



Chapter 5 – Connected Region

5.1 Plan for a Multimodal Transportation System

The Region is responsible for planning and implementing a *sustainable transportation system* that accommodates forecasted population and employment growth.

The Region will work with local municipalities, partnering agencies, and other public entities to provide for a *multimodal transportation system* that allows all users to travel in a safe, accessible, convenient, and affordable manner regardless of their chosen method of transportation.

The objectives and policies in this section reflect the direction and recommendations outlined within the Region’s Transportation Master Plan, which is committed to improving social equity, access, and Niagara’s short- and long-term economic competitiveness.

This section also recognizes that the creation of an *attractive multimodal transportation system* that includes a comprehensive *active transportation* network, an interconnected public transit system, and an efficient *goods movement* network, is a critical component of reducing greenhouse gas emissions and addressing the impacts of climate change.

The objectives of this section are as follows:

- a) coordinate *transportation systems* planning, land use planning, and strategic investments in *infrastructure*;
- b) support a connected and convenient public transit network throughout the region;
- c) create and enhance interconnected *active transportation* systems;
- d) support the implementation of *complete streets* at regional and local levels;
- e) ensure Regional Roads accommodate future growth and support diverse forms of transportation; and
- f) provide the safe and efficient movement of goods to support the regional economy.

5.1.1 Transportation Systems Planning, Land Use Planning, and Infrastructure

- 5.1.1.1 The Region's *transportation system* will be implemented as per the recommended actions and schedules of the Region's Transportation Master Plan.
- 5.1.1.2 Suitable transportation *infrastructure* will be provided to support the forecasted growth listed in Table 2-1 and to help mitigate and adapt to the impacts of *climate change*.
- 5.1.1.3 The Region will coordinate with the Province, local municipalities, and other agencies to plan for, improve, and protect the planned corridors and facilities shown on Schedule J1, subject to applicable legislation.
- 5.1.1.4 The Region will coordinate with the Federal government, the Province, local municipalities, Metrolinx and other stakeholders to improve linkages between Niagara's public transit system and GO Transit.
- 5.1.1.5 The Region will coordinate with the Federal government, the Province, and local municipalities to help strengthen the provision of an efficient and safe Provincial Highway throughout the region.
- 5.1.1.6 Transportation *infrastructure* within the boundaries of the NEP will be subject to the requirements of the NEP and will be designed and located so to minimize impacts to the Escarpment.
- 5.1.1.7 The Region will work with the Niagara Parks Commission to improve linkages between the Region's *transportation system* and the Niagara Park Commission's *transportation system*.

5.1.2 A Connected Public Transit Network

- 5.1.2.1 Public transit will be a priority for transportation planning and investments to:
 - a) address the impacts of climate change;
 - b) assist in achieving social equity;
 - c) provide *multimodal* access to *major transit station areas*; and
 - d) reduce dependence on the automobile.
- 5.1.2.2 The expansion of public transit across the region will be supported by:
 - a) prioritizing transit infrastructure investments to, from and within *strategic growth areas* to increase the viability of existing and planned transit service levels;

- b) providing public transit to areas that have achieved, or will be planned to achieve *transit-supportive* residential, commercial, institutional and employment densities;
- c) improving linkages from nearby neighbourhoods to major trip generators, such as *strategic growth areas*, *local growth centres*, *employment lands*, tourism destinations, *public service facilities*, and post-secondary institutions;
- d) establishing transit service integration between municipal transit agencies, in collaboration with all transit operators including the Province and Metrolinx, where applicable;
- e) permitting *infrastructure* on lands near *settlement areas* for uses principle or ancillary to *transit-supportive* uses that abut higher order transit facilities;
- f) providing transit connections within and between *settlement areas*;
- g) improving accessibility to public transit, including to and from *active transportation* networks;
- h) providing park-and-ride facilities near public transit stops and stations that offer linkages to pedestrian routes, *bicycle infrastructure*, and priority spaces for carpool and car-share vehicles;
- i) considering the role of public transit in contributing towards the Province's greenhouse gas emissions reduction targets; and
- j) protecting planned transit service corridors from encroachment.

5.1.2.3 The provision of *demand-responsive transit service* will be encouraged in local municipalities to serve low-density areas, where feasible.

