

# 4 Strategy

The cycling strategy for Windsor is based on the BUMP's vision, principles and goals. The cycling strategy consists of four elements:

*The BUMP strategy is to expand Windsor's existing cycling network, promote awareness, improve the cycling-transit link and provide end-of-trip facilities.*

1. *A Cycling Network* of bike lanes, multi-use trails and signed bicycle routes.
2. *Promoting Cycling Awareness* through education, encouragement and enforcement.
3. *Improving the Cycling-Transit Link* to increase commuter and long-distance cycling trips.
4. *Providing End-of-Trip Facilities* to meet the needs of cyclists.

Each of these elements and their corresponding recommendations are discussed in the sections that follow. Implementing all of these elements is required if Windsor's cycling vision is to be realized.

The BUMP is intended to support and complement the recommendations of the Bicycle Use Development Study (BUDS). For comparison purposes, **Appendix A** lists both the BUMP and BUDS recommendations.

## 4.1 Cycling Network

Windsor's cycling network, when completed, will consist of three types of facilities:

- 🚲 *Bike Lanes* that are dedicated portions of the road surface for exclusive bicycle use. These are designated by pavement markings that separate the portion of the road used by motor vehicles from that portion used by bicycles;
- 🚲 *Multi-use Trails* that are any off-road dedicated facility for pedestrians and in-line skaters as well as non-motorized vehicles such as cyclists; and
- 🚲 *Signed Routes* that are any roads specifically signed to encourage bicycle use.



*Photo: Riverfront Trail entrance near the University of Windsor – Windsor, Ontario*




*The Riverfront and Ganatchio Trails will be expanded and connected to create a loop around Windsor.*



It is important to emphasize that the bicycle is formally recognized as a vehicle by the Province of Ontario, as outlined in the Highway Traffic Act, R.S.O., 1990. Bicycles, therefore, have the right to share all classes of roadways, including arterial roads, collectors and local streets, with the exception of freeways.

The fact that bicycles have a right to use municipal and provincial roadways leads to an important principle of roadway design – that “every road is a cycling road”. The City, therefore, should adopt bicycle friendly design guidelines for all streets, whether a road is designated as part of the cycling network or not.

Bicycle friendly roadway features typically include:

-  4.3 to 4.5 metre wide curb lanes;
-  catch basin grates that are bicycle friendly and ideally located out of the desired path for cycling; and
-  traffic control devices that are programmed with bicycles in mind, particularly detector loops that have their sensitivity adjusted to allow bicycles to actuate a traffic signal.

The City of Windsor recognizes that providing a cycling network and multi-use trail system to serve a community does not release it from an obligation

to ensure that all roadways in a community are designed, updated and maintained in a way that provides a safe environment for bicycle use. No matter how extensive the on-road bike lanes or trail facilities are, some cyclists, especially commuters, will choose to ride on most roads. They have that right, and accordingly, should feel safe and comfortable in doing so.

Windsor’s cycling network is envisioned as an integrated system of on-road and off-road facilities that respond to the direction outlined in Chapter 3. It will generally be a grid of north-south and east-west routes, spaced approximately two kilometres apart. This spacing will ensure that all residents will be no more than a five minute bike ride from the network.

### ***Candidate Route Evaluation***

Prior to recommending a cycling network for Windsor, the public, staff and study team identified over 110 candidate cycling routes as shown on **Map 3**. Each candidate route was evaluated through a four step process:

1. *Travel each candidate route* (ground proof) by cycling it, or in a few cases, by driving it in a motor vehicle. This included all on-road routes such as Parent Avenue, off-road routes such as the lands adjacent to the Little River, and through areas such as Malden Park;



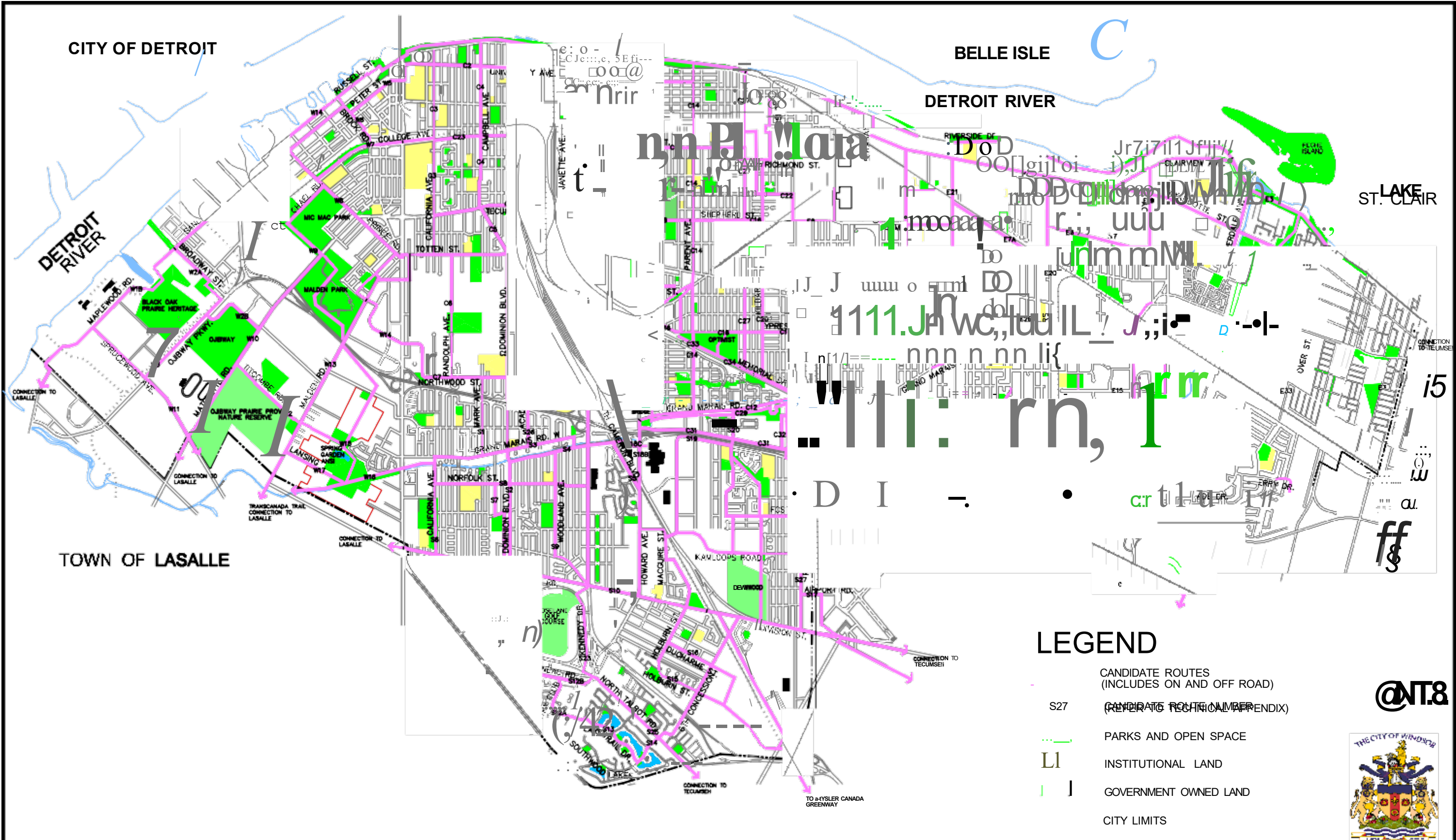
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




