



Niagara  Region

complete streets for **niagara**



# Contents

Background	3	Who can apply for local improvements?	69
Developing the Model Policies	5	How can they be used to develop Complete Streets?	70
Prioritizing Streets to Complete	6	Examples of Capital Works Qualified for Application of Local Improvement Charges	71
Inspiration for the Model Policies	8	Linkages to the Smarter Niagara Incentives Program	71
How to Use This Document	9	Public Engagement and the Environmental Assessment Process	72
Definitions, Goals and Objectives	11	What is an Environmental Assessment?	72
Niagara Definition for a Complete Street	11	The Five Phases of an Environmental Assessment	73
Goals	11	How can the public participate in the process?	75
Objectives	12	Additional Opportunities for Public Engagement	76
Model Official Plan Policies	14	Appendix 1	78
Quantitative:	59	Appendix 2	79
Qualitative:	60		
Performance Indicators for Complete Streets	62		
Performance Indicator Examples	63		
Local Improvement Charges – Ontario Regulation 586/06	68		
What is a Local Improvement Charge?	68		

## Background

In November of 2011, an Active Transportation Summit was hosted by Healthy Living Niagara to explore ways to make walking and cycling more accessible and occur more often within Niagara. The participants who attended the summit included municipal planners and engineers, elected officials, community stakeholders and local residents. A list of 15 actions was derived by the participants; the top action requested was the implementation of 'Complete Streets' to help encourage more active transportation on existing roads.

In response to this request, the Region initiated the "Complete Streets for Niagara" project in January of 2012. The project included the preparation of a discussion paper and conversations with many local stakeholders about the perceived challenges and opportunities associated with improving Niagara's streets. The process has involved a review of local policy efforts to date for making streets more accessible and the development of additional model policies which help create a strong framework for successfully implementing 'Complete Streets' in the Niagara region.



These model official plan policies have been developed to assist the Region and local municipalities in promoting healthy and prosperous communities with a balance of transportation options. Extensive stakeholder engagement with local staff, public officials and local transportation advocates has provided detailed feedback on the pro's and con's associated with Niagara's transportation system. It is hoped that these new policies will serve as effective tools in improving the local transportation network for all road users.

## Developing the Model Policies

Great public policy comes from great public engagement. In order for policy to be effective, it must address real issues and concerns from the individuals that use the infrastructure and networks daily. While best practices and research compiled for the Discussion Paper provided a good base for policy development, hearing and experiencing a local perspective has helped create a policy set that is unique to Niagara. The policies provided address concerns that were collected during the consultation period and the pilot project.

The Model Policies are arranged to respond to Concerns that were identified by stakeholders during the consultation process. Discussion and information pertaining to the issues, as well as possible solutions are provided as Background. Best practices in the form of local official plan policies have been provided from local municipal plans. In addition, local best practices, newly created model policies and Policy Approaches have been provided to address the specific concerns. A list of Resources and non-policy related solutions is provided at the end to assist in the implementation process.



## Prioritizing Streets to Complete



Any street can be made more “complete” through reconfiguration, investment and infrastructure enhancement. While some enhancements can be low cost and yield significant economic, social and environmental benefits, it is important to maximize investment opportunities through proactive and coordinated planning. In many cases, ‘Complete Streets’ fall beyond the scope of an annual roads budget for a municipality and require additional funding for implementation. Establishing partnerships with local business groups, adjacent landowners and the community as a whole is encouraged to effectively implement Complete Streets.

The highest concentrations of people and jobs are typically found within, or in close proximity to a downtown area. Provincial and Regional Planning Policy direct the majority of new growth to existing built-up areas within communities to contribute to their intensification target. As the population density increases, there are additional opportunities to develop more walkable neighbourhoods and efficient public transit network.

To capitalize on new infrastructure investments, it is important that such improvements are provided in areas where they can be used by the largest amount of people, such as a downtown, mall or college. The further away from the downtown, the fewer transportation options there will likely be due to a larger spatial separation and clustered types of land uses. To achieve a community goal it is important to seize opportunities where people are already walking, cycling or taking transit.

Over time networks can be expanded and improved, reaching further outside of downtown and linking up with valuable suburban and rural networks such as trails, highways and transit stations. Below are some suggested circumstances to consider when selecting a street to complete:

- The street is scheduled for rehabilitation or renovation
- The street is served by public transit
- The street is within a Community Improvement Plan area
- There are perceived safety concerns in the area
- Is on or adjacent to the Niagara Bike Network
- Contains a mix of land uses (residential, commercial, etc.)
- The street is within in area of regional or local significance (downtown, mall, school, medical facility, landmark, etc.)
- There is available funding



## Inspiration for the Model Policies



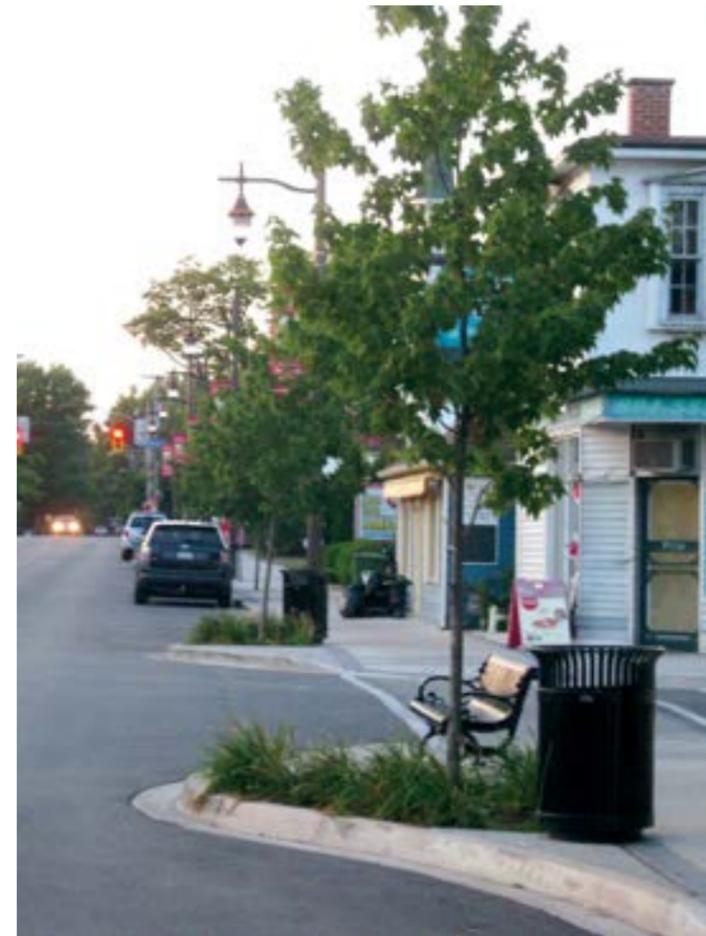
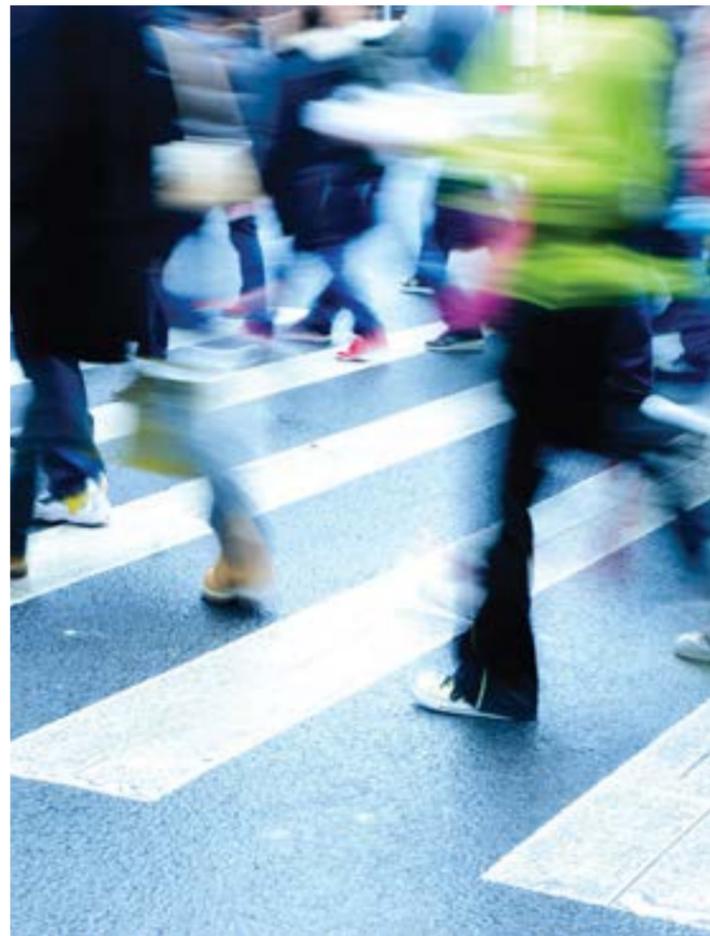
Within local official plans there are many great examples of transportation and land use policies that are providing important direction to develop Complete Streets. Some of the concerns that have been raised about Niagara's streets during the consultation sessions are addressed in some local plans, but not all. In some instances, the concerns have not been brought forward for discussion and no policy solution has been developed as of yet. The model policies can assist local municipalities by providing new solutions, resources and strategies to help resolve concerns and achieve 'Complete Streets' that can be enjoyed by all residents.

