

Welcome

To the
Public Information Centre
for
**Square One Drive from Duke of York Boulevard to
Confederation Parkway**
Class Environmental Assessment Study

May 13, 2010

Please Sign In

Review the display materials and discuss your questions and ideas with the Study Team

Fill out a questionnaire/comment sheet and return it to the Study Team.

Purpose of the Public Information Centre

The purpose of this Public Information Centre is to introduce the study to the public and provide interested and/or potentially affected stakeholders with an opportunity to participate and provide input in the planning and decision making process.

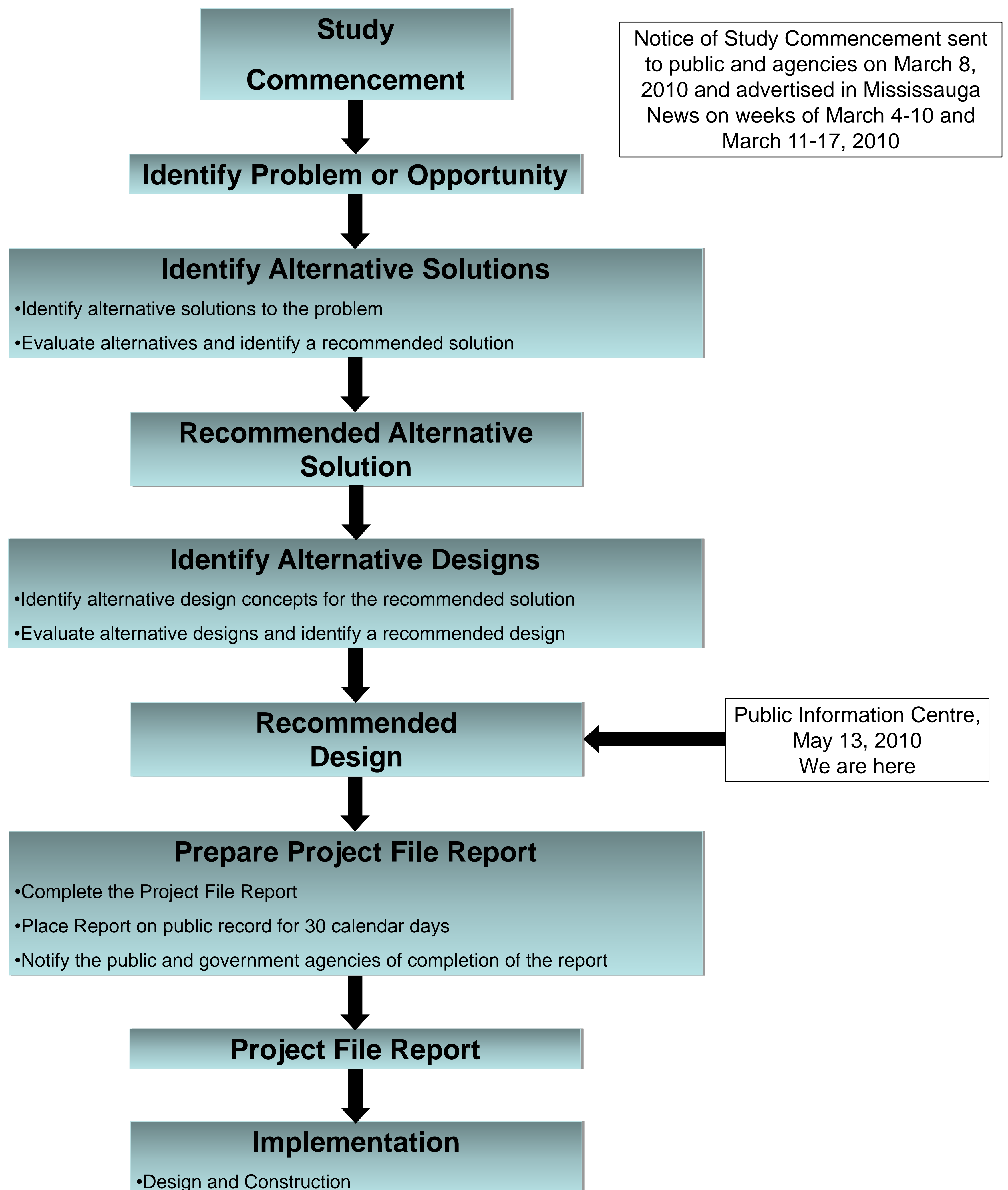
This PIC will present information and receive input on the following:

- Class Environmental Assessment Study process
- Background information
- The existing conditions within the study area
- Existing and future traffic conditions
- Problem/opportunity statement
- Alternative solutions being considered
- Recommended evaluation criteria
- Assessment and selection of preferred alternative
- Alternative design concepts considered
- Assessment of impacts and mitigation measures
- Selection of preliminary recommended design alternative
- Next steps in the process

Class Environmental Assessment Process

What is a Class Environmental Assessment?

The Municipal Class Environmental Assessment (Class EA) (October 2000, as amended in 2007) is a planning process approved under the Ontario Environmental Assessment Act. The Class EA provides the framework for municipalities to plan, design and construct municipal infrastructure projects. The Class EA process for this study, and where we are in the process, is outlined below.



Square One Drive Class Environmental Assessment

Study Area



Square One Drive Class Environmental Assessment

Project Background

- Square One Drive is currently a private access road from City Centre Drive to Duke of York Boulevard.
- The City's Official Plan indicates that Square One Drive be extended west, as a minor collector, from Duke of York Boulevard to Confederation Parkway.
- A portion of Square One Drive east of Confederation Parkway has been constructed as part of a development process.
- The Downtown 21 Masterplan proposed that Square One Drive be a two way multimodal street with a connection to Rathburn Road West.
- Sherdian College is proposing a new campus between Duke of York Boulevard and Living Arts Drive along Square One Drive.
- The City has recently finalized the Mississauga Cycling Master Plan. The Cycling Master Plan identifies Square One Drive, between Duke of York Boulevard and Confederation Parkway, as a secondary cycling route, and identifies this section as having defined, on-street lanes.



City Strategic Directions

Strategic Plan - Strategic Goals – April 2009

- **Develop Environmental Responsibility** – to contribute to environmental responsibility by reducing private automobile use and developing compact mixed use development.
- **Increase Transportation Capacity** – to add capacity to the transportation system through strategic investments in transit, additional links in the street network and active mobility choices.
- **Develop Walkable, Connected Neighbourhoods** – to develop compact, mixed-use neighbourhoods that will give residents the ability to engage safely in all aspects of their everyday lives, within walking distance and easy access.
- **Provide Mobility Choices** – to provide all with the choice to walk, cycle and use transit or active modes of transportation in all seasons, because it is convenient, connected, desirable and healthy.
- **Create a Vibrant Downtown** – to develop a vibrant downtown that will be the civic and cultural soul of the city, as well as a strong economic centre.

Downtown 21 Master Plan Principles

- **Build Multi Modal** – A successful, vibrant and active downtown will have to support and rely on a range of transportation modes including walking, cycling, transit and the car.
- **Create an Urban Space** – A downtown cannot be derived from a suburban built form, developing a walkable, urban downtown is critical to re-branding the downtown as a unique “GTA” location with a high quality-of-space. The multi-cultural diversity of Mississauga demands a downtown that is unique, authentic and memorable.

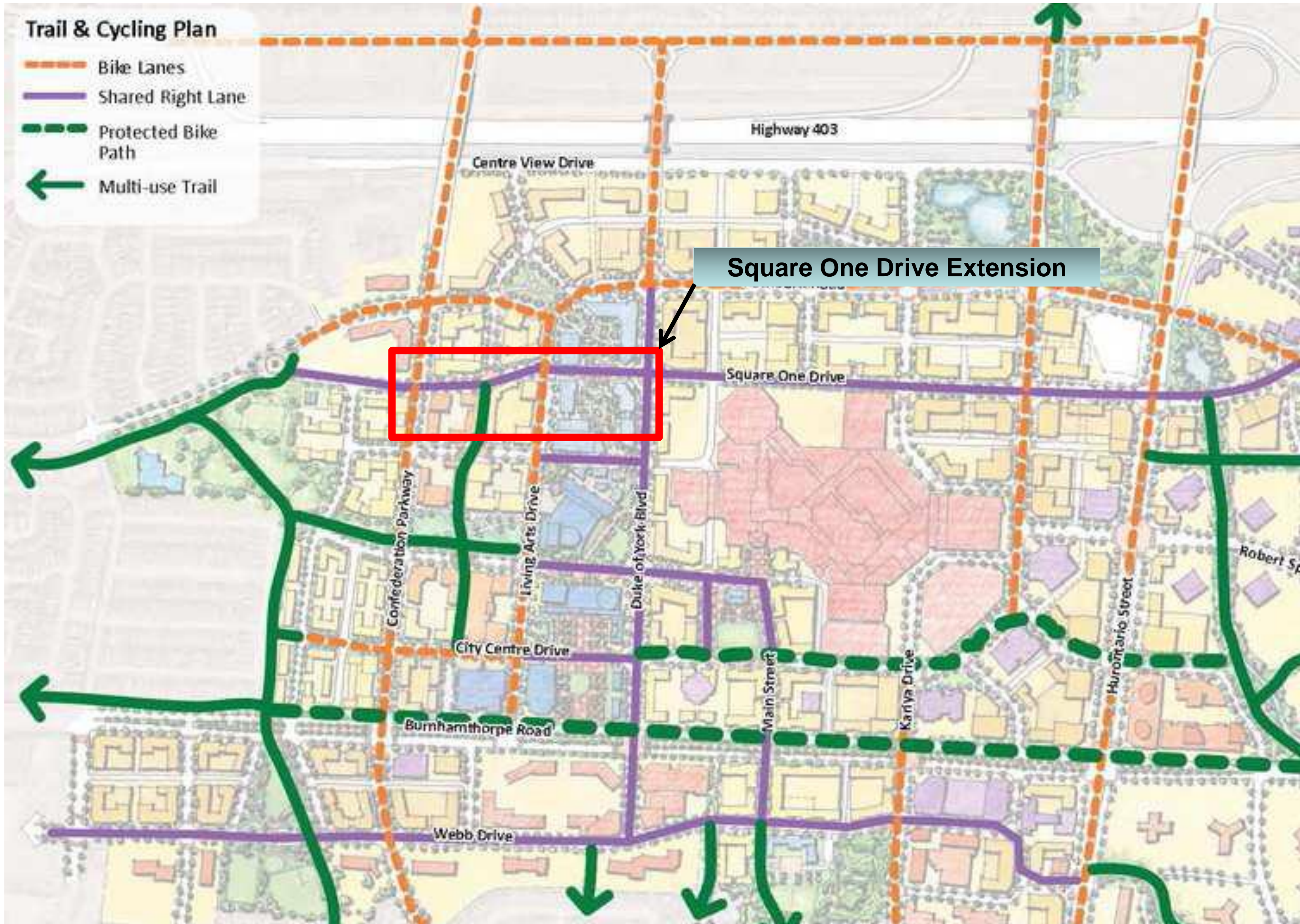
Mississauga Cycling Master Plan Goals

- Foster a culture where cycling is an everyday activity.
- Build an integrated on-road and off-road cycling network as part of a multi-modal transportation system.
- Adopt a safety first approach to cycling in Mississauga.