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### LEGEND

-  CANDIDATE ROUTES (INCLUDES ON AND OFF ROAD)
-  S27 (GENERAL TECHNICAL APPENDIX)
-  PARKS AND OPEN SPACE
-  INSTITUTIONAL LAND
-  GOVERNMENT OWNED LAND
-  CITY LIMITS



CITY OF WINDSOR  
**BICYCLE USE MASTER PLAN**  
 MAP 3: CANDIDATE ROUTES



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2. *Assess each route* using the evaluation factors identified in **Figure 4.1**, the technical expertise of the study team and the public's input;
3. *Accept or reject each candidate route* based on Steps 1 and 2; and
4. *Determine an appropriate bikeway type* for each accepted route based on the results of Steps 1 through 3.

The qualitative assessment notes prepared by the study team as they initially evaluated each route are provided under separate cover as a technical appendix. It should be noted that the proposed network is based on these notes, in addition to the other input received and the study team's expertise.



*Photo: Route evaluation of the E.C. Row Expressway overpass at Mark Avenue – Windsor, Ontario*

**Map 4** identifies the proposed network. To accommodate the wide ranging expectations and skill level of cyclists in the City, the cycling network is divided into two systems: the Primary Network and the Secondary Network. It is expected that this hierarchy of bikeway types will lead to increased bicycle use. It will also encourage less experienced cyclists to gain expertise through the use of signed routes and multi-use trails.



*Photo: E.C. Row Expressway overpass at Mark Avenue – Windsor, Ontario*

*When determining the feasibility of a proposed cycling route, consideration should be given to factors such as the provision of safe crossings of major barriers.*

### **Primary Network**

The Primary Network is identified on **Map 5**. It will function as the spine of Windsor's cycling network, providing direct connections across the City.



**Figure 4.1**  
**Route Evaluation Matrix**

Factor	Criteria
Safety	<ol style="list-style-type: none"> <li>1. Are there numerous railway track crossings?</li> <li>2. Is there a high volume of trucks and transit vehicles?</li> <li>3. Is there the potential for significant turning movement conflicts due to a high number of commercial and residential mid block driveways?</li> </ol>
Pavement Width	<p>Are the number of lanes and lane widths:</p> <ol style="list-style-type: none"> <li>1. Sufficient with a reduction in the width of one or more lanes?</li> <li>2. Sufficient for the majority of the route with some reduction in lane width?</li> <li>3. Insufficient - requires the reduction in the number of traffic lanes or a road widening?</li> <li>4. Insufficient, and no additional right of way is available for widening without property acquisition?</li> </ol>
On-Street Parking	<ol style="list-style-type: none"> <li>1. None along entire route.</li> <li>2. Along entire route.</li> <li>3. Along entire route and insufficient pavement width for cycling.</li> </ol>
AADT	<p>Is the average annual daily traffic:</p> <ol style="list-style-type: none"> <li>1. Below the threshold for existing lane configurations? A good opportunity may exist to reduce the number of lanes.</li> <li>2. At or just below the threshold for lane configuration? A limited opportunity exists to reduce the number of lanes.</li> <li>3. Above the threshold for the existing lane configurations? Insufficient lane capacity exists to accommodate current demand and, no opportunity exists to reduce the number of lanes.</li> </ol>
Crossing of Major Barriers	<ol style="list-style-type: none"> <li>1. Does the route have any major barriers?</li> <li>2. Does the route provide a safe crossing of those barriers?</li> </ol>
Connectivity	<ol style="list-style-type: none"> <li>1. Does the route provide a vital connection to existing trails?</li> </ol>
Convenience	<ol style="list-style-type: none"> <li>1. Is the route impeded by numerous stop signs?</li> <li>2. Is the route impeded by numerous closely spaced traffic control signals?</li> </ol>
Access	<ol style="list-style-type: none"> <li>1. Does the route serve any major destinations within a five minute radius?</li> </ol>
Attractiveness	<ol style="list-style-type: none"> <li>1. Is the route conducive to good cycling (good aesthetics)?</li> <li>2. Is the route highly visible?</li> </ol>



