013 7:35 PM
7	sidewalk connecting Vivian Line to Romeo. again, for Common route for Respite House clients with disabilities. No pedestrian or cycling option	1/24/2013 12:58 PM
8	The entire southeast industrial area (Norfolk, Romeo, Douro etc) needs natural trails or at LEAST better sidewalk drainage	1/23/2013 11:34 PM
9	Huron St. - more visible school crossings to ensure student/volunteers safety (perhaps overhead lit?)	1/15/2013 11:00 AM
10	crosswalks/bridges on Erie between Ontario / St. Patrick; and on Romeo between Devon and Verona Park	1/10/2013 6:36 PM
11	make sure from subdivisions to main routes are connected with cut-thru paths.	1/4/2013 4:00 PM
12	A connection between OLoane and John	12/21/2012 6:46 AM
13	the whole mess around Mornington St. travelling up to the market	12/7/2012 11:19 AM
14	Mornington street between McCarthy and Graff ave. (a lot of pedestrian traffic to the plaza)	12/2/2012 1:57 PM
15	Ontario St. corridor	11/21/2012 3:36 PM
16	a more passable pathway along the north side of Lake Victoria from the Waterloo bridge to the dam	11/19/2012 3:07 PM
17	Make sure all schools have good access for walking and cycling	11/19/2012 12:05 AM
18	enforcing speed limit at Waterloo and William for pedestrian crossings	11/15/2012 4:26 PM
19	automatic walk signals at all controlled intersections (i.e. you shouldn't have to push a button before the light changes to be able to cross the street)	11/12/2012 4:06 PM
20	crossing Downie St. in the George St. vicinity	11/8/2012 5:39 PM
21	past parenting at this point, but I have heard MANY concerns re: walking safety to schools- top of the list- for health and fitness, for safety of our children	11/5/2012 3:11 PM
22	Lighted pedestrian cross walks that once the button is pushed all traffic comes to a halt & pedestrians may cross safely.	11/5/2012 12:54 PM
23	check out paths created in Leamington On- includes exercise equipment, benches for resting.	11/4/2012 9:46 AM
24	sidewalk needed on lorne ave erie to st vincent, sidewalk on burritt, ontario street to douro	11/3/2012 6:28 PM
25	crossing for Huron and Huntingdon	11/3/2012 4:17 PM
26	Path needed between Jenanne subdivision (west end) to downtown	11/3/2012 11:09 AM
27	flat paved paths for roller blading as well as walking and cycling	11/2/2012 5:59 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	3	Date
28	From Vivian line 37 (at Romeo St corner) to Mornington St. and then down Mornington St. to Perth 36 line needs a side walk.	11/2/2012 2:24 PM
29	Lorne Ave (truck bypass) there is limited side walks, from romeo to Erie St	11/2/2012 9:43 AM
30	Lorne	11/2/2012 8:25 AM
31	new pedestrian/cycling bridge across the Avon to the Jennann Subdivision	11/1/2012 5:54 PM
32	Mornington Street between Waterloo and Huron. There is NO crosswalk or safe place to cross Mornington Street for children walking or bking to school. All motorists speed in the 40 km zone.	11/1/2012 4:51 PM
33	Connected bridge to the other side of Tom Patterson Island	11/1/2012 4:18 PM
34	Mornington St sidewalk	11/1/2012 2:52 PM
35	Finish sidewalk at Mornington/Delamere/James intersection	11/1/2012 2:29 PM
36	Paint zebra stripes at all school crossings and add signs so that drivers learn to STOP for children who need to cross the road	11/1/2012 2:11 PM
37	East of St.Vincent around river needs walking path.	11/1/2012 1:26 PM
38	Lorne Avenue from Erie St. to Home St. no sidewalk either side	11/1/2012 1:12 PM

Q14 What are the 3 most important locations where improvements need to be made that will make the City of Stratford more bikeable? This might be a repair or improvement at a particular location, or it could be a new walking or cycling connection that needs to be made. Please provide details (e.g. name specific location, indicate starting and ending points for new connections – maximum 100 characters for each response)

Answered: 90 Skipped: 34

Answer Choices	Responses	Percentage	Count
1	Responses	100%	90
2	Responses	81.11%	73
3	Responses	58.89%	53

Total Respondents: 90

#	1	Date
1	downtown area main roads - ie. for commuting to work	4/9/2013 11:50 AM
2	Full length of Lorne Ave. going from Romeo to O'Loane Ave	3/26/2013 8:22 PM
3	O'loane Ave, Lorne Ave, Romeo Streets around the city for biking	3/17/2013 7:17 PM
4	Waterloo hill descending pavement is very rough and potholes make it essential to sit in middle of lane	2/22/2013 9:06 AM
5	In the core, Stratford should have bicycle lanes, like in Copenhagen. With bicycle traffic lights.	2/20/2013 10:54 AM
6	Ontario St., a bike lane and lower enforced speed limit	2/19/2013 8:01 PM
7	bike lanes on every major thoroughfare	2/18/2013 11:36 PM
8	Bike lanes on road	2/16/2013 6:08 PM
9	around the river.. the path is fine for walkers but not for cyclists..	1/31/2013 11:41 AM
10	old rail trail	1/25/2013 6:26 PM
11	bike lanes through downtown, one street off of Ontario to north, and to south	1/24/2013 7:35 PM
12	Ring Roads, Lorne, O'loane, Romeo, Quinlan Road	1/24/2013 4:27 PM
13	Quinlan Road. Road is too narrow for cyclists. Route often used to connect cyclists to common cycling routes North of city.	1/24/2013 12:58 PM
14	Biking along Erie Street is unsafe as it's too narrow. Side streets parallel to Erie are in terrible shape for riding bikes	1/23/2013 11:34 PM
15	handicap access or ramps for transfer from road to parkland, for example, at the sidewalk at Lakeside that crosses Waterloo Bridge (nearest to the boat basin)	1/17/2013 2:59 PM
16	Lorne Ave area - so more factory workers can feel safe in getting to and from work even at night, add crossings at Wright (also for those using dog park)	1/15/2013 11:00 AM
17	avon river - need to be able to bike through the downtown core	1/13/2013 9:19 PM
18	Mornington Street from Huron Street to Hwy 119	1/13/2013 10:32 AM
19	"bike lanes" end poorly especially at Erie and Lorne Ave. - nice path - can't get to it	1/12/2013 5:45 PM
20	bike rentals near theatre and train stations	1/12/2013 2:46 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
21	Lorne Ave.	1/12/2013 2:25 PM
22	Bike path on Ontario Street	1/12/2013 10:48 AM
23	Ont, Huron, Erie Sts.	1/11/2013 8:26 AM
24	bike lanes in downtown core esp for left-turning lanes	1/10/2013 6:36 PM
25	repairing potholes and shabby sidestreets for biking	1/10/2013 1:51 PM
26	Ontario Street from bridge to edge of city - dedicated bike lane	1/9/2013 5:51 PM
27	Roads which act as truck routes need bike lanes or very wide paved shoulders and sidewalks	1/8/2013 1:54 PM
28	along industrial areas for employees and they are connector areas - Douro, Erie, Lorne Ave,	1/4/2013 4:00 PM
29	last year on Church Street by Cedarcroft - but I think it's fixed now	1/3/2013 3:12 PM
30	Ontario Street, from Waterloo to the bridge - needs to be safer for cyclists	1/3/2013 2:53 PM
31	Divided walk/bike lanes around the lake (currently these do not mix well)	1/3/2013 11:16 AM
32	West End (back streets are fine until O'Loane - then it's challenging to get to Giant Tiger)	1/2/2013 5:17 PM
33	same as walking above...	12/21/2012 7:58 PM
34	Need safe crossing to the East and West of the City. Crossing of Huron Street by bike (foot crossing available under the bridge)	12/20/2012 7:56 AM
35	Downtown	12/17/2012 8:03 PM
36	Safe crossing on Waterloo Street	12/17/2012 1:41 PM
37	Rotary Complex	12/16/2012 4:10 PM
38	same as above - bike lanes along romeo would improve safety	12/16/2012 10:40 AM
39	All east end roads between Romeo & C.H. Meijer need serious repairs for safe biking routes	12/15/2012 2:17 PM
40	Lorne Ave from Erie to Romeo could use better bike lanes. Shoulder is ROUGH and it is a very busy road with lots of trucks	12/7/2012 11:38 AM
41	ability to use busses to transport bikes	12/7/2012 11:19 AM
42	Romeo to C.H. Meier, no bike friendly access along Douro or Ontario	12/4/2012 1:32 PM
43	Core area of city	12/3/2012 8:17 PM
44	Quinlin road from Mornington St. to o'loane Ave.	12/2/2012 1:57 PM
45	Erie St	11/28/2012 12:02 PM
46	Light sensors that actually pick up bikes. Bicyclists cannot act as cars if the intersections will not pick them up.	11/23/2012 10:59 AM
47	I think it's pretty good now. Any future road work on major routes should incorp. bike lanes though.	11/21/2012 3:55 PM
48	O'Loane (south end near Lorne) and Lorne Avenue (especially between O'Loane and Erie)	11/21/2012 3:36 PM
49	Safety on Ontario, Erie and Huron Streets	11/20/2012 11:35 PM
50	a designated safe crossing at Ontario St., Mornington St., and Huron St.	11/19/2012 3:07 PM
51	Ontario Street I will continue to cycle on the sidewalk on these streets for my own safety.	11/19/2012 12:05 AM
52	Bike lines on all roads	11/16/2012 9:09 AM
53	riverside dr. either a bike lane beside the walkway, or one-way split between cars and bike lane as in the Pinery	11/15/2012 4:26 PM
54	everywhere!	11/12/2012 4:06 PM
55	All around the city core	11/8/2012 8:03 PM
56	cycling with children in the downtown core. It does not make sense for children to bike on the roadways nor does it make sense for a family with young children under 10 to have kids walk their bikes through downtown. It takes forever then & is not enjoyable.	11/8/2012 5:39 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
57	It would be great to see some actual Bike Trails around Stratford especially for the safety when we have events such as the opening night for the music festival. A lot of people take their bikes to enjoy the opening performance but it's pretty treacherous when it comes time to heading home with all the cars leaving at the same time.	11/5/2012 3:36 PM
58	Where to begin?? getting to town to shop is a safety nightmare- serious improvements needed on all roads to the town centre- safe places for bikes to wait at intersections, designated lanes and turn locations (bike boxes?) (Waterloo and Lakeside/Water sts e.g.)	11/5/2012 3:11 PM
59	To get from one side of the city to another (N-S or E-W) you invariably must travel through the downtown, especially if you don't want to battle hills or go way out of your way. Some safe paths in these directions would be most welcome.	11/5/2012 12:54 PM
60	Suggest a better biking connection to the East End malls. Ontario and Douro Sts not ideal for bikes	11/4/2012 8:10 PM
61	new connections using old railway trails - for tourists and locals to use.	11/4/2012 9:46 AM
62	the whole city	11/4/2012 9:12 AM
63	ontario street festival marketplace west to huron out to oloane ave,	11/3/2012 6:28 PM
64	cycling lane around the lakes	11/3/2012 4:17 PM
65	All of McCarthy Street including extension	11/3/2012 11:09 AM
66	Ontario Street - from Cdn. Tire to city hall - ENFORCE THE TRUCK BY PASS - they are a threat to cyclists	11/2/2012 6:37 PM
67	paths for non-motorized activity in core	11/2/2012 5:59 PM
68	Mornington, McCarthy to Huron, especially in area in front of people care home intersection leading to downtown	11/2/2012 4:57 PM
69	Down town core is not very bike friendly	11/2/2012 2:24 PM
70	Huron street and Erie street. Although there are side streets that Parallel these major roads they have stop signs at every cross junction and it doesn't give a very flowing ride. cars that pass on these side streets usually have to squeeze past to avoid you and the parked cars next to you.	11/2/2012 12:58 PM
71	Romeo St north to South	11/2/2012 9:43 AM
72	As above	11/2/2012 8:25 AM
73	Bike lanes (begin with connecting downtown to the east end shopping areas by perhaps using Brunswick and Albert Streets)	11/1/2012 11:01 PM
74	Downtown biking	11/1/2012 9:07 PM
75	bike paths with routes along or near major streets (Ontario & Huron st)	11/1/2012 6:58 PM
76	paved multi-use trail on north shore of lake victoria from Orr Dam to bridge at east end	11/1/2012 5:54 PM
77	Mornington Street from Huron to McCarthy - the boulevard seems like wasted space that could be used for a bike lane. Perhaps the boulevard could be placed in the centre of Mornington Street which would serve to slow traffic down (as cited by the city of Waterloo's bicycle/transportation plan). This in turn would make the road easier to cross for pedestrians.	11/1/2012 4:51 PM
78	Huron Street	11/1/2012 4:50 PM
79	Connect the other side of Tom Patterson Island	11/1/2012 4:18 PM
80	Safer improvements on all bridges crossing the Avon river	11/1/2012 3:57 PM
81	Better paved roads	11/1/2012 3:40 PM
82	The downtown core - We don't shop downtown because it's too dangerous to bike there and there are no parking spots	11/1/2012 3:30 PM
83	Downie St (bike lane is much needed here)	11/1/2012 2:56 PM
84	Downtown Core	11/1/2012 2:52 PM
85	BIKE LANES oh please oh please oh please!	11/1/2012 2:36 PM
86	Ontario Street and Huron Street	11/1/2012 2:35 PM
87	Bike lanes on Mornington St.	11/1/2012 2:29 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	1	Date
88	Bike lanes, EVERYWHERE - there are basically none right now.	11/1/2012 2:11 PM
89	Erie Street is too narrow for anyone biking to work.	11/1/2012 1:26 PM
90	loop around Stratford starting on Romeo St. you should be able to travel South to Lorne Ave continue to O'Loane to Quinlan turn left at Mornington turn right to Vivian then turn right on Romeo	11/1/2012 1:12 PM
#	2	Date
1	roads leading to grocery stores/other services	4/9/2013 11:50 AM
2	Full length going North on O'Loane going from Lorne Ave to Quinlan Road	3/26/2013 8:22 PM
3	Ontario Street, Downie Street in downtown. Roads are too busy and siewalks are covered in patios and signs	3/17/2013 7:17 PM
4	signage in core indicating to motorists to watch and respect cyclists	2/22/2013 9:06 AM
5	Once the core is made bicycle-friendly, start working on adding lanes in the suburbs. (Or, convert the burbs first, then, the core.)	2/20/2013 10:54 AM
6	Erie St - ditto	2/19/2013 8:01 PM
7	places to lock up your bike at parks, downtown, major places of interest	2/18/2013 11:36 PM
8	all main streets in Stratford (Erie,Huron, Downie etc) should have bike lanes!!!!	1/31/2013 11:41 AM
9	connection to existing bike trails outside the city	1/25/2013 6:26 PM
10	dedicated separate bike path along Ontario to east end	1/24/2013 7:35 PM
11	Artery Roads, Huron, Ontario, Erie, Waterloo/Mornington	1/24/2013 4:27 PM
12	cycling lanes on Romeo N. connecting city cyclists to common bike routes north of city.	1/24/2013 12:58 PM
13	Ontario Street or routes parallel to it in order to travel east - west from downtown to east end.	1/23/2013 11:34 PM
14	a route that runs parallel or along Ontario St. for commuting to shopping with families.	1/17/2013 2:59 PM
15	Linking Stratford to Wildwood CA via bike path/lanes	1/15/2013 11:00 AM
16	downtown stratford - need to be able to bike downtown	1/13/2013 9:19 PM
17	Huron Street	1/13/2013 10:32 AM
18	Cyclists should be allowed on downtown sidewalks - or street parking should be removed for better pedestrian / cyclist access	1/12/2013 5:45 PM
19	segregated safe bike trail	1/12/2013 2:46 PM
20	Ontario St.	1/12/2013 2:25 PM
21	Bike path on Erie Street	1/12/2013 10:48 AM
22	bike lanes or one-way streets near all schools	1/10/2013 6:36 PM
23	water grates that bike wheels don't get caught in	1/10/2013 1:51 PM
24	Downie, from Ontario to Lorne - ditto	1/9/2013 5:51 PM
25	make sure from subdivisions to main routes are connected with cut-thru paths.	1/4/2013 4:00 PM
26	Downie Street, from Ontario to Lorne - needs to be safer for cyclists	1/3/2013 2:53 PM
27	Lorne Avenue (it's not safe to bike - better shoulders from Downie Street to Sobey's would help)	1/2/2013 5:17 PM
28	lorne ave	12/17/2012 8:03 PM
29	Better maintenance of the trails at TJ Dolan	12/17/2012 1:41 PM
30	Downtown	12/16/2012 4:10 PM
31	Utilizing one-way streets like Brunswick & St. Albert to promote downtown commuting for designated bike paths	12/15/2012 2:17 PM
32	a safe bike path from east to west end of the city	12/7/2012 11:19 AM
33	Dunn's Bridge to Gibb Road and Dunn's Bridge to Jen Ann Subdivision	12/3/2012 8:17 PM
34	O'loane ave. from quinlin road to Lorne Ave.	12/2/2012 1:57 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
35	Huron St	11/28/2012 12:02 PM
36	A bike lane on the roads where there are no biking alternatives to opposite sides of the city (ie Ontario/Huron at York Street, Mornington bridge to the North End)	11/23/2012 10:59 AM
37	using side streets is safe and part of the charm of biking...	11/21/2012 3:55 PM
38	Romeo (or if possible reclaim old rail trail that stops near the Gallery)	11/21/2012 3:36 PM
39	Secure bike stands	11/20/2012 11:35 PM
40	more bike racks at retail or restaurant locations (thinking specifically of Market Square)	11/19/2012 3:07 PM
41	Erie St	11/19/2012 12:05 AM
42	perhaps repave the walkway on the river making it three times as wide. See Hamilton lakeside path.	11/15/2012 4:26 PM
43	cycling along Huron & Ontario streets	11/8/2012 5:39 PM
44	Same goes for the Canada Day Fire works. It would be safer for Bipeople to attend events such as this one if there were bicycle routes in place.	11/5/2012 3:36 PM
45	bike sensitive stoplight changes (Front and Ontario, e.g.)	11/5/2012 3:11 PM
46	Riding to the grocery stores on safe paths would encourage bicyclists to live sustainably.	11/5/2012 12:54 PM
47	Biking trail along the river as far as Dunns Bridge or further, and in the other direction through the Golf course and beyond. One can always dream!	11/4/2012 8:10 PM
48	don't know enough of the Perth County geography to provide good ideas	11/4/2012 9:46 AM
49	erie st, lorne ave to ontario	11/3/2012 6:28 PM
50	cycling in the downtown core	11/3/2012 4:17 PM
51	Jenanne and Bromberg subdivisions connecting to main part of Stratford	11/3/2012 11:09 AM
52	bike lanes through the city - Ontario Street	11/2/2012 6:37 PM
53	cyling trail around exterior of city (O'Loane Ave., Quinlan Rd., Vivian St., Romeo St., Lorne Ave.)	11/2/2012 5:59 PM
54	Downie Street through from Lorne Ave to downtown core.	11/2/2012 4:57 PM
55	Lorne ave needs a bike path. From the far end of Romeo street to Lorne ave out to all the industrial business	11/2/2012 2:24 PM
56	I think there are now bike lanes painted on McCarthy road on the way to the new rec center. Good start, however you have to ride on the fast part of McCarthy between Romeo and Mornington to get there, or alternately ride up Mornington itself. Again, nobody follows speed limits or gives room when passing. What good is a painted bike lane to nowhere when you have to travel on a high risk road to get to said lane? Cycling on the sidewalk is not allowed, and most motorists feel that cyclists shouldn't be on the road	11/2/2012 12:58 PM
57	Perimeter roads around the City, Vivian St, to Quinlan Rd to Oloane Ave to Lorne back to Romeo St	11/2/2012 9:43 AM
58	Installing Bike Box at intersections (I was hit by a car on Front St at Ontario in 2010 and have had several near miss situations on Romeo at Ontario this past summer)	11/1/2012 11:01 PM
59	Designated bike only routes to mall	11/1/2012 9:07 PM
60	paved multi-use trail for TJ Dolan Drive, McLagan Drive, around the TJ Dolan natural area	11/1/2012 5:54 PM
61	A continuous biking path through the city leading to the downtown core, theatres and Farmer's markets.	11/1/2012 4:51 PM
62	Ontario Street	11/1/2012 4:50 PM
63	Bike lanes on ontario street.	11/1/2012 4:18 PM
64	Any connectings to bike lanes on McCarty Road.	11/1/2012 3:57 PM
65	Paved cyling paths to all corners of City	11/1/2012 3:40 PM
66	Douro St (for factory workers and those travelling to the malls)	11/1/2012 2:56 PM
67	Connect East/West ends of city	11/1/2012 2:52 PM
68	Ontario/Huron/Downie/Erie all need bike lanes that are police-enforced.	11/1/2012 2:36 PM
69	Erie Street and Mornington Street	11/1/2012 2:35 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	2	Date
70	Bike lanes on Waterloo St.	11/1/2012 2:29 PM
71	Traffic circle at Britannia/John needs bike lane	11/1/2012 2:11 PM
72	bike paths are need on truck route.	11/1/2012 1:26 PM
73	T.J. Dolan walking trail needs pedestrian bridge by O'Loane to continue the trail very dangerous trying to climb up to the road and then there is no sidewalk to get to the other side then very hard to get down again to the trail	11/1/2012 1:12 PM
#	3	Date
1	Full Length of Romeo going from Vivian to Lorne Ave.	3/26/2013 8:22 PM
2	romeo street pavement signage to make room for cyclists	2/22/2013 9:06 AM
3	Get ready for trains to leave Stratford, and have a plan ready to convert abandoned rails, into multi-use trails, connecting to surrounding communities.	2/20/2013 10:54 AM
4	City Hall - mandatory once- a- year bike commute for city councillors	2/19/2013 8:01 PM
5	get highway traffic out of downtown	2/18/2013 11:36 PM
6	downtown	1/25/2013 6:26 PM
7	wide bike lane on Road 119 coming into Stratford	1/24/2013 7:35 PM
8	widening the bridge over Court Drain on Romeo St N. by As You Like It Motel. Dangerous to walk/bike here for anyone	1/24/2013 12:58 PM
9	Small residential side streets, like Moderwell St., East Gore, Perth, Walnut, Chestnut, etc badly need resurfacing.	1/23/2013 11:34 PM
10	same for the library and YMCA	1/17/2013 2:59 PM
11	Better connections through Stratford to other communities with set paths/routes	1/15/2013 11:00 AM
12	festival marketplace - make duoro street or Ontario street more bike friendly	1/13/2013 9:19 PM
13	Erie Street	1/13/2013 10:32 AM
14	more bike stands	1/12/2013 2:46 PM
15	Huron St.	1/12/2013 2:25 PM
16	Bike path on Huron Street	1/12/2013 10:48 AM
17	bike lane on Erie St between West Gore and Ontario	1/10/2013 6:36 PM
18	better snow removal	1/10/2013 1:51 PM
19	Lakeside Drive from Ontario to Queen's Drive - ditto	1/9/2013 5:51 PM
20	Downtown needs more bike racks	1/2/2013 5:17 PM
21	erie, huron and ontario sts	12/17/2012 8:03 PM
22	East end	12/16/2012 4:10 PM
23	Bike friendly locking stations utilized with parking meters for easy access to downtown	12/15/2012 2:17 PM
24	safe paths out into the countryside	12/7/2012 11:19 AM
25	Dunn's Bridge (along Gibb Road) to Embro Road on to Downie Street	12/3/2012 8:17 PM
26	Along the Avon river	12/2/2012 1:57 PM
27	Ontario St	11/28/2012 12:02 PM
28	from John or West Gore out to O'Loane and Huron St. corridor	11/21/2012 3:36 PM
29	Bike lanes on Mornington Street	11/20/2012 11:35 PM
30	bike lanes on Ontario St. from the city centre to the TSC; Downie St., Waterloo St.in the downtown area; Erie St. from Ontario St. to Lorne Ave.	11/19/2012 3:07 PM
31	Huron St	11/19/2012 12:05 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	3	Date
32	downtown lane for bikes. (almost impossible given the parking on Ontario St) Perhaps one off the side sts could be one way	11/15/2012 4:26 PM
33	road repairs- Those sudden small potholes can really throw a bike's direction and control - There are two doozies, one on Waterloo N, and one on Lakeside/Veteran's Way	11/5/2012 3:11 PM
34	mornington at waterloo to graf ave.	11/3/2012 6:28 PM
35	cycling for tourist routes like historic homes	11/3/2012 4:17 PM
36	pave the shoulders on Ontario Street (hwy 7)	11/2/2012 6:37 PM
37	extension of McCarthy Road, with wide cycling lanes from Rotary Complex to O'Loane Ave.	11/2/2012 5:59 PM
38	Lorne Ave, truck route	11/2/2012 4:57 PM
39	Ontario St - from Rd 111 to downtown core	11/2/2012 2:24 PM
40	Recreational trails to be used by both members of the community and tourists that bring bikes and are looking for somewhere safe to ride	11/1/2012 11:01 PM
41	Designated bike only routes to all ends of city	11/1/2012 9:07 PM
42	new pedestrian/cycling bridge across the Avon to the Jennann Subdivision	11/1/2012 5:54 PM
43	Safe access to the downtown on the major roads.	11/1/2012 4:51 PM
44	Morning ton Road	11/1/2012 4:50 PM
45	Improved road conditions on Erie (pot holes filled and bike lanes)	11/1/2012 4:18 PM
46	Could widen the path along Lakeside drive for a multi use or bike lane from Upper Queens park to TJ Dolan	11/1/2012 3:57 PM
47	Wider streets to make cycling safer	11/1/2012 3:40 PM
48	Lorne Ave (bike lanes to make biking around the city easier. Our son bikes to work on this road, and it is nerve wracking to say the least)	11/1/2012 2:56 PM
49	connect North/South ends of city	11/1/2012 2:52 PM
50	Lorne Ave connections to Romeo and O'Loane	11/1/2012 2:35 PM
51	Bike lanes on one way streets	11/1/2012 2:29 PM
52	Bike routes lanes parallel to Ontario St - Albert, Colbourg	11/1/2012 2:11 PM
53	no matter where you live in Stratford you should be able to get downtown safely with either continuous sidewalk or bike trail this would then link the city east, west, south & north	11/1/2012 1:12 PM