Square One Drive Class Environmental Assessment

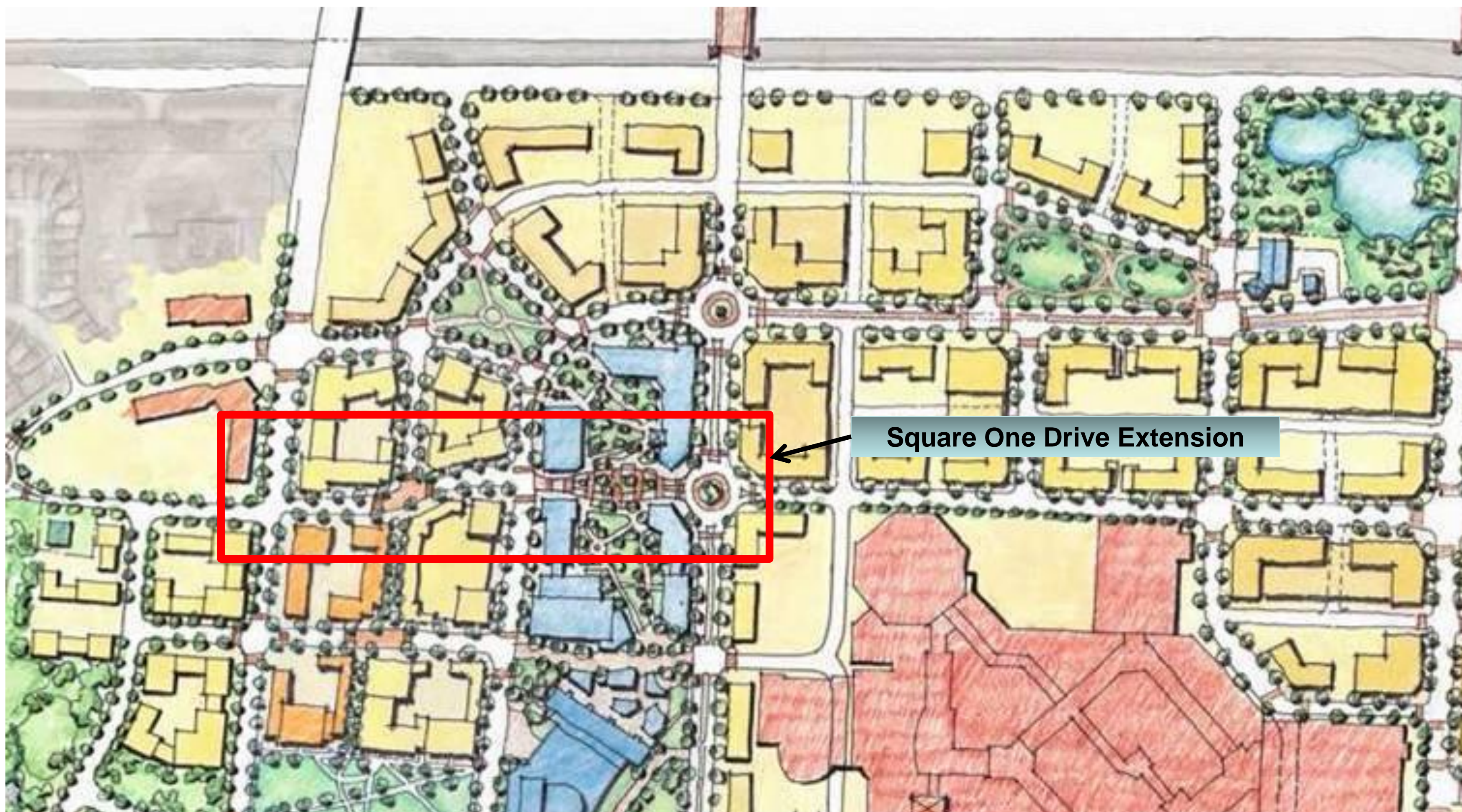
Downtown 21 Master Plan

Cycling network



The Cycling Master Plan also designates Square One Drive as a secondary cycling route

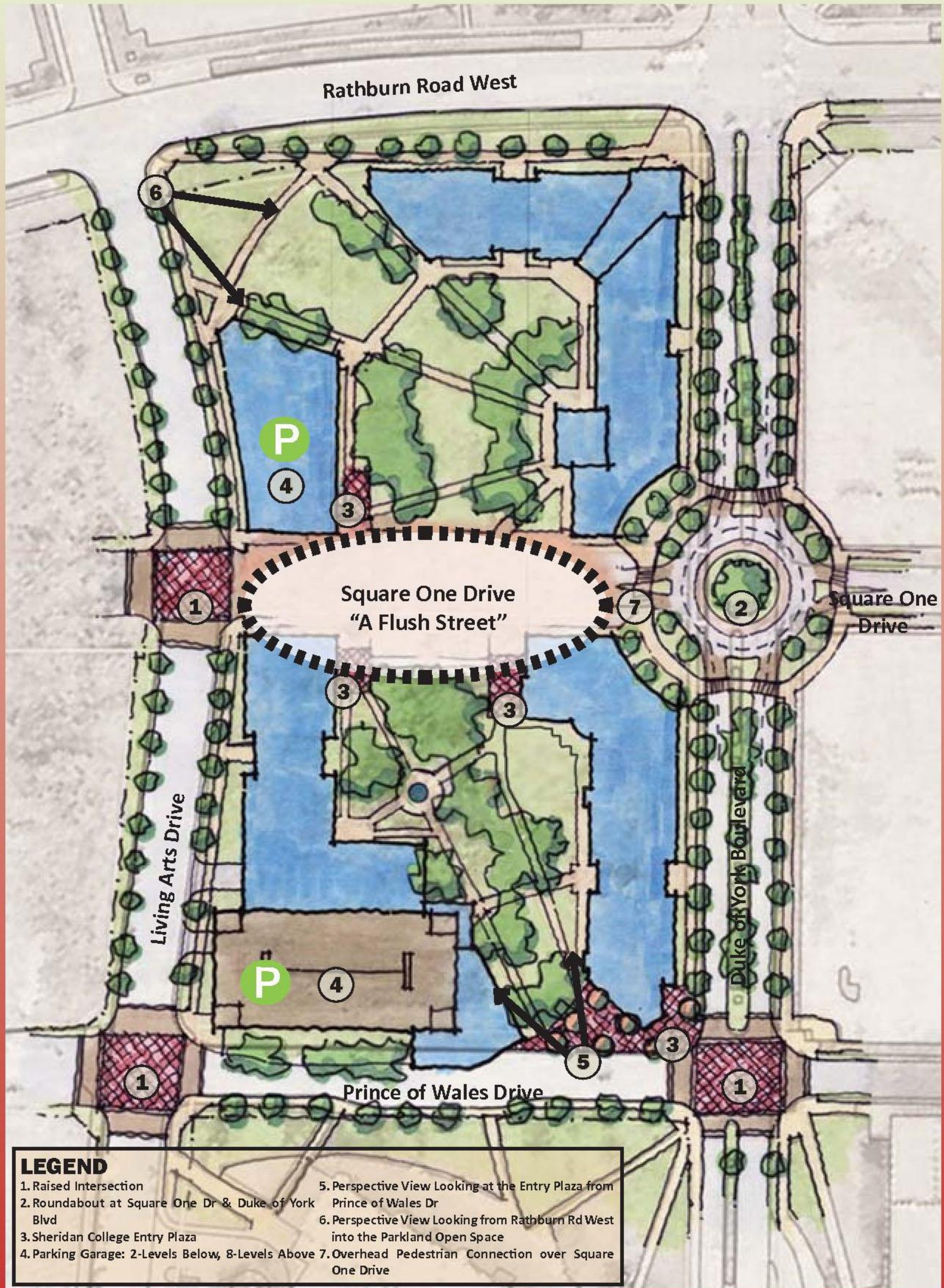
Street Framework



Square One Drive Class Environmental Assessment

Master Plan for Sheridan Mississauga Campus

Overall Master Plan

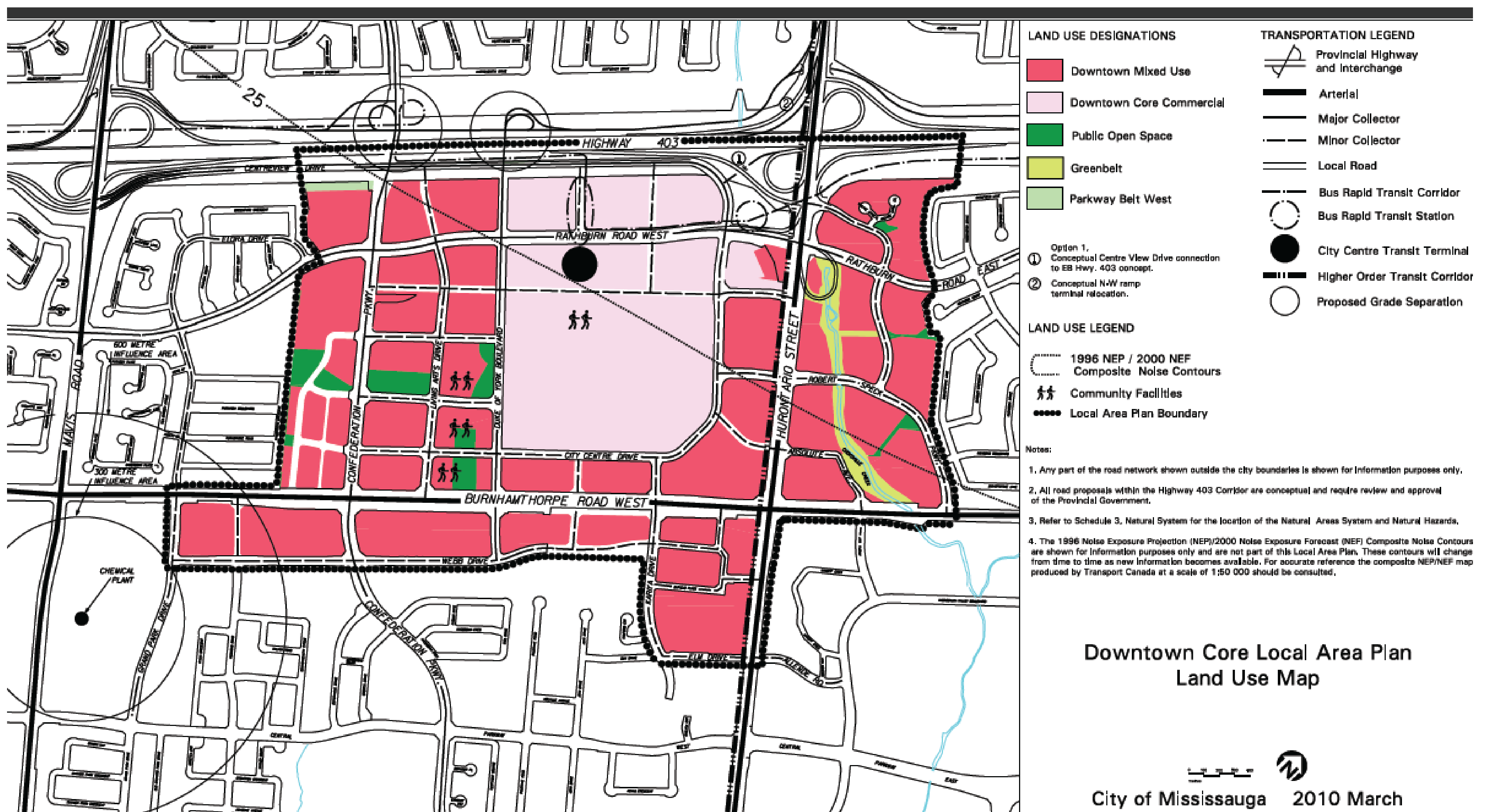


- LEGEND**
- 1. Raised Intersection
 - 2. Roundabout at Square One Dr & Duke of York Blvd
 - 3. Sheridan College Entry Plaza
 - 4. Parking Garage: 2-Levels Below, 8-Levels Above
 - 5. Perspective View Looking at the Entry Plaza from Prince of Wales Dr
 - 6. Perspective View Looking from Rathburn Rd West into the Parkland Open Space
 - 7. Overhead Pedestrian Connection over Square One Drive

Square One Drive Class Environmental Assessment

Land Use

- Land use within the Study area is designated as mixed use.
- Square One Shopping Centre is located east of Duke of York Boulevard.
- Proposed “Chicago” residential development with some commercial on the ground floor between Living Arts Drive and Confederation Parkway.
- Proposed Sheridan Mississauga Campus Development (Phases 1 and 2) will be located between Prince of Wales Drive and Rathburn Road West and Duke of York Boulevard and Living Arts Drive.
- Proposed Park Development between the Sheridan College buildings north and south of Square One Drive between Duke of York Boulevard and Living Arts Drive.
- Various other commercial and residential developments on the streets surrounding the study area.