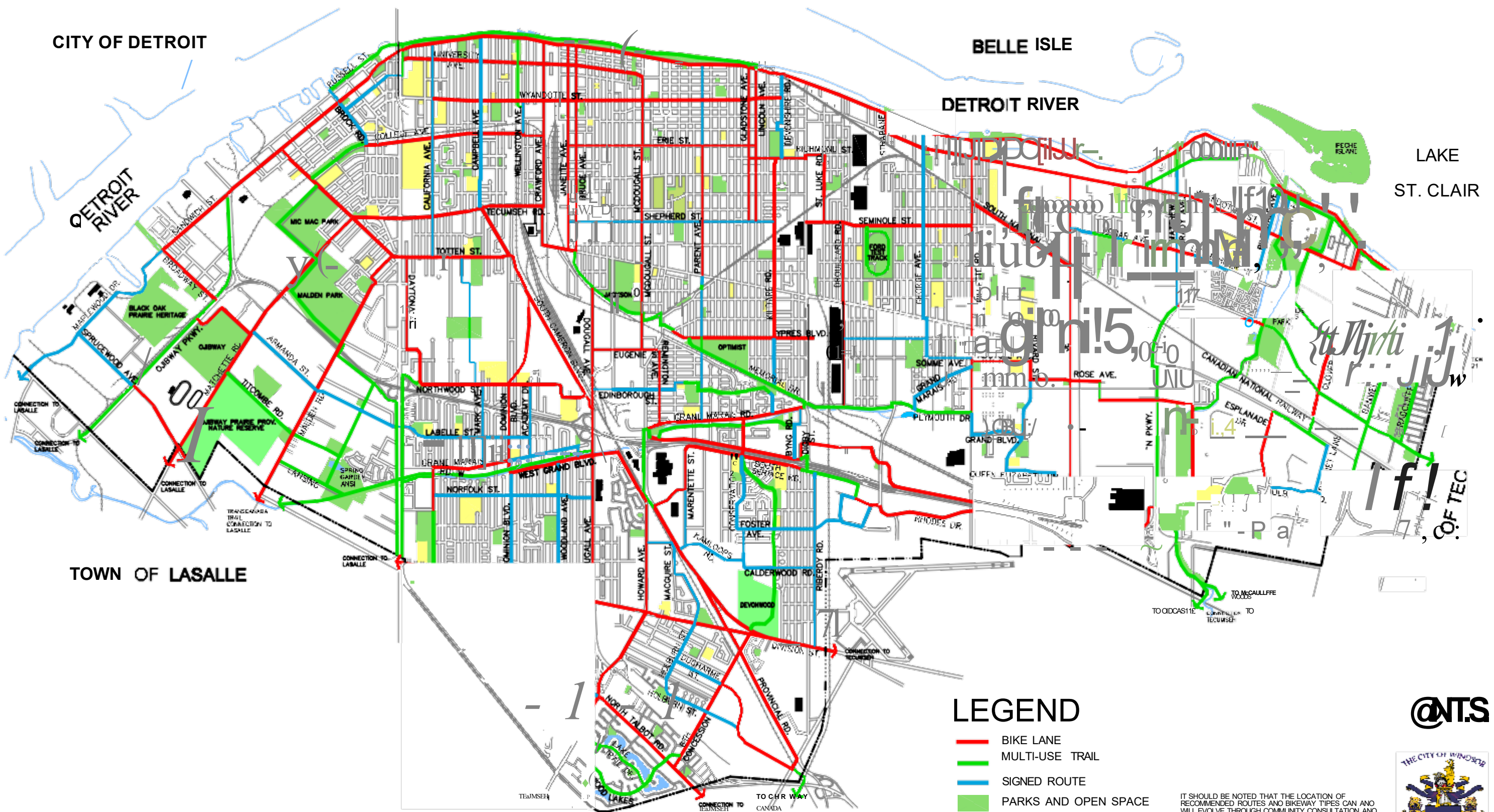
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### LEGEND

- BIKE LANE
- MULTI-USE TRAIL
- SIGNED ROUTE
- PARKS AND OPEN SPACE
- INSTITUTIONAL LAND
- GOVERNMENT OWNED LAND
- CITY LIMITS

IT SHOULD BE NOTED THAT THE LOCATION OF RECOMMENDED ROUTES AND BIKEWAY TYPES CAN AND WILL EVOLVE THROUGH COMMUNITY CONSULTATION AND DETAILED TECHNICAL STUDIES AS APPROPRIATE. AT THE SAME TIME, HOWEVER, THE EXTENSIVE COMMUNITY EFFORT THAT ESTABLISHED THE OVERALL DIRECTIONS FOR THIS PLAN MUST BE RESPECTED. THEREFORE, SPECIFIC CHANGES TO THIS MAP SHOULD BE EVALUATED IN THE CONTEXT OF SUCH A DECISION'S IMPACT UPON THE COMMUNITY'S DESIRE TO ACHIEVE THE CYCLING VISION.

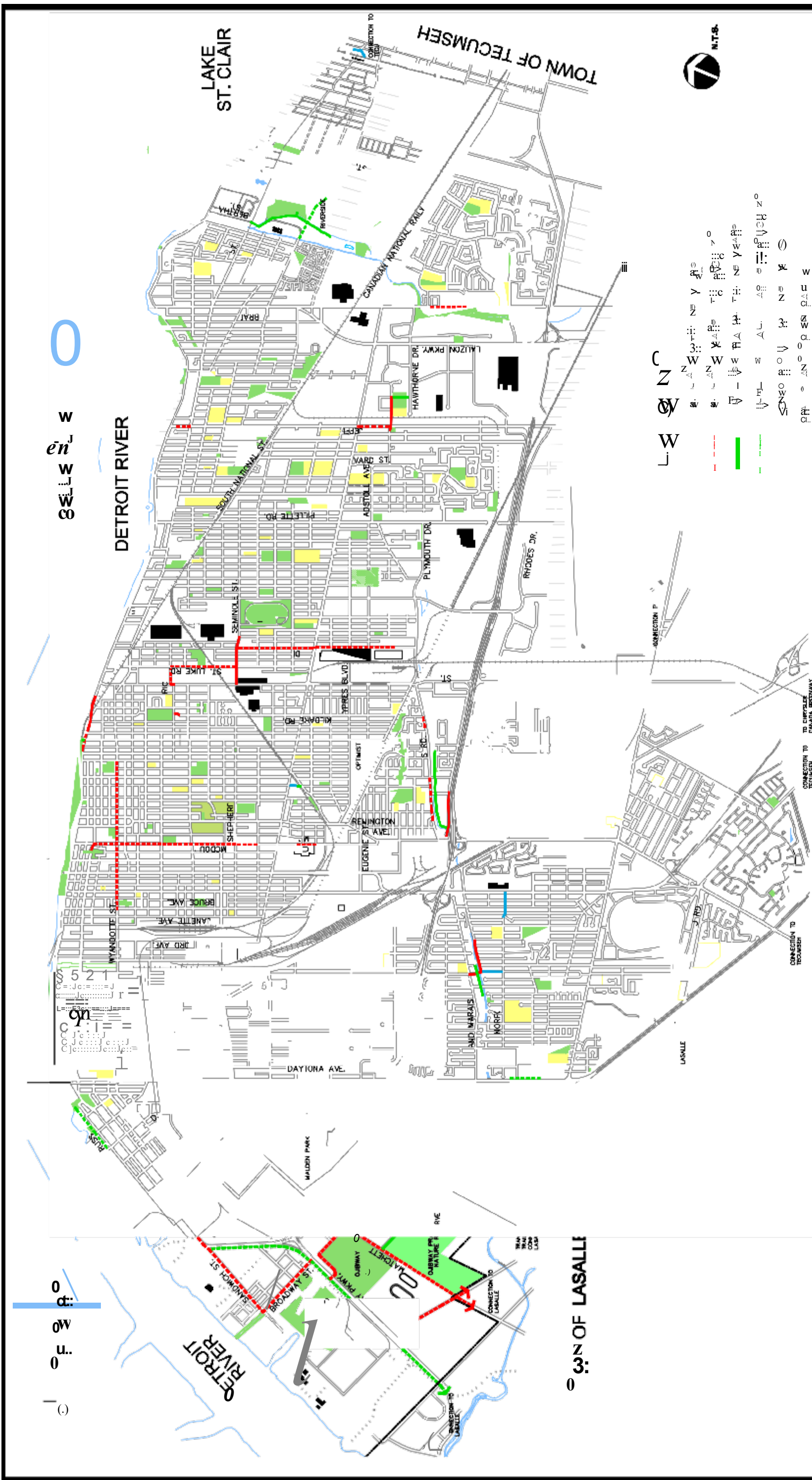


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**BICYCLE USE MASTER PLAN**  
 MAP4: RECOMMENDED CYCLING NETWORK (COMPLETED)