5.1.2.4 Lands near existing or planned *frequent transit* or *higher order transit* facilities, including facilities within the Greenbelt Plan that have been approved through a Municipal Class Environmental Assessment, and where such lands are located within *settlement areas*, will be planned to:

- a) provide *transit-supportive* uses that enable opportunities for improved *transit service integration*;
- b) facilitate *multimodal* connections that encourage a more evenly distributed modal share; and

c) support *active transportation*.

5.1.2.5 *Higher order transit* connections to the Greater Toronto Hamilton Area (GTHA), will be prioritized and expedited, where possible, to promote *intensification* and new employment markets.

5.1.2.6 The Region will examine the feasibility of establishing a West Niagara Transit Terminal in order to facilitate *multimodal* connections within the region and to the Greater Toronto Hamilton Area (GTHA).

5.1.2.7 The Region will work with the Province, local municipalities, and Metrolinx, where applicable, to support the integration of *active transportation* and public transit, such as: permitting bicycles on transit vehicles, providing bicycle racks on buses, and providing *bicycle infrastructure* at and to transit facilities, public and institutional areas, and *employment lands*.

5.1.3 Interconnected Active Transportation System

5.1.3.1 Comprehensive *active transportation* networks will be integrated into *transportation systems* to enable safe and convenient inter- and intra-municipal travel for *active transportation* users.

5.1.3.2 Implementation of the Strategic Cycling Network as identified in the Region's Transportation Master Plan will be prioritized to advance the implementation of the Niagara Bikeways Master Plan as shown in Schedule J3.

5.1.3.3 The Region will support local municipalities in implementing sections of the Strategic Cycling Network that are within their jurisdiction.

5.1.3.4 The Region will coordinate with the Ministry of Transportation and other stakeholders to provide *active transportation* infrastructure across highways, including the QEW and 400 Series highways.

5.1.3.5 The Region's Wayfinding Signage for Cyclists Guidelines will provide direction on the design, refurbishment or reconstruction of Regional Roads.

5.1.3.6 Guidelines will be developed for local Official Plans and Zoning By-laws that outline minimum provisions for accommodating *active transportation* friendly facilities in new development, redevelopment, and public work projects.

5.1.4 Complete Streets at Regional and Local Levels

- 5.1.4.1 The Niagara Region's Complete Streets Design Manual and Guidelines shall be used in the design and reconstruction of the Region's *transportation system* to ensure the needs and safety of all road users are considered and appropriately accommodated.
- 5.1.4.2 The Niagara Region's Complete Streets Design Manual and Guidelines shall be included as a reference document within the Request for Proposal (RFP) process for Municipal Class Environmental Assessments and detailed design projects.
- 5.1.4.3 *Complete streets* elements within local jurisdiction shall be maintained by the local municipalities.
- 5.1.4.4 The separation of transportation modes, such as bicycle lanes or rapid transit lanes, are encouraged within regional roads.

5.1.5 Ensure Regional Roads Accommodate Future Growth and Support Diverse Forms of Transportation

- 5.1.5.1 As conditions of the approval of a development application:
 - a) the Region may acquire from the landowner land required for the road allowance as identified in Table 5-1 {Regional Road-Width Requirements} at the end of this Section, at no cost to the Region and free of all encumbrance, encroachments, and improvements unless otherwise agreed to by the Region; and,
 - b) the Region shall be provided with a certificate of an Ontario Land Surveyor noting that all legal survey documentation on the widened road allowance is in place.
- 5.1.5.2 The conveyance of land shall be required at no cost to the Region as condition of the approval of a development application, beyond the designated road allowance widths identified in Table 5-1 {Regional Road-Width Requirements} at the end of this Section, to accommodate items such as sight triangles, turning lanes, channelization, grade separations, traffic control devices, rapid transit, public transit facilities and rights-of-way, *active transportation*, cuts, fills and storm drainage requirements, as required to meet accepted engineering design standards. These do not require an amendment to this Plan.
- 5.1.5.3 Land for Regional Road widenings will be required equally from both sides of the centreline of the designated Regional Road unless existing

land uses, topographic features or other physical or environmental constraints necessitate taking greater widening on one side than the other.