Square One Drive: View looking east towards Hurontario Street with the City Centre Transit Terminal on the left and Zellers Department Store to the right



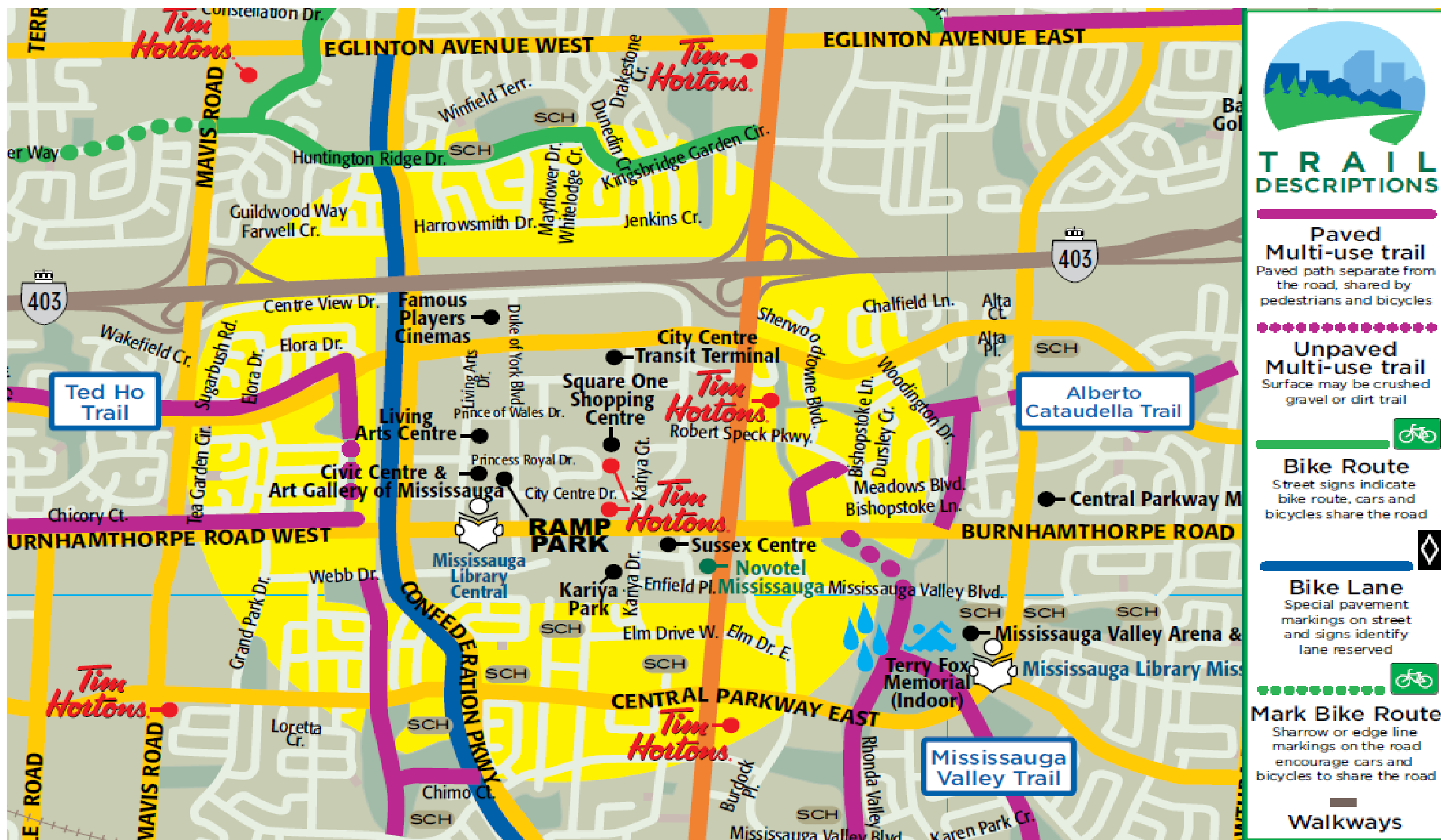
Square One Drive: View looking west with Sheridan Campus lands in the foreground and Chicago Tower in background



Square One Drive Class Environmental Assessment

Existing Trail Network

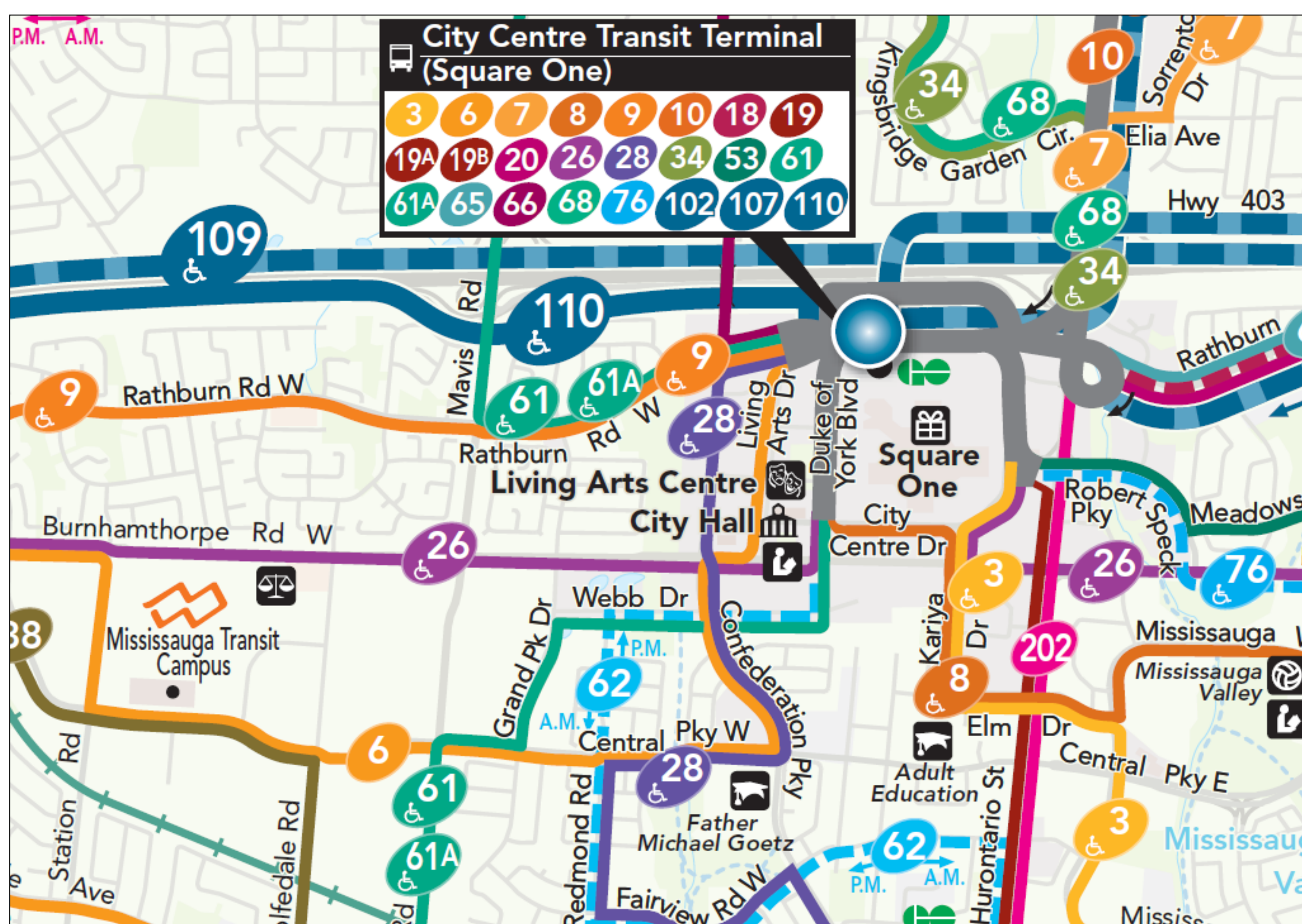
- Currently there are dedicated bicycle lanes on Confederation Parkway in the area of the Square One Drive extension.



Source: City of Mississauga Trails Map

Existing Transit Routes

- Currently there is a transit route on Duke of York Boulevard, Living Arts Drive and Confederation Parkway in the area of the Square One Drive extension.



Square One Drive Class Environmental Assessment

Existing Natural Environment

- Between Duke of York Boulevard and Living Arts Drive, all the natural vegetation has been recently removed.
- Between Living Arts Drive and Confederation Parkway there is a wooded area about 100m long that ends at the development on the east side of Confederation Parkway.
- There were no significant species of trees within the study area. The predominant species is Green Ash. Existing trees could be removed to construct a new road.
- There are no designated natural areas within the study area and no Species at Risk.
- The Phase 1 Archaeological Assessment indicated an elevated potential for archaeological features in the general area however given that most of the area has been disturbed without finding archeological features, the likelihood of finding such features in the remaining undisturbed area is reduced.
- Contamination studies found nothing significant

Looking West along Square One Dr. from Duke of York Blvd.



Looking West along Square One Dr. from Confederation Pkwy.