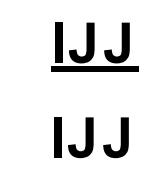
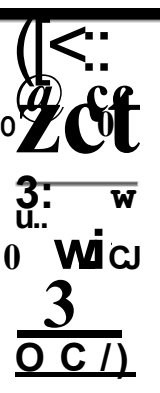


- Red dashed line: Proposed street layout or boundary.
- Green solid line: Park or greenway area.
- Green dashed line: Alternative park or greenway area.
- Yellow shaded area: Specific project zones or parcels.



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The Primary Network consists of a grid of north-south and east-west routes traversing the City. It is intended that the Primary Network be composed of properly designed bike lanes and multi-use trails. However, given physical constraints and funding realities, it is recognized that this is a long-term goal. Therefore, the primary network may also consist of signed routes, where appropriate, until bike lanes or multi-use trails can be developed to serve the same connectivity function.

The Primary Network is expected to accommodate:

-  high cyclist volumes;
-  cycling and trail traffic that is destination oriented to locations such as major employers and community facilities; and
-  cyclists with a moderate to high level of experience and skill.

*The Primary Network will largely be composed of bike lanes and multi-use trails.*






Photo: Toronto, Ontario

**Secondary Network**

The Secondary Network is identified on **Map 6**. It will provide the neighbourhood connections to the Primary Network.

The Secondary Network traverses neighbourhoods to allow cyclists a more diverse and leisurely experience. As such, it is composed predominately of signed routes, with some multi-use trails.

The Secondary Network is expected to accommodate:

-  low cyclist volumes;
-  cycling and trail traffic that is locally oriented, recognizing that this network also is intended to provide connections to the Primary Network; and
-  cyclists with a low to moderate level of experience and skill.

*The Windsor loop is intended to provide a circular connection across the City's neighbourhoods by building on the success of the Riverfront, West-end and Ganatchio trail systems.*

**Windsor Loop and Trans Canada Trail Connection**

The cycling network for Windsor incorporates two additional important features; the Windsor Loop and the Trans Canada Trail connection, as illustrated on **Map 7**.

The Windsor Loop provides a circular connection across the City's neighbourhoods. It is intended





*“People of all ages and abilities must be encouraged and educated to use Windsor’s cycling network for both recreational and commuting purposes.”*

to extend the success of the Riverfront, West-end and Ganatchio trail systems. It also provides access to the adjacent municipalities.

The Trans Canada Trail Connection, which is a part of the Windsor Loop, is intended to connect the City of Windsor to the Chrysler Canada Greenway. The connection through the Town of LaSalle will provide the City with an important link to this national system.

### Recommendations

The City of Windsor will initiate the expansion of the existing cycling and trail network by:

- 🚲 Completing those sections of the Primary Network identified on **Map 5** as achievable within five years;
- 🚲 Completing those sections of the Secondary Network identified on **Map 6** as achievable within five years;
- 🚲 Completing those sections of the Primary Network identified on **Map 5** as achievable in the longer term (years 5 through 20);
- 🚲 Completing those sections of the Secondary Network identified on **Map 6** as achievable in the longer term (years 5 through 20);

- 🚲 Establishing a full time Cycling Coordinator position in the Traffic Engineering Department. The primary responsibility of this individual is to implement the BUMP;
- 🚲 Adding the appropriate criteria to the Strategic Roadway Improvement Program (STRIP) and the Roadway Improvement Management System (RIMS) to include Primary Network connections;
- 🚲 Continuing to develop other off-road trails through parks that were not identified in the BUMP;
- 🚲 Constructing every road as a bicycle friendly roadway; and
- 🚲 Committing annual funds to the implementation of the BUMP.

### 4.2 Cycling Awareness

A successful cycling network is one that is actively and properly used. People of all ages and abilities must be encouraged and educated to use Windsor’s cycling network for both recreational and commuting purposes.

Education and encouragement go hand in hand to increase cycling. Together they improve skills and raise awareness of the benefits of cycling.