Q15 Please enter any other comments you have regarding the City of Stratford Bike and Pedestrian Master Plan

Answered: 72 Skipped: 52

#	Responses	Date
1	I believe painted bike lanes wherever possible should be installed even if the route is choppy or disjointed at first. At least parts of your ride will be comfortable.	4/13/2013 11:06 AM
2	I bike to work frequently and would feel much safer with marked bike lanes, especially on busier roads that are the most direct way to get places, and with signage reminding drivers to watch for cyclists. thanks!	4/9/2013 11:50 AM
3	Connecting the parks, storm ponds, sports parks via trails or marked biking/walking paths/roads. Safe roads, free from poor pavement conditions where bikes are to ride. Education campaign to encourage biking also to look out for increased biking/walking traffic.	3/26/2013 8:22 PM
4	Any new bike and walking paths need to be marked and signage showing so. The only bike lane in Stratford on McCarthy Road only has markings in a few spots on the ground and cars park within the bike path on a regular basis. They should be marked as no parking and enforced! I know that that bike lane is the beginning of connecting up to the Rec Centre but it doesn't go anywhere and has a block in the middle with no bike lanes. The bike lane heading to the Rec centre is mostly useless because most people going to the rec centre are taking hockey equipment or other sports equipment. The bike lanes need to be set up more for commuting and recreational biking around the city and to the park areas.	3/17/2013 7:17 PM
5	I like the Waterloo "complete street" concept with modifications such as having bus stopping side lanes to allow for better traffic flow.	2/22/2013 9:06 AM
6	This is a stupid waste of money in a city that is well on its way to going broke	2/21/2013 7:50 PM
7	As the city expands we must insure that the park system grows with it. The access to the Avon river and its parkland is for the most part excellent. I think it is important that the land along the Avon River east of Romeo Street remains in public land and the trail network be extended east of Romeo Street	2/20/2013 2:08 PM
8	I think Stratford should be made into the most walking-, jogging-, and cycling-friendly small city in Canada. The community needs something new to brag about, and champion. Thus, I recommend planning for a mostly pedestrian and cycling future, where residents in Stratford use their cars less and less. Car culture is not sustainable, so investments in public infrastructure supporting walking, jogging, and/or cycling, on the biggest scale this city has witnessed to date, should be the order of the day. Stratford residents to walk more, it is that simple. Sincerely, Richard Maloney Rundles Restaurant 9 Cobourg Street, Stratford, Ontario Canada N5A 3E4 Tel.: 519.271.6442 Fax: 519.271.3279 dine@rundlesrestaurant.com www.rundlesrestaurant.com	2/20/2013 10:54 AM
9	I was briefly on the City Bike Committee 5 or 6 years ago and was thoroughly dismayed by the appalling lack of political will to improve the state of cycling in Stratford. I resigned because I thought it a complete waste of my time and energy, and because I couldn't make any daytime meetings. Committee members got the 2001 report of that bike committee's recommendations and as far as I could see, nothing had been done then. So I'm a wee bit skeptical this time around that improvements will be made now. I hope so. I bike year-round, to work and shopping (yes, I do own a car). I'm no modern eco-hero. I just like it. It's fun in perverse way. I would like to see our city councillors, city and traffic engineers and more police on bikes. Ride a mile (kilometer) in my cycling shoes, please. I am traffic. See the road from my side of the handlebars.	2/19/2013 8:01 PM
10	Thank you so much for doing this - great need for improvements in this area for the residents of the city!!	2/18/2013 11:36 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
11	<p>Very difficult to see this plan online even magnified ..similarity in colours? Dont understand question 10 Number 6. TJ Dolan..... Huron to St Vincent is very unsafe for walking and cycling because of the volume of through traffic trying to avoid traffic lights at Douglas (especially none filter right for Douglas onto Huron but also for drivers on Huron westward too impatient to wait for a green to turn left on to Douglas) or just traffic going the "scenic"way. Traffic includes school/hospital traffic, truck and City of Stratford vehicles. Speed on TJ Dolan is a problem ...few adhere to the low speed limit which is not and perhaps cannot be adequately policed and illegal parking is not addressed There is an accident involving walker or cyclist waiting to happen there. People enjoying this road and especially families (it is very popular and a major connection between city centre/ Lake and TJ Dolan Reserve/ Cemetary and new sub divisions beyond) should not have to be so worried about safety Unfortunately TJ Dolan cannot be closed to all traffic as many residences on Douglas need access to their property parking via TJ Dolan .I suggest somehow closing TJ Dolan to through traffic and preventing parking on the river side and road itself. A cycling/ pedestrian route should not be lined with parked cars. The access only TJ Dolan would be a big improvement and it would not be expensive and should save money from not having to maintain the road as much..dont know why the road sweeper regularly contributes to volume of traffic as there are no storm sewer catchments. I think the citys 3 major roads..Huron, Ontario and Erie should have sidewalks on both sides of the road within city limits and those sidewalks closest to downtown core should be adequately ploughed.and in a timely manner (as should school and hospital routes). Downtown businesses usually do a good job in snow removal but city plowed sidewalks extending from downtown are hit and miss...sometimes due to poor timingsidewalk clearance first then road plough fills it in. Huron Bridge a problem . Glad this is being done. Its about time Stratford. Hope this is more than just a plan and not just a futuristic look for the next century..surely inexpensive solutions can be tackled now?</p>	2/16/2013 6:08 PM
12	<p>This is not a cycling friendly city.. I have always been a careful cyclist and feel there is no where I can ride I feel safe.. bike lanes do not guarantee safety from inattentive and neglectful drivers but it would significantly enhance safety.</p>	1/31/2013 11:41 AM
13	<p>Help make Stratford more accessible, is the request built into the city website. This questionnaire as a glaring omission----- NO MENTION OF MOBILITY BY WHEELCHAIR/ SCOOTER/WALKER. i WONDER WHY? The sidewalks are FAR to bumpy or even extinct in some places or not comfortable for use by these vehicles, and even by many seniors and mothers with baby carriages. Is this group of citizens to be locked out like the (million disabled people in China during the Beijing Olympics, who were told that the powers did not to see them in the city during the games. May be some thought should be given to this. Lip service should not be acceptable. My email is bhogan@ rogers.com, I would appreciate a response Thanks and regards Ben Hogan</p>	1/28/2013 10:45 AM
14	<p>Stratford desperately needs cycling paths. Visitors are often disappointed by the lack of recreational trails for cycling, as well as the lack of designated bike lanes on city streets.</p>	1/25/2013 6:26 PM
15	<p>enforcement of no biking on sidewalks downtown important for pedestrian safety solar lighting of bike paths works well in other centres biking and pedestrian shared use around river is not feasible, due to high number of pedestrians. increased use of one way streets, maybe around river too</p>	1/24/2013 7:35 PM
16	<p>I use a manual wheelchair and handcycle (3 wheeled bicycle) Safety is of top concern for myself and motorists when I am on the roadway. Bike trails will aid in cycle tourism - a booming industry as the public is educated on the importance of having a healthy lifestyle. This, combined with the Festival's draw, will aid and grow the City's economic future.</p>	1/24/2013 12:58 PM
17	<p>I love the older neighbourhoods with lots of mature trees and less traffic for my walking or riding. However, MANY of these older neighbourhoods have TERRIBLE roads and are thus miserable for biking on. I travel a lot from the hospital region all the way over to Romeo Street south by walking or biking. Many of the roads throughout this route are dreadful to ride on. Also, when walking in the wet or snowy weather, I find several sidewalks are flooded with water or ice and are either impassible or treacherous. Often I even see others walking on the roads in order to avoid the water pools or slush on the older, sunken sidewalks.</p>	1/23/2013 11:34 PM
18	<p>Please don't overlook individuals using wheelchairs, assistive devices, etc. as we too want to take a walk in nature to maintain fitness and many walking trails are are inaccessible to us.</p>	1/17/2013 1:58 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
19	<p>Glad this is happening, long overdue compared to other cities (Waterloo Region, Brantford, etc.) Include a paved track section for those on rollerblades or roller skates (right now use the cemetery, which is not always best road conditions). Would make unique tourism offering as I used to drive to RIM Park in Waterloo to use those trails since good paved trails are few and far between. Include the dog park in the plans, as those most often walking are doing so with a dog. Currently it is not easily accessible to get there on foot (have done). Would be ideal to have a path running adjacent to the rail tracks (but far enough away to be safe) with a path veering off to dog park as it cuts over there better than the roads which adds unnecessary detours to get there. Plus this also serves those working in the factories in the area. My husband has tried biking to work, but since he works afternoons and has to travel along Lorne, he does not always feel safe and may result in us having to again get a second car, which is not an expense we can afford right now. We chose our home location so he could be close to work, but did not realize how dangerous biking in this city could be. Connect Stratford with other communities and Wildwood Conservation Area via bike paths. Use to live in Cambridge and loved how there were bike paths that could get you from point A to B fairly quickly vs. roads using river, under 401, etc. There were also paved paths that students used almost exclusively to get to school and were excellent for community use too.</p>	1/15/2013 11:00 AM
20	<p>The Bike and Pedestrian Master Plan is a great initiative. The largest challenge is having provincial highways running through the community which makes cycling routes along the arteries very unsafe for adults and children alike. Providing safe routes along these corridors should be a priority.</p>	1/13/2013 10:32 AM
21	<p>I believe designated bike paths hinder cycling. People begin to feel that they "can't bike here" because they are made to feel they can only bike in "designated areas" which mostly don't exist. Car drivers begin to adopt a mindset where "there's no bike lane here so cyclists have no right to be on my road" which further degrades the situation. The city should re-brand sidewalks as a multi purpose system. The reality is that people freely cycle on the sidewalks without problems. Specifically, see the sidewalk areas on Ontario st. between Downtown and Canadian Tire. It's not at all realistic to think this street will ever be expanded or altered to add bike lanes. Cyclists currently share the sidewalks with pedestrians with very few difficulties. This should be promoted as a "smart community" feature. The city should provide promotional bells and foster the expectation that cyclists on the sidewalk should pleasantly alert pedestrians of impending interactions. The city should promote a positive and fun co-existence of pedestrians and cyclists. Reviewing the cities plan for cyclists, potential routes are mapped out on many secondary streets (Albert / Brunswick etc) it's nice to have these mapped out but cycling on low traffic streets is not a problem anyways. Money spent to paint lanes on these streets and add signage etc is wasted. The problem areas are where side street routes funnel onto major arteries and often the only realistic option is to put cyclists on the sidewalks - Huron St Bridge, Romeo St at the river or at the rail underpass etc. Adding designated bike lanes at these locations is not realistic. The city should take a bold step and validate the reality that pedestrians and cyclists can and do share the sidewalks. Minimal cost - maximum benefit</p>	1/12/2013 5:45 PM
22	<p>The plan should not shy away from advising council of options to expand roadway to include segregated dedicated bike lanes.</p>	1/12/2013 2:46 PM
23	<p>I think walking's already pretty good in Stratford, but bike paths could be very useful in increasing bicycle traffic.</p>	1/12/2013 10:48 AM
24	<p>Drivers in Stratford - both resident and tourists - have little regard for cyclists. Cyclists have no room to manoeuvre on roadways or sidewalks. Pedestrians - particularly students and tourists - have little regard for drivers or cyclists. It will take a MAJOR re-education effort to change current attitudes of all three groups - and best of luck with the tourists.</p>	1/10/2013 6:36 PM
25	<p>Glad it's happening. Question 5 doesn't make sense to add up to 7 - I don't work 7 days a week. I car pool for 3 and drive myself for 2 in an average week. All of your answers will be skewed!!</p>	1/10/2013 1:51 PM
26	<p>Your questionnaire assumes that people either work outside the home or go to school. Many of us do neither. I could have told you that my wife and I walk everyday. I could also have told you that I would bike daily if there were safe trails that I could access downtown and not have to DRIVE to! but there was no question for that.</p>	1/9/2013 5:51 PM
27	<p>A continuous link needs to be planned with a hierarchy of major to minor routes. Bike lanes need to be incorporated into all roads which serve as truck by-pass routes. This includes the roads just outside the city connecting to the small hamlets and villages. These roads are busy and do not provide adequate shoulders and are frequently used by cyclists. A very important aspect is to provide a adequate budget projections to implement the bike and pedestrian master plan.</p>	1/8/2013 1:54 PM
28	<p>As long as side walks are available, making 'new' walking areas is not going to increase walkers. People enjoy walking their regular routes or neighbourhoods. A special park area is not necessary. Biking is tougher because bikers do not want to take over side walks, but are afraid to use the roads. Bike paths through town are needed, especially along major driving arteries and industrial routes. These tend to have the narrowest roads and not even the option of side walks.</p>	1/4/2013 4:00 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
29	Keep the sidewalks as clear as the roads in the winter. Much is spent on making it so cars don't slip and slide on the roads, but little is spent to do the same for a pedestrian on a sidewalk. That is why you will see so many of us walking on the roads in the winter. Unfortunately, many who do try the sidewalks land in the hospital with broken bones. Pedestrians and cyclists deserve as much attention in a master plan, more in my opinion, than does the almighty car.	1/3/2013 2:53 PM
30	Spending large amounts of money on new walking and bike trails should not be a priority - other things are needed more urgently in the City (e.g. new Police Station) and the existing streets are largely adequate for cycling. I also do not believe that the volume of cyclists will increase significantly if new bike paths are created - we have too much winter in our community to make cycling a year-round activity for most people. However, planning is always wise - and ensuring there is attention paid to pedestrians and cyclists (instead of just to the almighty car) when building new subdivisions will seen as wise by future generations.	1/2/2013 5:17 PM
31	Great Idea, Waterloo has a downtown LOOP walk that is advertized with signage, maps and public awareness. Stratford Hiking club has maps that can be shared to others, what are those secret trails?	12/21/2012 7:58 PM
32	Connections with other municipalities is of special interest to me	12/16/2012 4:10 PM
33	Educate bikers and pedestrian on how to use road ways, you would not pull out in front of transport truck or train with your car why would you do the same with cars.	12/15/2012 9:51 AM
34	I would love to see a better route from Stratford to St Marys. I currently drive from St Marys to St Pauls, park my truck and bike from their along CR 122 2-4 times a week. I would bike direct from St Marys, but the only efficient route that is totally paved is HW 7 which is suicide. If there was a substantial bike lane along this route or if 122 was completely paved (two patches of gravel road) it would be a great assest for people who enjoy long range biking and would connect the two communities very well.	12/7/2012 11:38 AM