- 5.1.5.4 Additional land that exceeds the road allowance widths identified in Table 5-1 {Regional Road-Width Requirements} at the end of this Section may be acquired by the Region at its own expense, without an amendment to this Plan.
- 5.1.5.5 As part of the development application process, a road allowance not yet owned by the Region and identified in the Region's Transportation Master Plan should be protected in the following cases:
 - a) a local street that could be ultimately assumed by the Region; and
 - b) plans for the extension of an existing road allowance.
- 5.1.5.6 The need for noise mitigation measures to address traffic noise from Regional Roads, where required, premised on noise study recommendations per Provincial guidelines will be considered in the following situations:
 - a) new development adjacent to a Regional Road; or
 - b) impact of noise generated by increased traffic on Regional Roads adjacent to established development in accordance with Regional policy.
- 5.1.5.7 The policies in Section 6.2 {Urban Design}, the Niagara Region's Model Urban Design Guidelines, the Complete Streets Design Manual and Guidelines, and Wayfinding Signage for Cyclists Guidelines will be used when providing comments on development applications located along Regional Roads.
- 5.1.5.8 The rights-of-way for the Region's *transportation system, major goods movement facilities and corridors, active transportation* and public transit facilities will be planned and protected to meet current and projected needs, while ensuring that development is not permitted in planned corridors that could preclude or negatively affect the purposes of the corridor.
- 5.1.5.9 The co-location of linear *infrastructure* along Regional Roads is encouraged, where applicable.

- 5.1.5.10 As part of the construction, optimization, or expansion of transportation *infrastructure* within the Region's agricultural area and integrated *natural environment system*, the Region will require, where applicable:
- a) the preparation of an *agricultural impact assessment*, or equivalent analysis as part of a Municipal Class Environmental Assessment, that demonstrates that any impacts on the *agricultural system* have been avoided or, if avoidance is not possible, minimized, and, to the extent feasible, mitigated; and/or
 - b) the preparation of an *environmental impact study*, or equivalent analysis as part of a Municipal Class Environmental Assessment, that demonstrates that any impacts on the *natural heritage system, key natural heritage features, key hydrologic features* and *key hydrologic areas* have been avoided or, if avoidance is not possible, minimized, and to the extent feasible, mitigated.

5.1.6 Movement of Goods to Support the Regional Economy

- 5.1.6.1 The protection of lands adjacent to or near *major goods movement facilities and corridors* will be made for the expansion of *infrastructure* and uses ancillary to that of the principle *major goods movement facility and corridor* while:
- a) requiring a Municipal Class Environmental Assessment to demonstrate the need and alternative options for the *infrastructure* required for the expansion;
 - b) avoiding *specialty crop areas*, and other *prime agricultural areas* in that order of priority, unless need has been demonstrated and it has been established that there is no reasonable alternative for the location of the infrastructure as determined through the applicable Municipal Class Environment Assessment;
 - c) avoiding, or where avoidance is not possible, minimizing and mitigating adverse impacts to the *agricultural system* or other *sensitive land uses* vulnerable to encroachment; and
 - d) requiring an *agricultural impact assessment* during instances where *infrastructure* or uses are proposed within, adjacent to, or near the Greenbelt Area or *agricultural system*;
- 5.1.6.2 The *development* of lands adjacent to or near *major goods movement facilities and corridors* will be compatible with the goods movement function of those facilities and be designed to avoid, mitigate or minimize negative impacts on and from the facilities and corridors.

- 5.1.6.3 The Region will coordinate with the Province, local municipalities, agencies, and transportation service providers to implement a *transportation system* which is able to accommodate agricultural vehicles and equipment, where appropriate.
- 5.1.6.4 Advocate for highway capacity improvements to address inter-regional and international trade related demands for the purposes of *goods movement*.

5.1.7 Provide Direction to Local Municipalities

- 5.1.7.1 Local municipalities shall include policies in their official plans that address the following:
- a) ensure comprehensive *active transportation* networks are integrated into *transportation systems* as required by Policy 5.5.1.3.1;
 - b) protect lands adjacent to or near *major goods movement facilities and corridors* in accordance with Policy 5.1.6.1 and Policy 5.1.6.2;
 - c) ensure that a *complete streets* approach is used in the design or reconstruction of the planned or existing local street network;
 - d) in the absence of local *complete streets* guidelines, local municipalities shall refer to the Region's Complete Streets Design Manual and Guidelines for the design, refurbishment or reconstruction of their existing and planned local street network; and
 - e) provide protection for *planned corridors* in consultation with the Region and the Province to ensure that decisions on *development* applications will not preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.
- 5.1.7.2 Local municipalities should include policies in their official plan that address the following:
- a) plan lands near existing or planned *frequent transit* or *higher order transit facilities* in accordance with Policy 5.1.2.4; and
 - b) support *bicycle infrastructure* to ensure a connected and extended bicycle network within the region.
- 5.1.7.3 Local municipalities may be required to reflect additional policy direction from this section in their official plans as determined through consultation with the Region.