## How to Use This Document

The model policies that are outlined in this report are derived from existing local policies and best practices from other communities. These policies are written as a foundation and are adaptable to fit official plans, secondary plans or transportation master plans. The model policies are not meant to replace land use or transportation policies contained within existing plans, they are meant to enhance them.

The qualifying terms (shall, may [...] etc.) included within the model policies are suggested. Each term carries a different level of commitment (mandatory, preferred, [...] etc.) from the municipality. During adoption, municipalities are encouraged to qualify these model policies to appropriately fit their existing policy framework.

The Complete Streets for Niagara Model Policies meet the intent of the Provincial Policy Statement (2005), Growth Plan for the Greater Golden Horseshoe (2006), and the Regional Policy Plan and compliment Niagara's Transportation Strategy (2012). The policies encourage actions and investments that can contribute to healthy communities while at the same time addressing Provincial interests as outlined within the Planning Act. Municipalities are encouraged to include these model policies and associated concepts within their Official Plans and Secondary Plans during a municipal comprehensive review or amendment. All policies do not need to be added to a local official plan. This document contains a variety of suggested best practices that can be chosen in any grouping that best reflects the land use context and vision of the municipality.



Before amending an official plan, it is valuable to do an assessment of the policies contained within it and measure the strength of the current policy framework related to active transportation, the public realm and Complete Streets.

Additional resources and links have been provided throughout this document. These resources will direct the reader to best practices, related programs, funding opportunities and implementation techniques. If and when developing any public policy or infrastructure please consult the provisions of the Accessibility for Ontarians with Disabilities Act (AODA) (2005). Links to specific parts of the Act are provided throughout the document for reference.

## Definitions, Goals and Objectives

The following Definition can be included within local planning documents to provide context around "Complete Streets".

### Niagara Definition for a Complete Street

"A complete street is a public right-of-way where the transportation facilities and adjacent land uses are planned, designed and constructed to accommodate users of all ages and abilities including pedestrians, bicyclists, transit vehicles, automobiles and freight traffic."

### Goals

The Goals that are set by a municipality choosing to develop Complete Streets will vary depending on the context. Goals should be attainable and have clear benefits to the community (health, social, economic, environmental) and ultimately address a concern or issue. Goals should be measurable to determine if that have been achieved. For example, concerns over pedestrian safety in a downtown can be addressed by providing new infrastructure such as sidewalks with pedestrian oriented lighting. The success of this goal can be measured by looking at the annual pedestrian or cyclist collision data for the area.



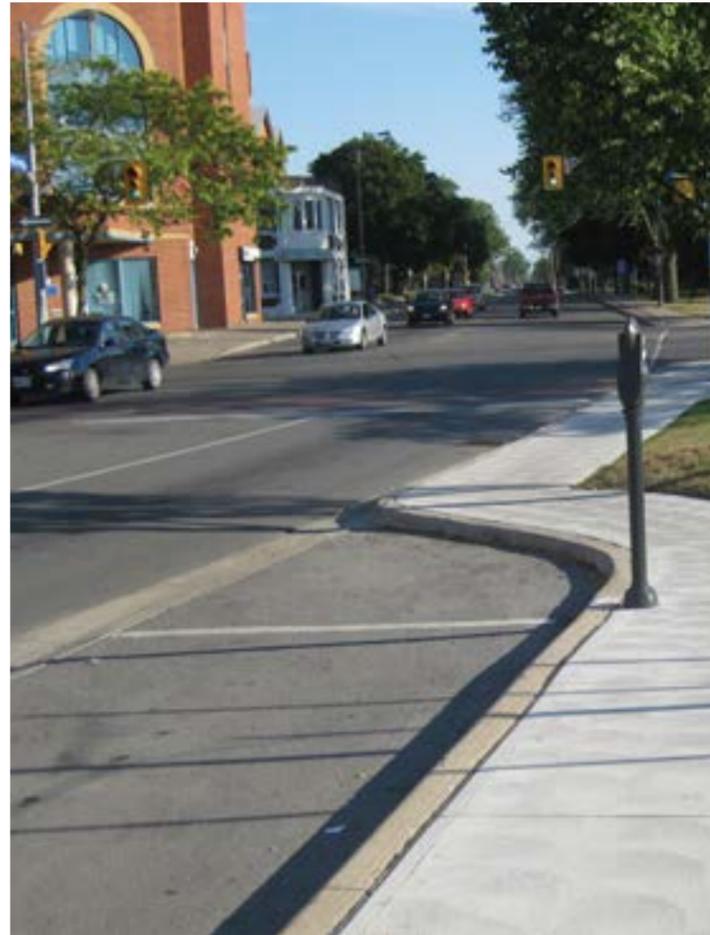
### Objectives

The Objectives of Complete Streets should be established to address identified concerns. By completing these objectives, a municipality can get closer to achieving its overall goal. Appropriate objectives related to Complete Streets could include providing new transit shelters within a downtown, changing policy to require sidewalks on both sides of new roads or the provision of cycling facilities at all new public buildings. Objectives are the tasks that are completed to achieve the goal.

This section can be used within a local official plan to contextualize the benefits and opportunities associated with Complete Streets.

Complete Streets shall be implemented within the Municipality to achieve the following objectives:

- a. Balance multiple modes of transportation in the right-of-way
- b. Provide opportunities for access and mobility for people of all ages and abilities
- c. Increase the efficiency of existing rights-of-way
- d. Lower greenhouse gas emissions
- e. Create opportunities for more passive physical activity
- f. Capitalize and build upon road rehabilitation projects
- g. Better integrate transportation and land use planning
- h. Develop vibrant communities with a sense of place
- i. Support the local economy and tourism initiatives



## Model Official Plan Policies

The Model Policy set includes approved planning policies from local municipal official plans and other Regional planning documents and guidelines. Where policies were absent on identified issues, new policies have been developed and included within the set. These policies have been provided to address concerns put forward by stakeholders during the consultation process.