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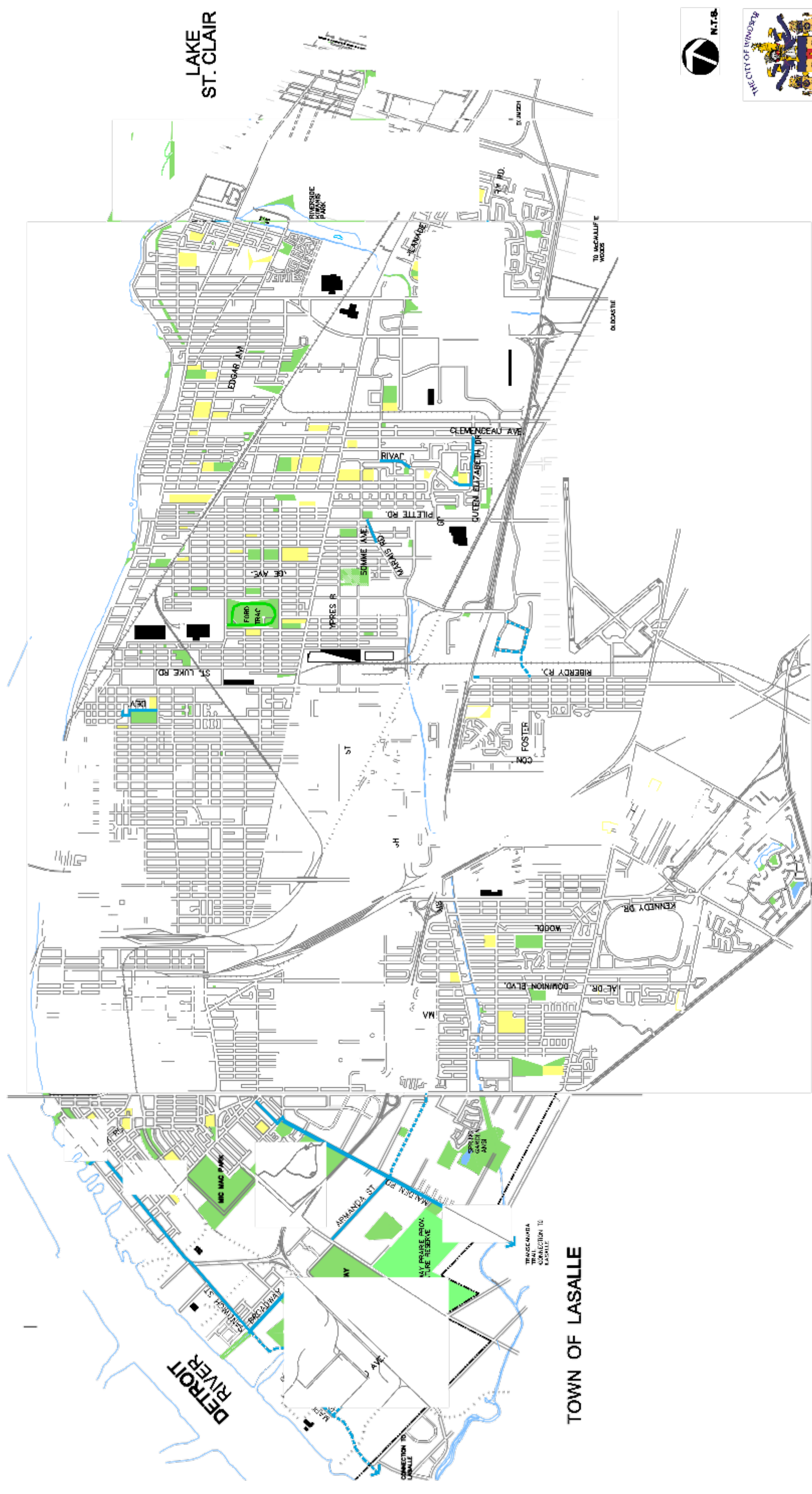
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MAP 6

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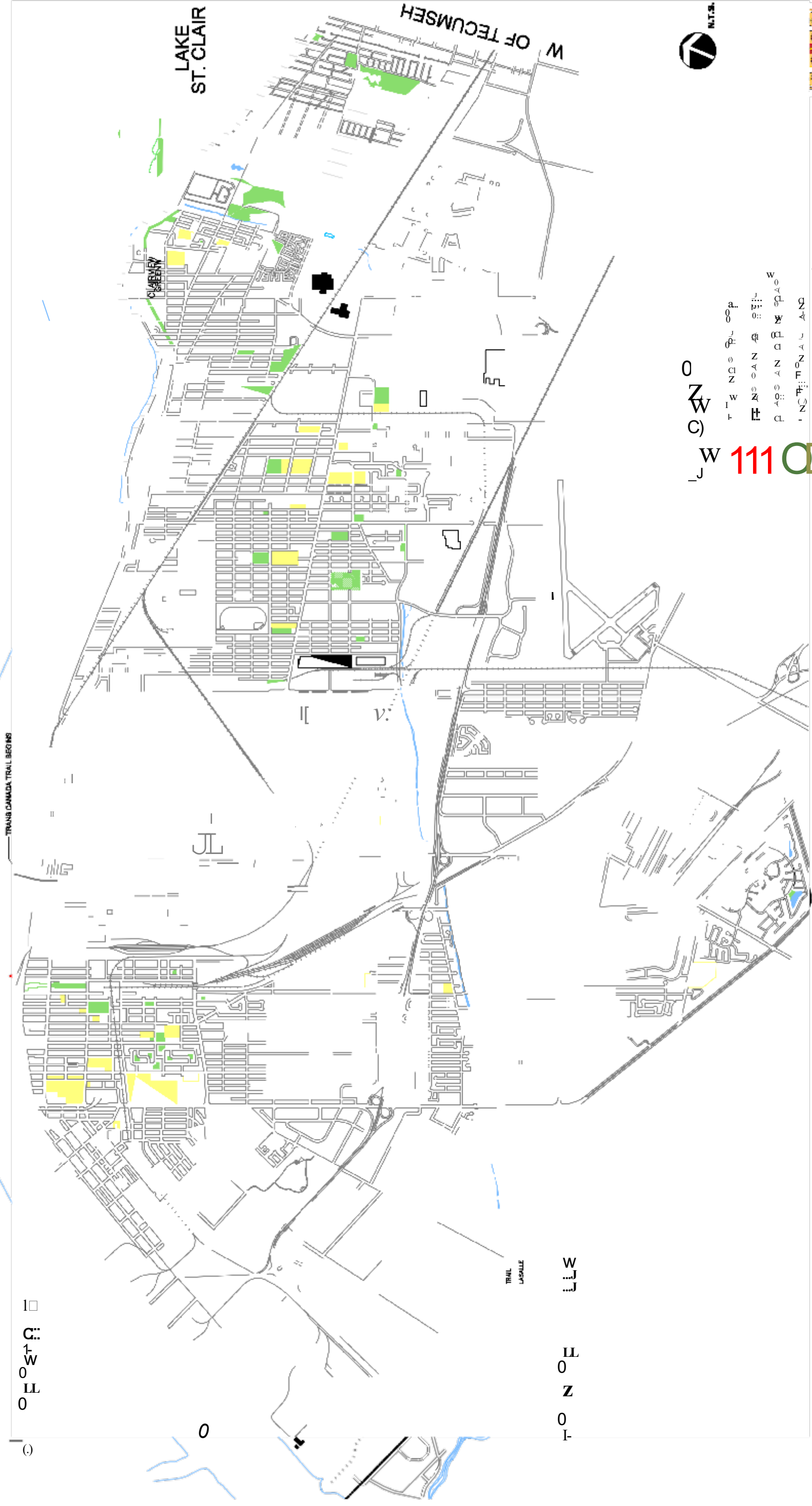
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CITY OF WINDSOR  
**BICYCLE USE MASTER PLAN**  
 MAP 7: THE WINDSOR LOOP AND TRANS CANADA TRAIL CONNECTION

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 CITY OF WINDSOR


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The Windsor Bicycling Committee is educating motorists through their “share the road” campaign.