Traffic Conditions – Network Assumptions

2010 Existing conditions

- Existing traffic volumes on existing roads and existing signal timings

2016 Total Traffic

- Existing traffic volumes plus 1% per year growth along Rathburn Road and Confederation Parkway
- Other development traffic includes Square One commercial blocks, and Phase 1 of Sheridan college
- Square One Drive extended from Duke of York Boulevard to Confederation Parkway
- Rathburn Road was reduced from 4 general purpose lanes to 2 general purpose lanes throughout the Study Area
- Signalization of Confederation Parkway at Prince of Wales Drive
- Single-lane roundabout at Duke of York Boulevard at Square One Drive

2021 Total Traffic

- Existing traffic volumes plus 1% per year growth along Rathburn Road and Confederation Parkway
- Other development traffic includes Square One commercial blocks, and Phase 1 and 2 of Sheridan college
- Square One Drive extended from Duke of York Boulevard to Rathburn Road
- Rathburn Road was reduced from 4 general purpose lanes to 2 general purpose lanes throughout the Study Area
- Signalization of Confederation Parkway at Prince of Wales Drive
- Signalization of Confederation Parkway at Square One Drive
- Double-lane roundabout at Duke of York Boulevard at Square One Drive

2031 Total Traffic




- Existing traffic volumes plus 1% per year growth along Rathburn Road and Confederation Parkway
- Other development traffic includes Square One commercial blocks, 1.1ksf office complex, and Phase 1 and 2 of Sheridan college
- Square One Drive extended from Duke of York Boulevard to Rathburn Road
- Rathburn Road was reduced from 4 general purpose lanes to 2 general purpose lanes throughout the Study Area
- Duke of York Boulevard extended over Highway 403
- Signalization of Confederation Parkway at Prince of Wales Drive
- Signalization of Confederation Parkway at Square One Drive
- Double-lane roundabout at Duke of York Boulevard at Square One Drive

Square One Drive Class Environmental Assessment

Traffic Conditions - Operation

	Confederation Parkway	Living Arts Drive	Duke of York Boulevard																																																																		
Rathburn Road				Rathburn Road																																																																	
	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.66</td> <td>0.95</td> <td>1.04</td> </tr> <tr> <td>2016</td> <td>0.75</td> <td>1.00</td> <td>0.93</td> </tr> <tr> <td>2021</td> <td>0.95</td> <td>1.23</td> <td>1.33</td> </tr> <tr> <td>2031</td> <td>1.08</td> <td>1.37</td> <td>1.45</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.66	0.95	1.04	2016	0.75	1.00	0.93	2021	0.95	1.23	1.33	2031	1.08	1.37	1.45	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.43</td> <td>0.52</td> <td>0.38</td> </tr> <tr> <td>2016</td> <td>0.82</td> <td>0.96</td> <td>0.73</td> </tr> <tr> <td>2021</td> <td>1.05</td> <td>1.17</td> <td>1.02</td> </tr> <tr> <td>2031</td> <td>1.27</td> <td>1.28</td> <td>1.10</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.43	0.52	0.38	2016	0.82	0.96	0.73	2021	1.05	1.17	1.02	2031	1.27	1.28	1.10	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.62</td> <td>0.87</td> <td>0.63</td> </tr> <tr> <td>2016</td> <td>0.91</td> <td>1.18</td> <td>0.86</td> </tr> <tr> <td>2021</td> <td>1.21</td> <td>1.52</td> <td>1.30</td> </tr> <tr> <td>2031</td> <td>1.17</td> <td>1.89</td> <td>1.37</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.62	0.87	0.63	2016	0.91	1.18	0.86	2021	1.21	1.52	1.30	2031	1.17	1.89	1.37						
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.66	0.95	1.04																																																																		
2016	0.75	1.00	0.93																																																																		
2021	0.95	1.23	1.33																																																																		
2031	1.08	1.37	1.45																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.43	0.52	0.38																																																																		
2016	0.82	0.96	0.73																																																																		
2021	1.05	1.17	1.02																																																																		
2031	1.27	1.28	1.10																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.62	0.87	0.63																																																																		
2016	0.91	1.18	0.86																																																																		
2021	1.21	1.52	1.30																																																																		
2031	1.17	1.89	1.37																																																																		
Square One Drive	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>2016</td> <td>0.05</td> <td>0.10</td> <td>0.08</td> </tr> <tr> <td>2021</td> <td>0.54</td> <td>0.64</td> <td>0.64</td> </tr> <tr> <td>2031</td> <td>0.64</td> <td>0.68</td> <td>0.77</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	-	-	-	2016	0.05	0.10	0.08	2021	0.54	0.64	0.64	2031	0.64	0.68	0.77	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>2016</td> <td>0.24</td> <td>0.22</td> <td>0.23</td> </tr> <tr> <td>2021</td> <td>0.13</td> <td>0.09</td> <td>0.09</td> </tr> <tr> <td>2031</td> <td>0.14</td> <td>0.09</td> <td>0.10</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	-	-	-	2016	0.24	0.22	0.23	2021	0.13	0.09	0.09	2031	0.14	0.09	0.10	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> <th></th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.20</td> <td>0.44</td> <td>1.08</td> <td></td> </tr> <tr> <td>2016</td> <td>0.44</td> <td>0.67</td> <td>0.94</td> <td>1R</td> </tr> <tr> <td>2021</td> <td>0.27</td> <td>0.58</td> <td>1.05</td> <td>2R</td> </tr> <tr> <td>2031</td> <td>0.30</td> <td>0.61</td> <td>1.05</td> <td>2R</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C		Existing	0.20	0.44	1.08		2016	0.44	0.67	0.94	1R	2021	0.27	0.58	1.05	2R	2031	0.30	0.61	1.05	2R	
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	-	-	-																																																																		
2016	0.05	0.10	0.08																																																																		
2021	0.54	0.64	0.64																																																																		
2031	0.64	0.68	0.77																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	-	-	-																																																																		
2016	0.24	0.22	0.23																																																																		
2021	0.13	0.09	0.09																																																																		
2031	0.14	0.09	0.10																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.20	0.44	1.08																																																																		
2016	0.44	0.67	0.94	1R																																																																	
2021	0.27	0.58	1.05	2R																																																																	
2031	0.30	0.61	1.05	2R																																																																	
				Prince of Wales Drive																																																																	
	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.07</td> <td>0.32</td> <td>0.87</td> </tr> <tr> <td>2016</td> <td>0.46</td> <td>0.50</td> <td>0.43</td> </tr> <tr> <td>2021</td> <td>0.55</td> <td>0.65</td> <td>0.83</td> </tr> <tr> <td>2031</td> <td>0.59</td> <td>0.74</td> <td>0.83</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.07	0.32	0.87	2016	0.46	0.50	0.43	2021	0.55	0.65	0.83	2031	0.59	0.74	0.83	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.20</td> <td>0.26</td> <td>0.38</td> </tr> <tr> <td>2016</td> <td>0.63</td> <td>0.71</td> <td>0.64</td> </tr> <tr> <td>2021</td> <td>0.79</td> <td>0.83</td> <td>1.07</td> </tr> <tr> <td>2031</td> <td>0.93</td> <td>1.03</td> <td>0.83</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.20	0.26	0.38	2016	0.63	0.71	0.64	2021	0.79	0.83	1.07	2031	0.93	1.03	0.83	<table border="1"> <thead> <tr> <th>Year</th> <th>AM V/C</th> <th>PM V/C</th> <th>SAT V/C</th> </tr> </thead> <tbody> <tr> <td>Existing</td> <td>0.22</td> <td>0.28</td> <td>0.54</td> </tr> <tr> <td>2016</td> <td>0.23</td> <td>0.29</td> <td>0.45</td> </tr> <tr> <td>2021</td> <td>0.23</td> <td>0.30</td> <td>0.57</td> </tr> <tr> <td>2031</td> <td>0.26</td> <td>0.36</td> <td>0.63</td> </tr> </tbody> </table>	Year	AM V/C	PM V/C	SAT V/C	Existing	0.22	0.28	0.54	2016	0.23	0.29	0.45	2021	0.23	0.30	0.57	2031	0.26	0.36	0.63						
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.07	0.32	0.87																																																																		
2016	0.46	0.50	0.43																																																																		
2021	0.55	0.65	0.83																																																																		
2031	0.59	0.74	0.83																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.20	0.26	0.38																																																																		
2016	0.63	0.71	0.64																																																																		
2021	0.79	0.83	1.07																																																																		
2031	0.93	1.03	0.83																																																																		
Year	AM V/C	PM V/C	SAT V/C																																																																		
Existing	0.22	0.28	0.54																																																																		
2016	0.23	0.29	0.45																																																																		
2021	0.23	0.30	0.57																																																																		
2031	0.26	0.36	0.63																																																																		
	Confederation Parkway	Living Arts Drive	Duke of York Boulevard																																																																		

NOTES: At unsignalized intersections, highest v/c ratio shown
 1R - Single lane roundabout
 2R - Two lane roundabout

LEGEND	
	Below Capacity (V/C < 0.85) (V/C < 0.85)
	Approaching or at Capacity (0.85 ≤ V/C ≤ 1.0)
	Exceeds Capacity (V/C > 1.0)

Problem/Opportunity Statement

The City is studying the opportunity to extend Square One Drive from Duke of York Boulevard to Confederation Parkway with a strategy that will:

1. Provide access to undeveloped lands between Duke of York Boulevard and Confederation Parkway.
2. Provide additional capacity to the east /west traffic movement within this area.
3. Enhance the character of the downtown core.
4. Enhance the urban and pedestrian environment in a manner that aligns with the strategic directions of the City.
5. Provide a multi-modal facility that can be shared by commuter and commercial vehicles, pedestrians, and cyclists.

Alternative Solutions Considered and Evaluated

Alternative	Evaluation
<p>Do Nothing</p> <ul style="list-style-type: none"> •No improvements made to the surrounding roadways. •No extension of Square One Drive. 	<p>Will not address the problem or opportunity statement. (<i>Not Carried Forward</i>)</p>
<p>Improve Transportation Systems Management</p> <ul style="list-style-type: none"> •Improve signal operations at surrounding intersections. 	<p>Will not address the problem but will be incorporated with preferred solution.</p>
<p>Improve Travel Demand Management (TDM)</p> <ul style="list-style-type: none"> •Promote Carpooling, work from home, increased transit use, cycling. 	<p>Significant traffic is proposed to be using transit and/or other modes of transportation. Rathburn Road is proposed as a BRT route which may reduce the travel lanes from 4 to 2. TDM measures will be incorporated with the preferred solution. The traffic analysis was based on Rathburn Road West being reduced to 2 general purpose lanes.</p>
<p>Improve Parallel Roads</p> <ul style="list-style-type: none"> •Improve Parallel roads means adding additional lanes or improving signal operations to attract traffic away from Square One Drive. 	<p>Will not address the problem but will be incorporated with preferred solution. Parallel road improvements are being reviewed under separate planning studies.</p>
<p>Extend Square One Drive to Confederation Parkway</p> <ul style="list-style-type: none"> •Build a new link from Duke of York Boulevard to Confederation parkway. 	<p>Will provide access to future development in the area and provide an alternate route to Rathburn Road West. (<i>Carried Forward</i>)</p>

Square One Drive Class Environmental Assessment

Evaluation Criteria

Transportation

Traffic

- Traffic Operations
- Level of Service (delay)
- Queue Lengths
- Volume to Capacity Ratio
- Emergency Vehicle Access

Transit

- Impact on headways, ridership, routing, reliability and overall level of service

Pedestrians and Cyclists

- Provision of amenities, routing and comfort of facilities provided

Commercial Goods

- Commercial vehicle accessibility and movement

Safety

- Pedestrian Safety
- Cyclist Safety
- Collision Rates
- Auto conflict with pedestrians and cyclists
- Anticipated collision frequency and/or conflicts
- Emergency vehicle accessibility and movement
- Design compatibility with design standards (City and TAC), and other approved codes and design specifications

City Building and Urban Design

Strategic Priorities

- Reduced “urban heat island”
- Energy & water consumption
- Promoting balanced mobility
- Recycling of materials
- Concept of multi-purpose public right of way

Supports City Centre and Secondary Plan Alternatives

- City of Mississauga Official Plan objectives
- Downtown21 Master Plan objectives
- Sheridan College Master Plan objectives

Transportation Network Considerations

- Connections to other roads and transportation modes
- Complementation of surrounding community and serving as a catalyst for future development pursuant to the Downtown21 initiative

Future City Parks

- Design interface with future City Parks

Streetscape Improvement

- Context sensitive streetscape solutions
- Innovation and creativity
- Opportunities for pedestrian oriented streetscape and unifying urban design elements
- Opportunity to support street tree growth and mature tree canopy

Natural Environment

Natural Heritage Features

- Impact on environmentally Significant Features

Surface Water

- Potential flooding during major storm events
- Water quality
- Permeable surfaces to allow treatment of stormwater

Groundwater

- Impact to groundwater quantity and quality

Terrestrial

- Impact to existing vegetation
- Number of species impacted and level of concern
- Green design approaches

Air Quality

- Impact on emissions associated with traffic speed and volume

Evaluation Criteria (continued)

Socio-Economic Environment

Entrance

- Impacts to existing access and ability to serve new land uses

Construction

- Construction disruption (increased noise, dust, traffic)

Residential

- Impacts on travel patterns, access to network, noise, aesthetics
- Degree of vehicle intrusion to the neighbourhoods

Institutions and Businesses

- Impacts on parking, access, customer/user convenience

Existing Properties and Development Sites

- Property acquisition, other encroachments
- Conforms with current zoning and approvals
- Contextually sensitive to the character of the community

Accessibility

- Compatibility with Accessibility Design Guidelines

Cultural Environment

Archaeological/Cultural Heritage Resources

- Potential Impact to heritage sites or archaeological finds

Implementation

Construction Complexity

- Environmental constraints
- Ability to phase implementation of works
- Availability of construction accesses
- Adequacy of construction space

Utility

- Impacts to existing utilities
- Street tree conflicts with existing/proposed utilities

Construction Timing

- Duration of construction

Costs

Utility Relocation

- Removal of existing utilities
- Installation of new utilities

Capital Costs

- Cost to complete the works

Operating Costs

- Ongoing utility maintenance and repair costs
- Ongoing road maintenance and repair costs
- Ongoing landscaping maintenance costs
- Street tree and associated landscape maintenance

Property Acquisition

- Cost of acquiring property

Alternative Designs Considered

Alternative 1 – Do Nothing

Alternative 2 – Flush Street Design around Centre Island, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

- No raised curb separating the street and the pedestrian areas
- Large Centre Island separating two one-way lanes (3.6-m lanes with 0.5-m concrete strip on both sides).
- Streetscape features used to delineate road and pedestrian areas.
- Allows for multiple pedestrian crossing points.
- Cyclists are accommodated either within the flush street space or off-road on the adjacent parks.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.