<b>Concern:</b>	<b>Issue identified through stakeholder consultation and research.</b>
Discussion:	Information about the concern, its perceived impacts and possible solutions.
Policy Approaches:	Policies recommended that respond to or mitigate the concern.
Resources:	Non-policy related solutions, tools and/or resources available to help address the concern.

**Concern:** Some sidewalks and paths do not meet the needs of pedestrians.

**Discussion:** Every trip begins and ends as a pedestrian. In order to support opportunities for walking to be utilized as a primary mode of transportation, well designed and connected pedestrian infrastructure is required. Sidewalks and paths that are wide, well lit and sheltered from the elements can prove to be valuable links in the local transportation system. Safe and aesthetically pleasing environments will encourage people to linger in an area and walk to local businesses, schools and public open spaces. The local Zoning By-law is an effective tool for permitting pedestrian supportive design elements such as awnings, reduced setbacks and sidewalk widths.

Well-designed pedestrian areas are open and inviting to users. Perceptions of safety and the condition of infrastructure can deter persons from using the sidewalk or pathway as part of their daily routine. Concerns were raised during the consultation sessions that some sidewalks had a lack of shade, poor visibility, improper lighting or insufficient buffering from the roadway. By ensuring that pedestrian areas



are designed with safety in mind, a more welcoming environment is created where people stay longer and feel a sense of ownership.

Sidewalks constructed in recent years reflect modern standards and guidelines. There are sidewalks throughout the region that are older and do not reflect the current standards or design elements preferred by stakeholders. These pedestrian networks will continue to evolve as they are reconstructed.

**Policy**

**Approaches:** The development of pedestrian-scale streets and streetscapes which are safe, convenient and attractive will be supported through measures such as providing wide sidewalks, sheltered transit stops, street furniture, canopies on buildings, landscaping, locating retail and personal service uses at street level, and supporting building design which provides shelter and other amenities. (City of Welland)

All new roads and road improvements will accommodate safe and attractive pedestrian and

cyclist travel in a “context sensitive” manner taking into account the capacity and speed of the road (e.g., sidewalks and bike facilities on higher speed & volume arterials should be buffered from motorists). The road should contribute to “place-making.” (Paul Young, Supporting Active Transportation)

Where possible, landscaping and street trees will be utilized within local right-of-ways to provide shade and mitigate the urban heat island effect for pedestrians and cyclists. (Niagara Region Model Policy)

Resources: Smarter Niagara Incentives Program grant for Public Domain Improvements Healthy Living Niagara Walkable Communities Checklist AODA Exterior Paths of Travel Regulations

Concern: **Funding for transportation and transportation related infrastructure (road surfacing, sidewalks, cycling facilities, transit shelters, Streetscaping, etc.) is difficult for municipalities.**

Discussion: The Municipal Act outlines the fiscal responsibilities of municipalities regarding public infrastructure.



Within a Regional Municipality the responsibilities for providing and funding infrastructure is divided between the Region and the local municipality. The Region currently pays for infrastructure associated with Regional right-of-ways such as the road surface, and storm water management. The Region also funds bicycle lanes on local roads if the road is part of the Niagara Region Bicycling Network. In a Regional right-of-way, local municipalities are currently responsible for infrastructure that lies “beyond the curb” such as sidewalks, transit facilities, bicycle facilities and parking. On a local road, the local municipality is currently responsible for paying for all infrastructure.

Transportation infrastructure (roads, signals, crosswalks, transit shelters, [...] etc.) can be among the most expensive to develop and maintain, however if improvements are planned out strategically and purposefully there are opportunities for costs savings. Budgeting for on-going enhancements to a street has the potential for spillover effects in other areas of local, Regional and Provincial budgets.

Providing programs and infrastructure for active transportation can have substantial benefits on

the health of Niagara Residents which equates into less acute care and visits to medical facilities. Enhancements (new crossings, sidewalks, transit stops, [...] etc.) may also raise adjacent property values which equate into more tax revenue for the municipality (National Heart Foundation of South Australia, 2011). In terms of local business, small businesses tend to benefit the most from Complete Street enhancements and can inject 60 cents on every dollar spent back into the community (Dan Burden, 2012).



Policy

Approaches: Where the Region of Niagara Bicycle Network is proposed on a road under local municipal jurisdiction, the Regional Municipality will be responsible for funding of the bicycle facility, subject to Regional Council approval. (City of St. Catharines)

To be cost effective, the municipality shall seek to coordinate and fund the renovation or repair of streets with the Region and utility companies. (Niagara Region Model Policy)

Resources: Smarter Niagara Incentives Program for Public Domain Improvements  
Green Municipal Fund Grants for Complete Streets Projects  
Appendix III Local Improvement Charges – Ontario Regulation 586/06

**Concern:** Residents find it difficult to understand the Environmental Assessment (EA) process

**Discussion:** An Environmental Assessment (EA) is an important process associated with capital improvement projects such as roads and water systems. Most EA's that occur at the local level are Schedule A, which means that the scope of the study and required improvements are minimal. These types of projects would be related to maintenance and operations such as repaving or repairs to water and wastewater systems.

Some stakeholders have identified that they do not have a full understanding about the process and when they should be engaged. If a municipality is dedicated to ensuring that the community is engaged in the discussion about capital projects, a policy approach can be included in an official plan.



It has been noted that persons feel their views are not often captured or included in the final design of a street. The first Public Information Centre (PIC) is the most important part of the EA process from an engagement standpoint. It is during this stage that issues are identified. If issues with the street are identified early on, solutions and designs can be prepared to address them.

**Policy**

**Approaches:** Planning for transportation systems and facilities should be sensitive to community values and the physical setting, embodying the principles of context sensitive design:

- a. Involving the public and stakeholders early and continuously throughout the planning process.
- b. Designing transportation systems to accommodate all desired modes of transportation.
- c. Balancing transportation safety, mobility, cost and community and environmental goals.

- d. Identifying and addressing community and environmental goals.
- e. Applying flexibility to tailor engineering standards to local conditions and values. (Niagara Region Policy Plan)

Community engagement on active transportation is targeted at areas with higher concentrations of vulnerable road users such as children, seniors and persons with disabilities. (Paul Young, Supporting Active Transportation)

Resources: Smarter Niagara Incentive Program Environmental Assessment Study Grants (funding for additional information sessions, walking audits, visualizations) Appendix – Public Engagement and the Environmental Assessment Process



**Concern:** Many roads do not appropriately reflect current active transportation and transit needs.

**Discussion:** Road design standards are up to date and reflect approved safety standards for all road users. The supporting policies and design guidelines that are consulted during the implementation of road infrastructure projects may require updates to ensure transportation facilities are designed to accommodate desired users. The majority of infrastructure across the region was constructed years ago under a different set of standards which can explain why some roads do not reflect the current and future needs of users.

The implementation of the Provincial Policy Statement (2005) and Growth Plan for the Greater Golden Horseshoe (2006) have significantly changed the way communities are planned in Ontario. The provision of transit service and active transportation facilities (sidewalks, bicycle facilities) within neighbourhoods is important in creating complete communities with healthy and active populations. Road standards should be adhered to, however local guidelines and policies to implement them should be reviewed

Policy

regularly to ensure that they reflect the vision of the community and enable it to be achieved and designed accordingly.

