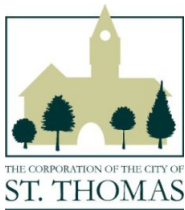


Complete Streets



St. Thomas

Creating Attractive and Livable Streets



Dear Residents of St. Thomas,

One of our Council's Strategic Goals is to create a city that provides a safe, healthy and vibrant community. To help achieve this goal we want to create complete streets that:

- Meet the needs of all ages, abilities and modes of travel;
- Develop healthy and safe options to get around the City;
- Establish connected and unique neighbourhoods; and
- Enhance the attractiveness and livability of our City.



This guideline highlights the various tools that can be used to create Complete Streets. We are excited to see these streetscape upgrades implemented on future projects throughout our City.

Sincerely,

Mayor Heather Jackson
City of St. Thomas



Dear Staff, Stakeholders, and Community,

The intentions of this document are to raise the corporate collective knowledge related to improving streetscapes and to influence positive change.

Every time we spend tax, sewer/water, development charges, or stimulus funding in the right of way, we should be making streetscape improvements. Whether it is as complex as the west end Talbot streetscape improvement or as simple as adding a sidewalk, there are always gains to be made.



Every project should consider all the tools to make the improvements in terms of cost and benefit. It is very likely that low cost and no cost improvements can be made on every project. However, it is also a certainty that we can't afford making full streetscape upgrades everywhere.

Safe, functional, and attractive streetscape have numerous community benefits.

Sincerely,

Justin Lawrence, P.Eng
Director of Environmental Services
and City Engineer

VISION

The City of St. Thomas will design, create, and build Complete Streets that accommodate users of all ages and abilities and all modes of transportation including pedestrians, cyclists, motorists, and transit users.



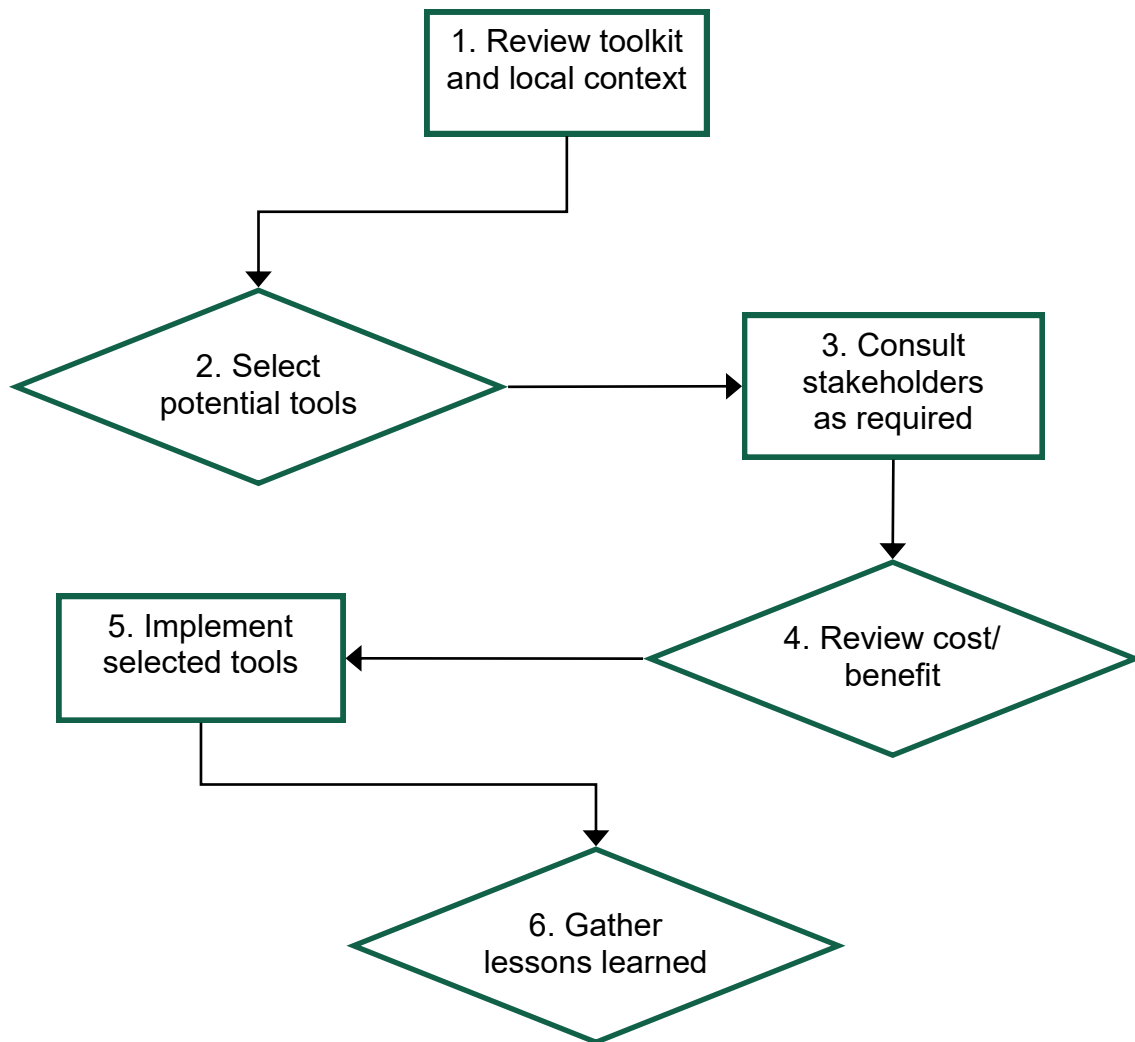
The City of St. Thomas' Community Strategic Plan has a goal *"To provide a Safe, Healthy and Vibrant Community"*. Rebalancing our streets to provide all modes of transportation with the same access as cars will enhance the quality of life in our community and encourage active transportation.