Alternative 3 – Shared Street Design (No Centre Island) with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

- No raised curb separating the street and the pedestrian areas.
- Narrow two-lane, two-way street (3.35m lanes) in the middle of the right-of-way with Streetscape features used to delineate road and pedestrian areas (No centre island).
- Allows for random multiple pedestrian crossings.
- Cyclists accommodated either within the shared street space or off-road on the adjacent parks.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.

Alternative 4 – Traditional Landscape Street Design, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

- Similar to St. George Street Design at the University of Toronto Campus.
- Raised curb with narrow street traffic lanes (Minimum 3.25-m lanes), defined bike lanes and wide pedestrian areas.
- Enhanced streetscape for comfort and aesthetics.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.

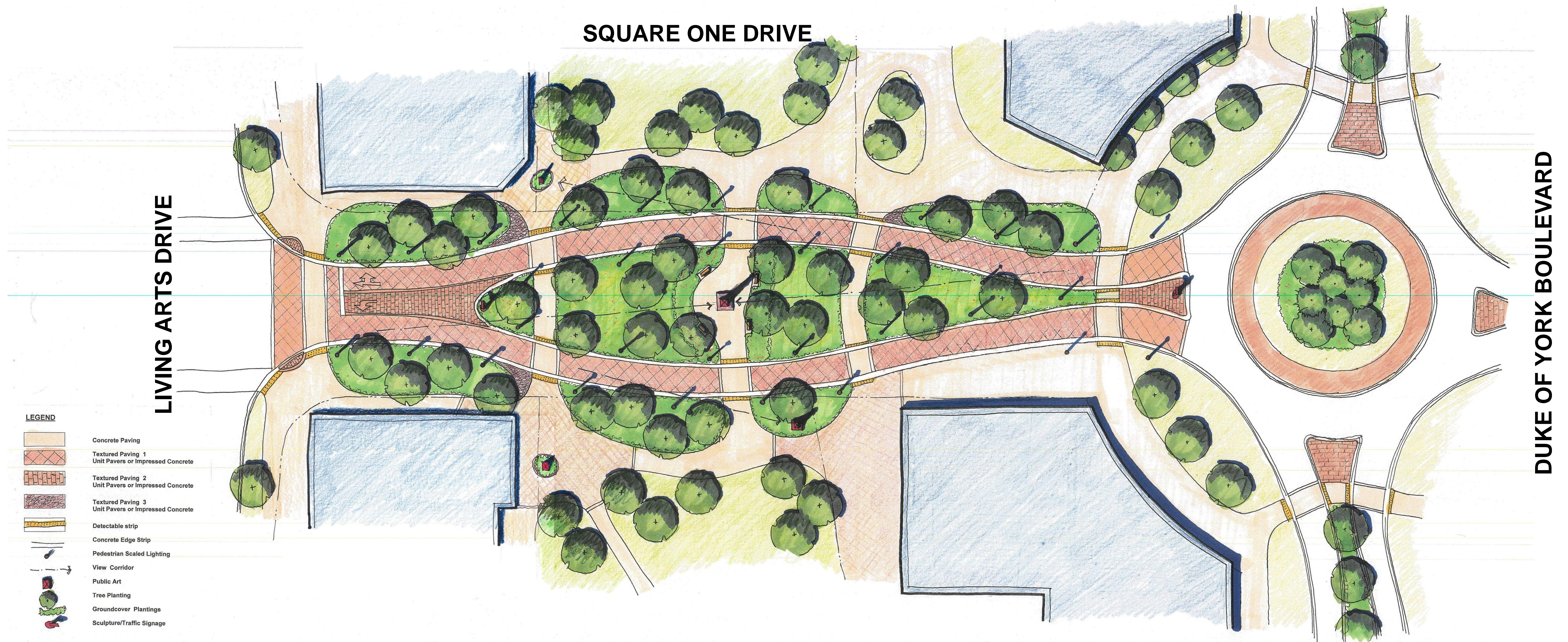
Traditional Landscaped Design with Bike Lanes and Parking (Living Arts Drive to Confederation Parkway) – Applicable to alternatives 2, 3, and 4

- Similar to the section of street constructed as part of the Chicago Development.
- Raised curb with narrow street traffic lanes, on-road bike lanes and sidewalks on both sides, and on-street parking on the south side.
- Improved streetscape where space allows.

Alternative Designs Considered

Alternative 2 - Flush Street Design Around Centre Island, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

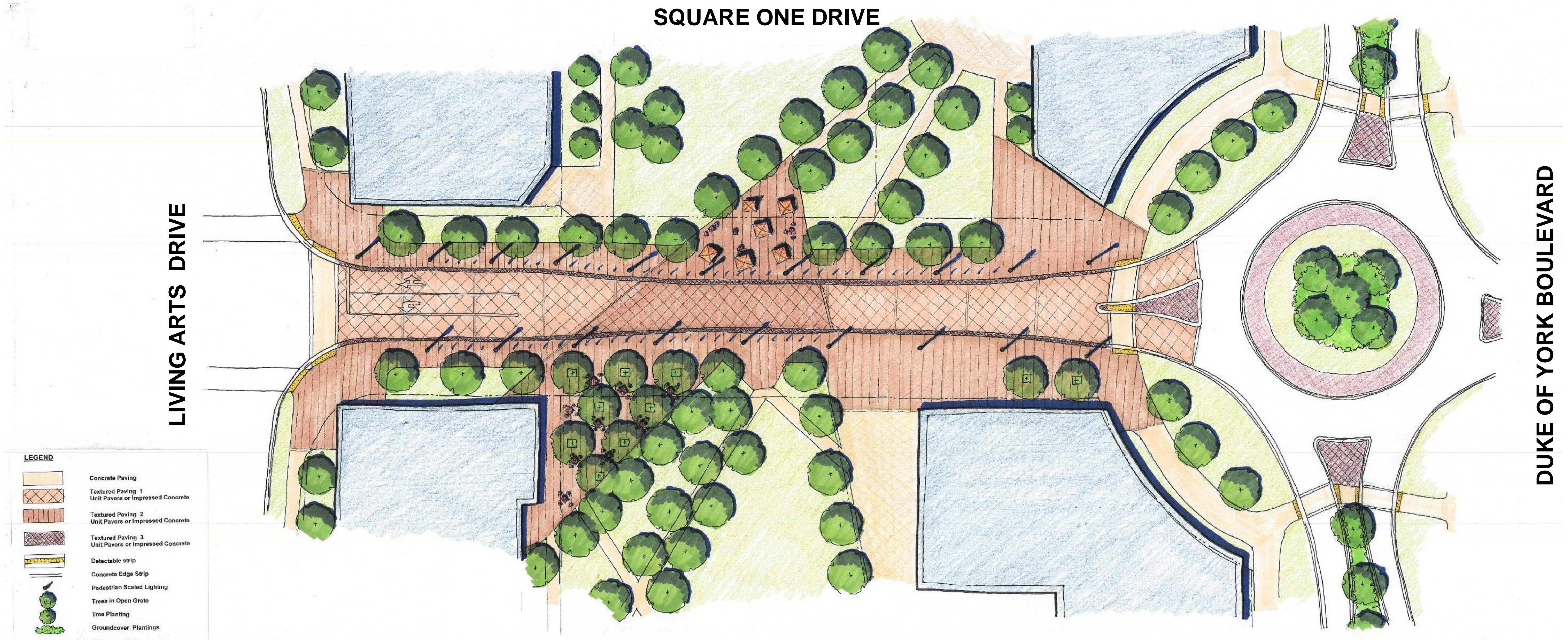
- No raised curb separating the street and the pedestrian areas
- Large Centre Island separating two one-way lanes (3.6-m lanes with 0.5-m concrete strip on both sides).
- Streetscape features used to delineate road and pedestrian areas.
- Allows for multiple pedestrian crossing points.
- Cyclists are accommodated either within the flush street space or off-road on the adjacent parks.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.



Alternative Designs Considered

Alternative 3 – Shared Street Design (No Centre Island) with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

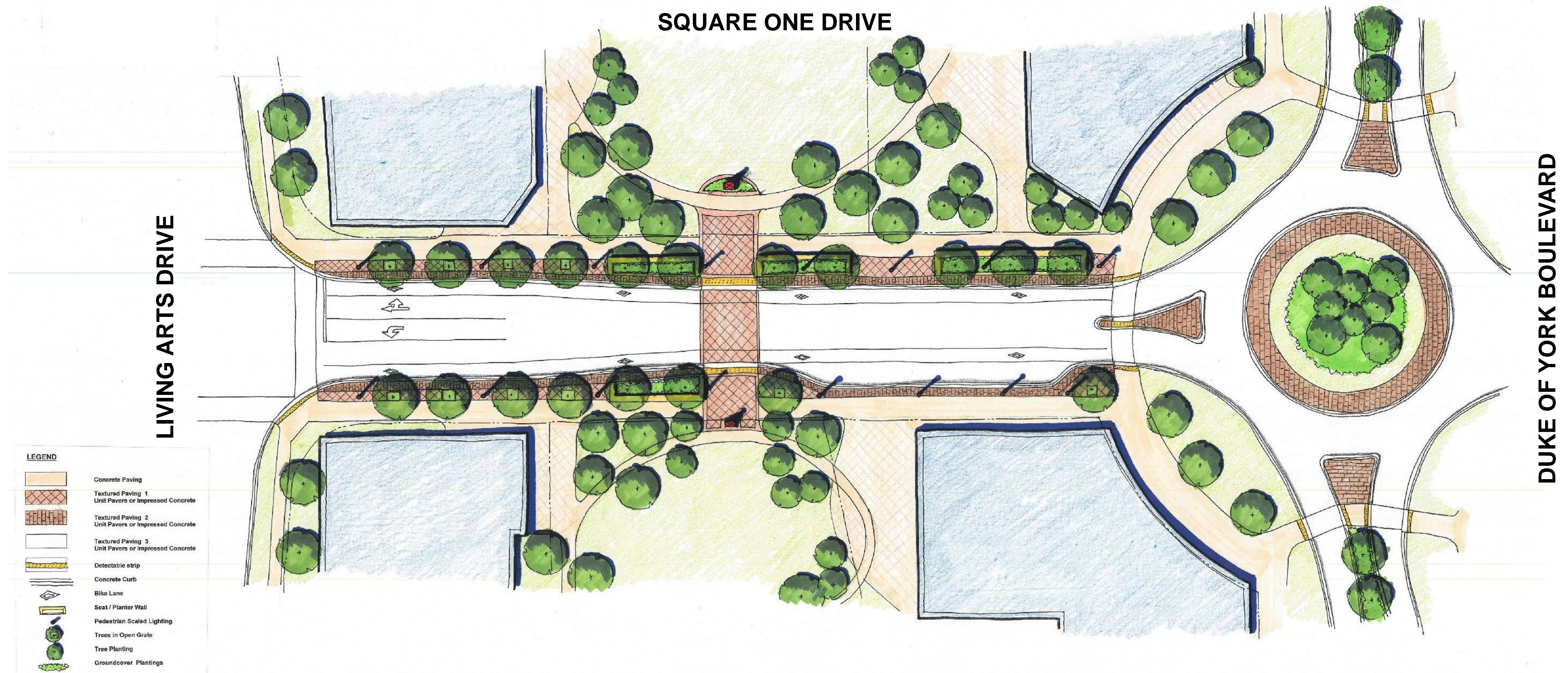
- No raised curb separating the street and the pedestrian areas.
- Narrow two-lane, two-way street (3.35m lanes) in the middle of the right-of-way with Streetscape features used to delineate road and pedestrian areas (No centre island).
- Allows for random multiple pedestrian crossings.
- Cyclists accommodated either within the shared street space or off-road on the adjacent parks.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.