Table 5-1 Road Allowance Widths**Town of Fort Erie**

Regional Road Number	Road Name	Segment	Width in Metres
1	Dominion Road	Gorham Road – Lakeshore Road	20.1
3	Garrison Road	Rosehill Road – Central Avenue	30.5
19	Gilmore Road	QEW – Thompson Road	30.5
		Thompson Road – Concession Road	26.2
		Concession Road – Niagara Boulevard	23.2
21	Bowen Road	Stevensville Road – Thompson Road	26.2
	Phipps Street	Thompson Road – Niagara Parkway	20.1
25	Netherby Road	Montrose Road – QEW	30.5
		QEW – Niagara Parkway	26.2
116	Stevensville Road	Carver Street – CP Railway	20.1
	Stevensville Road / Sodom Road	C.P. Railway – North Limit of Fort Erie	26.1
122	Helena Street / Thompson Road	Dominion Road – Phipps Street	26.2
124	Central Avenue	Lakeshore Road – Niagara Parkway	26.2

Town of Grimsby

Regional Road Number	Road Name	Segment	Width in Metres
10	Casablanca Boulevard	Main Street West – QEW	26.2

Regional Road Number	Road Name	Segment	Width in Metres
12	Mountain Road	Mud Street – Ridge Road East	26.2
	Mountain Road	Ridge Road East – Main Street West	20.1
	Christie Street	Main Street West - QEW	26.2
	Christie Street	QEW – Olive Street	30.5
14	Park Road / Bartlett Avenue	East of Park Road South – Main Street East	39.6
	Bartlett Avenue	Main Street East – Central Avenue	35.4
39	QEW North Service Road	West Limit of Grimsby – Olive Street	26.2
40	QEW South Service Road	West Limit of Grimsby – East Limit of Grimsby	26.2
73	Mud Street West and East	West Limit of Grimsby – East Limit of Grimsby	26.2
81	Main Street West	West Limit of Grimsby – Casablanca Boulevard	26.2
		Casablanca Boulevard – Robinson Street	20.1
		Robinson Street – East Limit of Grimsby	26.2
512	Livingston Avenue	Oakes Road – Casablanca Boulevard	30.5
		Casablanca Boulevard – Main Street West	26.2

Town of Lincoln

Regional Road Number	Road Name	Segment	Width in Metres
18	Mountain Road / Ontario Street	Fly Road – QEW South Service Road	26.2
24	Vineland Townline Road	Twenty Mile Road – Ninth Avenue	30.5
	Victoria Avenue	King Street – Fourth Avenue	26.2
		Fourth Avenue – QEW South Service Road	20.1
26	Jordan Road	King Street – Fourth Avenue	30.5
		Fourth Avenue – QEW South Service Road	26.2
39	QEW North Service Road	West Limit of Lincoln to East Limit of Lincoln (discontinuous)	26.2
40	QEW South Service Road	West Limit of Lincoln to East Limit of Lincoln (discontinuous)	26.2
69	Twenty Mile Road	South Limit of Lincoln – Vineland Townline Road	26.2
	Twenty Mile Road / Pelham Road	South Limit of Lincoln – Ninth Street	26.2
	Pelham Road	Ninth Street – East Limit of Lincoln	20.1
73	Fly Road	West Limit of Lincoln – Victoria Avenue	26.2
77	Fourth Avenue	Jordan Road – East Limit of Lincoln	20.1
81*	King Street	West Limit of Lincoln – Lincoln Avenue	26.2

Regional Road Number	Road Name	Segment	Width in Metres
81*	King Street	Lincoln Avenue – Bartlett Road	20.1
		Bartlett Road – Rittenhouse Road	26.2
		Rittenhouse Road – Orchard Avenue	20.1
		Orchard Avenue – East Limit of Lincoln	26.2
669	Eighth Avenue	Victoria Avenue – Twenty Road	26.2

*Regional Road 81 shall be subject to further study before any road reconstruction.