Principles of our Complete Streets philosophy include:

- Apply to all projects from rehabilitation to new construction
- Incorporate concept into design standards and policies
- Take into account the local context
- Account for impact to underground infrastructure and maintenance
- Create integrated networks by connecting to parks, trails, and green spaces
- Analyze cost/benefit to ensure best value

IMPLEMENTATION

Complete Streets should be applied to all right-of-way projects including new construction, reconstruction, site plan work, and subdivisions. The details of the design approach should be customized to each individual project but will follow the same general process.

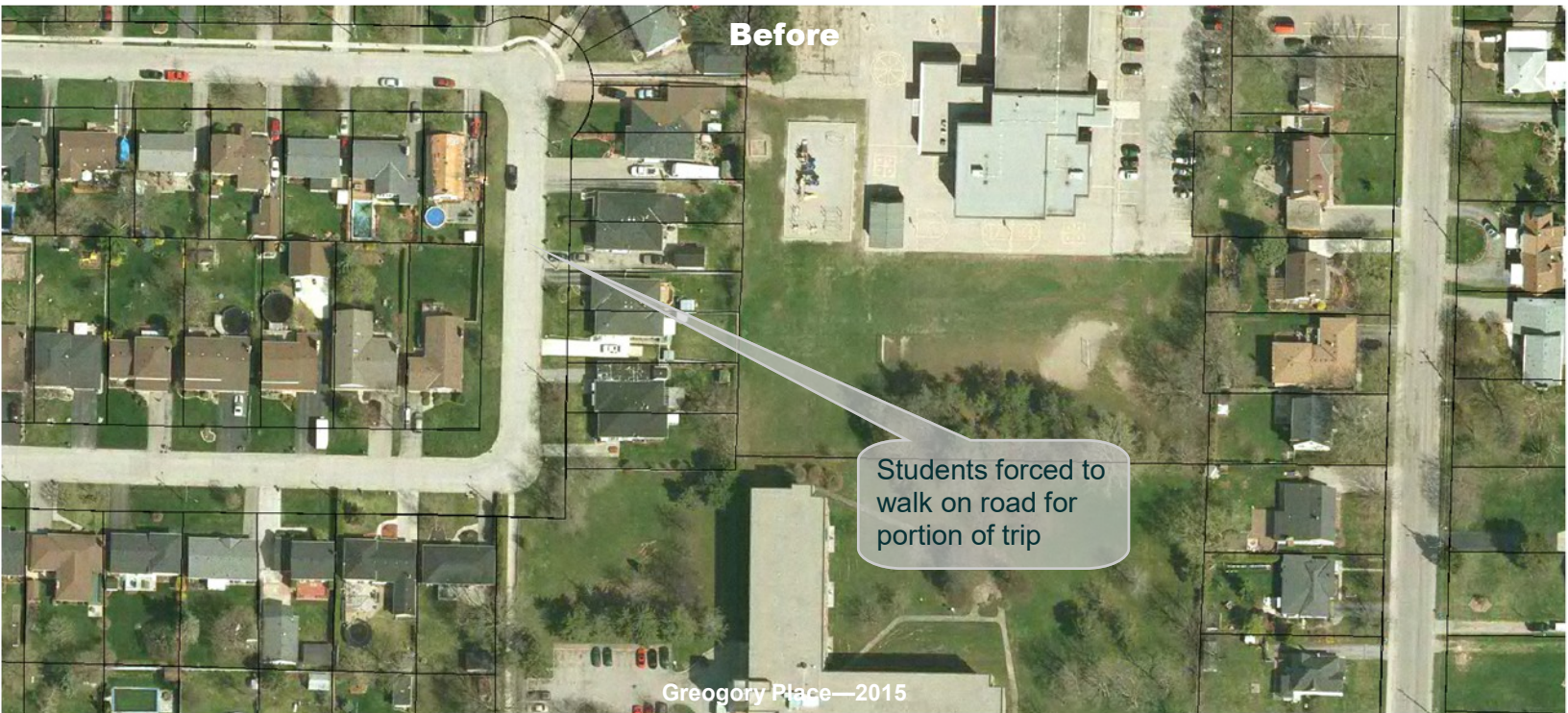


TOOLKIT

Complete Streets are created by implementing various tools that suit the local context. The tools below are a starting point for designers to create Complete Streets.

Tool	
1	<u>Neighbourhood/Pedestrian/Cycle Connectivity</u>
2	<u>Add Sidewalk/Alter Road Width vs. Boulevard vs. Sidewalk</u>
3	<u>Cycle Facility Upgrades</u>
4	<u>Upgrade Pedestrian Zone/Improve Snow Storage</u>
5	<u>Strategic Property Acquisition</u>
6	<u>Protect Trees and Improve Planting Zones</u>
7	<u>Improve Public/Private Parking Options</u>
8	<u>Improve Multi-Modal Intersection Efficiency</u>
9	<u>Cul-de-sac Enhancement</u>
10	<u>Placemaking—Community Enhancement Features</u>
11	<u>Neighbourhood Placemaking</u>
12	<u>Bury/Move Utilities</u>
13	<u>Parks/Facilities Integration</u>
14	<u>Traffic Safety Measures</u>
15	<u>Access Control</u>
16	<u>Street termination</u>

1. Neighbourhood/Pedestrian/Cycle Connectivity



Complete missing links in sidewalk/cycle routes or add new connections to create integrated networks. Look beyond direct project limits for additional opportunities. Consider long term benefits when evaluating any necessary property acquisition or utility relocation. Complete networks make cycling and walking more attractive options.

2. Add Sidewalk/Alter Road Width vs. Boulevard vs. Sidewalk

Before



After