35	I am hoping that "multi-modal" means that scooters, mobile wheelchairs, etc. are included. There are so many different types of transportation using sidewalks that they all should be included in considerations for this study. I work at a long term care facility and seniors complex. There should be special attention paid to lights and lanes for the vulnerable (physically and mentally) residents who often travel back and forth to the hospital or up to the Sobey's mall. Also the study does not include seasonality. I bike to work when the weather is good or at least bikeable and hitch a ride or walk or, as a final choice, take the bus when it is not. So question five is impossible for me to answer.	12/7/2012 11:19 AM
36	Follow through on the plan, city is known for making plans to gather dust	12/4/2012 1:32 PM
37	Look at city's like Ottawa and Ajax. A great cycling trail system can bring a lot of tourist traffic to town as week be a boon to the health and fitness of the local community.	12/2/2012 1:57 PM
38	Congratulations on taking on this initiate. With regards to trails and walkways throughout the city, it is important to post signage. Let people know they are on the Avon Trail for example. Do a better job connecting the route around the river to the Old Grove. Post a map of the trail where people would generally access it (Queens Park or by the river), and show different walking routes/loops they could take and the distance of the loop. For example1) Loop from the bridge by queens park to the Waterloo Street Bridge and back again 2) Loop by the Lions pool and back again 3) Queens park to the old grove and back again It is great that money is being spent on this. I can definitely see active locals, tourists and visitors using these trails and walkways specifically if they are marked properly. We need to take some direction from London Ontario. They do an amazing job marking the trails/walkways and keeping them clean. That should be the standard we are trying to meet. If you are forming a committee and need members to sit on it, I would be happy to be present and add in some feedback. I have access to many locals through my small business and could voice their concerns and comments. Sarah Merkel smerkel2@gmail.com	11/29/2012 9:39 AM
39	Presently riding a bike in Stratford is pretty scary, evidenced by the fact you don't see many bikes in town. Biking on Ontario st is almost unheard of so I take all the back one way streets. Tourists typically don't have bikes to ride so the support should be given to local bike riders.	11/28/2012 12:02 PM
40	We need to make the city more safe for cyclists. Paved shoulders do not help safety for bikes or pedestrians when cars go onto them to pass cars turning left; this is esp bad on Lorne Avenue. Could we have zebra crossing like in the UK where cars must stop for pedestrians?	11/21/2012 3:36 PM
41	Many thanks to the people who are coordinating this research. May I emphasize that there is an opportunity to place a bike path along Hwy. 7/8 from Stratford to Shakespeare, using the allowance on the north side of the hwy.	11/19/2012 3:07 PM
42	I have many more miles on my bike driving to other locations to cycle than I do from cycling in Stratford. Please get moving on this. I will continue to ride on the sidewalks where I consider the roadways unsafe .Perhaps where there are sidewalks on both sides of the street one could be designated. When we travel we see many communities with hiking and cycling trails. We need the vision and drive to catch up to the rest of the world.	11/19/2012 12:05 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
43	I have been wanting this for a long time. Given the aging population of Stratford and its need for increased physical movement, plus the environmental benefits of biking, and the increasing interest in biking, except in the winter, so far, this is a movement well timed.	11/15/2012 4:26 PM
44	There is a problem with question #5 - my work week is 5 days however the survey would not advance until I had something in that response that added to 7 therefore I left it blank. When the city is building new streets or reconstructing existing ones, they need to use a complete streets approach so that ALL users are considered. It's not good enough to plan only for cars - pedestrians, cyclists, people in wheel chairs etc must be considered. There is great potential in the city so hopefully this report will actually help to improve walking and cycling infrastructure and not just sit on a shelf.	11/12/2012 4:06 PM
45	I am in great favour of paving the soft shoulders and two feet wide paved space beside each sidewalk within and outside the city.	11/8/2012 8:03 PM
46	Both bicycle routes and walking paths would enhance the city for both the residents and our tourists.	11/5/2012 3:36 PM
47	- hooray hooray hooray!! may the path of this survey lead to some action to enable bicycle friendly/safe travel in this city! - for the residents, and for the gazillion tourists who come to our city with bikes on their cars- asking.... "So- Where are the bike paths?" -Consider please the hidden demographic that emerged at our February Share the Road event (followed by an invited very positive Roundtable including City representation) - While parents and students were at home in the evening, approximately 200 turned out, many of whom were over 50. They are often retirees seeking fitness, and strong environmentalists as well. What better than a bike. What worse than playing Russian Roulette every time they set out on two wheels. How about a focus group involving this group? - and btw, I'm one of the over-50's, hence the absence of response to the working questions above. I do work in a volunteer capacity in the community and consider my meetings "work" but they're of course irregular- so I bike/walk when I can, drive when I can't. -as noted above, by all means enable children biking to school- mega fitness, but it must be as safe as possible- I don't need to say that, do I :) of course it should be! - so very many wonderful cycle things to look at that have been initiated- Bike lanes, separated lanes, turn boxes, diet the road, Share the Road partnerships, housing developments with integrated bike paths and linkages, commercial developments with integrated bike paths and linkages, secure lock facilities, rentabike racks, Quebec's Route Verte- let's go!! and finally- Tremendous effort and passion have been poured into various bike campaigns over the years in Stratford. I know you have access to the plans that emerged from the two recent initiatives that occurred. There is deep disgruntlement around what is seen as continual postponement of action- It would be so so wise and wonderful to have something happening this summer - some first, REAL steps with paths and improvements that could be used, and REAL commitment for a timelined future -	11/5/2012 3:11 PM
48	I think it would be practical to use existing railway lines for bike paths as they link NSW&E of the city in level, direct lines. Where the railway lines are still in use, perhaps an agreement could be reached to allow for paths along beside the tracks. These tracks could also be used to link neighbouring communities to Stratford, such as St. Mary, New Hamburg, Mitchell, Seaforth, Clinton, and it would be marvelous to be able to bike to Goderich (Lake Huron) without worrying about highway traffic. The further you can get bicycles away from vehicular traffic, the better.	11/5/2012 12:54 PM
49	My friends and I do travel all around southwestern Ontario to take advantage of various bike trails. I really believe a good bike trail system in Stratford would add a lot to Stratford's total package for tourists, not to mention making Stratford even better for me!	11/4/2012 8:10 PM
50	If there are current bike paths, they are a best kept secret. Acquaintances from US have travelled to the city to attend the theatre but have brought their bikes along and found there was not place to bike. Having recently starting riding with my young daughter, I find the streets scary to share with drivers so I suspect it will be scary with my senior mom as well. I have a bike and helmet for her in the garage for her,prepared for her visits, but would like places to bike from downtown Stratford, that doesn't interfere with pedestrian traffic or car traffic,a dn where you don't need to load your bike into the car or trailer to get started. Need destinations that are easy to ride (few hills) with places to rest, restrooms and water.	11/4/2012 9:46 AM
51	This is long overdue. We should be encouraging cycling.	11/3/2012 6:28 PM
52	It is also very important to me that the public should be educated in cycling safety. Let us start by teaching children in school on how to obey the traffic rules that are there for cyclists. Let us also start enforcing the cycling laws throughout the city by warning people that they will be fined when they insist on riding their bikes on city side walks or when they ignore road laws.	11/3/2012 4:17 PM
53	Should have paths that allow access to our growing housing developments and neighborhoods to the main hubs and downtown of Stratford.	11/3/2012 11:09 AM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
54	As mentioned earlier we are very concerned about the danger of cyclists on the sidewalks as we have a B&B and our Senior guests have been nearly hit walking on our sidewalks. The cyclists claim it is too dangerous to ride on the roads - IT IS NECESSARY TO EDUCATE - both the cyclists and drivers on handling their vehicles. Also mentioned the transport tucks using the main road (Ontario street) especially in the Theatre season I am really pleased that finally the city is putting some money into this project, but as others have mentioned it is only as good if we GET THINGS UP AND RUNNING.	11/2/2012 6:37 PM
55	Include roller blading. Consider strollers and child trailers when planning.	11/2/2012 5:59 PM
56	I feel that Stratford has done a very good job in making the city walkable, but not a very good job on the biking side. I would like to be able to ride my bike on busy streets (Ontario, Mornington, Erie, Huron, Lorne Ave, Romeo, Road 122) and not have to worry about cars pushing me into the gutters. These are the streets that I usually feel most threatened, and which influence me on whether or not i'd like to bike. I feel like introducing bike paths along these busier streets would be a great start to creating a greener community. Biking is a much more affordable, healthier, attractive, and environmentally friendly form of transportation. The benefits for are city are cleaner air, reduced congestion, safer streets, and lower noise levels.	11/2/2012 2:24 PM
57	Stratford is a beautiful place to be, and most of the city should be accessible by bicycle. (I also walk but have never had an issue with walking as the sidewalks and paths go pretty much everywhere). Cycling on the other hand is dangerous in town, and on some of our local rural roads. As a result of my employment, I have had the opportunity to travel to many cities around the world, and it is eye opening to see how much more advanced cycling cultures are in other cities. San Francisco has one of the most bike friendly environments, despite the large volumes of traffic, that I have seen anywhere. I am not a competitive cyclist, I do not ride in large groups, nor do I wander around in my lane when I cycle. I also follow the traffic laws. I find it confusing when I hear motorists complain that cyclists are the people causing the danger and that bicycles don't belong on the road. I have been cut off, had cars pull in front of me, pass within inches, honk at me for no apparent reason and give absolutely no courtesy when passing regardless of if there are other cars coming or not. My experience is that it is the vehicle operators that are causing the danger, not the average cyclist. I think cycle lanes are important, but more importantly people must change their attitudes when operating vehicles. (i think this way as both a cyclist and a driver). I regularly see people driving on city streets doing at least 65 km/h, despite the 50 limit.	11/2/2012 12:58 PM
58	Ontario, huron and erie streets are extremely dangerous for bikers. As is lorne ave. The city police must patrol these streets more frequently especially between the hours of 6-9 a.m. and 3-6 p.m. I refuse to use these roads during these times of day. Motorist are either half asleep in the morning or are in a race to get home in the afternoon. More police presense is a MUST	11/2/2012 11:50 AM
59	I can bike across town to work in the same amount of time that I can drive in. I believe that if we made cycling a safe option, more people would do so.	11/1/2012 11:01 PM
60	Look at european cities and dont reinvent the wheel	11/1/2012 9:07 PM
61	I currently do not own a bike because I do not feel like I would be safe biking in Stratford. If there were designated bike paths, I would buy a bike and use them daily.	11/1/2012 6:58 PM
62	Connect the island or another part in the river, and bike lanes. please?	11/1/2012 4:18 PM
63	All parties involved in the decisions, including all members of council and city staff should be made mandatory to bike to work for a week and walk for a week. This should help in the process. Side streets should have speed bumps installed as in other communities. To slow traffic making it safer for biking and walking.	11/1/2012 3:57 PM
64	We refuse to let our son ride his bike on the street. I'm sorry, but I will pay a fine every single day if that's what it takes to ensure that our son isn't hit by some driver not paying attention. Twice this summer I have witnessed someone getting hit by a bike while riding on the road. Either make it safe to ride bikes on the roads or allow bikes on the sidewalks. How many people have you heard of that died getting hit by a biker on the sidewalk? How many bikers have you heard of getting killed by cars on the road? It doesn't even seem debatable to me. And forget about biking at night... Such a shame that.	11/1/2012 3:30 PM
65	As we do not live in Stratford, but visit family often who do live in Stratford, one thing we have long noticed and been surprised about, given that Stratford is a tourist destination, is the lack of bike trails. We do not bring our bikes to Strat. for that reason. We either walk down to the river, or take the car to walk in that area. We are not familiar enough with the entire city to make other comments.	11/1/2012 3:08 PM
66	As a family of 6 living in the suburbs (Wingfield Ave) we would love more bike trails and walking trails for our family to enjoy. Biking on our main streets is out of the question for our family, so we don't bike to the places we would like to go. Lions Pool, Upper Queens Park, downtown....	11/1/2012 2:56 PM
67	We get asked every day during tourist season 'where are your bike paths/bike lanes in this city?' Our unfortunate response is 'there are none'.	11/1/2012 2:52 PM

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#	Responses	Date
68	I love this city and can't believe we don't have bike lanes in a place where bikes have always been a key mode of transport, particularly for our actor guests. Check out the NFB film about the Festival made many years ago - it makes a point of talking about bikes as transportation. I feel UNSAFE every time I ride my bike on any of our busy streets. Car drivers (not to mention large truck drivers, who should never be allowed to drive through downtown!!!) are oblivious and even aggressive to cyclists. Also, question #5 above is hard to answer accurately because on many days I will walk, bike and drive all in the same day.	11/1/2012 2:36 PM
69	Bikes and pedestrians and/or motorcycles need more priority. Get trucks out of the downtown i.e. transports. Get bikes off sidewalks in the core areas but make sure there is a divided ride area in its place. More bike lock up locations.	11/1/2012 2:35 PM
70	I do bike and walk often in Stratford right now, but I would increase the amount I do that if I felt that the routes were safer. I would also encourage my kids to bike and walk more often on their own if I could trust that they could get safely across the street and not be injured by vehicular traffic. Particularly important is to make school crossings safer by making them much more visible and educating drivers to STOP at these crossings. At the moment, the pedestrians and cyclists in Stratford are treated like 2nd class citizens, although they are much more vulnerable to injury than vehicle drivers. We need to change that.	11/1/2012 2:11 PM
71	My main concern is the lack of marked crosswalks in the city. We almost deter people from walking or cycling in our city.	11/1/2012 1:26 PM
72	It is very important that all new developments and all future road improvements incorporate sidewalks and trails that connect to others or for future development. A trail book that shows all the trails for walking/cycling available online and printed copies could be sold for a minimum cost so that there is money for reprinting or local groups could get corporate funding It seems that the development of business is along Erie and Lorne Ave we need safe walking and cycling sidewalk/trails in this area i.e. E.I. office, Big Brothers & Sisters, Children's Aide, future Doctor's offices, M.P.P. office, Chamber of Commerce, fast food restaurants, etc.	11/1/2012 1:12 PM

Q16 Please indicate the first three letters or your home postal code.