The City of Windsor is proactively encouraging cycling through initiatives such as:

- 🚲 *Windsor Parks and Recreation Trails and Facilities Map* that identifies existing cycling routes and destinations;
- 🚲 *Windsor Bicycling Committee* that is a committee of City Council devoted to increasing the number of cyclists within the City, and providing adequate and safe facilities for cycling;
- 🚲 *Bike-to-Work Week* that is an annual event promoted by the Windsor Bicycling Committee to increase the number of commuter cyclists; and
- 🚲 *Windsor Police Service City Centre Patrol Unit* that enhances patrol capacity and on-street safety by increasing the accessibility through the City Centre by having officers on patrol using bicycles.

### Recommendations

There are four components to address cycling education in Windsor:

1. Develop safe cycling skills in children;

2. Teach adult cyclists their rights and responsibilities;
3. Teach motorists how to more effectively share the road with cyclists; and
4. Work with the Ministry of Transportation to develop and implement bicycle safety strategies.

Children can be effectively taught safe cycling skills through the school system. The school boards should be encouraged to deliver CAN-BIKE or similar courses that deliver messages such as:

- 🚲 *Wear a helmet*, since it reduces the risk of serious head injury by 85%;
- 🚲 *Obey all traffic laws*, since cyclists have the same responsibilities and consequences as motorists;
- 🚲 *Look both ways before crossing the street*;
- 🚲 *Always ride with the flow of traffic*;
- 🚲 *Be predictable* by signalling your intentions;
- 🚲 *Be visible* by wearing bright or reflective clothing, and always using a front and rear light at night; and



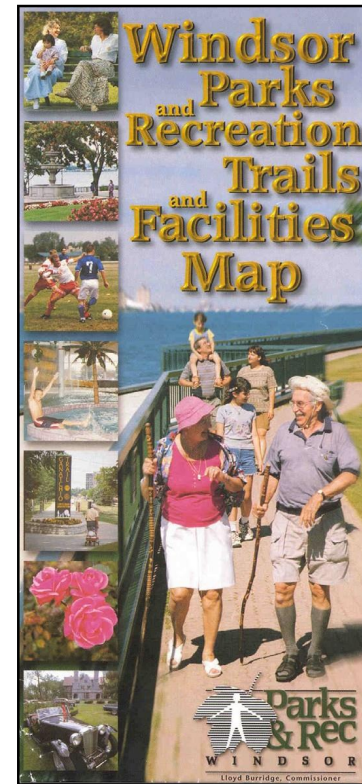
*CAN-BIKE is a series of cycling education courses for cyclists of all ages and abilities. Using classroom and on-road sessions, the course teaches cyclists how to make appropriate decisions in traffic and how to handle their bike in emergency situations.*

- 🚲 Very young children should always ride with experienced supervision.

The second component of educating cyclists is to focus on adults. Adult cyclists fall into several different categories of riders. Some adults are comfortable riding on busy streets and mixing with traffic, while others prefer quieter streets or off-road trails. There are also adults who ride only a few times a year – for recreational, work and commuting purposes. Therefore, educational efforts must be tailored to match the concerns of each group and their cycling requirements.

Targeting adult cyclists with education can be more challenging than children since they may have long established cycling habits and are not often held together as a captive audience. However, the City should take advantage of its existing programs, committees and publications, such as the Windsor Parks and Recreation Trails and Facilities Map, Windsor Bicycling Committee and Bike-to-Work Week to deliver CAN-BIKE or similar programs that deliver the following messages:

- 🚲 *Obey all traffic laws*, since cyclists have the same responsibilities and consequences as motorists. Disobeying traffic laws gives cyclists a bad reputation, is potentially dangerous and may result in a ticket under the *Highway Traffic Act*;



*The City's existing Trails and Facilities Map, shown here, provides an excellent means of communicating information about cycling in Windsor.*

- 🚲 *Be alert* for other users, motorists and potential road hazards such as potholes and loose gravel;
- 🚲 *Wear a helmet*, since it reduces the risk of serious head injury by 85%;
- 🚲 *Always ride where motorists and others expect to see cyclists*;



- 🚲 *Be predictable* by signalling your intentions, never weaving in and out of traffic and staying approximately 1 metre away from the curb;
- 🚲 *Be visible* by wearing bright or reflective clothing and always using a front and rear light at night; and
- 🚲 *Stay off sidewalks* since in Ontario, bicycles ridden by adults are legally classified as vehicles and should behave as such.

The third component of education is to teach and inform motorists. The goal should be to foster a broad awareness and respect for cyclists. Many motorists are already cyclists and can be encouraged to ride more often. All motorists should be taught good driving practices and information about cycling behaviour to improve safety.

As with adult cyclists, the City should take advantage of its existing programs, committees and publications to deliver the following message to motorists:

- 🚲 *Obey all traffic laws*, since a minor collision between a motor vehicle and a cyclist could result in a serious injury to the cyclist;
- 🚲 *Be alert* for cyclists, for sudden changes in

their behaviour, and at intersections;



*Be patient*, since cyclists have a right to travel on every road except expressways. Aggressive driving creates an unnecessary atmosphere of hostility;



*Be predictable* by signalling your turns;



*Do not sound your horn unless necessary*, since cyclists can see and hear motor vehicles; and



*Follow and pass at a safe distance* so cyclists can react safely to hazards that motorist may not see.



The final component of education is for the City of Windsor to work with the Ministry of Transportation to develop and implement bicycle safety strategies.

A 1998 Coroners report on cycling fatalities stated that the Ministry of Transportation (MTO) should take a lead role in encouraging bicycle use in urban centres and in improving safety.

The City of Windsor should work with the MTO to implement the recommendations in the Coroners report, which included:

improving cycling safety content in all publications and driving courses;



- 🚲 providing current bicycle safety training for all driver examiners, police recruits and court personnel, as outlined above; and
- 🚲 providing funding for bicycle promotion and safety programs to assist Windsor in reducing cycling injuries.

In addition, the “share the road” bumper sticker campaign being conducted by the Windsor Bicycling Committee should be encouraged to continue.



*Photo: Windsor Bicycling Committee “share the road” bumper sticker*

There are three main components to encourage cycling within Windsor. The City should:

- 🚲 Lead through example;
- 🚲 Encourage special events; and
- 🚲 Promote cycling tourism.