Add sidewalk to improve safe pedestrian travel. Avoid curb faced sidewalk whenever possible. May need to shift road and/or reduce lane widths to maximize boulevard space. Tree removals may be required, strategically plant new trees to avoid future conflicts. Install tactile plates and longer gradual ramping to improve accessibility.

3. Cycle facility upgrades

Before

Unused parking
on both sides

Excessive
travel lane size

Chestnut Street—2013

After

Pavement markings reallocate
underutilized asphalt for other
modes

Chestnut Street—2016

Add bike lanes on identified routes. May require widening road, reducing vehicle lane widths, and/or removing on-street parking. Make connections to multi-use pathways.

4. Upgrade Pedestrian Zone/Improve Snow Storage



Maximizing boulevard width between the sidewalk and road improves sense of pedestrian safety, simplifies winter maintenance, and creates space for landscaping. Ideally achieve barrier curb with minimum 1.5m boulevard and no obstructions in or adjacent to sidewalk (i.e. hydro poles, fence, etc.).

5. Strategic Property Acquisition

Before

Private property extends to curb prohibiting connection of sidewalk at corner

Chestnut Street—2014

After

Purchased property to install continual sidewalk

Chestnut Street—2016

Strategically acquire property to ensure a complete design. Often required at intersections but also along roads to provide sufficient width for cycle lanes or to avoid curb face sidewalk. Also, consider where possibilities exist to connect pedestrian and cycle networks.

6. Protect trees and improve planting zones



Ensure proper tree protection during construction and do cost/benefit analysis of trenchless vs. open cut to save trees. Increase boulevard space or plant new trees behind sidewalk. Avoid planting new trees in locations that conflict with utilities.

7. Improve Public/Private Parking options

Before



After



Improve parking options by reducing driveway widths or eliminating driveways. Create clearly defined parking bays to improve streetscape and minimize pedestrian crossing distances at intersections.