Approaches: This Plan recognizes that in order to achieve a healthy and livable community, the transportation system now and in the future, will need to reduce reliance on the automobile in favour of more sustainable forms of connective transportation such as walking, cycling, and transit. (City of St. Catharines)

In the interests of overall energy conservation, environmental protection, and public mobility, the City shall promote the use of public transit, wherever possible. (City of Welland)

From environmental, economic, health and traffic management perspectives, non-automobile modes of transportation are the preferred methods of movement within the City and full consideration will be given to accommodating pedestrians and cycling in the planning, design and evaluation of any new development. (City of Port Colborne)



Road design guidelines will be reviewed regularly to ensure that they are reflective of current planning priorities in the municipality. (Niagara Region Model Policy)

Resources: Ontario Traffic Manual

**Concern: Dedicated bike lanes are absent on main streets.**

Discussion: Main streets are the heart of communities and are a focal point for many transportation trips. Often, dedicated access is provided to a main street area but not through it. Where bicycle access is not provided, it is usually due to safety concerns associated with traffic volume, on-street parking, freight movement and vehicle speed.

Planned and existing Regional Bicycle facilities are delineated in the Niagara Bikeways Master Plan. Any local road is eligible for the implementation of a bike lane if it is on this network. The official plan for a local municipality shall outline the direction and need for bicycle facilities on local roads. If bicycle facilities are requested on a Regional road not outlined on the Regional Bike Network the municipality should contact the Niagara Region and discuss the proposal.

Dedicated bicycle space can be provided in many scenarios; however, it may require a reduction in the number on street parking spaces or delivery locations. Small businesses rely on on-street parking



for customers, deliveries and accessibility purposes. If access cannot be provided through an area, an alternative route should be provided adjacent to the site with appropriate facilities such as bicycle parking.

Policy

Approaches: Promote and where possible integrate forms of accessible transport throughout the Municipality with an emphasis on the urban areas. (Town of Pelham)

Access to downtowns and main streets will be provided for cyclists. Where safe access or adequate facilities cannot be provided, an alternative route is encouraged to be established on an adjacent road. (Niagara Region Model Policy)

Resources:

Regional Bicycling Facilities Grants for Facilities Included on the Bikeways Master Plan  
Green Municipal Fund Grants for Complete Streets Projects

**Concern:** Streetscaping is visually appealing, however it is difficult to maintain from an operational standpoint.

**Discussion:** To accommodate increased volumes of pedestrians and cyclists, furniture such as benches, refuse containers and lighting are typically provided. These items can provide added enjoyment to an area but they can also act as an obstacle for local maintenance workers. In the winter, these items can make snow removal difficult and place the burden on local business owners or residents to clear municipal infrastructure.

**Policy**

**Approaches:** Street furniture shall be placed and oriented in a way which does not deter regular maintenance, waste collection, snow removal or accessibility. (Niagara Region Model Policy)

**Resources:** Model Urban Design Guidelines  
Bell Canada Urban Design Manual for Telecommunications



**Concern:** Wide roads are underutilized.

**Discussion:** Every road within Niagara plays a role in the Regional transportation network. Arterial roads carry higher volumes of traffic at higher speeds whereas local roads carry less volume and are more oriented towards pedestrians. Some local roads within the region are wider than they need to be to accommodate traffic volumes and are a good candidate for reconfiguration or the introduction of other modes. The inclusion of additional modes of transportation can be considered within these right-of-ways provided that the correct engineering dimensions for infrastructure are provided. For example, although a road may look too wide for just one lane of traffic there may not be enough room for a legal bicycle lane or on-street parking.

**Policy**

**Approaches:** The City shall consider various traffic calming and transportation demand management measures to reduce the negative impacts of traffic, and to promote safer streets and the concept of complete streets. (City of St. Catharines)

Where it has been deemed appropriate and safe, the municipality shall investigate opportunities for introducing additional transportation facilities such as cycling lanes, wider sidewalks and medians into roads with available space. (Niagara Region Model Policy)

Resources: Smarter Niagara Incentives Program – Grants for Design Guidelines and Streetscaping Plans  
Complete Streets by Design



**Concern:** Complete Streets should be established around key community areas such as schools, healthcare facilities and commercial centres.

**Discussion:** Key community areas tend to generate the highest amount of motorized and non-motorized traffic. Providing multi-modal options for safe and efficient access to these types of facilities should be a priority for municipalities. In many instances these are areas where vulnerable users such as children and seniors may be found (schools, senior’s homes, community facilities). Additional buffering from vehicles and other safety measures such as lighting and signalized crossings can be provided to ensure their safety and comfort. Providing improved access to these facilities can also assist in the reduction of unnecessary automobile trips and provide new opportunities for passive physical activity.

Policy

Approaches: The City will undertake a program of sidewalk reconstruction to upgrade existing walkways and to provide new walkways in established areas. Upgrades to existing walkways and the construction of new walkways shall be safe, accessible, well-lighted and have a relative degree of visibility. Priority will be given to those areas adjacent to schools, community centres, neighbourhood commercial areas, and public transit stops. (City of Welland)

Pedestrian paths will be designed and provided as part of new development in order to link centres of activity such as parks, shopping areas and schools. (Town of Fort Erie)

When the municipality is considering new Institutional uses, particularly ones that are major traffic generators such as schools, it will encourage them to locate in any existing activity nodes or identified corridors. The municipality will ensure good walking, cycling or transit connectivity and minimize the distance to nearby neighbourhoods. (Paul Young, Supportive Active Transportation)



In key community areas such as schools, healthcare facilities and commercial centres, accessible walking, cycling and transit facilities should be provided. (Niagara Region Model Policy)

Streets in proximity to public service facilities and schools shall be priority sites for Complete Streets enhancements. (Niagara Region Model Policy)

Resources: Smart Niagara Incentives Program – Grants for Secondary Plans/Community Improvement Plans

**Concern:** New development should include transportation facilities for additional modes of transportation such as bicycles and transit.

**Discussion:** Traditionally, development applications were evaluated on the anticipated amount of vehicle volume being generated and spillover onto the adjacent road network. As communities continue to intensify the inclusion of active transportation and transit facilities in development applications and connections is important. Transportation impact studies that consider active transportation are a best practice in ensuring new development is accessible by all modes.

Creating access to nearby trails or transit stops through the provision of additional on-site sidewalks is an example of the types of accommodations that can be considered. Bicycle parking, benches and parks for higher intensity uses such as apartments, employment uses and institutions warrant consideration.



**Policy**

**Approaches:** Where feasible, major public and private development projects will be required to incorporate public spaces, bicycle facilities and sidewalks to support connections to the City's pedestrian, bike and transit network. (City of St. Catharines)

Development proponents are encouraged to consider and provide for such facilities as part of any project design. The provision of bicycle parking facilities on non-residential development sites to accommodate the bicycle storage needs of the use to which they are related should be provided. Such facilities should be located close to building entrances and clearly linked to streets, pedestrian ways, or bicycle pathways. (Town of Niagara-on-the-Lake)

The Town may facilitate the use of any such public transit by providing for adequate pedestrian access to planned bus stops when development applications are approved, and by providing for the construction of bus bays and bus shelters. (Town of Niagara-on-the-Lake)

The Township shall require development and redevelopment proposals to facilitate pedestrian and cycling opportunities through the provision of pedestrian and cycling facilities, where appropriate. (Township of Wainfleet)

Development applications should include provisions to connect residents or customers to adjacent transportation networks. (Niagara Region Model Policy)

Resources: Smarter Niagara Incentives Program grants for Public Domain Improvements  
AODA Exterior Paths of Travel Regulations



**Concern:** **Retrofitting roads to accommodate additional modes of transportation is expensive.**

**Discussion:** Road projects are among the most expensive undertakings for both the Region and the local municipalities. The intent of the Complete Streets project is to be strategic about implementation by capitalizing on scheduled infrastructure projects. Roads have a set life expectancy and will eventually require rehabilitation, resurfacing or renovation. Integrating Complete Streets enhancements during these opportunities is a cost effective way to provide new facilities within a right-of-way. Sidewalks, bike lanes and traffic signals can be included during a scheduled road project and incorporated efficiently as all infrastructure (road, sewer, water) and utilities are accessible at once.