The City of Windsor must assume an on-going leadership role to encourage cycling if the BUMP is to be successful. This includes activities such as:

- 🚲 Improving cycling access to City Hall through the provision of additional secure bicycle parking facilities plus shower and change facilities;
- 🚲 Providing cycling skills programs such as CAN-BIKE through Parks & Recreation programs;
- 🚲 Creating an incentive program for employees who cycle to work;
- 🚲 Compensating employees who choose to use their own bicycles for City business, just as it compensates employees who drive their motor vehicles for City business;
- 🚲 Making CAN-BIKE training courses available to City staff on staff time, to minimize the risk associated with using a bicycle during the workday, and to enhance the cycling skills necessary to commute safely by bicycle;
- 🚲 Continuing to encourage special events such as Bike-to-Work Week; and
- 🚲 Promoting cycling tourism by continuing to provide route mapping information such as the Trails and Facilities Map both in print and potentially on a website.





**4.3 Cycling-Transit Link**

Improving the cycling-transit link is an important part of making cycling a part of daily life in Windsor. Linking cycling with Transit Windsor buses will overcome barriers such as lengthy trips, personal security concerns and riding at night or in poor weather. This link also enables cyclists to reach more distant areas across the City, and increases transit ridership on weekends and holidays.

*Improved bicycle parking facilities should be provided at major transit centres such as Devonshire Mall.*

The cycling-transit link can also make access to transit less expensive. In suburban neighbourhoods, population densities are often too low to offer transit service within the typical walking distance of 500 metres of every commuter. Within the last 20 years, many transit agencies built expansive motor vehicle park-and-ride lots or centralized depots as an alternative to costly feeder bus service. Many of these facilities are within easy cycling distance, provide opportunities to increase cycling and transit ridership and reduce taxpayer costs, traffic congestion and air pollution.

In Windsor, the development of transit centres at College Avenue, Devonshire Mall, the City Centre and Tecumseh Mall provide an excellent opportunity to improve the cycling-transit link.

Presently, bicycle parking facilities at Transit Windsor centres vary depending on the uses

surrounding the site. For example, at Devonshire Mall and Tecumseh Mall, bicycle parking is readily available in conjunction with the shopping centre facilities. However, at the College Avenue and City Centre transit centres, there are few, if any, secure bicycle parking facilities.

Through the Public Attitude Survey, it was revealed that 80% of respondents believe that providing more bike racks at transit stops would improve the cycling-transit link within Windsor.



*Photo: Bike rack on a Transit Windsor Bus – Windsor, Ontario*

*“Transit Windsor has committed to improving the cycling-transit link through the installation of bicycle carriers on its buses for a trial period, plus promotion of the service through the media, its website and brochures.”*





Transit Windsor has committed to improving the cycling-transit link through the installation of bicycle carriers on its buses for a trial period, plus promotion of the service through the media, its website and brochures. This commitment should be further encouraged.

### Recommendations

There are four main components required to improve the cycling-transit link in Windsor:

1. Improve bicycle routes to transit centres;
2. Increase bicycle parking at transit centres;
3. Work with Transit Windsor to expand the provision of bicycle racks mounted on Transit Windsor buses; and
4. Promote the use of cycling and transit.

The City of Windsor plans to improve bicycle routes to transit centres. **Map 4** identifies the complete cycling network, including routes that will link to transit centres. In addition, the City is working to encourage more mixed use developments along transit routes, and provide better bicycle access to transit locations throughout Windsor.

The second component of promoting bicycle-transit integration is to provide secure bicycle parking at key transit stations. The amount of

secure bicycle parking at the College Avenue and City Centre transit centres should be increased as an incentive to cyclists to use Transit Windsor.

The third component is to encourage Transit Windsor to continue to allow bicycles on buses. Transit Windsor's installation of bicycle carriers is a positive step that should be actively promoted and encouraged. The demand for these carriers should be monitored and increased as appropriate.

The fourth component is to promote the use of cycling and transit. Transit Windsor should actively promote its bicycle services through its website, brochures, advertisements and public gatherings. The City should continue to offer Transit Windsor its support, while also promoting Transit Windsor's bicycle services at every opportunity.



**4.4 End-of-Trip Facilities**

Every cycling trip has two basic components: the route used by the cyclist, and the “end-of-trip” facilities available at the destination. These end-of-trip facilities include bicycle parking and sometimes showers and change rooms for commuters.

When the end-of-trip facilities do not meet the users’ needs, they will use other means of transportation. In a nationwide United States Harris Poll conducted in 1992, it was revealed that over half the respondents who had ridden a bicycle in the past year would sometimes commute to work by bicycle, or commute more often, if there were showers, lockers and secure bicycle storage at work. The Public Attitude Survey clearly indicated there was support for more bicycle parking and shower facilities in Windsor.

Clearly, the availability of convenient and appropriate end-of-trip facilities is a critical factor in an individual’s decision whether or not to use a bicycle in Windsor.

*The City of Windsor’s planning policies require bicycle parking facilities for new commercial and industrial development.*





**Bicycle Parking**

The availability of convenient, secure bicycle parking is important to cyclists. Safe and secure bicycle parking offers these benefits:



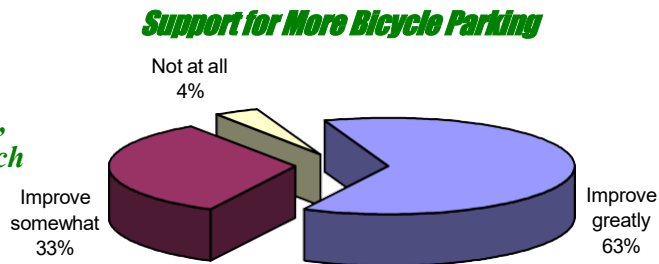
*Photo: Devonshire Mall – Windsor, Ontario*

*Bicycle parking facilities at Devonshire Mall. Note the cyclist avoided using the bike rack due to its “wheel-bender” design.*

-  it inexpensively and efficiently increases a building’s parking capacity;
-  it effectively serves those who use bicycles as a mode of transportation;
-  it encourages bicycle use; and
-  it can be a great promotional item for businesses.



*Source: Public Attitude Survey, Decima Research Inc., 2000.*



Cyclists' need for bicycle parking ranges from simply a convenient piece of street furniture to which they can lock their bicycle, to storage in a bicycle locker that affords weather, theft and vandalism protection, gear storage space and 24-hour personal access. A cyclist's specific needs are typically determined by several factors:

- 🚲 *Type of trip being made:* whether or not the bicycle will be left unattended all day or for a few minutes;
- 🚲 *Weather conditions:* covered bicycle parking is of more importance during wet weather;
- 🚲 *Value of the bicycle:* the more a cyclist has invested in their bicycle, the more concerned they are about theft protection; and

- 🚲 *Security of the area:* determined by the cyclists' perception of how prone a given area is to bicycle theft. This is fairly subjective and is predicated on the cyclist's individual experiences with bicycle theft.