Answered: 120 Skipped: 4

#	Responses	Date
1	n5a	4/13/2013 11:08 AM
2	N5A	4/9/2013 11:50 AM
3	N5A	3/26/2013 8:23 PM
4	N5A	3/17/2013 7:18 PM
5	N5A	2/22/2013 9:07 AM
6	n5a	2/21/2013 7:50 PM
7	N5\$	2/20/2013 2:09 PM
8	N5A	2/20/2013 10:54 AM
9	N5A6C1	2/19/2013 8:02 PM
10	N5A	2/18/2013 11:37 PM
11	N5A	1/31/2013 11:42 AM
12	N5A	1/28/2013 10:47 AM
13	N5A	1/25/2013 6:27 PM
14	NOK	1/24/2013 7:36 PM
15	N5A	1/24/2013 4:28 PM
16	n5a	1/24/2013 3:58 PM
17	N5A	1/24/2013 12:58 PM
18	N5A	1/23/2013 11:36 PM
19	N5A	1/17/2013 3:00 PM
20	N5A	1/17/2013 1:59 PM
21	N5A	1/15/2013 11:10 AM
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23	N5a	1/13/2013 9:21 PM
24	N5A	1/13/2013 10:33 AM
25	n5a	1/12/2013 5:48 PM
26	N5A	1/12/2013 2:47 PM
27	N5A	1/12/2013 2:27 PM
28	N5A	1/12/2013 10:48 AM
29	N5A	1/11/2013 11:46 AM
30	n5a	1/11/2013 8:26 AM
31	N5A	1/10/2013 6:36 PM
32	N0K	1/10/2013 1:54 PM
33	n5a	1/9/2013 5:52 PM
34	n5a	1/8/2013 1:55 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
35	N5A	1/4/2013 4:00 PM
36	N4Z	1/3/2013 3:13 PM
37	N5A	1/3/2013 2:54 PM
38	N5A	1/3/2013 11:16 AM
39	N5A	1/2/2013 5:18 PM
40	N5A 5A7	12/21/2012 7:59 PM
41	N5a	12/21/2012 6:47 AM
42	N4A	12/20/2012 7:56 AM
43	n5a	12/17/2012 8:08 PM
44	N5A	12/17/2012 8:04 PM
45	6J7	12/17/2012 1:41 PM
46	N5A	12/16/2012 4:12 PM
47	N5A	12/16/2012 10:41 AM
48	N5A	12/15/2012 2:18 PM
49	N5A	12/15/2012 9:51 AM
50	n4x	12/7/2012 11:39 AM
51	N%A	12/7/2012 11:19 AM
52	N5A	12/4/2012 1:32 PM
53	N4Z	12/3/2012 8:18 PM
54	N5a	12/2/2012 1:59 PM
55	n5a	12/1/2012 12:15 PM
56	N5A 5J7	11/29/2012 9:40 AM
57	n5a 4g3	11/28/2012 12:03 PM
58	N5A	11/23/2012 10:59 AM
59	N5A	11/21/2012 3:56 PM
60	N0K	11/21/2012 3:37 PM
61	N5A	11/20/2012 11:35 PM
62	N5A	11/19/2012 3:08 PM
63	N5A	11/19/2012 12:06 AM
64	N5A	11/16/2012 9:10 AM
65	N5A	11/15/2012 11:14 PM
66	N5A	11/15/2012 7:41 PM
67	n5a	11/15/2012 4:27 PM
68	N5A	11/15/2012 4:10 PM
69	N5A	11/12/2012 4:06 PM
70	N5A7Z1	11/8/2012 8:05 PM
71	N5A	11/8/2012 5:39 PM
72	N5A	11/5/2012 3:37 PM
73	N5A	11/5/2012 3:12 PM

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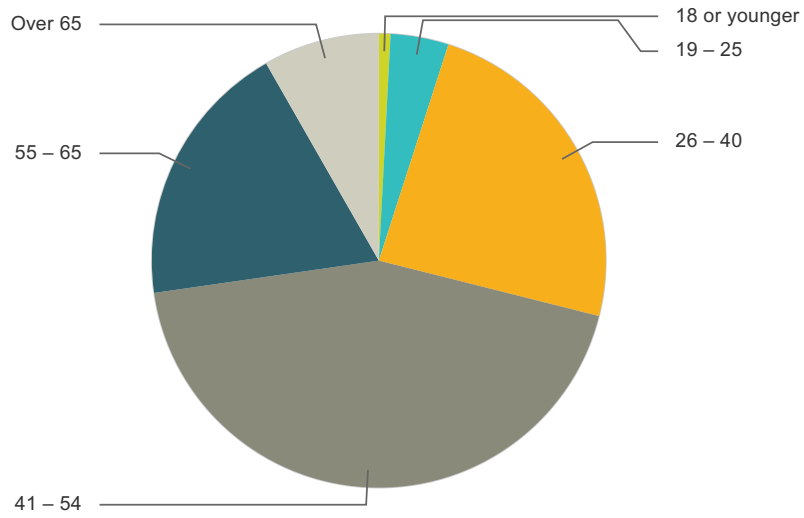
#	Responses	Date
74	N5A	11/5/2012 12:55 PM
75	N5A	11/4/2012 8:11 PM
76	N5A	11/4/2012 9:47 AM
77	n5a	11/4/2012 9:12 AM
78	N4Z	11/3/2012 6:30 PM
79	n5a	11/3/2012 4:42 PM
80	N5A	11/3/2012 4:18 PM
81	N0K	11/3/2012 2:13 PM
82	N5A	11/3/2012 11:10 AM
83	n5a	11/2/2012 10:26 PM
84	N5A	11/2/2012 6:39 PM
85	n5a	11/2/2012 6:27 PM
86	N5A	11/2/2012 5:59 PM
87	N5A	11/2/2012 4:57 PM
88	N0K1J0	11/2/2012 2:38 PM
89	n5a	11/2/2012 2:25 PM
90	N5A	11/2/2012 12:58 PM
91	N5A	11/2/2012 12:42 PM
92	n5a	11/2/2012 11:50 AM
93	N5A	11/2/2012 9:45 AM
94	N5a	11/2/2012 8:26 AM
95	n5a	11/2/2012 12:28 AM
96	N5A	11/1/2012 11:02 PM
97	N5A	11/1/2012 9:51 PM
98	n5a	11/1/2012 9:26 PM
99	N5a	11/1/2012 9:08 PM
100	N5A	11/1/2012 9:00 PM
101	n5a	11/1/2012 8:25 PM
102	n5a	11/1/2012 6:58 PM
103	N5A	11/1/2012 5:55 PM
104	N5A	11/1/2012 4:51 PM
105	N5A	11/1/2012 4:50 PM
106	n5a	11/1/2012 4:19 PM
107	N5a	11/1/2012 3:57 PM
108	N4S	11/1/2012 3:41 PM
109	N5A	11/1/2012 3:31 PM
110	N6H	11/1/2012 3:09 PM
111	N5A	11/1/2012 2:57 PM
112	N5A	11/1/2012 2:53 PM

Stratford Bike and Pedestrian Master Plan Online Questionnaire

#	Responses	Date
113	N%A	11/1/2012 2:43 PM
114	N5A	11/1/2012 2:42 PM
115	n5a	11/1/2012 2:36 PM
116	N5A	11/1/2012 2:35 PM
117	N5A	11/1/2012 2:30 PM
118	N5A	11/1/2012 2:11 PM
119	n5a 1j3	11/1/2012 1:27 PM
120	N5A	11/1/2012 1:12 PM

Q17 What is your age group?

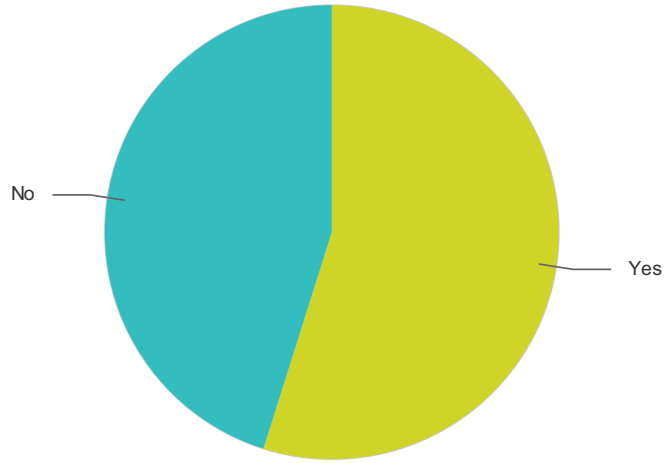
Answered: 121 Skipped: 3



Answer Choices	Responses	
18 or younger	0.83%	1
19 - 25	4.13%	5
26 - 40	23.97%	29
41 - 54	43.80%	53
55 - 65	19.01%	23
Over 65	8.26%	10
Total		121

Q18 Are you interested in assisting with the future planning and development of pedestrian and cycling facilities within the City of Stratford?

Answered: 113 Skipped: 11



Answer Choices

Responses

Yes

54.87%

62

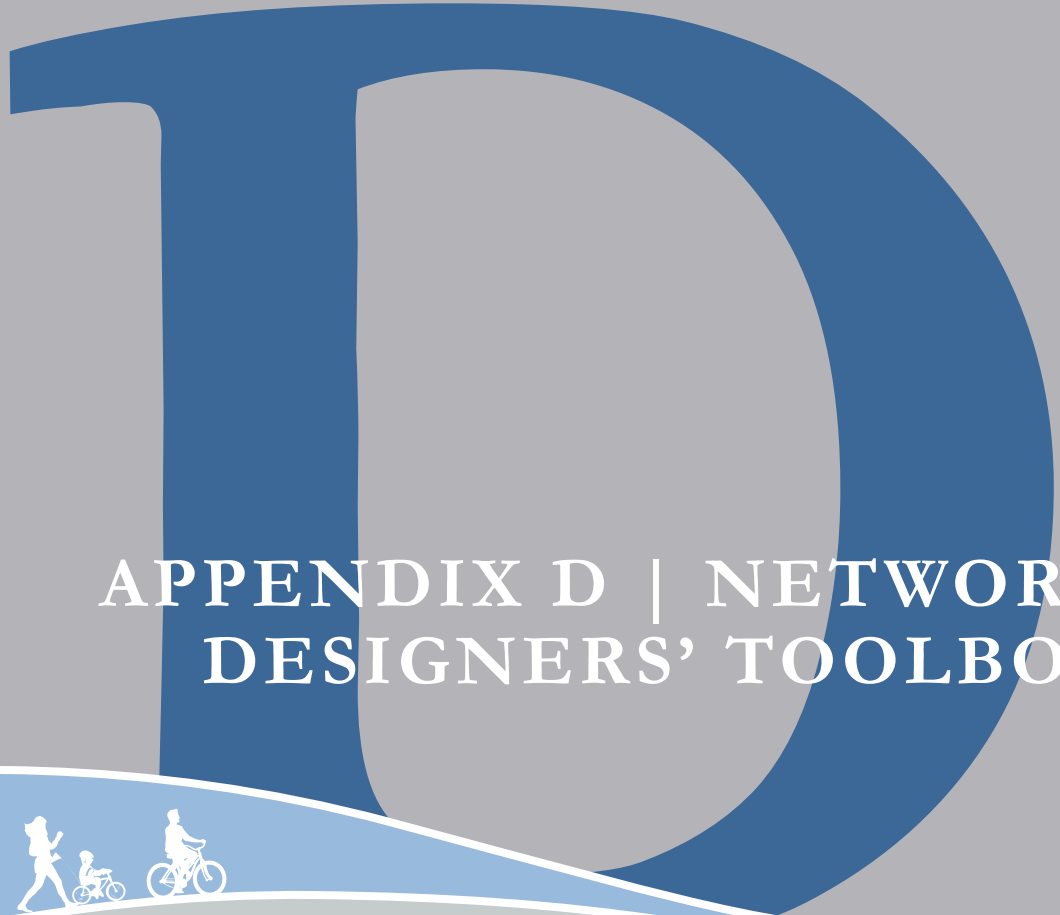
No

45.13%

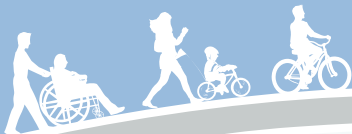
51

Total

113



APPENDIX D | NETWORK
DESIGNERS' TOOLBOX



APPENDIX D

BIKE AND PEDESTRIAN

FACILITY DESIGN:

A DESIGNERS' TOOLBOX



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APPENDIX D

BIKE AND PEDESTRIAN FACILITY DESIGN: A DESIGNERS' TOOLBOX



D1 ABOUT THE GUIDELINES

A well-designed and properly maintained Bike and Pedestrian System is a critical part of the user's experience. A key measure of the success of a Bike and Pedestrian system is to ensure that it is designed and maintained so that users are comfortable using the facilities. Cyclists and Pedestrians vary widely in age, motivation and physical ability. Therefore a "one size fits all" design approach does not apply. It is important to try and match the facility type and design with the type of experience that is desired.

The Bike and Pedestrian Network for the City of Stratford has been developed to achieve a predictable and recognizable quality and consistency in the design to enhance the experience, enjoyment and safety for a wide range of active transportation facility users and add value to the communities through which the facilities pass.

The City of Stratford's Design Guidelines are intended to be consistent with national and provincial best practices. They are consistent with those outlined in the 2012 TAC Bikeway Traffic Control Guidelines as well as the draft Ontario Traffic Manual (OTM) Book 18 Bicycle Facility Design Guidelines and OTM Book 15 Pedestrian Crossing Facilities. These documents should be primary references for the City of Stratford. They provide design details to guide the selection and design of pedestrian and cycling facilities throughout the City.

D1.1 How to Use These Guidelines

PURPOSE: The purpose of these guidelines is to assist City Staff in making informed decisions about active transportation facility design.

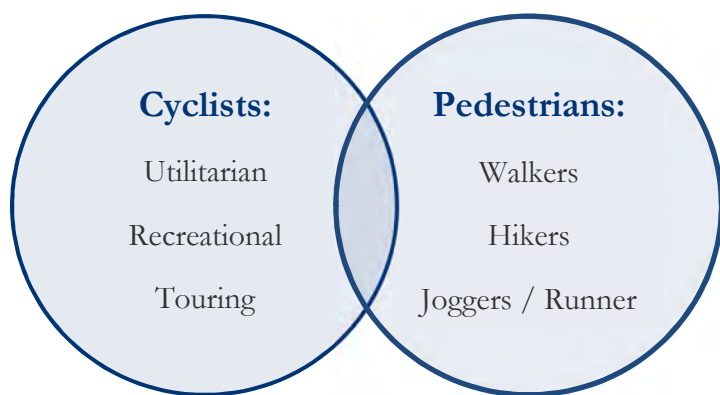
INFORMATION INCLUDED: The guidelines provide general information on cyclists and pedestrians and their needs. Where appropriate, summary tables are provided to highlight recommended design treatments and / or considerations when addressing key features associated with various bike and pedestrian facility types proposed for the City of Stratford.

Key Consideration:

The guidelines are not intended to be prescriptive; they are guidelines which should be treated as a reference for the development and construction of the Bike and Pedestrian network. They are not meant to be inclusive of all design considerations for all locations, nor are they meant to replace “sound Engineering judgement”. The intent is to have regard to the individual guidelines when implementing facilities at specific locations to arrive at the most appropriate solution. In some cases an interim solution may be appropriate where the desired long term solution cannot be achieved in the short or mid-term, provided that the interim solution meets users’ needs and safety considerations.

The information included in these guidelines is thought to represent current accepted design practices in North America, and incorporates ongoing research and experience gained by the MMM team and others in Bike and Pedestrian facility design.

D2 FACILITY USERS AND THEIR NEEDS



It is always important to consider the characteristics and preferences of potential users. In the City of Stratford the users groups are expected to primarily include pedestrians and cyclists but may also include other users such as rollerblades and skateboarders.

Figure D.1 – Bike and Pedestrian Facility Users

Pedestrians		
Walkers	Hikers	Joggers / Runners
<p>Definition: Walkers represent a wide range of interests and motives such as leisure, relaxation, socializing, exploring, making contact with nature, meditation, fitness, or dog walking. It is also important to consider pedestrians who walk for utilitarian or transportation purposes.</p>	<p>Definition: Hikers are often considered the elite of the recreational walking group and may challenge themselves to cover long distances and be willing to walk on sections of rural roadway shoulder considered less safe or less interesting by the majority of leisure walkers.</p>	<p>Definition: Although runners’ and joggers’ primary motivation may be fitness, they may share more in terms of profile characteristics with distance hikers than they do with leisure walkers.</p>

Pedestrians		
Walkers	Hikers	Joggers / Runners
<p>This group typically:</p> <ul style="list-style-type: none"> Is community-focused; Engages in trips focusing on shopping and errands and walking to work and school. <p>Utilitarian Walkers: use sidewalks, parking lots and plazas as well as trails where they are convenient, well designed and properly maintained. In many cases trails provide a convenient “short cut” to traveling the sidewalk network to get to their destination.</p> <p>This group may represent a significant portion of users in the downtown core of Stratford.</p> <p>It is recommended that...where no sidewalks are provided and there are no shoulders, pedestrians should walk on the edge of the roadway, facing oncoming traffic (<i>Ontario Highway Traffic Act</i>). Signs warning motorists of pedestrians ahead are recommended.</p>	<p>This group typically:</p> <ul style="list-style-type: none"> Engages in day trips that may range between 5 and 30 km in length; May be more keenly interested in natural features; Are often more adept at map reading; Are more self-sufficient than leisure walkers; May expect fewer amenities; and Are often attracted to challenging terrain and rural areas. <p>It is important that...Active Transportation planners assume that they will be keen pedestrian users, even in remote or highway environments despite the fact that the frequency may be very low.</p>	<p>This group typically:</p> <ul style="list-style-type: none"> Is accomplishment oriented; Enjoy trails at higher speed for distances between 3 and 15 km or more; and Avoid hard surfaces such as asphalt and concrete and prefer to run on granular, natural (earth) and turf surfaces as they provide more cushioning effect.

Key Consideration:

95% of all pedestrian trips are less than 2.5 km in length (Transportation Tomorrow Survey, in Hamilton Cycling Master Plan 1996), though it is to be expected that some walkers who are out for exercise / health / fitness purposes might make trips that are between 5 and 10 km in length.

Key Consideration:

When using roads, cyclists generally travel 0.5 – 1.0m from the curb or other obstruction because of the possibility of accumulated debris, uneven longitudinal joints, catch basins, steep cross slopes, or concern over hitting a pedal on the curb or handlebar on vertical obstacles. However, when cyclists use or cross a public roadway they are considered vehicles by law and are expected to follow the same traffic laws as motorized vehicles.

Cyclists

Definition: Some bicycles, including the “mountain” or “hybrid” can travel easily over stonedust and gravel surfaces, whereas, traditional narrow-tired touring and racing bicycles require very well compacted granular surfaces or hard surface pavements such as asphalt.

It is important to consider...