Alternative Designs Considered

Alternative 4 – Traditional Landscape Street Design, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

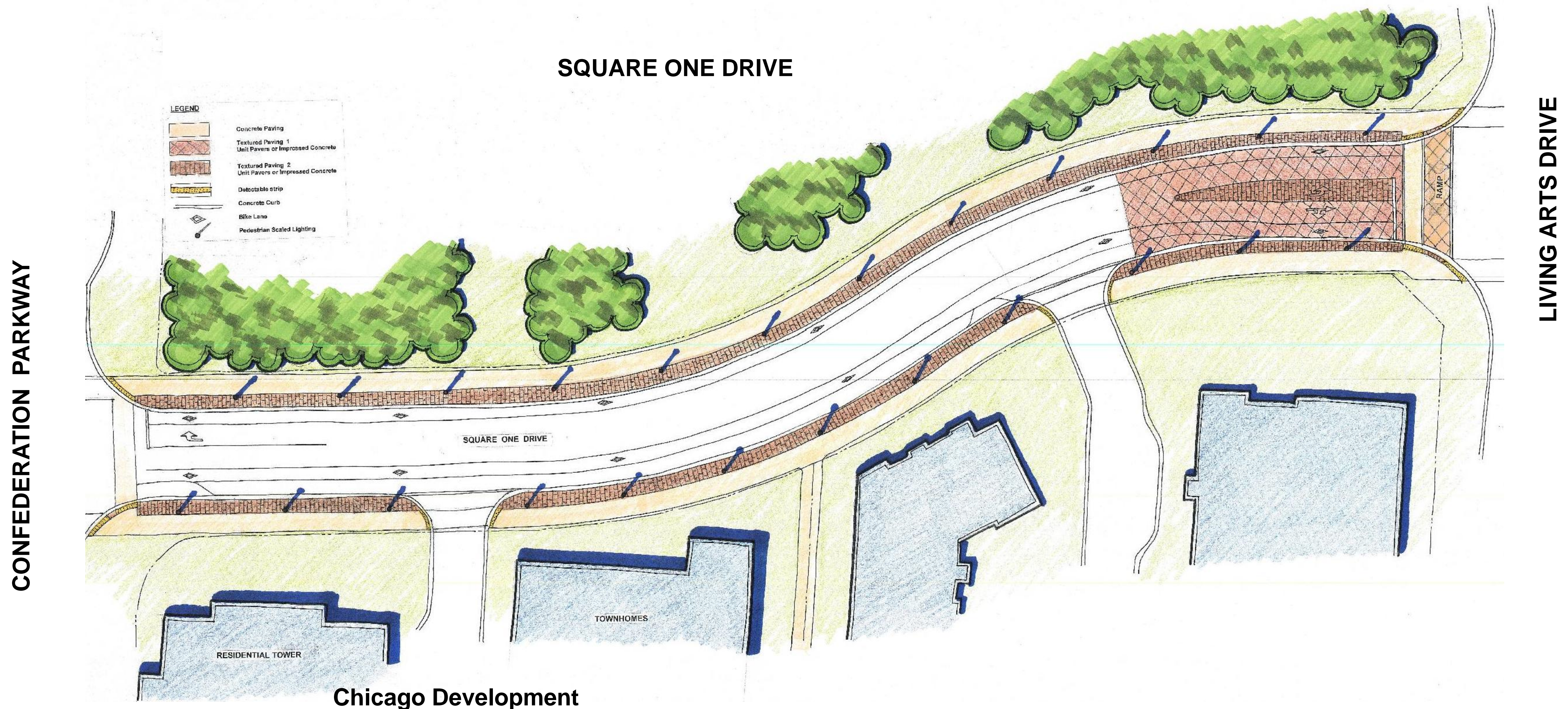
- Similar to St. George Street Design at the University of Toronto Campus.
- Raised curb with narrow street traffic lanes (Minimum 3.25-m lanes), defined bike lanes and wide pedestrian areas.
- Enhanced streetscape for comfort and aesthetics.
- Single-lane roundabout provided at Duke of York Boulevard instead of traditional signalized intersection.



Alternative Designs Considered

Traditional Landscaped Design with Bike Lanes and Parking (Living Arts Drive to Confederation Parkway) – Applicable to alternatives 2, 3, and 4

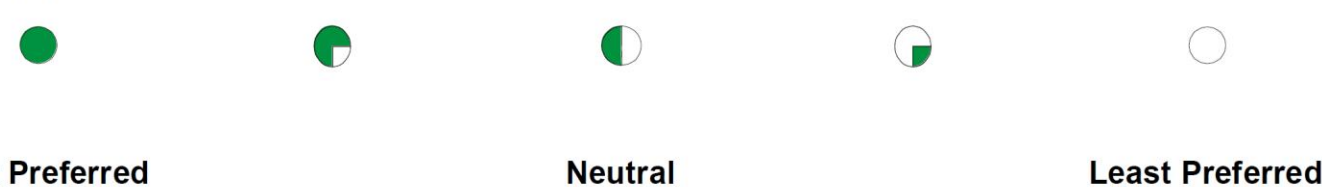
- Similar to the section of street constructed as part of the Chicago Development.
- Raised curb with narrow street traffic lanes, on-road bike lanes and sidewalks on both sides, and on-street parking on the south side.
- Improved streetscape where space allows.



Square One Drive Class Environmental Assessment

Evaluation of Alternative Designs

Preliminary Recommendations (Summary)							
	Alternative 1	Alternative 2	Indicator	Alternative 3	Indicator	Alternative 4	Indicator
FACTORS	Do Nothing	Flush Street Design around Centre Island, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)		Shared Street Design (No Centre Island) with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)		Traditional Landscape Street Design, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)	
Transportation	This alternative was evaluated as an alternative solution and was eliminated as it does not meet the problem/opportunity statement of this study	<ul style="list-style-type: none"> Curvilinear design, narrow lanes, textured riding surfaces and entrance ramps slow vehicles Pedestrians only have to look one way when crossing each lane of traffic Crossing points are defined and obvious to motorists and public 	●	<ul style="list-style-type: none"> Straight alignment and wide hard surface may lead to higher speeds Pedestrians must look both ways before crossing the street No defined pedestrian crossings 	●	<ul style="list-style-type: none"> Straight alignment and wide pavement may lead to higher speeds Limited locations for pedestrian crossings 	●
City Building & Urban Design		<ul style="list-style-type: none"> Supports many of the goals and objectives of the Downtown 21 Master plan, and the City's Official Plan Follows intent of Downtown 21 Master Plan more closely Provides more of a park environment 	●	<ul style="list-style-type: none"> Supports many of the goals and objectives of the Downtown 21 Master plan, and the City's Official Plan Provides more of a plaza environment 	●	<ul style="list-style-type: none"> Supports some of the goals and objectives of the Downtown 21 Master plan, and the City's Official Plan Does not meet the intent of the Downtown 21 Master Plan 	●
Natural Environment		<ul style="list-style-type: none"> No environmentally significant features noted Opportunities to use storm water infiltration and management in grassed swales 	●	<ul style="list-style-type: none"> No environmentally significant features noted Some opportunity for storm water infiltration and management but mostly hard surfaced 	●	<ul style="list-style-type: none"> No environmentally significant features noted Storm water conveyed by storm sewers 	●
Socio-Economic Environment		<ul style="list-style-type: none"> High degree of aesthetic appeal 	●	<ul style="list-style-type: none"> High degree of aesthetic appeal 	●	<ul style="list-style-type: none"> Improved aesthetics 	●
Cultural Environment		<ul style="list-style-type: none"> No heritage sites noted 	○	<ul style="list-style-type: none"> No heritage sites noted 	○	<ul style="list-style-type: none"> No heritage sites noted 	○
Implementation		<ul style="list-style-type: none"> Underground utility may conflict with tree planting Longest to construct because of curved alignment and use of pavers or textured concrete 	●	<ul style="list-style-type: none"> Straight alignment but heavy use of pavers or textured concrete 	●	<ul style="list-style-type: none"> Typical construction methodology, straight alignment, quickest to construct 	●
Costs		<ul style="list-style-type: none"> Medium to High 	●	<ul style="list-style-type: none"> Moderate 	●	<ul style="list-style-type: none"> Lowest 	●
OVERALL RATING		●		●		●	