Good bicycle parking facilities are secure, plentiful, easily accessible, adjacent to destinations and covered.

The design of bicycle parking units varies widely. Generally, units can be divided into different categories based on the level of security they provide.


- 🚲 *High security* units enclose the entire bicycle inside a lockable "cabinet". Ranging in price from \$1000 to \$2500 per unit, these facilities are likely only appropriate in locations where cyclists might be leaving their bicycles for extended periods of time such as transit centres. Another method of providing high security parking is to allow cyclists to lock their bikes to low security units within a locked compound. This is especially effective for large employers since it provides a large number of parking spaces at a relatively low cost.




*An example of a high security bicycle facility.*



*Photo: Bicycle lockers*

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*Medium-High security* units that allow the bicycle and wheels to be locked together without having to remove “quick release” wheels.
- 


*Medium security* units require “quick release” wheels to be removed and locked along with the frame of the bike. The best medium-security units prevent the bike from falling over. Medium-security units range in price from \$70 to \$1000 each, depending on style and capacity. Preferred units are easy to use without written or pictorial instructions, and support the frame of the bike, not the wheel alone. They also allow one wheel to be locked with the bike and/or two bikes to be locked together.


Low profile racks that support the bicycle by the front wheel are not recommended since they can result in bent rims and other damage caused by the bicycle falling over.

The City of Windsor’s planning policies require any new development to provide two bicycle parking spaces for the first 10 motor vehicle parking spaces, and a minimum of one bicycle space for each 20 additional motor vehicle spaces. There should be more detailed guidance on where the bicycle parking facilities should be located.

The selection of parking facilities on a site-by-site basis should consider cyclist comfort, location and security for both the cyclist and his/her property. Some recommended locations for installation include:

- 

near main or well-used entrances to buildings;
- 

along surveillance corridors, in areas pedestrians frequent or across from windows;
- 

in well-lit areas;

*“Key locations for bicycle parking facilities include staging areas such as Malden Park, major network nodes such as transit centres, and at major destinations such as malls, City Hall, libraries and along the riverfront.”*



*An example of a medium-high security bicycle parking unit.*



*Photo: Richmond Hill, Ontario*

*An example of a medium security post-and-ring bike rack.*



*Photo: Toronto, Ontario*

- 🚲 under canopies or roof overhangs;
- 🚲 on flat surfaces; and

- 🚲 located such that the facility can be accessed from all sides.

**Recommendations**

There are two components to address bicycle parking in Windsor:

1. Conduct a Bicycle Parking Inventory; and
2. Increase the amount and quality of bicycle parking facilities.

The BUMP study did not involve an inventory and evaluation of bicycle parking facilities, locations and types. Such a study would be useful to determine:

- 🚲 the total number of off-street bicycle parking spaces;
- 🚲 the total number of covered off-street bicycle parking spaces;
- 🚲 bicycle rack types in use, and user satisfaction with them;
- 🚲 bicycle rack visibility;
- 🚲 signage for bicycle racks not readily visible; and
- 🚲 rack location.

*“Improving cycling as a viable mode of commuting requires showers and changing facilities.”*





The second component to address bicycle parking in Windsor is to increase the amount and quality of bicycle parking facilities.

Adequate bicycle parking at key locations throughout the network will allow cyclists to have more confidence in securing their property while pausing along the network, or once they have reached their destination.

Key locations for bicycle parking facilities include staging areas such as Malden Park, major network nodes such as transit centres, major employers, and at major destinations such as malls, City Hall, libraries and along the Riverfront. In addition, proper bicycle parking facilities should also be considered where multi-use trails intersect pedestrian-only trails, such as at Ojibway Park. The provision of bicycle parking facilities in these locations, along with signage explaining the reasons for restricting bicycle use, will help to discourage cycling on inappropriate trails, reinforce trail etiquette and encourage the proper use of the trail system.

Therefore, to increase the amount and quality of bicycle parking facilities the City should:

-  proactively install short and long-term bicycle parking in the public right-of-way;
-  promote commuter cycling to the University

of Windsor, St. Clair College, plus



secondary and elementary schools, and assist these institutions in the purchasing and siting of bicycle parking;

develop partnerships with businesses to sponsor the installation of bicycle parking facilities;

fund, on an annual basis, a post-and-ring (or similar) bicycle parking program to provide facilities in areas where there is an identified demand;

adopt the bicycle parking location guidelines described in the BUMP;

actively encourage innovative bicycle parking facility designs, such as covered bicycle sheds in existing motor vehicle parking spaces; and

work with community cycling associations to create permanent relationships for the provision of temporary, long-term bicycle parking at special events.



As the basis for the bicycle parking program, the City should install post-and-ring style bicycle racks. Such racks are typically installed in commercial areas, such as a business improvement area, within the municipal right-of-way between the travelled portion of the roadway and the sidewalk. Experience in other



municipalities indicates that such units are actively used by cyclists and are relatively inexpensive to install. For example, the City of Toronto’s average installation cost is \$50 per unit.

**Shower and Change Facilities**

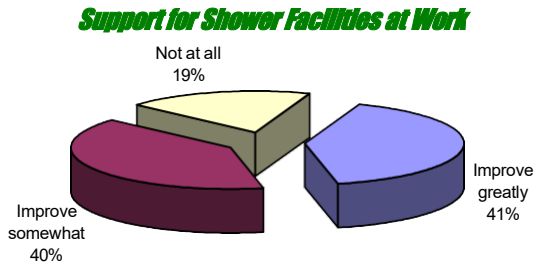
Improving cycling as a viable mode of commuting requires shower and change facilities. As previously discussed, the Public Attitude Survey identified a demand for such facilities amongst current cyclists.

**Recommendations**

To increase the number of shower and change facilities for cyclists, the City should:

- 🚲 Work with private businesses to promote bicycle commuting; and
- 🚲 Create bonus provisions in Windsor’s planning policies to encourage developers to provide showers, change space and bicycle parking above the minimum requirements.

*Source: Public Attitude Survey, Decima Research, Inc., 2000.*



There is, however, no zoning by-law requirement for new developments to provide shower and change facilities for cyclists. As a result, only some cyclists are served by showers and permanent changing and storage spaces at their workplaces.