- That the mechanical efficiency of the bicycle allows users of all ages to travel greater distances at a higher rate of speed than pedestrians.
- Distances covered vary widely from a few kilometers to well over a hundred depending on the fitness level and motivation of the individual cyclist.
- That cyclists have the right to access the extensive existing public roadway system, with the exception of the 400 series and major highways
- Some cyclists feel unsafe sharing the road with automobiles and do not have the desire or skill level to ride in traffic.
- Cyclists tend to prefer off-road trails, shared with pedestrians offer the less experienced and less confident cyclist a more comfortable environment.
- Cyclists that travel longer are more likely to focus a significant portion of their route on the roadway network, and often seek out quieter, scenic routes over busier roads.

Average Travel Speed...for a cyclist on a trail is in the range of 15-20 km/h and on a road 15-30 km/h, speeds in excess of 50 km/hr. can be attained while traveling downhill on roads and some hard surface trails. Where excessive speed is a potential issue on trails, speed limits and warnings should be posted to discourage fast riding and aggressive behaviour.

Cycling on Sidewalks - Cyclists other than young children should be discouraged from cycling on sidewalks because of potential conflicts with pedestrians and potentially dangerous intersections with driveways. Many municipalities have prohibited sidewalk cycling through by-laws. However, some municipalities permit the use of sidewalks for those cyclists learning to ride (e.g. the City of Guelph).

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D3 BIKE AND PEDESTRIAN NETWORK DESIGN CONSIDERATIONS

D3.1 Accessibility

Approximately one in eight Canadians suffer from some type of physical disability. Mobility, agility, and pain-related disabilities are by far the most common types, each accounting for approximately 10% of reported disabilities nationally.

The Accessibility for Ontarians with Disabilities Act (AODA) states that:

“The people of Ontario support the right of persons of all ages with disabilities to enjoy equal opportunity and to participate fully in the life of the province.”

This policy as well as the new Accessible Built Environment Standards in (January 2013) are summarized in detail in **Appendix A** and apply directly to the development of on and off-road facilities.

“Opportunities for recreation, leisure and active participation should be available to all members of the community. Outdoor trails and trailways which offer a range of levels of difficulty will allow each individual to choose their preferred route based on their abilities and desired level of challenge.”

AODA Criteria for consideration includes: operational experience, width, running slope, cross slope, total slope, surface, changes in level and signage.

When designing and implementing bicycle and pedestrian facilities, the City of Stratford should utilize the guidelines outlined in the strategy to ensure that the needs of all user groups are accommodated and satisfying the requirements of the AODA to the greatest extent possible, given the context of each trail’s location, the surrounding environment and type of trail experience that is desired.

D3.2 Personal Security

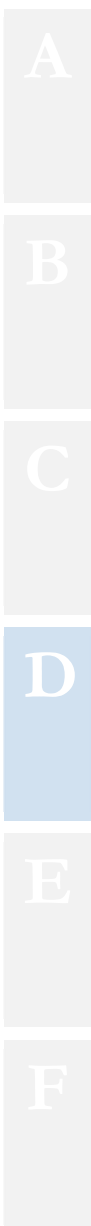
Guideline D-1: When implementing the County’s Active Transportation network as well as active transportation found within its local municipalities the underlying principles of CPTED should always be considered including:

- Natural Access Control;
- Natural Surveillance;
- Territorial Reinforcement; and
- Maintenance

Guideline D-2: Properly located entrances, exits, fencing, landscaping and lighting should direct both foot and automobile traffic in ways that discourage crime.

To the extent that it is possible bike and pedestrians routes should be designed to allow users to feel comfortable, safe, and secure. Although personal safety can be an issue for all, women, the elderly, children, are among the most vulnerable groups. Principles of Crime Prevention Through Environmental Design (CPTED) should be considered and applied to help address security issues concerning trail use, particularly in locations where trails are lightly used, isolated or in areas where security problems have occurred in the past. The four main underlying principles of CPTED are:

<p>Natural Access Control: deters access to a target and creates a perception of risk to the offender.</p>	<p>Natural Surveillance: The placement of physical features and / or activities and people that maximizes natural visibility or observation.</p>
<p>Territorial Reinforcement: defines clear borders of controlled space from public to semi-private to private, so that users of an area develop a sense of ownership.</p>	<p>Maintenance: allows for the continued use of space for its intended purpose.</p>



D4 SELECTING & DESIGNING BIKE & PEDESTRIAN FACILITIES

D4.1 Facility Selection

Facility selection is an important component in the network development process. As planning and design of active transportation (bicycle and pedestrian) facilities progresses in the City of Stratford, the City should reference the selection process outlined in **OTM Book 18 Bicycle Facility Design**. The process will assist staff and those responsible for the future of active transportation facilities. The facility selection process provides a consistent framework that is easy to apply, technically based (was developed based on current research and knowledge of facility type selection), and allows flexibility to account for the differences in physical and operational characteristics from one site to another.

The selection tool does not tell designers when and when not to provide a certain facility type but rather sets out a process for selecting an appropriate facility type given the context and readily available data.

D4.2 Active Transportation (Bike & Pedestrian) Facility Design

Active Transportation facility types can be divided into three main categories: on-road facilities, multi-use pathways (in place of a sidewalk) and off-road facilities. **Table A-1** describes these three categories:



On-Road Facilities	Multi-use Pathways (in place of a Sidewalk)	Off-Road Facilities
<p>“On-road facility” refers to facilities within the roadway right-of-way that are located on or along an existing road and may be incorporated into the existing or future street network.</p>	<p>“Multi-use Pathways (in place of a Sidewalk)” is a type of on-road facility that is within the roadway right-of-way but is physically separated from motor vehicle traffic by a strip of grass often referred to as a “boulevard” or “verge”.</p>	<p>“Off-road facility” refers to facilities that are outside the roadway right-of-way through open spaces, valleys and parklands, as well as linear corridors such as abandoned railway lines, unopened road allowances and utility corridors.</p>
<p>Credit: www.ibiketo.ca, 2007</p> 	<p>Credit: loopsframelove.blogspot.ca, 2011</p> 	<p>Credit: Unknown</p> 

Within these three categories, there are a range of different facility types. The facility types are often described in terms of their degree of separation from motor vehicles (see [Table A-2](#)). For a more detailed description of each please refer to sections [Section A3.2 – A3.4](#). As mentioned above, the information presented in this document should be supplemented with the bicycle and pedestrian facility design guidelines outlined in the TAC Manual, OTM Book 18 Bicycle Facility Design and OTM Book 15 Pedestrian Facilities.

Shared Facilities	Dedicated Facilities	Separated Facilities
<ul style="list-style-type: none"> ▪ Signed-only Bike Routes on Local Roads ▪ Signed-only Bike Routes on Wide Travelled Lanes ▪ Signed Bike Routes with "Sharrow" Symbols ▪ Bikeway Boulevards ▪ Edge Lines 	<ul style="list-style-type: none"> ▪ Signed Bike Routes with Paved Shoulders ▪ Signed Bike Routes with Buffered Paved Shoulders ▪ Bike Lanes ▪ Buffered Bike Lanes 	<ul style="list-style-type: none"> ▪ Multi-use Pathway in place of a sidewalk ▪ Multi-use Trails outside the Road Right-of-Way

LEAST SEPARATION
Generally associated with lower volume, lower speed roads



MOST SEPARATION
Generally associated with higher volume, higher speed roads

Key Consideration:

1. Pedestrians and cyclist vary widely in levels of skill, experience and confidence;
2. No single type of active transportation facility design alternative will suit every user
3. Designers need to gather information on existing and future conditions in order to identify the needs and safety concerns for users in a specific location
4. The choice to provide a separated verses non-separated facility is not a simple “yes or no” answer; it is based on the consideration of a number of factors described throughout this chapter;
5. Criteria or thresholds to select one facility type over another need to be flexible to be able to accommodate each site’s unique set of circumstances; and
6. No facility design can overcome a lack of operator skill or lack of attention by the user.

D4.2.1 Shared Space On-Road Facilities

Guideline A-3: When designing or redesigning roadways, considerations should be given to the application of bicycle friendly design principles even if the roadway is not part of the designated pedestrian and cycling network for the City of Stratford.

Guideline A-4: On street designated as routes on the bike and pedestrian network in Stratford, provisions for pedestrians such as sidewalks should be provided where cyclists are directed to use the roadway.

In terms of public policy, it is important to acknowledge that **a bicycle is formally recognized as a vehicle by the Province of Ontario, as outlined in the Highway Traffic Act, R.S.O., 1990**. Therefore, cyclists have the right to share all classes of roadways, including highways, arterials, collectors and local streets, with the exception of the 400 series highways or other highways/roads where cycling has been prohibited by municipal by-laws. Motorists are prohibited by municipal by-law from driving or stopping in designated bike lanes, except for emergency avoidance manoeuvres or breakdowns. A key Principle for Roadway Design is that:

“Every road is a cycling road”

Signed-only Cycling Routes on Local Roads

Definition	Signed-only Bike Routes are routes where both motorists and cyclists share the same vehicular travel lane and 'Bicycle Route Marker' signs are used to provide route guidance. Aside from 'Bicycle Route Marker' signs, there are generally no other provisions used for Signed-only Bike Routes.	<p>The diagram consists of two vertical panels. The top panel shows a car and a cyclist in a travel lane. A sign on the right side of the road indicates a 'Bicycle Route'. Below this, a top-down view shows a car in the lane with a 'Bicycle Route Marker' sign in the center. A dimension line below indicates a 'Travel Lane' width of '3.0 - 4.0 m'. The bottom panel shows a similar scene with a 'Share the Road' sign. Below it, a top-down view shows a car in the lane with a 'Share the Road' sign in the center. A dimension line below indicates a 'Travel Lane' width of '3.0 - 4.0 m'.</p>
Considerations:	<ul style="list-style-type: none"> ▪ Bicycles and motor vehicles share the right-most travel lane, no physical space is dedicated for bicycle use only; ▪ Design does not include pavement markings for bicycles; ▪ Marked with 'Bicycle Route Marker' signs which may be supplemented by optional 'Share the Road' signs; ▪ Should typically only be signed as on-road bike routes where acceptable (e.g. lower) motor vehicle operating speeds and traffic volumes exist; and ▪ Should be supported by education programming for both cyclists and motorists. 	
Typical Application:	Typical for residential streets where motor vehicle traffic volumes and speeds are low, and rural roads where traffic volumes are low.	
Pedestrian Uses:	Pedestrians use the sidewalk in residential areas, and may use the road shoulder in rural areas.	

Guideline D-5: Signed-only Bike Routes may be used on roads where traffic volume is considered relatively low and adequate sightlines exist. Adding edge lines in urban areas may be suitable where there is sufficient width or removal of on-street parking for bike lanes is not supported by the local neighbourhood.

Signed-only Cycling Routes on Wide Travelled Lanes

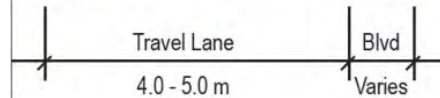
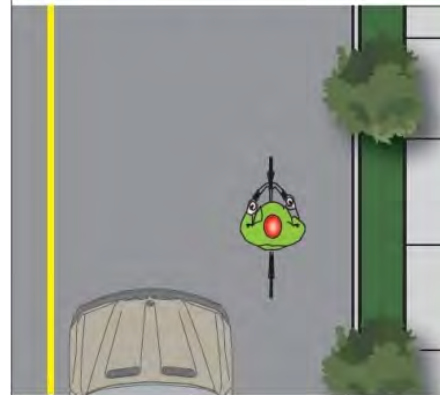
Definition

Similar to Signed-only Bike Routes with the exception that the travel lane shared by motorists and cyclists is wider than the standard motor vehicle travel lane (e.g. 4.0 to 5.0 m). The extra width allows motorists and cyclists to travel side-by-side more comfortably. Travelled lane widths should not be more than 5.0 m wide as this may encourage unsafe passing by motorists.



Considerations:

- Bicycles and motor vehicles share the right-most travel lane, no physical space is dedicated for bicycle use only;
- Design does not include pavement markings for bicycles;
- Marked with 'Bicycle Route Marker' signs which may be supplemented by optional 'Share the Road' signs;
- 'Share the Road' signs and sharrows should be considered at pinch points;
- Wide travelled lanes should have sufficient width to allow motorists to pass cyclists without encroaching on an adjacent travel lane (if one exists).



Typical Application:

Typical for multi-lane roads with wide right-most travelled lanes which may be created by narrowing the inside travel lanes.



Pedestrian Uses:

Pedestrians use the sidewalk in urban areas, and may use the road shoulder in rural areas.

Guideline D-6: Signed-only Bike Routes on Wide Travelled Lanes may be retrofitted on 4-lane cross-sections by narrowing the inside travel lane. Supplementary 'Share the Road' signs and sharrows should be considered at pinch points to make both cyclists and motorists aware of narrow zones.

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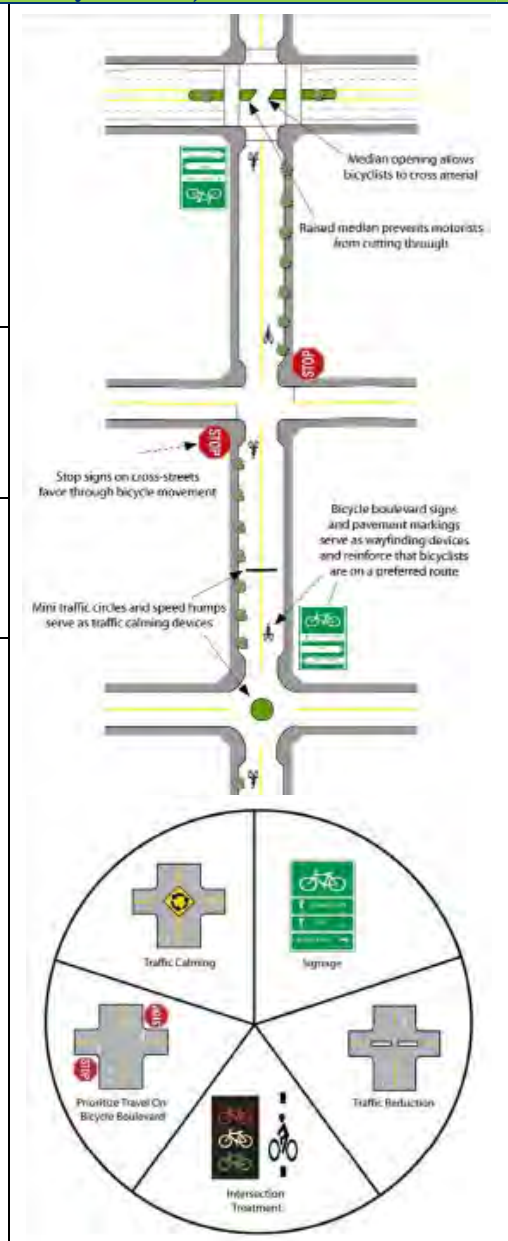
Signed Bike Routes with Sharrow Symbols

Definition	<p>Shared use lane markings, also called “sharrows”, are symbols placed on the pavement surface in the intended area of bicycle travel. Sharrows provide added route guidance and help cyclists position themselves appropriately in the travelled lane. Sharrows also increase driver awareness of the presence of cyclists and help deter unsafe passing manoeuvres by motorists.</p>	<p>The diagram illustrates the components of a signed bike route. At the top, a side view shows a car and a cyclist in a travel lane. Below, a top-down view shows a cyclist centered in a travel lane marked with a sharrow symbol (a white chevron pointing up with a bicycle silhouette). A green square sign with a white bicycle icon and the word 'ROUTE' is positioned to the right. Dimensions for the sign and sharrow are provided: the sign is 0.6 m high and 1.0 m wide; the sharrow is 2.0 m high and 1.0 m wide; the travel lane width is 3.0 - 4.0 m; and the distance from the curb to the sharrow is 1.0 m. A yellow diamond warning sign showing a car and a pedestrian is also shown.</p>
Considerations:	<ul style="list-style-type: none"> ▪ Bicycles and motor vehicles share the right-most travel lane; ▪ Pavement markings indicate appropriate positioning for cyclists. Cyclists align their front wheel with the point on the chevron; ▪ Especially useful in congested areas where traffic is generally moving slowly (e.g. a “downtown” street or urban centre); ▪ Clear pavement markings and signs illustrate the concept of “Share the Road” within space-confined roadways; and ▪ Can be an appropriate solution for urban downtown / main street areas where on-street parking cannot be removed to implement dedicated bike lanes. 	
Typical Application:	<p>Placement of the Sharrow symbol indicates to cyclists where they should be traveling on the road (e.g. approximately 1.0 m from the curb where there is no on-street parking and 3.4 m from the curb where there is on-street parking on a multi-lane road).</p>	
Pedestrian Uses:	<p>Pedestrians use the sidewalks in urban areas</p>	

Guideline D-7: Signed-only Bike Routes with Sharrows may be used on congested local and county roads where traffic generally moves slowly and at pinch points to make both cyclists and motorists aware of narrow zones.

Bikeway Boulevard (Bicycle Priority Streets)

Definition	In some areas, particularly residential neighbourhoods, traffic calming techniques such as through travel restrictions for cars, traffic circles and reduction in the number of stop signs can be used to create “bicycle priority streets” which allow the cyclist to travel more efficiently by not having to break momentum and stop at frequently placed four way stops.
Considerations:	Design strategies and elements are employed to encourage through-travel for cyclists and enable them to maintain momentum, yet discourage or restrict through travel by motorists.
Typical Application:	Typically reserved for local roadways and residential street and include traffic calming measures to encourage an increased comfort level for cyclists.
Pedestrian Uses:	Pedestrians use the sidewalk in residential areas.



Guideline D-8: Bikeway Boulevards or Bicycle Friendly Design Applications may be used on local roads and residential streets where a formal bicycle facility is not required however, with the introduction of traffic calming measures cycling may increase due to a greater sense of comfort.