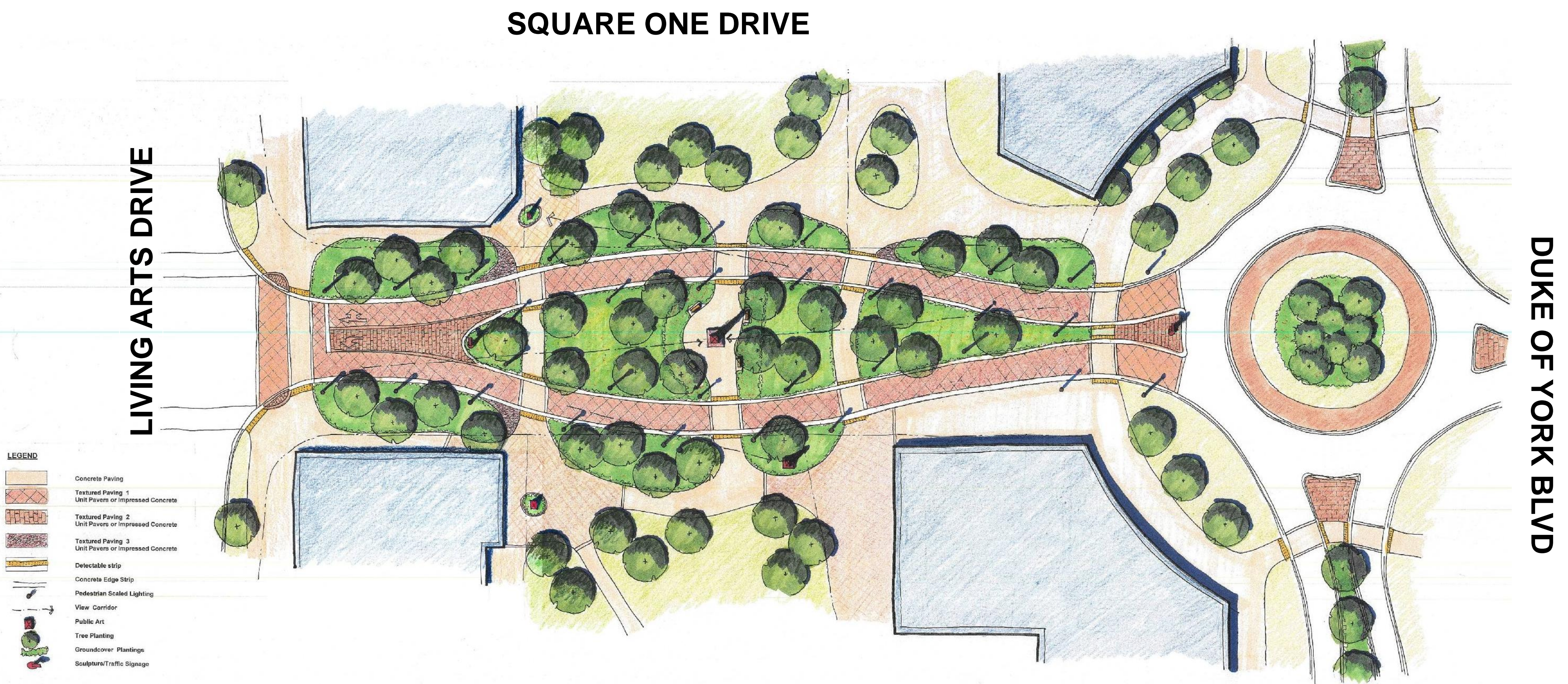
LEGEND


All alternatives have the same section between Living Arts Drive and Confederation Parkway, parking on the south side, 2 bike lanes and 2 vehicle lanes.

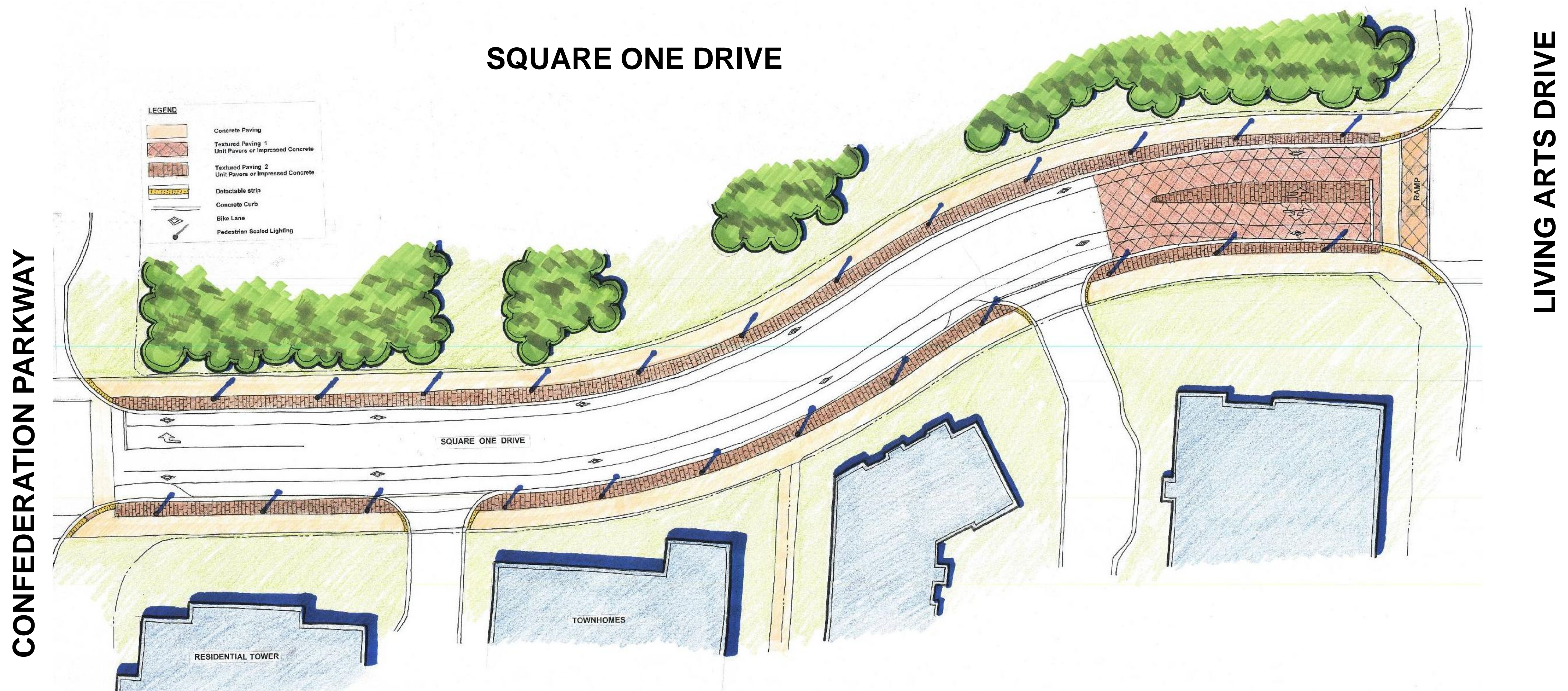
Square One Drive Class Environmental Assessment

Preferred Design Concept

Alternative 2 – Flush Street Design around Centre Island, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)



Traditional Landscaped Design with Bike Lanes and Parking (Living Arts Drive to Confederation Parkway) – Applicable to alternatives 2, 3, and 4

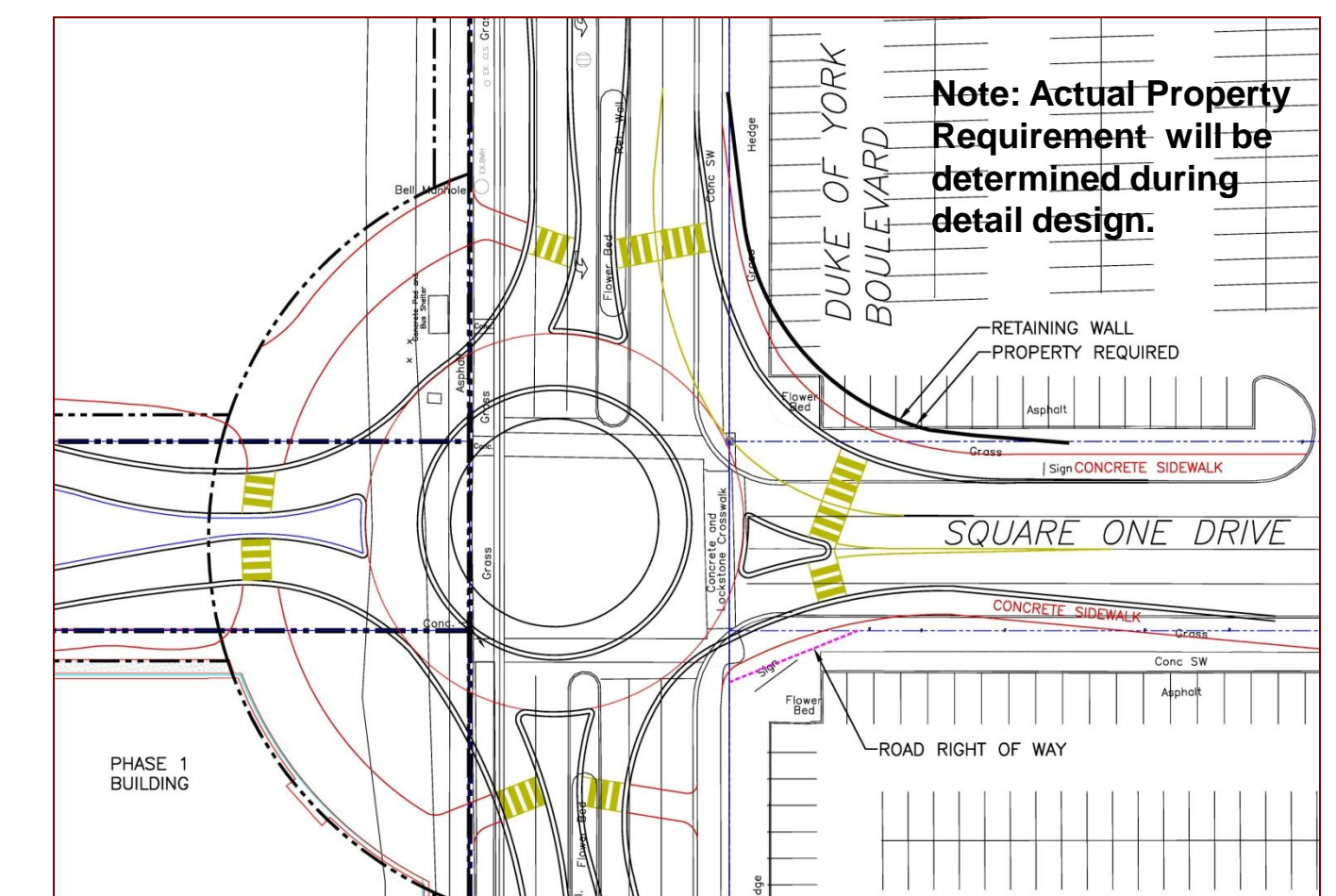


Preferred Design Concept

Alternative 2 - Flush Street Design Around Centre Island, with Roundabout at Duke of York Boulevard (Duke of York Boulevard to Living Arts Drive)