8. Improve Multi-Modal Intersection Efficiency

Before

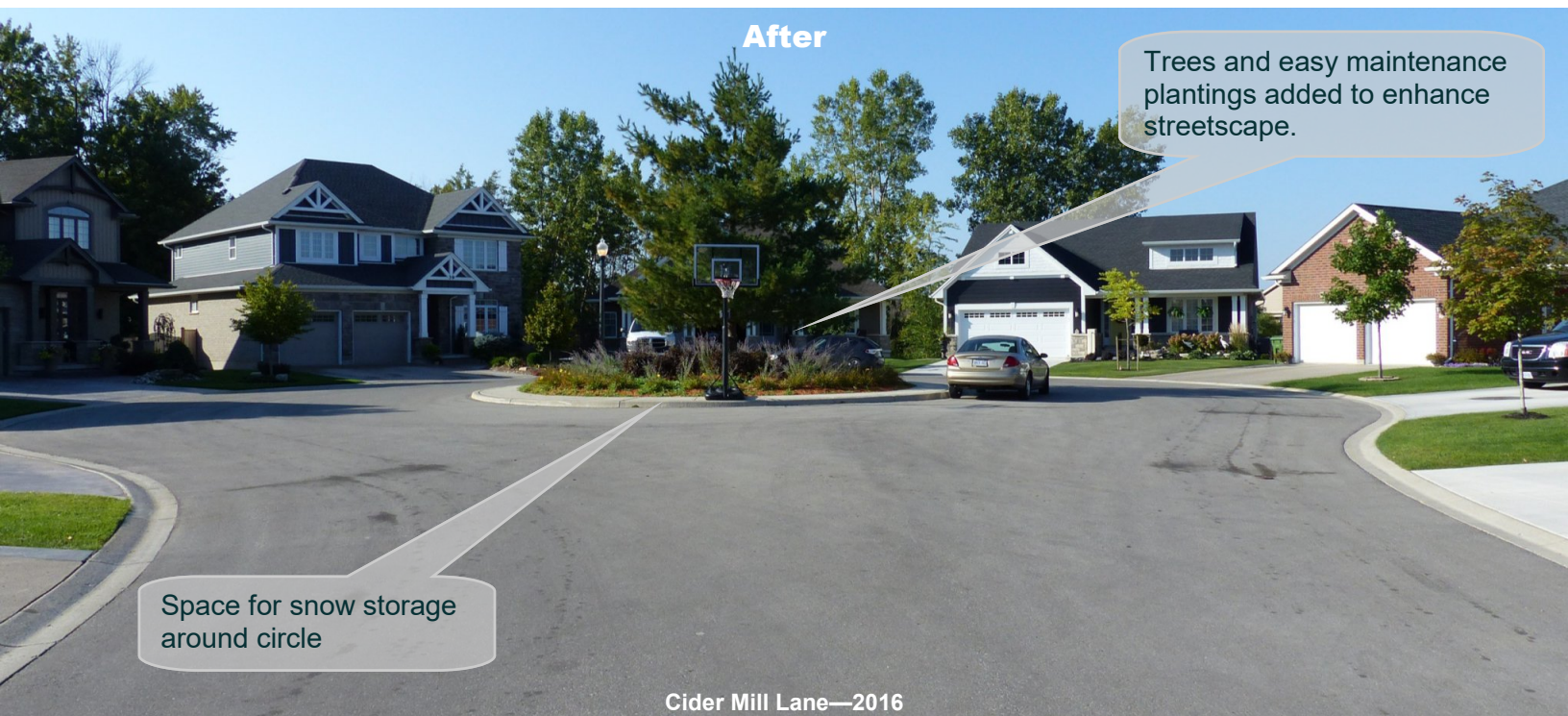


After



Improve intersection safety by shortening pedestrian crossing distances and increasing visibility of pedestrians. Consider use of pedestrian crossing signals at high traffic intersections.

9. Cul-de-sac Enhancement



Improve cul-de-sacs by installing a centre island and landscaping appropriately. Add trees and low maintenance stones or mulch. Leave space for snow storage. Incorporate community features such as bench or community mail box.