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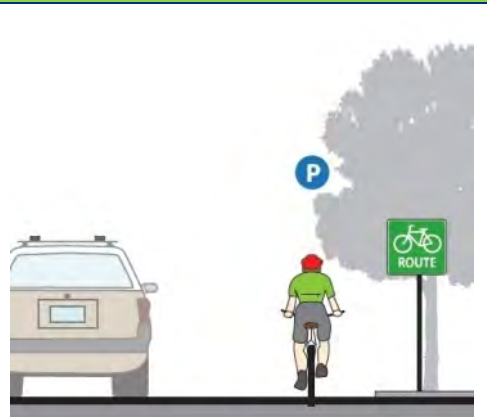
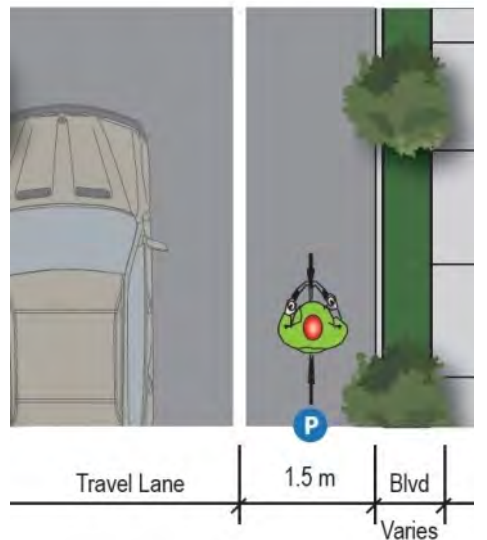

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Edge Lines

Definition	<p>Signed-only Bike Routes may be supplemented with edge lines. Edge lines are a creative way of providing cyclists with operating space outside the motor vehicle travelled portion of the roadway without affecting on-street parking since on-street parking is still permitted. This may be a useful first step towards implementing future bicycle lanes where the removal of on-street parking is an issue with neighbouring residents, yet demand is low.</p>	
Considerations:	<ul style="list-style-type: none"> ▪ Bicycles and parked motor vehicles share the space to the right of the edge line; ▪ Design does not include pavement markings for bicycles; ▪ Marked with 'Bicycle Route Marker' signs; ▪ Should only be signed as on-road bike routes where acceptable (e.g. lower) motor vehicle operating speeds and traffic volumes exist; and ▪ Should be supported by education programming for both cyclists and motorists. 	
Typical Application:	<p>Typical for residential streets where motor vehicle traffic volumes are low and speeds are low to moderate. Edge lines may be a useful first step towards implementing future bicycle lanes along a roadway where the removal of on-street parking is an issue with neighbouring residents but parking demand is low.</p>	
Pedestrian Uses:	<p>Pedestrians use the sidewalk in residential areas</p>	

Guideline D-9: Edge lines should be considered as an option in residential areas with on-street parking where providing cyclist operating space outside the motor vehicle travelled portion of the roadway is desired but providing dedicated bicycle lanes are not feasible or appropriate given the content.

Signed Cycling Route with Paved Shoulder

Definition

Signed Bike Routes with Paved Shoulders provide a convenient place for cyclists to ride, on a road with a rural road cross section (no curbs). A buffer made up of two edge lines with or without diagonal hatching or with a rumble strip in between can be used to provide cyclists riding on the paved shoulder with added separation.

Considerations:

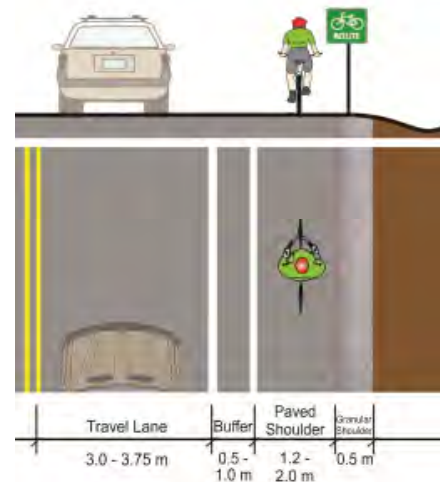
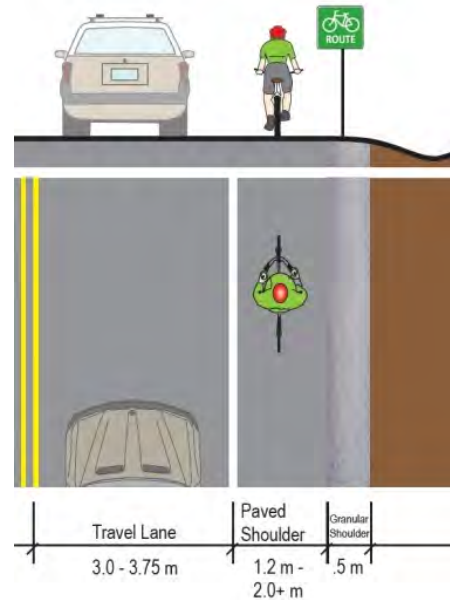
- Provides a space for cyclists on rural road cross-sections (no curb and gutter);
- Where motor vehicle speeds or volumes are high, a wide shoulder and / or painted buffer enables more separation between the cyclists and the motor vehicle, and also reduces the impact of wind-shear on the cyclist;
- The paved shoulder provides a convenient location for cyclists to travel;
- Rumble strips can be added to the painted buffer as an additional cue, provided that there are clearly marked breaks at regular intervals, allowing the cyclists to move in or out of the paved shoulder areas to overtake slower moving cyclists, safely pass stalled vehicles or to make a left turn; and
- 'Bike Route Marker' signs and 'Share the Road' signs may be used.

Typical Application:

Implemented on rural cross-sections (no curbs) where motor vehicle traffic volume and speeds are higher.

Pedestrian Uses:

Pedestrians may use the paved shoulder or the remaining portion of the gravel shoulder. Pedestrians must walk facing on-coming traffic in accordance with the Highway Traffic Act.



Guideline D-10: Signed Bike Routes with Paved Shoulders may form part of the City's Bike and Pedestrian Network along rural road cross sections.

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A4.2.2 Separated Facilities

Bike Lanes	
Definition	<p>A Bike Lane is a portion of a roadway which has been designated by pavement markings and signage for preferential or exclusive use by one way cyclist traffic often along the right-most curb or edge of road.</p>
Considerations:	<ul style="list-style-type: none"> ▪ Motor vehicles are typically not permitted to park or stand in the bike lane, but right turning motor vehicles can enter the bike lane at intersections to complete their turn (enforced through municipal bylaw); ▪ Width of the bike lane (or adding a buffer zone) should be increased (to a maximum of 2.0 m) where motor vehicle traffic volumes, percentages of trucks and commercial vehicles and motor vehicle speeds are higher; ▪ Sufficient space should be provided to mitigate conflict between cyclists and open car doors on streets where on-street parking is permitted; and ▪ Consistency in the design and signing of bike lanes and other bikeway facilities is crucial to educate and inform cyclists and motorists on their proper use.
Typical Application:	<p>Typically implemented on a cross-section road where motor vehicle traffic volume and speeds are higher than typical threshold values for shared space routes.</p>
Pedestrian Uses:	<p>Pedestrians use sidewalks in urban areas (sidewalks would be installed at least on one side of the road along designated AT routes where none currently exist in the urban area).</p>

The diagram illustrates the design and signage for a bike lane. It includes a perspective view of a car and a cyclist on a road, a cross-section of the road showing lane widths (Travel Lane: 3.0 - 3.75 m, Bike Lane: 1.5 - 1.8 m, Blvd: Varies), and detailed views of a 'Reserved Bicycle Lane' sign and pavement markings with dimensions.

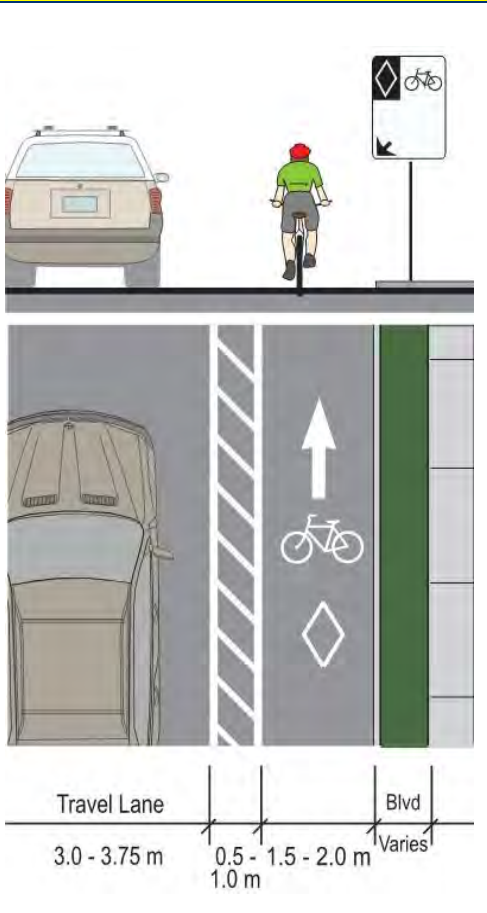

Guideline D-11: Bike lanes should be provided on urban arterial and major collector roads that are part of the AT network where traffic volume and speed are higher. Bike lanes should also be clearly identified on roadways with bicycle symbol pavement markings and 'Reserved Bicycle Lane' signs.

Road Diets (Reallocation of Space for Bike Lanes)

A	Definition	Retrofitting existing roadways without roadway widening involves the reallocation of space for the implementation of bicycle facilities.	
B	Considerations:	<ul style="list-style-type: none"> ▪ Narrowing of vehicular travel lane where practical and safe; ▪ Reducing the number of through vehicular travel lanes; ▪ Reconfiguring on-street parking or removing it on roadways with low demand; ▪ Redistributing existing road space to accommodate cycling facilities can in some cases be a more appropriate and affordable solution. 	
C	Typical Application:	<p>Wide curb lanes may allow for easy implementation of shared lane markings (sharrows) or even conventional bicycle lanes. On rural road cross-sections, gravel shoulders may be paved to provide cyclists with an area for riding that is adjacent to vehicular travel lanes offering separation between bicycle traffic and vehicular traffic.</p> <ul style="list-style-type: none"> ▪ Bicycle lanes have a preferred design width of 1.5m to edge of pavement (design minimum of 1.5m to face of curb) and 1.8 – 2.0m wide if adjacent to a parking lane. ▪ Additional width can be obtained from the adjacent travel lanes and/or parking lanes. ▪ In constrained corridors, over short distances, bicycle lanes should not be less than 1.2 m wide including the gutter. 	
D	Pedestrian Uses:	N/A	

Guideline D-12: Where applicable, the City should consider retrofitting existing roadways to accommodate cycling facilities including edge lines or bike lanes at a minimum width of 1.5m to the edge of the pavement or 1.8m – 2.0m wide if beside a parking lane.

Buffered Bike Lanes

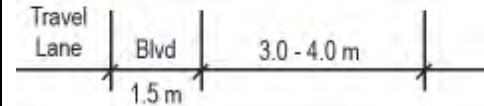
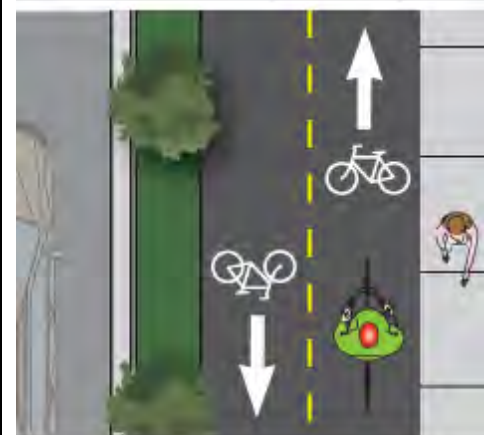
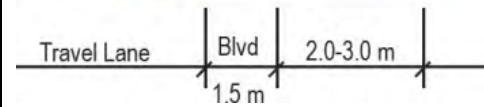
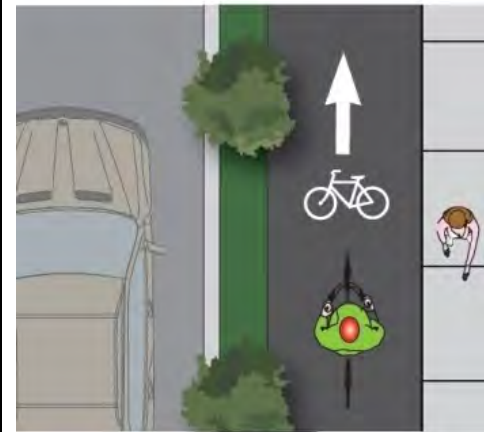
<p>Definition</p>	<p>Buffered Bike Lanes provide additional space/separation between the cyclist and motor vehicles and can use a number of separation alternatives to address this, including pavement markings, rumble strips, planters, etc.</p>	 <p style="text-align: center;"> Travel Lane: 3.0 - 3.75 m Buffer: 0.5 - 1.5 - 2.0 m Bike Lane: 1.0 m Blvd: Varies </p>
<p>Considerations:</p>	<ul style="list-style-type: none"> ▪ There are various types of physical buffers that are available and can be used to create separation but not all barrier types completely restrict the encroachment of motorized vehicles into the bicycle lane. ▪ Where a barrier is used to separate the bike lane from vehicle traffic (e.g., bollard, curb, planters etc.), this type of facility is commonly referred to as a Cycle Track. ▪ For a separated bicycle facility, a designated buffer space separates the bicycle lane from the adjacent motor vehicle travel lane. ▪ Signage and wayfinding provide additional guidance to cyclists, motorists and other road users. 	
<p>Typical Application:</p>	<p>Typically implemented along urban roadways with high motor vehicle volumes and/or speed where increased separation is required. Could also be implemented on roadways with on-street parking and high parking turnover where double parking is an issue or major corridors that provide direct and convenient access to key destination points (i.e., corridors with heavy cycle traffic) or in front of schools.</p>	
<p>Pedestrian Uses:</p>	<p>Pedestrians use sidewalks in urban areas (sidewalks would be installed at least on one side of the road along designated AT routes where none currently exist in the urban area).</p>	

Guideline D-13: Buffered Bike lanes should be provided on urban arterial and major collector roads that are part of the AT network where traffic volume and speed exceed threshold levels for the implementation of Conventional Bike Lanes.

Multi-use Pathways (in Place of a Sidewalk)

Definition

Is a bicycle path or a combined bicycle/pedestrian path physically separated from motor vehicle traffic by a strip of grass (often referred to as a “boulevard” or “verge”) within the roadway right-of-way or in place of an existing or previously proposed sidewalk. This facility type is typically designed for a wide range of non-motorized users including pedestrians, cyclists, in-line skaters, and skateboarders.



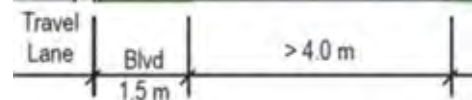
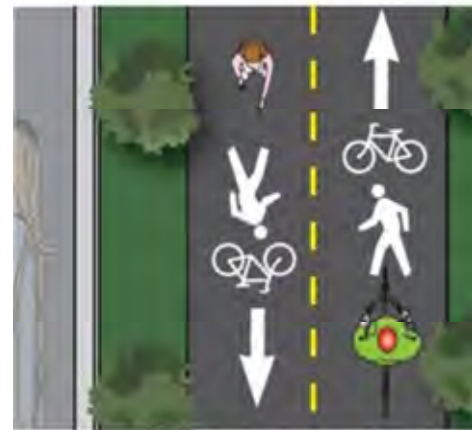
Considerations:

- Surface may be compacted granular (e.g., Limestone Screening) or hard surface (e.g., Asphalt) to accommodate different users and a yellow centre line may be used on busier asphalt surface;
- Should not be applied in locations where lot frontages are narrow and there are numerous intersections per kilometre;
- Separation or setback from the road is a very important consideration. Where separation cannot be achieved, one direction of cycling traffic is required to ride against motor vehicle traffic;
- When the available right-of-way is too narrow it may be prudent to consider a reduction of the existing or proposed widths of elements such as travel lane and shoulder widths (any reduction to less than MTO, TAC, AASHTO or municipal approved design criteria should be supported by a documented engineering analysis);
- Some cyclists may continue to use the roadway even if an multi-use pathway is provided which may lead to conflicts with motorists who feel all cyclists should be on the path provided; and
- Consideration should be given to motorists falsely expect cyclists to stop or yield at all cross-streets and driveways.

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Typical Application:

The application of Multi-use Pathways adjacent to a roadway, especially as a cycling facility, should only be considered for cycling when an on-road facility is not feasible or when a municipality seeks to provide a primarily recreational path for pedestrians and cyclists and cannot or chooses not to provide a parallel on-road facility for cycling. This is an appropriate facility choice in areas where there is high cycling demand and a large proportion of the users are youth or seniors with a low to moderate level of experience and where there are few intersections/conflict points per kilometre.




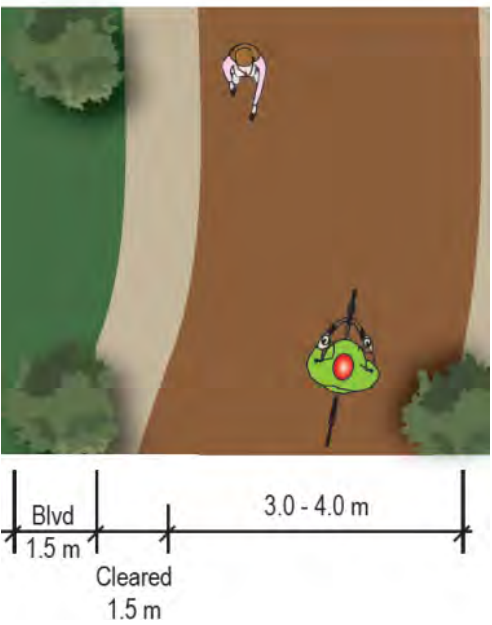

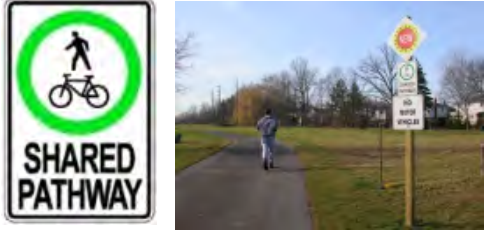
Pedestrian Uses:

A Multi-use Pathway in place of a sidewalk can take on two forms, one where the bicycle path is distinct from the sidewalk and the other where a single path is shared by cyclists and pedestrians. On the Shared Use Active Transportation Path pedestrians are able to use the facility type along with cyclists and other user groups (e.g., in-line skaters, skateboarders, etc.).



Guideline D-14: Multi-use Pathways (in place of sidewalks) should be considered in areas where there is high cycling demand and a large proportion of the users are youth or seniors with a low to moderate level of experience and where there are few intersection /conflict points per kilometre (typical for residential streets where motor vehicle traffic volumes and speeds are low, and rural roads where traffic volumes are low).