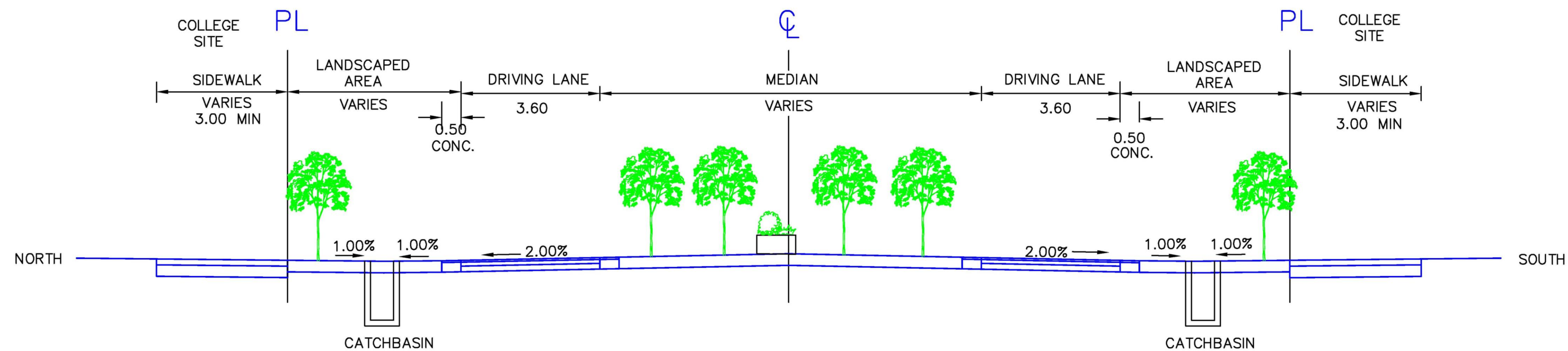


Future Added Right Turn



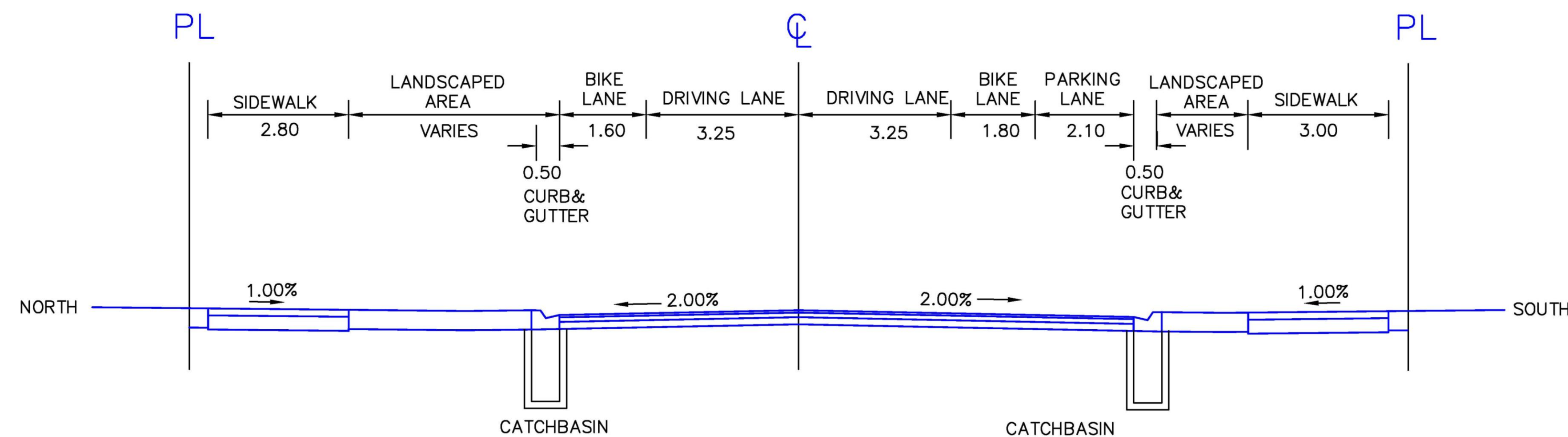
Preferred Design Concept

Typical sections



Alternative 2

Flush Street Design around Centre Island (Duke of York Blvd. to Living Arts Drive)



Traditional Landscape Street Design with Bike lanes and Parking (Living Arts Drive to Confederation Parkway)

Square One Drive Class Environmental Assessment

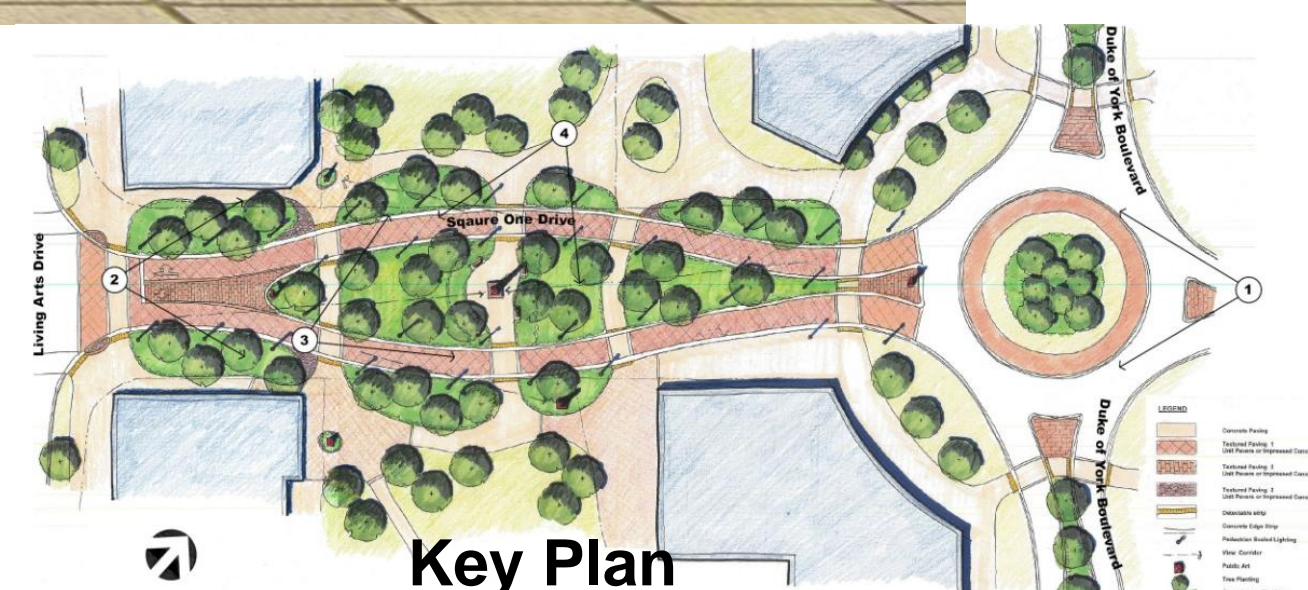
Preferred Design Concept - Views



Aerial View Looking West Along Square One Drive From Duke of York Boulevard



Pedestrian View Looking East Along Square One Drive From Living Arts Drive



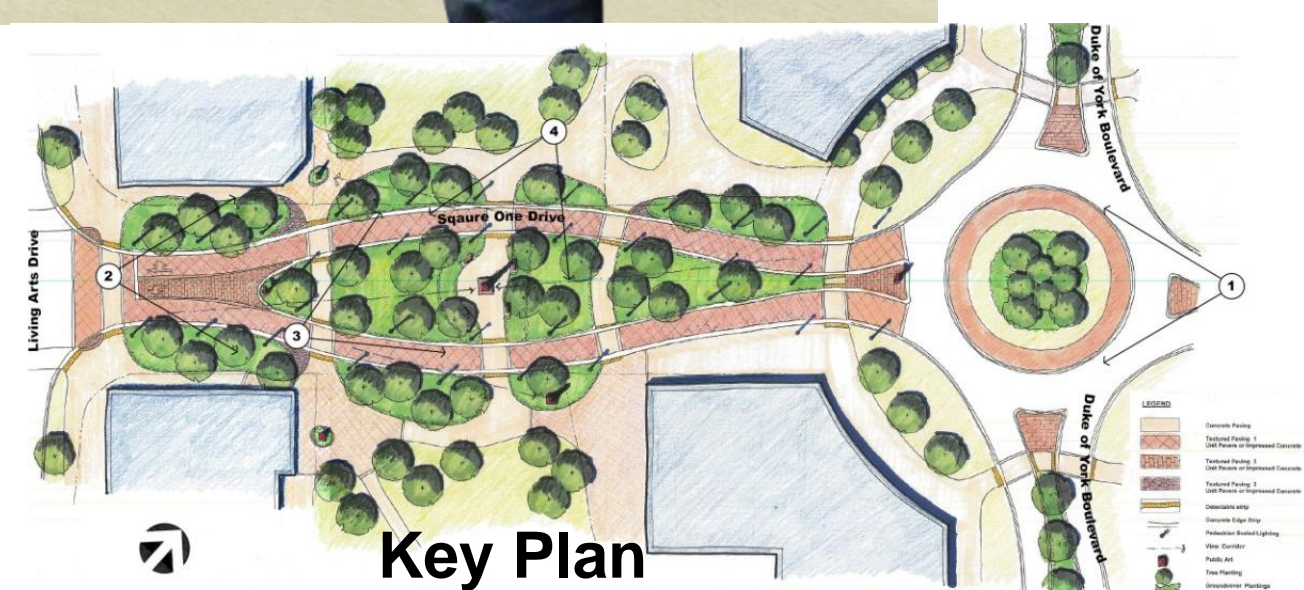
Preferred Design Concept - Views



Pedestrian View Looking Northeast from Square One Drive



Pedestrian View Looking Southwest From North Side of Sheridan College Campus



Square One Drive Class Environmental Assessment

Impact and Mitigation of the Preferred Design Concept

Factor	Anticipated Impact	Proposed Mitigation
Natural Environment		
Fisheries and Aquatic Habitat	<ul style="list-style-type: none"> No critical or significant habitat will be affected 	<ul style="list-style-type: none"> None
Vegetation and Vegetation Communities	<ul style="list-style-type: none"> Small amount of vegetation remaining to be removed east of Living Arts Drive. No significant species present 	<ul style="list-style-type: none"> Protect trees that are not going to be removed for construction
Wildlife and Wildlife Habitat	<ul style="list-style-type: none"> No critical or significant wildlife habitat affected 	<ul style="list-style-type: none"> None
Surface Water	<ul style="list-style-type: none"> Increased run-off from additional hard surfaces 	<ul style="list-style-type: none"> Look for opportunities to improve water quality and quantity during preliminary and detailed design
Soil Removal and Contaminants	<ul style="list-style-type: none"> No contaminated soils anticipated 	<ul style="list-style-type: none"> None
Social Environment		
Land use and Socio-Economic	<ul style="list-style-type: none"> Temporary access to Shopping Centre impacted during construction 	<ul style="list-style-type: none"> Meet with owner and coordinate construction timing
Property Requirements	<ul style="list-style-type: none"> Requirement for property from Square One Shopping Centre 	<ul style="list-style-type: none"> City has initiated discussions with the property owner and the issue will be resolved
Noise	<ul style="list-style-type: none"> Some noise during construction 	<ul style="list-style-type: none"> Limit noise generating activities to daylight hours
Archaeology, Heritage and Cultural Resources	<ul style="list-style-type: none"> Phase 1 assessment indicated archaeological potential along the site 	<ul style="list-style-type: none"> Recommend Phase 2 assessment prior to construction
Air Quality	<ul style="list-style-type: none"> Reduced air quality during construction 	<ul style="list-style-type: none"> Apply water and Calcium Chloride during construction
Safety	<ul style="list-style-type: none"> Safety for pedestrians, cyclists and motorists 	<ul style="list-style-type: none"> Design flush street and roundabout to keep speeds low
Streetscaping/Urban Design	<ul style="list-style-type: none"> Enhanced Streetscaping and Urban Design 	<ul style="list-style-type: none"> Incorporate high level of streetscaping during detailed design and construction
Utilities	<ul style="list-style-type: none"> Some Relocations required New utilities need dedicated line assignment 	<ul style="list-style-type: none"> Meet with utility companies during detailed design to sort out new locations
Construction	<ul style="list-style-type: none"> Inconvenience during construction 	<ul style="list-style-type: none"> Give public plenty of notice of

Next Steps

- Review all preliminary materials presented today along with comments and suggestions received from the public, agencies, utilities, etc.
- Respond to written questions and comments
- Based on input, confirm the Preferred Design Concept
- Complete preliminary design of preferred alternative
- Prepare Project File Report and file for 30 day Public Review

Public input is an essential component of the decision-making process and you are invited to provide comments by completing the questionnaire/comment sheet and submitting it to the project team tonight or mail/fax/email it back to the project team before May 27, 2010.

If you have any questions or comments after tonight's meeting, please contact either:

Abdul Shaikh, P.Eng.
Project Manager
City of Mississauga
201 City Centre Drive
Mississauga ON L5C 4R1
Telephone: 905-615-3200, Ext. 3734
Fax: 905-615-3173
Email: abdul.shaikh@mississauga.ca

Gord Murray, P. Eng., PTOE
Senior Project Manager
Stantec Consulting Ltd.
300 – 675 Cochrane Drive West Tower
Markham, ON L3R 0B8
Phone: (905) 944-7786
Fax: (905) 474-9889
Email: gordon.murray@stantec.com

Thank You