**Policy Approaches:** The Municipality shall use scheduled infrastructure projects as an opportunity to integrate additional transportation facilities into a right-of-way to better support active transportation and transit. (Niagara Region Model Policy)

Road resurfacing and reconstruction will be viewed as an opportunity for improving infrastructure for all modes of travel. (Paul Young, Supporting Active Transportation)

Resources: Green Municipal Fund Grants for Complete Streets Projects  
Appendix -I Local Improvement Charges – Ontario Regulation 586/06



**Concern:** “One-size fits all” cycling facilities do not meet the needs of the average user (child, family, senior).

**Discussion:** Not all cyclists will have the same skill or comfort level when riding on the road. It has been noted that on-street cycling facilities across the region have been designed for an “expert user” rather than an average cyclist. Cycling facilities that are context sensitive and reflect their purpose within a specific area of a community (i.e. a bike lane near an elementary school compared to a bike lane along a rural road) provide opportunities for new and inexperienced cyclists as well as expert riders. Engineering standards include required buffers based on the design speed of a road however in some contexts this buffer may not be enough for some users to feel comfortable. There are different design manuals available for use when developing bicycle facilities for different land uses contexts, (urban, neighbourhood, etc.).

Policy

Approaches: The bikeway network and bicycle support facilities will be planned, designed, operated and maintained in a manner to minimize conflicts and potential danger to cyclists, pedestrians and other forms of transportation, in keeping with professionally recognized guidelines with support from the Region of Niagara.  
(City of Port Colborne)

The Municipality shall ensure that cycling facilities accommodate the needs of vulnerable users such as children, seniors and those with mobility impediments. Off-road paths and/or grade separation between automobiles, cyclists and pedestrians is encouraged on roads with speed limits of 50 km/h or higher.  
(Niagara Region Model Policy)

Resources: CanBike Cycling Safety Courses



**Concern:** Connections should be provided between the different transportation networks.

Discussion: Connections are vital to any successful transportation network. Within a Complete Street, persons should be able to move seamlessly between different modes and networks. Opportunities to change between different modes can be accommodated through investment in the public realm. For example, by providing transit shelters with bicycle parking an opportunity to “chain” trips together is supported. Providing these connections increases the chances that persons will use alternative modes of transportation throughout the day.

In addition to infrastructure, policies and programs such as Transportation Demand Management and Transit policy can provide additional opportunities and incentives to use active transportation and public transit (i.e. putting bicycle racks on buses). By creating connections in and around key community areas the residents and businesses within are provide with multiple opportunities to enjoy the space and be active at the same time.

Given Niagara's extensive trails system, priority should be also placed on creating connections between transportation networks within settlement areas and off road paths and trails. The Niagara trails system is used extensively by tourists and residents alike and through the provision of better connections to key community areas via Complete Streets there are multiple economic benefits to be gained.

Policy

Approaches: In support of an integrated Bicycle Network, priority should be given to the development of bicycle facilities to facilitate linkages and connections between the local and Regional bicycle network. (City of St. Catharines)

A street related pedestrian walkway and bikeway system shall be required within the neighbourhood. These facilities will be designed to be integrated with a general pedestrian and bicycle system within the community which provides linkages between buildings, adjacent sites, surrounding areas and public streets particularly those with transit facilities. (Town of Pelham)



The municipality shall prioritize the development of cycling facilities and sidewalks which connect to Niagara's bicycle and trail network. (Niagara Region Model Policy)

Resources: Smarter Niagara Incentives Program – Public Domain Incentives

**Concern:** The streets should include more local culture.

**Discussion:** Public art is a reflection of the history and true culture of an area. Integrating public art in developments, streetscaping or parks has the ability to stimulate the interest of locals and tourists alike. Public art contributes to the sense of place in an area which will make people want to stay long and enjoy the space, shops and amenities in an area. Engaging local artists can be a cost effective way to add a local feel to streets. Historically significant streets should also be leveraged for their importance to the area through plaques and monuments.

**Policy Approaches:** The City shall encourage other public and private sector owners and developers to include public art as a component of their developments, particularly those developments that include space that will attract significant pedestrian traffic. (City of St. Catharines)



The inclusion of public art within the public-right-of-way is encouraged as a way to establish the identity of a community or neighbourhood. (Niagara Region Model Policy)

Local artists, craftsmen and schools shall be encouraged to submit public art and street furniture to local streetscaping initiatives (Niagara Region Model Policy)

Open Streets or Cyclovia style events are supported on local streets for festivals and celebrations. (Niagara Region Model Policy)

The Municipality supports the use of empty building space off hours for cultural activities (Niagara Region Model Policy)

**Resources:** Smarter Niagara Incentives Program – Heritage Restoration and Improvement Grant/Loan.

**Concern: Streets are difficult to navigate.**

**Discussion:** Wayfinding and signage is a cost effective way to ensure people get the most out of a street. Wayfinding is even more important as it relates to transit service, parking and cycling. Clear signage lets users know where there space in the road is as well as the location of businesses, connections and key landmarks. On Complete Streets where bicycle facilities are provided, there may be a need for street signage and wayfinding along the bike route, especially if it is located near the Greater Niagara Circle Route or any major tourist destinations.

Signage and wayfinding provisions may include transit schedules, large print street signs, audible signals for crosswalks and clearly marked accessibility aids.

**Policy**

**Approaches:** In review of development applications, the City will implement Accessibility for Ontarians with Disabilities Act by:

Requiring the clear identification of handicap parking stalls by using both signage and painted demarcations of the International Symbol of Accessibility. (City of Port Colborne)



Clear and legible street signage shall be provided across the municipality to provide information on the location of:

- a. Transit Service
- b. Parking Lots
- c. Local attractions
- d. Community Services (Hospitals, City Hall, Schools, etc)
- e. Linkages to trails and pathways
- f. Cultural or Historical Sites
- g. Public amenities. (Niagara Region Model Policy)

Wayfinding and signage should be provided in alternate formats to accommodate citizens with visual, audible or physical disabilities. (Niagara Region Model Policy)

**Resources:** Smarter Niagara Incentives Program grants for Public Domain Improvements

**Concern:** On-street parking takes away room for other modes of transportation.

**Discussion:** The provision of on-street parking is a necessity for many local businesses. Parking spots often serve a dual purpose for parking and a dedicated delivery point. On-street parking may present safety concerns to pedestrians and cyclists alike; however this risk is higher when a vehicle is parked within the roadway. Bumped-in parking stalls are an effective way to remove vehicles from the roadway and are an effective form of traffic calming. Some communities have repurposed the spaces for public uses such as patios and street cafes.

On-street parking is also an effective way of providing universal access for persons with accessibility needs. On-street parking provides proximate and efficient access to adjacent land uses.