Off-Road Multi-use Trails Outside of the Road Right-of-Way

Definition	<p>Off-Road Multi-Use Trails are shared facilities located outside the road right-of-way for use by cyclists and other non-motorized users. If permitted, multi-use trails may also be used by recreational motorized vehicles.</p>	
Considerations:	<ul style="list-style-type: none"> ▪ Generally used to provide a recreational opportunity and may also be appropriate to provide a direct cycling commuter route in corridors not served directly by on-road facilities. ▪ Surface may vary, may be granular in rural areas and asphalt in urban areas to accommodate a wider range of users. ▪ Designers must consider the specific users when determining the operating and design characteristics of the off-road facility. ▪ Signage and/or painted centrelines can be utilized to identify separate lanes for opposing directions of travel and encourage the practice of keeping to the right side of the trail. 	
Typical Application:	<p>Typically located outside the road right-of-way through a park, public open space corridor, along a utility corridor, or other linear facilities such as within an abandoned railway corridor.</p>	
Pedestrian Uses:	<p>Multi-use trails accommodate the widest range of Active Transportation user groups including cyclists, pedestrians, in-line skaters, skateboarders, and wheelchair users depending on the trail surface. If permitted, equestrians and recreational motorized vehicles including snowmobiles and all-terrain vehicles may also be permitted to use certain sections of a multi-use trail outside of the road right-of-way.</p>	

Guideline D-14: Off-Road Multi-use Trails provide for the widest range of user ability and should be considered as an integral part of the Active Transportation Network. They also provide connections to local/secondary trails.

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Rails with Trails

Definition	<p>Rails with Trails are off-road trail facilities which are implemented adjacent to abandoned or existing railways.</p>	  
Considerations:	<ul style="list-style-type: none"> ▪ Under certain conditions active rail rights-of-way may also be able to accommodate an active transportation function. ▪ In cases where abandoned rail lines currently host multi-use trails and need to be converted to active rail use in the future consideration should be given to reinstating rail infrastructure without losing the use of the multi-use trail by moving the trail to the edge of the right-of-way. 	
Typical Application:	<p>Candidates for “rails with trails” are those with a wide enough right-of-way to safely accommodate a multi-use trail in addition to existing rail operations, low speed, and low frequency railways.</p>	
Pedestrian Uses:	<p>Trails accommodate cyclists as well as pedestrians in both urban and rural applications.</p>	

Guideline D-15: Where applicable, rails with trails should be considered to best utilize active or non-active railways throughout the City and to accommodate, in a safe and effective manner, both pedestrians and cyclists.

D4.3 Additional Design Considerations

D4.3.1 Trip End Facilities for Commuters

Guideline D-16: The City of Stratford and its partners should provide trip-end facilities for employees and visitors at all public buildings where feasible, and the private sector should be encouraged to do the same for residential, commercial and institutional developments.

Facilities which could be implemented at workplaces as well as educational institutions to promote the use of the network for utilitarian purposes include:

Bicycle Parking which can include a variety of types from the simple post and ring style rack for 2 bicycles to larger and more elaborate systems for large numbers of bicycles at destinations where use/demand is high;

Change and Shower Facilities at the cyclist’s destination.

D4.3.2 Bicycle Parking

Guideline D-17: Using the criteria outlined, the type of bicycle parking facility, number of available spaces and location should be carefully considered on a site by site basis throughout the City of Stratford.

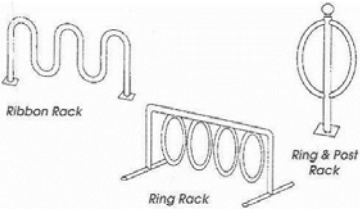
Guideline D-18: The City of Stratford should consider a program to install post and ring style, a ring rack or an alternative design on an as requested basis for destinations throughout the City. The design of a signature post and ring style rack could be used as a common branding element for Bicycle awareness throughout the City.

The provision of bicycle parking facilities is essential for encouraging more bicycle use in the City of Stratford. The lack of adequate bicycle parking supply or type can deter many from considering using their bicycle as a basic mode of transportation. Bicycle parking can be divided into two categories bicycle racks and bicycle lockers.

Bicycle Racks


When designing bicycle racks the following components must be considered. Additional considerations and guidelines can be found in the TAC Manual as well as OTM Book 18.

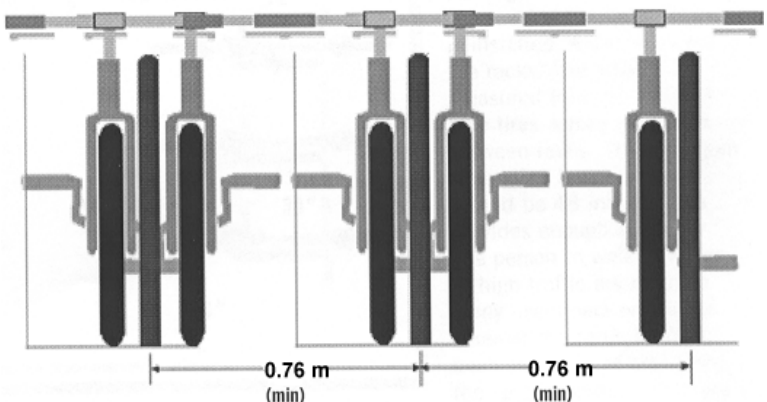
The Rack Element	The Rack	The Rack Area
<p>Definition: The portion of a bike rack that supports the bicycle.</p>	<p>Definition: A grouping of rack elements.</p>	<p>Definition: The “bicycle parking lot” or area where more than one bicycle rack is installed. Bicycle racks are separated by aisles, much like a typical motor vehicle parking lot.</p>
<p>Key Considerations:</p> <ul style="list-style-type: none"> ▪ Can be joined on any common base or arranged in a regular array and fastened to a common mounting surface. ▪ May be used to accommodate a varying number of bicycles securely in a particular 	<p>Key Considerations:</p> <ul style="list-style-type: none"> ▪ Consist of a grouping of the rack elements either by attaching them to a single frame or allowing them to remain as single elements mounted in close proximity to one another. ▪ Should be securely 	<p>Key Considerations:</p> <ul style="list-style-type: none"> ▪ The recommended minimum width between aisles should be 1.2 m. ▪ Aisle widths of 1.8 m are recommended in high traffic areas. ▪ A 1.8 m depth should be provided for each row of parked bicycles.

<p>location.</p> <ul style="list-style-type: none"> ▪ Various types of available bicycle rack designs e.g. “Ribbon” rack, the “Ring” rack, the “Ring and Post” rack and the “Swerve” rack. ▪ Rack should support the bicycle by its frame in two places and prevent the wheel from tipping over. ▪ Should allow front-in parking and back-in parking with a U-lock able to lock the front and the rear wheel. 	<p>fastened to a mounting surface to prevent the theft of a bicycle attached to a rack.</p> <ul style="list-style-type: none"> ▪ Be easily and independently accessed by the user. ▪ Should be arranged to allow enough room for two bicycles to be secured to each rack element. ▪ Be arranged in a way that is quick, easy and convenient for a cyclist to lock and unlock their bicycle to and from the rack. 	<ul style="list-style-type: none"> ▪ Large bicycle rack areas with a high turnover rate should have more than one entrance to help facilitate user flow. ▪ If possible, the rack area should be sheltered to protect the bicycles from the elements. ▪ Bicycle racks should be placed as close as possible to the entrance, no more than 15 m, and should be clearly visible along a major building approach line but not impede pedestrian traffic. ▪ To avoid excessive bicycle riding on the grass, bicycle racks should only be placed on grass surfaces located within close proximity to a paved cycling route, such as on off-road multi-use trail, or an on-road route.
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Additional Considerations:

<p>Bicycle racks should not only allow for a secure lock between the bicycle and the rack, but should also provide support for the bicycle frame itself. The rack element should also be designed to resist being cut or detached by common hand tools such as bolt and pipe cutters, wrenches and pry bars which can easily be concealed in backpacks.</p>	<p>N/A</p>	<p>Bicycle Racks should not be placed in the following areas:</p> <ul style="list-style-type: none"> ▪ Bus loading areas; ▪ Goods delivery zones; ▪ Taxi zones; ▪ Emergency vehicle zones; ▪ Hotel loading zones; ▪ Within 4.0 m of a fire hydrant; ▪ Within 2.5 m of a driveway or access lane; and ▪ Within 10.0 m of an intersection.
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A rack is one or more rack elements joined on a common base or arranged in a regular array and fastened to a common mounting surface.

Bicycle Lockers

Definition: Bicycle lockers are individual storage units. They are weather-protected, enclosed and operated by a controlled access system that may use keys, swipe card (key fob) or an electronic key pad located on a locker door. Some locker systems are set up for multiple users (i.e. coin operated or secured with personal locks). On average, two standard car parking spaces (of 5.6 m x 2.6 m each) can accommodate 10 individual bicycle locker spaces but this may differ depending on the locker model.

Key Considerations:

Security and durability are important to consider when selecting a bicycle locker.

Design Alternatives:

- Transparent panels are available on some models to allow surveillance of locker contents;
- Stackable models can double bicycle parking capacity on site;
- Options for customer access can vary from a simple, single-use key system to a multi-user system that allows secure access through smart card technology or electronic key pads;
- Bike Lockers require a level surface, clearance for locker doors and should be located close to building entrances or on the first level of a parking garage and within range of security surveillance. Bicycle Lockers are best placed away from sidewalks and areas with high pedestrian traffic. High quality, durable models should be able to withstand regular use, intense weather conditions and potential vandalism; and
- The installation of lockers and showers at workplaces and educational institutions helps to promote the use of cycling for utilitarian purposes. Businesses or institutions with more than 20 employees commuting by bicycle should be encouraged to offer these facilities.



D4.3.3 Bicycle Friendly Catch Basin Covers

Guideline D-19: The City of Stratford should take steps to ensure that catch basin covers are bicycling friendly by implementing a program to incrementally replace “unfriendly” covers.

Catch basin grates and utility covers are potential obstructions to cyclists, as well as in-line skaters. Therefore, bicycle-safe grates should be used, and grates and covers should be located in a manner which will minimize severe and/or frequent manoeuvring by the cyclist.

Key Considerations:

- When new curbed roadways are constructed or rehabilitated, curb face inlets should be considered to minimize the number of potential obstructions.
- Catch basin grates and utility covers should be placed or adjusted to be flush with the adjacent pavement surface.

Issue:	Potential Solution:
<p>Catch basin grates with slots parallel to the roadway, or a gap between the frame and the grate, can trap the front wheel of a bicycle, causing loss of steering control. If the slot spacing is wide enough, narrow bicycle wheels can drop into the grates. Conflicts with grates may result in damage to the bicycle wheel and frame as well as potential serious injury to the cyclist.</p>	<p>Grates should be replaced with bicycle-safe, hydraulically efficient versions over time as grates are replaced and as roads are rehabilitated. Catch basin covers on high demand cycling routes should be considered as a higher priority over routes that have lower levels of use/demand. Other municipalities such as the Region of Niagara have recently adopted a new standard for catch basin covers that is bicycle friendly. The City of Stratford and the local partners should review the Niagara standard and approach as a potential model.</p>

D4.3.4 Rest and Staging Areas

Guideline D-20: Rest and staging areas should be provided at strategic locations such as gathering points, attractions and destinations, as well as other locations where cyclists and pedestrians are expected to stop. The City of Stratford should work to identify and implement rest and staging areas.



<i>Where:</i>	<i>Additional Considerations:</i>
<ul style="list-style-type: none"> ▪ Rest areas should be provided along routes where users tend to stop, such as interpretative stations, lookouts, restaurants, museums and other attractions / services, which are logical locations for rest areas. ▪ Ideally, there should be a rest area at least every five kilometres on popular rural recreational trails or at major intersections and gathering places near on-road facilities or along sidewalks and boulevard trails. ▪ In urban centres rest areas should be provided more frequently, and in areas where trail/AT route demand is high such as popular urban trails, trails near seniors' centres, along waterfront promenades etc., opportunities for resting/seating should be much more tightly spaced (e.g. consider intervals of 100-250m). 	<p>In addition to seating, a number of other amenities should be considered for rest areas including:</p> <ul style="list-style-type: none"> ▪ Tables; ▪ Washrooms and potable water; ▪ Waste receptacles; ▪ Parking for automobiles; ▪ Information signing complete with mapping; and ▪ Bicycle parking facilities.

D4.3.5 Network Signage

Guideline D-21: The City of Stratford should work to develop a formal Signage Plan which incorporates different signage types throughout the bike and pedestrian network. The City should also explore the development of a branded sign type to be implemented at key points in addition to necessary regulatory signage.

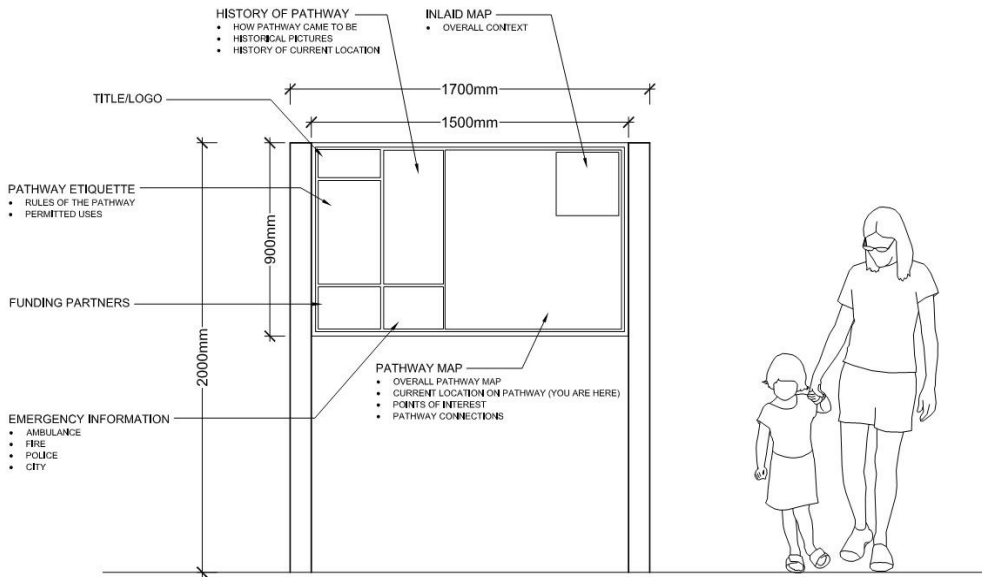
Guideline D-22: When developing the City's Signage Plan, route signage including orientation and trailheads, user etiquette etc. should be considered for implementation at key destinations points and major trail junctions e.g. entrances to the TJ Dolan Trail and / or the Rotary Complex, to facilitate a continuous and connected network of on and off-road facilities.

The design and construction of the network should incorporate a hierarchy of signs each with a different purpose and message. This hierarchy is organized into a “family” of signs with unifying design and graphic elements, materials and construction techniques. The unified system becomes immediately recognizable by the user and can become a branding element. Generally the family of signs includes:

Orientation & Trailheads	“User Etiquette”
<ul style="list-style-type: none"> ▪ Typically located at key destination points and major network junctions. ▪ Provide orientation to the network through mapping, network information and rules and regulations. ▪ Useful landmark where network nodes are visible from a distance. ▪ Used as an opportunity to sell advertising space to offset cost of signs. 	<ul style="list-style-type: none"> ▪ Should be posted at public access points to clearly articulate which trail uses are permitted, regulations and laws that apply, as well as trail etiquette, safety and emergency contact information. ▪ At trailheads, this information can be incorporated into trailhead signs. ▪ In other areas, this information can be integrated with access barriers.

<p>Recommendation: Orientation signs could be considered for implementation when entering the City or at trail junctions.</p>	<p>Recommendation: Etiquette signs should be considered for implementation at public access points or where trailheads are located.</p>
<p style="text-align: center;">Regulatory</p>	<p style="text-align: center;">Interpretive</p>
<ul style="list-style-type: none"> ▪ Required throughout the system. Where traffic control signs are needed (stop, yield, curve ahead etc.), it is recommended that recognizable traffic control signs be used (refer to the Ministry of Transportation for Ontario’s (MTO) Manual of Uniform Traffic Control Devices, 1996). ▪ Intended to control particular aspects of travel and be used along the road or off-road network. ▪ Warning signs are used to highlight bicycle route conditions that may pose a potential safety or convenience concern to network users. ▪ These signs are more applicable to cycling routes and multi-use trails than pedestrian systems. 	<ul style="list-style-type: none"> ▪ Should be located at key trail features having a story to be told. These features may be cultural, historical, or natural. Interpretive signs should be highly graphic and easy to read. ▪ Should be located carefully in highly visible locations to minimize the potential for vandalism.
<p>Recommendation: Signs should be considered for implementation along proposed multi-use trails or in locations where conditions may change drastically enough that users should be made aware.</p>	<p>Recommendation: Signs should be implemented throughout the network in locations where cultural or historic information should be highlighted.</p>
<p style="text-align: center;">Route Marker & Trail Directional</p>	
<ul style="list-style-type: none"> ▪ Should be located at key network intersections and at regular intervals along long, uninterrupted sections of network. ▪ Purpose is to provide a simple visual message to users that they are travelling on the pathway network. ▪ May include the network logo or “brand” and communicate other information to users such as directional arrows and distances in kilometres to major attractions and settlement areas. ▪ Should be mounted on standard sign poles and be located on all legs of an intersection or off-road trail junction, as well as at gateways. 	
<p>Recommendation: Signs should be considered as part of the overall network to identify a route brand and provide users with directional / wayfinding information.</p>	

Orientation & Trailhead Examples



Trailhead Sign Examples
 Ottawa, ON (Left) – MMM Group
 Kissing Bride Trail, Guelph / Eramosa (Right) – MMM Group

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Regulatory Sign Examples



Examples of Typical Regulatory Sign

Interpretive Signs Examples



Interpretive Sign Examples; Top Left: Erin; MMM, Bottom Left: Fundy National Park; MMM; Top Right: Tobermory; MMM; Bottom Right: Sauble Beach; MMM Group.