10. Place Making—Community Enhancement Features



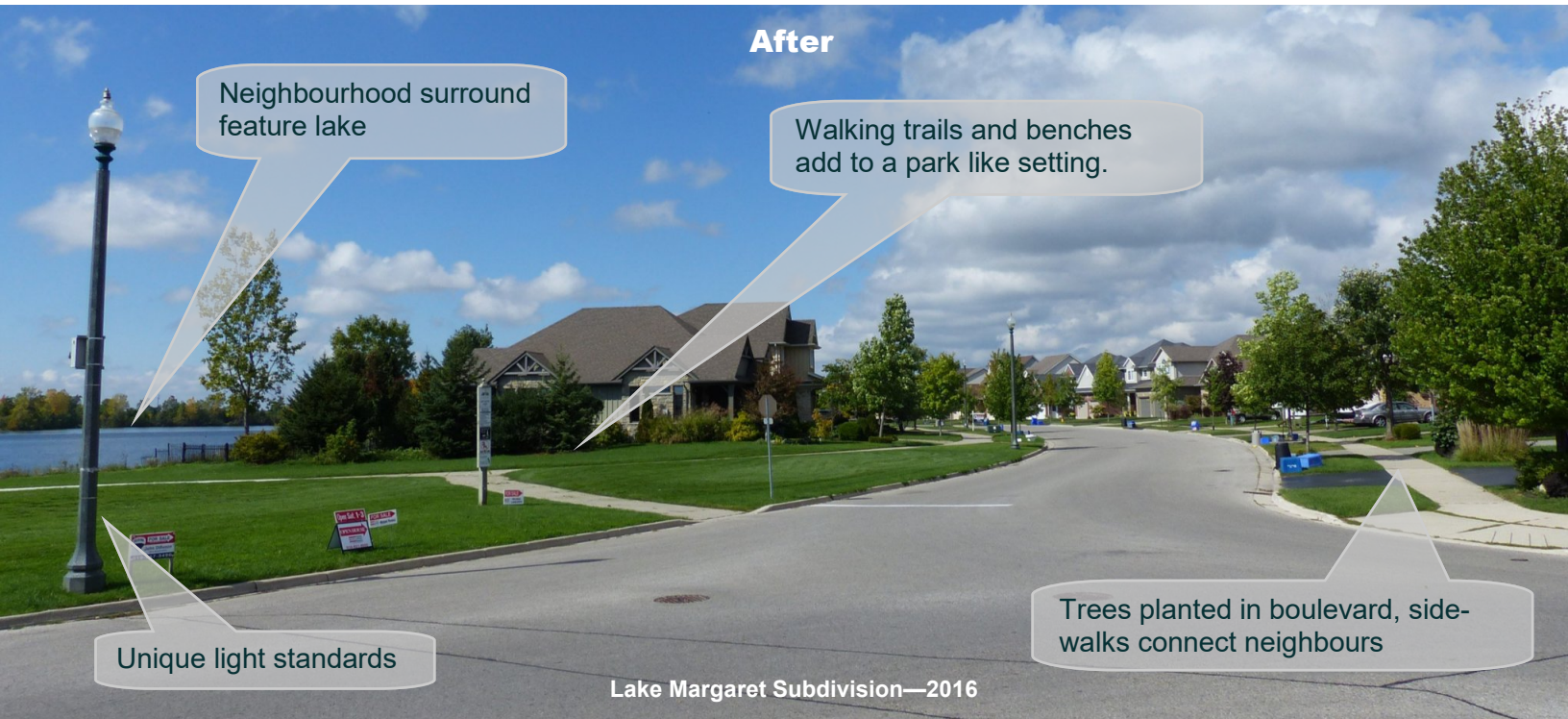
Work with local community to incorporate unique features. Create inviting pedestrian zones with seating and shade trees. In neighbourhood districts consider custom street name signs, street name stamped in sidewalk, etc.

11. Neighbourhood Placemaking

Before



After



Implementing general Complete Streets tools enhances the attractiveness and livability of neighbourhoods. A great way to enhance communities even more is by creating identifiable and unique neighbourhood themes. Examples include: Shaw Valley, Lake Margaret, and the Courthouse.

12. Bury/Move Utilities

Before



After



Consider long term benefit vs. cost of utility relocation. Move utilities out of pedestrian zone and eliminate trip hazards like manholes and valves. Bury utilities in high profile areas.

13. Parks/Facilities Integration

Before

Unused green space, no character, unattractive



Moore Street—2009

After

Pathways and Trees added for community enhancement and to connect to existing trail



Moore Street—2016

Tie street into parks and multi-use pathways to improve overall network connectivity. Add pedestrian crossings where volumes are high.

14. Traffic Safety Measures

Before

Wide straight street in residential area leads to high speeds



Manor Road — 2014

After

Appropriate lane size and intersection curb radii reduce speeds



Manor Road — 2016

Reduce lane sizes and intersection curb radii where appropriate to lower speeds and improve safety for pedestrians and cyclists.

15. Access Control

Before



After



Removing unnecessary accesses reduces conflict points and improves pedestrian safety. Wide driveways should be narrowed to conform with updated standards.

16. Street Termination



Streets should terminate in a bulb that allows for vehicles to turn around without performing a three point turn. Improves safety for trucks not having to reverse down road. Sidewalks should terminate in hard surface at the bulb.