**Policy**

**Approaches:** Prior to removing or adding on-street parking, the Town shall consider the context of the area including walkability and cycling opportunities. Where on-street parking is removed, sufficient off-street parking will be provided in its place. (Town of Fort Erie)



“Through municipal by-law, on-street parking spaces may be repurposed for local businesses, bicycle parking or landscaping during off-peak hours” (Niagara Region Model Policy)

**Resources:** Model Urban Design Guidelines  
Green Municipal Fund Grants for Complete Streets Projects  
AODA On-street Parking Regulations

**Concern:** **Adjacent land uses should be considered part of a Complete Street.**

**Discussion:** Homes, businesses and landscapes frame the street and contribute to its overall feel. If building facades are oriented away from the street (reverse lotting) or have blank faces (no windows or doors) they do not contribute positively to the sense of place of an area. No windows or “eyes on the street” also change a person’s perception of safety. By creating an interface with the street through design, landscaping or signage, the street can be transformed from a place to go through into a place to go to.

**Policy**

**Approaches:** Encourage high quality redevelopment of properties along the Regional roads. Buildings should be oriented to front, face and feature the road. Large parking areas should be located behind or at the side of buildings and, where visible from the road, must include substantial landscape treatment. (Township of Lincoln)

Buildings shall be street-front oriented and provide direct street access for pedestrians.” (Town of Pelham)



All retail commercial development shall include provisions for cyclists and pedestrians (e.g. lighting, furniture, direct access to street sidewalks, bicycle parking, awnings, etc.). (Paul Young, Supporting Active Transportation)

**Resources:** Smarter Niagara Incentives Program grants for Building Façade improvements and property rehabilitation  
Model Urban Design Guidelines

**Concern:** Utility infrastructure (hydro poles, phone boxes, overhead wires, etc.) clutters the street and takes away from the sense of place.

**Discussion:** Utilities such as hydro and phone have infrastructure requirements such as poles and substations that must be placed close to homes and businesses. These items are essential pieces of infrastructure, however there have been significant advances in how these items look. Hydro poles can visually clutter a sidewalk or act as a movement impediment in some cases. Utilities can be integrated into decorative lighting posts, buried underground or be designed in a way which is visually appealing through painting or decoration. It should be noted that burying or relocating utilities is a very expensive endeavor. The cost of “hiding” the utilities must be weighed against the cost of the enhancement of the street and the overall benefit of doing so.

**Policy Approaches:** Utilities should be buried below grade – typically in the boulevard section of the right of way – as part of a new construction and reconstruction of a road right of way. (Niagara Region Model Urban Design Guidelines)



Wherever possible, above-ground utilities should be located away from intersections, day-lighting triangles, and visual axes such as the end of T-intersections or other view corridors. (Niagara Region Model Urban Design Guidelines)

Where possible, street grade public utilities such as transformer pads, telephone switching stations, and junction boxes should be screened through treatment similar to the landscape theme and treatment of the surrounding neighbourhood. (Niagara Region Model Urban Design Guidelines).

Where appropriate, the municipality, in consultation with the appropriate utility authority shall support the installation of visually appealing utility and telecommunications infrastructure. (Niagara Region Model Policy)

“Utility infrastructure shall be positioned in a way which does not impede the movement of persons or maintenance equipment within a right-of-way. (Niagara Region Model Policy)

**Resources:** Model Urban Design Guidelines  
Bell Canada Urban Design Manual for Telecommunications

**Concern:** Street design should be universally accessible for persons of all ages and abilities.

**Discussion:** A key trait of a Complete Streets is that it is accessible to persons of all ages and abilities. The Region and local municipalities follow design standards that ensure all new public infrastructure and facilities are designed in a way that is universally accessible. As streets are enhanced or renovated, efforts to ensure that persons with disabilities can access the streets is required.

In some community areas, such as those surrounding medical facilities and social services there may be a need to go above and beyond the minimum standards to ensure that the persons which rely on these services can safely access them all year round. Some of these provisions may include curb cuts, audible traffic signals, longer countdown timers, wider sidewalks to accommodate wheelchair turning and universally accessible transit stops.



**Policy**

**Approaches:** Sidewalks are required on one side and encouraged on both sides of all new local and Regional streets, in order to promote walkable neighbourhoods and have regard for the Accessibility for Ontarians with Disabilities Act. (City of Port Colborne)

The City will determine where existing municipal facilities and open space are deficient with respect to Section 9.1.1(a), above and undertake a program to upgrade its facilities to ensure a barrier-free environment. (City of Port Colborne)

The City shall strive to improve the mobility of all persons to make conditions safe for walking, persons using mobility devices, including wheel chairs and scooters, and people utilizing accessible conventional transit, specialized transit and accessible taxis. (City of Welland)

## Evaluating a Complete Streets Project

When renovating or repairing a street in areas containing social services and medical facilities, additional accessibility and mobility enhancements shall be considered to support the movement of persons with disabilities, wheelchairs, scooters and walkers. (Niagara Region Model Policy)

Resources: EnAbling Change  
Enabling Accessibility Fund  
Niagara Region Facility Accessibility Design Standards



To understand the effects that the creation of a Complete Street can have on a community, an evaluation of the project site before and after work is carried out is important. Some Complete Streets projects may be expensive, that is why clearly showing the positive impacts, gains and savings in relation to these types of investments is important. An understanding of changes in frequencies and values coupled with a user's perception of the area will aid in the assessment of if the project has met its goals and created successes.

Concerns regarding the design or condition of a street can be raised by the public or the municipality itself. When a street is selected for "Completion", it is important to carefully review and document the traits and feel of the area before any work begins. These initial measurements act as a baseline to which successes and change can be evaluated. Complete Streets projects should be evaluated both quantitatively and qualitatively to gain a full understanding of the feel and function of the street. Provided below are some examples of variables to evaluate within a project site:

### Quantitative:

- Number of parking spots, benches, bike racks, etc.
- Kilometres of bike lanes and sidewalks
- Motorized and Non -Motorized Vehicle Counts / Modal Split
- Pedestrian/Cyclist and Vehicle Collisions
- Dollars allocated to cycling and pedestrian facilities
- Adjacent Property Values
- Compliance with Legislated Standards (AODA)
- Transit Ridership and Routes
- Demographics (income, age, etc.)
- Average Vehicle Travel Speeds
- Temperature of the street and sidewalk
- Population Density



### Qualitative:

- Aesthetic Appeal
- Perceptions of safety
- Public Art and design
- Types of adjacent land uses
- Quality of infrastructure
- Comments received from the public
- Mention of streets or situations in local media
- How individuals interact within a space
- Collect stories from business owners who changed from skeptics to supporters

Site evaluations can be conducted by staff or volunteers by means of experiencing an area (watching, listening, using services) at certain times of the day. Providing surveys to adjacent property owners or those using the street are an additional approach that can provide valuable information and personal views. When the collected information is paired with demographic and transportation data it creates a 'snapshot' of the current state of the street which can be compared to a future review to determine if the project achieved the goal intended.

Developing streets into accessible and inviting areas can have significant social and environmental benefits within a community such as better health, cleaner air and improved safety for all road users. Often these successes are overshadowed by the initial cost of investment. This cost places additional priority on showing the economic benefits of a project. Economic benefits are important to highlight and are a common Performance Indicator used to determine the success of a Complete Streets project. The economic 'signs of success' can be seen in the adjacent property values, and the investment and activity at local businesses. Public infrastructure is a necessary expenditure that enables investment and growth for its proximate land uses which are then returned back into the community through taxes, profits and public stewardship.