Route Marker & Trail Directional Sign Examples



Route Marker & Trail Directional Sign Examples - Essex (Left)-Photo Essex Region Conservation Authority; Kissing Bridge Trail, Guelph / Eramosa (Second from left) Photo MMM Group; Halton Hills (Third from Left)-Photo MMM Group; Confederation Trail (Right) Photo MMM Group

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APPENDIX E | UNIT COST SUMMARY



Unit Price Schedule
City of Stratford Bike and Pedestrian Master Plan

ITEM	DESCRIPTION	UNIT	VALUE	COMMENTS/ASSUMPTIONS
1.0 GENERAL ACTIVE TRANSPORTATION FACILITIES				
Shared Lanes / Paved Shoulders				
1.1	Signed Bike Route in Urban Area	linear KM	\$1,500.00	Price for both sides of the road, assumes one sign a minimum of every 330m / direction of travel (e.g. 6 signs / km).
1.2	Signed Bike Route in Rural Area	linear KM	\$1,000.00	Price for both sides of the road, assumes one sign a minimum of every 600m / direction of travel (e.g. 4 signs / km)
1.3	Signed Bike Route with Sharrow Lane Markings	linear KM	\$3,500.00	Price for both sides of the road, includes route signs every 330m (\$1,500/km both sides), and sharrow stencil every 75m as per Ministry Guidelines (Painted \$75 each x 26/km = \$1,950 in table) If thermoplastic type product is used assume \$250 / each x 26 = \$6,500 source Flint Trading Inc.
1.4	Signed Bike Route with Wide Curb Lane with Construction of a New Road	linear KM	\$60,000.00	Price for both sides of the road, assumes 0.5m to 1.0m widening on both sides of the road (3.5m to 4.0m)
1.5	Signed Bike Route with Wide Curb Lane with Road Reconstruction Project	linear KM	\$240,000.00	Price for both sides of the road, includes curb replacement, catch basin adjustments, lead extensions and driveway ramps
1.6	Signed Bike Route with Paved Shoulder in conjunction with existing road reconstruction / resurfacing	linear KM	\$55,000.00	Price for both sides of the road, 1.5m paved shoulder, assumes cycling project pays for additional granular base, asphalt and edge line (assume \$110,000 per kilometre if additional widening of granular base required)
1.7	Signed Bike Route with Buffered Paved Shoulder in conjunction with existing road reconstruction / resurfacing project	linear KM	\$150,000.00	Price for both sides of the road, 1.5m paved shoulder + 0.5 to 1.0m paved buffer, assumes cycling project pays for additional granular base, asphalt, edge lines and signs (buffer zone framed by white edge lines)
1.8	Addition of Rumble Strip to Existing Buffered Paved Shoulder (rural)	linear KM	\$3,000.00	Price for both sides
1.9	Granular Shoulder Sealing	linear KM	\$3,000.00	Both sides spray emulsion applied to harden the granular shoulder. This will reduce gravel on the paved portion of the shoulder and significantly reduce shoulder maintenance.
Conventional and Separated Bike Lanes				
1.10	Conventional 1.5m-1.8m Bicycle Lanes by Adding Bike Lane Markings and Signs	linear KM	\$7,500.00	Price for both sides of the road, includes signs, stencils and edge line. Price is for conventional paint, (assumes painted lane line at \$1 / m + \$75 / symbol x 26 + \$2000 for signs)increase budget to \$20,000 /km for Thermoplastic) e.g. lane line in thermo is \$5.50/m compared to \$1.00/m for paint
1.11	Conventional 1.5m-1.8m Bicycle Lanes through Lane Conversion from 4 lanes to 3 lanes	linear KM	\$35,000.00	Price for both sides. Includes grinding of existing pavement, markings, signs, line painting and symbols
1.12	Conventional 1.5m-1.8m Bicycle Lanes in Conjunction with a New Road or Road Reconstruction Project	linear KM	\$300,000.00	Price for both sides of the road, assumes 1.5m bike lanes on both sides of the roadway (1.5m x 2 sides = 3.0m). Includes catch basin leads, asphalt, signs, pavement markings sub-base only. Road project funds all other improvements
1.13	Conventional 1.5m-1.8m Bicycle Lanes by Retrofitting / Widening Existing Road	linear KM	\$700,000.00	Price for both sides of the road, includes the cost for excavation, adjust catch basins, lead extensions, new curbs/driveway ramps, asphalt and sub-base, pavement markings and signs.

1.14	Wide Bicycle Lane (2.0m - 2.5m BL) in Conjunction with New Road or Road Widening Project	linear KM	\$250,000.00	Price for both sides of the road, assumes 2.0m to 2.5m bike lanes on both sides of the roadway . Includes catch basin leads, asphalt, signs, pavement markings sub-base only
1.15	Buffered Bicycle Lane with Hatched Pavement Markings - Assumes New Road or Road Reconstruction/Widening already Planned	linear KM	\$350,000.00	Price for both sides of the road, assumes 1.5m bike lanes + 0.5m - 1.0m buffer zone with hatched pavement markings on both sides of the roadway. Includes catch basin leads, asphalt, signs, pavement markings sub-base only. Road project funds all other components
1.16	Buffered Bicycle Lane with Flex Bollards - Assumes New Road or Road Reconstruction/Widening Already Planned	linear KM	\$365,000.00	Price for both sides of the road, assumes 1.5m bike lanes + flex bollards centred in hatched buffer zone at 10m intervals. Includes catch basin leads, asphalt, signs, edge line pavement markings (both sides of buffer zone) sub-base only
1.17	Buffered Bicycle Lane with Pre-Cast Barrier - Assumes New road or Road Reconstruction/Widening Already Planned	linear KM	\$400,000.00	Price for both sides of the road, assumes 1.5m bike lanes + pre-cast and anchored curb delineators . Includes catch basin leads, asphalt, signs, edge line pavement markings (both sides of buffer zone) sub-base only
Cycle Tracks				
1.18	Uni-directional Cycle Tracks: Raised and Curb Separated - Retrofit Existing Roadway	linear KM	\$500,000 - \$1,200,000	Both sides. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are project specific and will impact unit price
1.19	Two Way Cycle Track - Retrofit Existing Roadway	linear KM	\$500,000 - \$800,000	One side. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are project specific and will impact unit price
Active Transportation Paths and Multi-Use Trails				
1.20	Two Way Active Transportation Multi-use path within road right-of-way	linear KM	\$275,000.00	3.0m wide hard surface pathway (asphalt) within road right of way (no utility relocations)
1.21	Two Way Active Transportation Multi-use path within road right-of-way on one side with removal of existing sidewalk	linear KM	\$320,000.00	3.0m wide hard surface pathway (asphalt) within road right of way on one side of road in place of 1.5m concrete sidewalk (includes crushing of existing sidewalk and compacting for trail base)
1.22	Concrete Splash Strip placed within road right-of-way between Active Transportation Multi-Use Path and Roadway	m ²	\$150.00	Colour Stamped Concrete
1.23	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting (New)	linear KM	\$250,000.00	3.0m wide hard surface pathway (asphalt) within park setting (normal conditions) 90mm asphalt depth
1.24	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting (Upgrade existing granular surface)	linear KM	\$100,000.00	Includes some new base work (25% approx.), half of the material excavated is removed from site. Add trail marker signs
1.25	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting	linear KM	\$140,000.00	3.0m wide, compacted stone dust surface normal site conditions
1.26	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Rural Setting (New)	linear KM	\$200,000.00	3.0m wide, compacted stone dust surface in complex site conditions (includes cost of clearing and grubbing)
1.27	Upgrade existing granular surface trail to meet 3.0m wide compacted granular trail standard	linear KM	\$50,000.00	Includes some new base work (25% approx.) and an average of 20 regulatory signs per kilometre
1.28	Off-Road Multi-Use Trail Outside of Road Right-of-Way on Abandoned Rail Bed in a Rural Setting	linear KM	\$130,000.00	3.0m wide, compacted stone dust surface, includes signage along trail and gates at road crossings

1.29	Granular Surfaced Multi-use Trail in a Woodland Setting	linear KM	\$120,000.00	2.4m wide, compacted stone dust surface
2.0 STRUCTURES AND CROSSINGS				
2.1	Pedestrian Boardwalk (Light-Duty)	linear KM	\$1,500,000.00	Structure on footings, 3.0m wide with railings
2.2	Self weathering steel truss bridge	m ²	\$2000 - \$2500	Footings/ abutments additional, assume \$30,000 per side for spread footings; \$50,000 - \$90,000 per side for piles
2.3	Retrofit / Widen Existing Pedestrian / Trail Bridge (29m long, 3m clear width)	m ²	\$2,500.00	Price assumes modifications to existing abutments
2.4	Grade separated cycling/overpass of major arterial/highway	each	\$1,000,000- \$8,000,000	Requirements and design vary widely, use price as general guideline only
2.5	Metal stairs with hand railing and gutter to roll bicycle	vertical M	\$3,000.00	1.8m wide, galvanized steel
2.6	Pathway Crossing of Private Entrance	each	\$1500 - \$2000	Adjustment of existing curb cuts to accommodate 3.0m multi-use pathway
2.7	Pathway / Road transition at unsignalized intersection(crossride)	each	\$5,000.00	Typically includes warning signs, curb cuts and minimal restoration (3.0m pathway)
2.8	Pathway / Road transition at existing signalized intersection (crossride)	each	\$25,000.00	Typically includes installation of 4 signal heads, 2 poles, 2 foundations, 2 controller connector and 2 arms.
2.9	At grade mid-block crossing	each	\$5,000.00	Typically includes pavement markings on pathway, warning signs, curb cuts and minimal restoration. Does not include median refuge island.
2.1	Median Refuge	each	\$20,000.00	Average price for basic refuge with curbs, no pedestrian signals
2.11	Mid-block Pedestrian Signal	each	\$75,000-\$100,000	Varies depending on number of signal heads required
2.12	At grade railway crossing	each	\$120,000.00	Flashing lights, motion sensing switch (C.N. estimate)
2.13	At grade railway crossing with gate	each	\$300,000.00	Flashing lights, motion sensing switch and automatic gate (C.N. estimate)
2.14	Below grade railway crossing	each	\$500,000-\$750,000	3.0m wide, unlit culvert style approx. 10 m long for single elevated railway track
2.15	Multi use subway under 4 lane road	each	\$1,000,000-\$1,200,000	Guideline price only for basic 3.3 m wide, lit.

2.16	Retaining Wall	m ²	\$600.00	Face metre squared
3.0 BARRIERS AND ACCESS CONTROL FOR MULTI-USE TRAILS OUTSIDE OF THE ROAD RIGHT-OF-WAY				
3.1	Lockable gate (2 per road crossing)	each	\$5,000.00	Heavy duty gates, price for one side of road (2 required per road crossing). Typically only required in rural settings or city boundary areas
3.2	Metal offset gates	each	\$1,200.00	"P"-style park gate
3.3	Removable Bollard	each	\$500-\$750	Basic style (e.g. 75mm diameter galvanized), with footing. Increase budget for decorative style bollards
3.4	Berming/boulders at road crossing	each	\$600.00	Price for one side of road (2 required per road crossing)
3.5	Granular parking lot at staging area (15 car capacity-gravel)	each	\$35,000.00	Basic granular surfaced parking area (i.e. 300mm granular B sub-base with 150mm granular A surface), with precast bumper curbs. Includes minor landscaping and site furnishings, such as garbage receptacles and bike racks.
3.6	Page wire fencing	linear M	\$20.00	1.5m height with peeled wood posts
3.7	Chain link fencing	linear M	\$100.00	Galvanized, 1.5m height
4.0 SIGNAGE				
4.1	Regulatory and caution Signage (off-road pathway) on new metal post	each	\$150-\$250	300mm x 300mm metal signboard c/w metal "u" channel post
4.2	Signboards for interpretive sign	each	\$500-\$800	Does not include graphic design. Based on a 600mm x 900mm typical size and embedded polymer material, up to 40% less for aluminum or aluminum composite panel
4.3	Staging area kiosk	each	\$2,000-\$10,000	Wide range provided. Price depends on design and materials selected. Does not include design and supply of signboards
4.4	Signboards for staging area kiosk sign	each	\$1,500-\$2,000	Typical production cost, does not include graphic design (based on a 900mm x 1500mm typical size and embedded polymer material). Up to 40% less for aluminum or aluminum composite panel
4.5	Pathway directional sign	each	\$500-\$750	Bollard / post (100mm x100mm marker), with graphics on all 4 sides
4.6	Pathway marker sign	each	\$250.00	Bollard / post (100mm x100mm marker), graphics on one side only
4.7	Pathway marker sign	linear KM	\$1,500.00	Price for both sides of the path, assumes one sign on average, per direction of travel every 0.5 km
5.0 OTHER				

5.1	Major rough grading (for multi-use pathway)	m ³	\$10-\$25	Varies depending on a number of factors including site access, disposal location etc.
5.2	Clearing and Grubbing	m ²	\$2.00	
5.3	Bicycle rack (Post and Ring style)	each	\$150-\$250	Holds 2 bicycles , price varies depending on manufacturer (includes installation)
5.4	Bicycle rack	each	\$1,000-\$1,200	Holds 6 bicycles, price varies depending on manufacturer (includes installation)
5.5	Bicycle Locker	each	\$3,000.00	Price varies depending on style and size. Does not include concrete mounting pad
5.6	Bench	each	\$1000-\$2,000	Price varies depending on style and size. Does not include footing/concrete mounting pad
5.7	Safety Railings/Rubrail	linear M	\$100-\$120	1.4m height basic post and rail style
5.8	Small diameter culvert	linear M	\$150-\$250	Price range applies to 400mm to 600mm diameter PVC or CSP culverts for drainage below trail
5.9	Pathway Lighting	linear M	\$130-\$160	Includes cabling, connection to power supply, transformers and fixtures
5.10	Relocation of Light / Support Pole	each	\$4,000.00	Adjustment of pole offset (distance between pole and roadway)
5.11	Relocation of Signal Pole / Utility Box	each	\$8,000.00	Adjustment of pole offset (distance between pole and roadway)
5.12	Flexible Bollards	each	\$100.00	Should be placed at 10m intervals where required
5.13	Pavement Markings	linear M	\$1.00	

NOTES:

1. Unit Prices are for functional design purposes only, include installation but exclude contingency, design and approvals costs (unless noted) and reflect 2013 dollars, based on projects in southern Ontario
2. Estimates do not include the cost of property acquisitions, signal modifications, utility relocations, major roadside drainage works or costs associated with site-specific projects such as bridges, railway crossings, retaining walls, and stairways, unless otherwise noted
3. Assumes typical environmental conditions and topography
4. Applicable taxes and permit fees are additional

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APPENDIX F | PROPOSED FACILITY TYPES & COSTING SUMMARY



Table F.1 - Facility Type by Distance

Facility Type by Distance			
Facility Type	Existing (KM)	Proposed (KM)	Total (KM)
Signed Bike Route	0	49.63	49.63
Signed Bike Route with Paved Shoulder	0	4.69	4.69
Sharrow	0	1.26	1.26
Bike Lane	1.28	12.85	14.13
Multi-Use Trail	2.95	36.21	39.16
TOTAL (KM)	4.23	104.64	108.87

Table F.2 - Facility Type by Distance by Phase

	Facility Type by Distance (KM)						
	Signed Bike Route	Signed Bike Route with Paved Shoulder	Sharrow	Bike Lane	Multi-Use Trail	Total (Km)	%
Existing	0.00	0.00	0.00	1.28	2.95	4.23	4%
Phase 1 (0-5 Years)	23.15	0.00	0.38	5.76	2.97	32.26	30%
Phase 2 (6-10 Years)	23.06	1.24	0.69	5.72	13.30	44.01	40%
Phase 3 (11-20+ Years)	3.42	3.45	0.19	1.37	19.94	28.37	26%
TOTAL (KM)	49.63	4.69	1.26	14.13	39.16	108.87	100%

Table F.3 - Proposed Facility Type and Costing by Phase

Component	Facility ¹	Estimated Unit Cost / Km	Short Term (0 - 5 years)		Mid Term (6 - 10 years)		Long Term (11-20+ years)		Total Distance (Km)	Total Estimated Cost
			Distance (Km)	Estimated Cost	Distance (Km)	Estimated Cost	Distance (Km)	Estimated Cost		
Bike and Pedestrian Network	Signed Bike Route	\$1,500.00	23.15	\$34,725.00	23.06	\$34,590.00	3.42	\$5,130.00	49.63	\$74,445.00
	Signed Bike Route with Paved Shoulder	\$55,000.00	0.00	\$0.00	1.24	\$68,200.00	3.45	\$189,750.00	4.69	\$257,950.00
	Sharrow	\$3,500.00	0.38	\$1,330.00	0.69	\$2,415.00	0.19	\$665.00	1.26	\$4,410.00
	Bike Lane	\$7,500.00	5.76	\$43,200.00	5.72	\$42,900.00	1.37	\$10,275.00	12.85	\$96,375.00
	Multi-Use Trail									
	Two Way Active Transportation Multi-use path within road right-of-way on one side with removal of existing sidewalk	\$320,000.00	0.27	\$86,400.00	7.22	\$2,310,400.00	3.54	\$1,132,800.00	11.03	\$3,529,600.00
	Hard Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting (Upgrade existing granular surface)	\$100,000.00	1.20	\$120,000.00	2.97	\$297,000.00	9.90	\$990,000.00	14.07	\$1,407,000.00
	Granular Surfaced Off-Road Multi-Use Trail Outside of Road Right-of-Way in an Urban Setting	\$140,000.00	1.50	\$210,000.00	3.11	\$435,400.00	6.50	\$910,000.00	11.11	\$1,555,400.00
NETWORK TOTAL			32.26	\$495,655.00	44.01	\$3,190,905.00	28.37	\$3,238,620.00	104.64	\$6,925,180.00
Promotion / Marketing Strategy	Program Type		Unit Cost	Estimated Cost	Unit Cost	Estimated Cost	Unit Cost	Estimated Cost		Total Estimated Cost
	Promotion / Outreach		\$10,000 per year	\$50,000.00	\$10,000 per year	\$50,000.00	\$10,000 per year	\$100,000.00		\$200,000.00
	Public City Trail / Cycling Route Map Development		-	\$50,000.00	-	\$0.00	-	\$0.00		\$50,000.00
	Branding / Marketing Strategy Development		-	\$0.00	-	\$30,000.00	-	\$0.00		\$30,000.00
PROGRAM TOTAL			-	\$100,000.00	-	\$80,000.00	-	\$100,000.00		\$280,000.00
TOTAL IMPLEMENTATION COST (NETWORK TOTAL + PROGRAM TOTAL)				Total Estimated Cost for Phase 1		Total Estimated Cost for Phase 2		Total Estimated Cost for Phase 3		Total Estimated Cost
				\$595,655.00		\$3,270,905.00		\$3,338,620.00		\$7,205,180.00

Notes:

1 - For on-road routes the length indicated assumes facilities on both sides of the road. For example 1.0 km of roadway will have a Bike Lane on both sides of the roadway.