### Performance Indicators for Complete Streets

Sharing the evaluated results and measureable examples of the benefits gained from the investment is integral to building public and municipal support for ongoing Complete Streets projects. Developing a set of Performance Indicators is an effective way to monitor and evaluate progress associated with large projects that have multiple impacts. Performance indicators must be established and scoped to reflect the goals and objectives that have been chosen by a municipality. For example, if one of the goals associated with developing Complete Streets is to increase the amount of persons walking in the downtown, indicators will measure variables related to pedestrians. Examples of performance indicators in relation to goals and objectives are provided below.

Performance Indicator Examples

**Goal: More pedestrian traffic in the downtown area**

Objectives	Actions	Performance Indicators
Reduction in number of Vehicle/ Pedestrian collisions	New crossing signals, additional buffering, pedestrian oriented lighting, reduced speed limits, traffic calming	Number of vehicle/ pedestrian collisions (Annual change)  Dollars allocated to cycling and pedestrian facilities
Provide additional transit service to the downtown	Change transit routes, provide new service, new transit facilities	Number of routes/ busses/ridership (pre and post construction)
A better mix of land uses in the downtown	Change land use policy, promote intensification, grants	Increase in population density (People and jobs per hectare)
Increase cycling and pedestrian facilities	Provide bicycle parking facilities, benches and signage	Number of cyclists and pedestrians (at peak times, weekly, annually)



**Goal: Higher levels of public participation in the Environmental Assessment process and Public Information Centres**

Objectives	Actions	Performance Indicators
Develop new and effective advertisement methods for Public Meetings through social media	Advertise public meetings and provide information on Facebook, Twitter and Municipal Website	Increased average attendance at Public Meetings over a certain amount of time
Provide opportunities for engagement beyond the prescribed minimum standard	Have multiple meetings and open houses  Take stakeholders on a walking tour of the project site.  Ensure accommodations are available for persons with disabilities to attend.	Increased average attendance at Public Meeting over a given amount of time  "Clicks" on municipal webpage.  Public Inquiries

**Goal: Increase number of students walking and cycling to and from school within a neighbourhood**

Objectives	Actions	Performance Indicators
Retrofit streets to meet the needs of the students walking and cycling to school	Provide cycling lanes for students	Change in number of trips from automobile to active transportation (Modal Shift)
	Install sidewalks along potential walking routes to schools	Increase in kilometers of sidewalks and bike lanes
	Install traffic calming measures in school zones	Ratio of sidewalk to road lengths Reduction in vehicle speeds
Provide a safe and attractive environment	Provide additional lighting, signage and signalization	Decrease in number of pedestrian/cyclist collisions with vehicles.
	Plant trees along the road	Decrease in number of complaints from parents and students



**Goal: Increased economic growth within a Community Improvement Area**

Objectives	Actions	Performance Indicators
Provide access to local businesses and services for multiple modes of transportation	Reconfigure parking	Increase in pedestrian and cyclist counts
	Provide bicycle parking	Increase in property value and profits from local businesses
	Provide additional transit stops or service	Collect stories from business owners who changed from skeptics to supporters
Create an attractive public area for potential customers and local residents to enjoy and linger within	Provide signage at and way finding to key locations	
	Include street furniture and art within the public realm	Qualitative evaluation of how persons are interacting within the space pre and post construction

# Local Improvement Charges – Ontario Regulation 586/06

## Goal: Reduction in the amount of vehicle traffic within a given area

Objectives	Actions	Performance Indicators
Increase the efficiency and capacity of existing right of ways	Reconfigure the existing right of way to include provisions for different modes of transportation (e.g. wider sidewalks, cycling facilities, transit shelters)	Decrease in vehicle counts  Decrease in number of pedestrian/cyclist and vehicle collisions
Capitalize on scheduled construction	Include complete street enhancements during the scheduled reconstruction of a road	Cost of reconstruction versus retrofit (savings or expenditures)

Integrating the ongoing evaluation of a project site is important to include in the work plan. If monitored regularly, the measureable successes can be easily conveyed to stakeholders and the municipality will be in a better position to request additional Complete Streets projects knowing fully what benefits to



## What is a Local Improvement Charge?

Local Improvement Charges can be used to fund capital works that have benefits for specific areas of a municipality. Local Improvement Charges distribute a percentage of the costs of new infrastructure amongst abutting properties where improvement is deemed to provide a benefit. Property owners may pay a fraction or the full cost of the improvement depending on the type and location of work being undertaken, at the discretion of the municipality. For example, an improvement within a downtown would have benefits for the entire community which may garner a high proportion of the project's financing from the municipality itself, rather than the abutting properties.

## Who can apply for local improvements?

The municipality or residents can initiate the local improvement process through Ontario Regulation 586/06 under the Municipal Act (2001). Residents in the vicinity of the proposed work area may submit a petition in favour or against a municipally proposed capital works project. Residents have the right to use a petition to request a local improvement project from a municipality. Local petitions can be used to request improvements for site specific concerns related to accessibility, safety and mobility. If interested in petitioning for an improvement, please contact the local municipality for an application.



## How can they be used to develop Complete Streets?

The provision of Complete Streets related infrastructure such as marked pedestrian crossings, new sidewalks and signalization are forms of capital works projects. Similarly to the way in which stakeholders noted specific concerns with streets within Niagara during the consultation process, strategic solutions for identified concerns can be proposed by adjacent landowners through a petition to the local municipality. For example, if a neighbourhood resident had concerns about vehicle speed in their neighbourhood they could petition the municipality to install traffic calming infrastructure (medians, speed humps) or reduce the speed limit.

## Examples of Capital Works Qualified for Application of Local Improvement Charges

- Road resurfacing
- Provision of public parks
- Sidewalk replacement
- Addition of curb and gutter
- Stormwater management
- Noise abatement
- Energy conservation
- Shore protection work
- Water quality projects
- Road widening

*(Examples provided above are inclusive but not limited to.)*

## Linkages to the Smarter Niagara Incentives Program

Through the Smarter Niagara Incentives Program (SNIP), a municipality may apply for a matching grant of up to \$100,000 per project from the Niagara Region for improvements to the public domain. Public Domain Incentives funding can be granted for projects such as streetscaping, providing additional transit shelters or bike racks, and public buildings.



## Public Engagement and the Environmental Assessment Process



## What is an Environmental Assessment?

An Environmental Assessment (EA) is a study and design process required for capital works projects under the Environmental Assessment Act. A Class Municipal Environmental Assessment is commonly used for capital works projects related to road, water and sewer projects (i.e. sewer and road replacement project). Larger scale Complete Streets projects, such as a road diet or provision of additional transportation facilities would be subject to a Municipal Engineers Association Class EA.

Projects that are subject to an EA are categorized as Schedule A, B or C, which refers to the level of impact and scale of the project.

Schedule A – Primarily operational and maintenance related – have minimal impacts.

Schedule B – General infrastructure improvements or expansions – may have some impacts.

Schedule C – New facilities or significant expansion – may have significant impacts.

Standalone Complete Streets projects such as adding streetscaping, bicycle facilities, bumped in parking or burying utilities will commonly fall into the category of Schedule A and B projects. Complete Streets enhancements can be integrated as part of a larger initiative under a Schedule C project, preferably during a scheduled renovation or rehabilitation (i.e. road widening with bus bays for transit)

### The Five Phases of an Environmental Assessment

A Class Municipal Environmental Assessment is divided into five phases that range from the initial identification of an issue to the construction of a solution and monitoring.

#### 1. Problem or Opportunity

- Either by the municipality alone or in consultation with the public, an opportunity or problem is identified.
- Alternative Solutions

#### 2. Different types of solutions to address the problem or opportunity are developed and presented for comment.

- A study of possible environmental impacts is completed for each alternative solution.
- Agencies and the public are given a chance to review the proposed solutions and give comment. \*
- Preferred solution is selected.



#### 3. Alternate Design Concepts for Preferred Solution

- Different design solutions for the preferred solution are prepared.
- Inventory of natural, social and economic environment is completed.
- Environmental impacts identified.
- Preferred designs presented for agency and public review.\*

#### 4. Environmental Study Report

- Report on all the findings and potential impacts.
- Provide overview of the design solution to the opportunity or problem.

#### 5. Implementation

- Drawing completed and project is put out to tender.
- Construction.
- Project monitored for successes after completion.

*\*Opportunity for Public Engagement*

## How can the public participate in the process?

Throughout the Five Phase EA process, there are compulsory public engagement points. Required public notices for upcoming EA's and Public Information Centres (PIC's) can be found on a municipal website or in the local newspapers. Public engagement activities are typically held at local community centres or government buildings near to project site and include a presentation, visuals displays and drawings, and supporting studies and information. Although the opportunity for engagement under the Act is sufficient, it is largely responsive in that stakeholders have to respond to solutions rather than developing and suggesting their own. Stakeholders are not experts; however as the primary users their opinions and suggestions should be requested early and often, especially for projects that will impact daily accessibility and mobility. Like a Public Meeting under the Planning Act, public engagement is valuable to any project. As great public engagement leads to great public policy, it also leads to great public infrastructure. A copy of the EA Process chart is attached for reference in Appendix 1.



## Additional Opportunities for Public Engagement

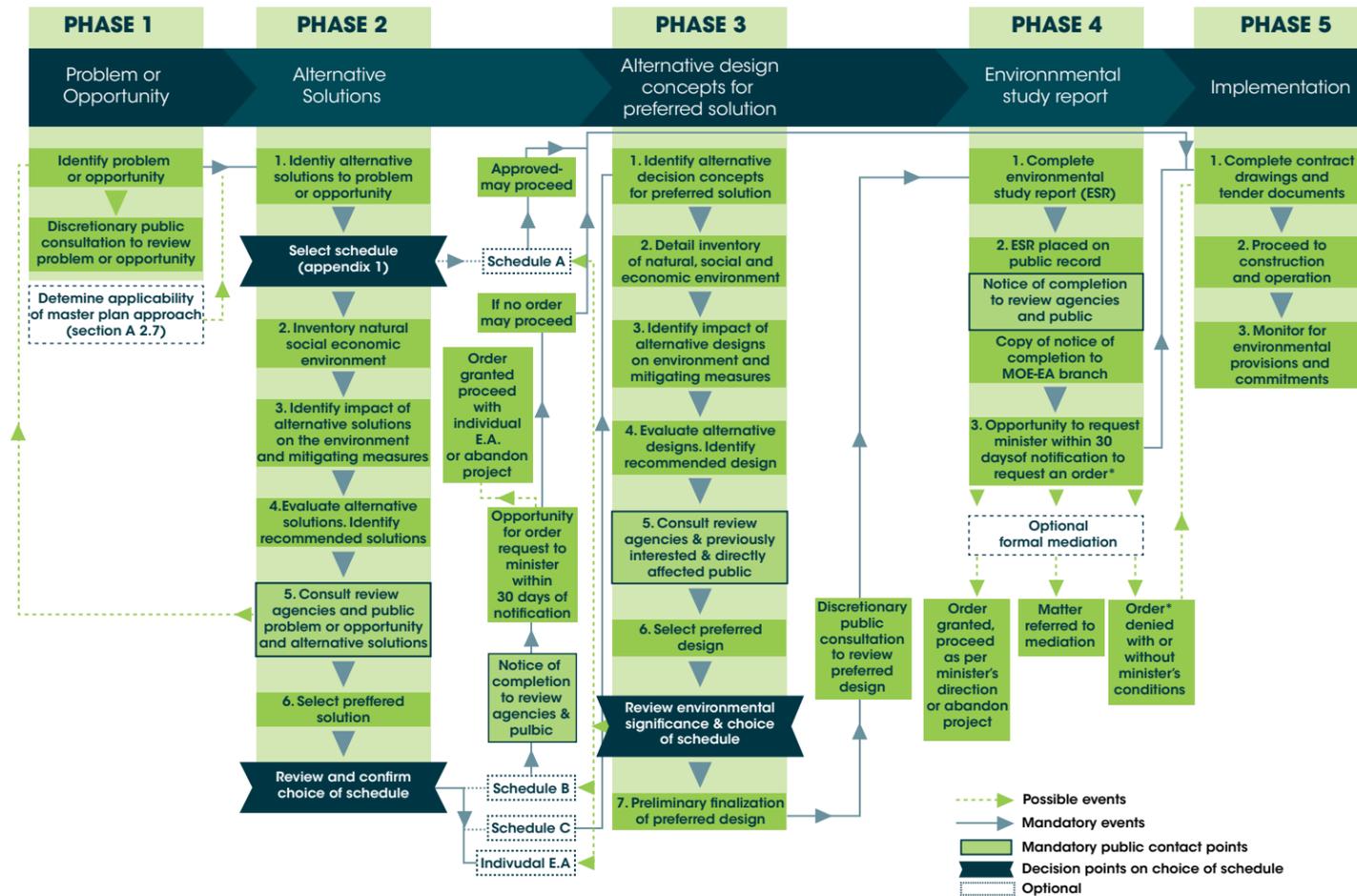
There are ways to engage the public into the EA process that go beyond the requirements of the Act. These additional methods not only have the potential to reach more people but in many cases are more accessible and informative for stakeholders.

- Social media is an effective outlet for telling the public about an upcoming EA that there will be an opportunity to get involved. Posting to social networking sites (Facebook, Twitter, etc.) provides an opportunity to connect with those persons who may not check the paper or website regularly for updates. Stakeholder materials and surveys can be shared electronically with persons who request the materials. Although social media has the ability to reach different demographics effectively, it should be used carefully as the anonymity of public comment submissions may generate some unintended or negative comments. Open forums should be monitored closely to ensure the content is appropriate and not counter-productive to the project process.

- Walking audits are an effective way to get public input before design solutions are formulated. A Walking Audit is a guided tour of an area by staff or a developer that provides an open forum for addressing concerns and hearing first hand understandings or an area. Although Public consultation is not required in Phase 1 of an Environmental Assessment, walking audits are an effective way to learn about an area and identify additional issues that can be addressed through the design and construction process.
- The New York City Department of Transportation uses an interactive street view mapping program for upcoming road projects. The application allows residents to view parts of the street online and apply comments and suggestions using digital sticky notes.



## Appendix 1



## Appendix 2

1. Township of West Lincoln - Griffin St. North
2. Town of Niagara-on-the-Lake - Regional Road 55
3. Town of Pelham - Pelham Rd.
4. City of St. Catharines - Queenston St. at Berryman Ave.
5. City of Thorold/City of St. Catharines - St. David's Rd.
6. City of St. Catharines - Queenston St. at Vine Street

These are visualizations to show options and possibilities. In many cases, these types of complete street enhancements will require considerations of cost, operational and maintenance issues, as well as coordination between local municipalities and the Region. These options are not ideal or possible in all circumstances.

Township of West Lincoln -  
Griffin St. North



Town of Niagara-on-the-Lake -  
Regional Road 55



Town of Pelham -  
Pelham Rd



City of St. Catharines-  
Queenston St. at Berryman Ave.



City of Thorold/City of St. Catharines-  
St. David's Rd.



City of St. Catharines-  
Queenston St. at Vine St.