City of Niagara Falls

Regional Road Number	Road Name	Segment	Width in Metres
20	Lundy's Lane	West Limit of Niagara Falls – Garner Road	35.0
		Garner Road – Main Street	26.2
	Ferry Street	Main Street – Stanley Avenue	23.2
25	Netherby Road	West Limit of Niagara Falls – Montrose Road	30.5
27	Schisler Road	West Limit of Niagara Falls – Misener Road	30.5
		Misener Road – Montrose Road	26.2
43	Bridge Street	Stanley Avenue – Victoria Avenue	20.1
		Victoria Avenue – River Road	23.2
47	Lyon's Creek Road	Montrose Road – Sodom Road	26.2
49	McLeod Road	Oakwood Drive – Marineland Parkway	30.5

Regional Road Number	Road Name	Segment	Width in Metres
49	Marineland Parkway	McLeod Road – Stanley Avenue	30.5
57	Thorold Stone Road	West Limit of Niagara Falls – Garner Road	42.0
		Garner Road – Stanley Avenue	26.2
61	Niagara Townline Road	St. Paul Avenue – Stanley Avenue	26.2
63	Chippawa Creek Road	West Limit of Niagara Falls – Montrose Road	26.2
70	Thorold Townline Road	Brown Road – Taylor Road	26.2
70	Taylor Road	Thorold Townline Road – North Limit of Niagara Falls	26.2
98	Montrose Road / Schihl Road	Southern Limit of Niagara Falls – Welland River	26.2
	Montrose Road	Welland River – McLeod Road	30.5
		McLeod Road – Kalar Road	26.2
	Kalar Road	Montrose Road – Mountain Road	26.2
	Niagara Square Drive	Montrose Road – McLeod Road	To be determined.
100	St. Paul Street	North Limit of Niagara Falls – Mountain Road	26.2
101	Mountain Road	Beechwood Road – Portage Road	26.2
	Portage Road	Mountain Street – Stanley Avenue	26.2
102	Stanley Avenue	Lyons Creek Road – Highway 420	30.5

Regional Road Number	Road Name	Segment	Width in Metres
102	Stanley Avenue	Highway 420 – Niagara Townline Road	26.2
116	Sodom Road	South Limit of Niagara Falls – Main Street	26.2
420	Roberts Road	Stanley Avenue – Falls Road	41.2

*Regional Road 81 shall be subject to further study before any road reconstruction.

** Lakeshore Road between Seventh Street and Courtleigh Street is identified for special study to determine the improvements that could be made to facilitate bicycling.

City of Thorold

Regional Road Number	Road Name	Segment	Width in Metres
20*	Highway 20	West Limit of Thorold / Provincial Highway 20 – East Limit of Thorold	35.0**
37	Merritt Road	Niagara Street – Highway 406	35.0
50	Merrittville Highway	South Limit of Thorold – St. David’s Road	26.2
56	Collier Road	Beaverdams Road – Confederation Avenue	To be determined.
		Confederation Avenue – St. David’s Road	To be determined.
63	Chippawa Creek Road	Allanport Road – East Limit of Thorold	26.2
67	Beaverdams Road	Merrittville Highway – Collier Road	26.2
		Collier Road – Pine Street	23.2

Regional Road Number	Road Name	Segment	Width in Metres
67	Pine Street	Beaverdams Road – Highway 58	20.1
70	Thorold Townline Road	Chippawa Creek Road – Taylor Road	26.2
71	St. David's Road	Merrittville Highway – Highway 406	26.2
82	Allanport Road	Chippawa Creek Road – Highway 20	26.2
84	Moyer Road	Welland River – Chippawa Creek Road	30.5

*Regional Road 20 is under the jurisdiction of Niagara Region but retains the name Highway 20.

** Detailed road design may suggest that, on occasion, the road allowance width may be less than 35 metres.

Township of Wainfleet

Regional Road Number	Road Name	Segment	Width in Metres
3	Lakeshore Road	West Limit of Wainfleet – Station Road	20.1
	Station Road	Lakeshore Road – Concession Road 1	26.2
	Concession Road 1	Station Road – Highway 3	26.2
4	Wellandport Road	Highway 3 – Creek Road	26.2
7	Marshagan Road	West Limit of Wainfleet – Creek Road	26.2
15	Robinson Road	West Limit of Wainfleet – Canborough Road	26.2

Regional Road Number	Road Name	Segment	Width in Metres
23	Forks Road	Highway 3 – East Limit of Wainfleet	30.5
24	Vineland Townline Road	Highway 3 – North Limit of Wainfleet	30.5
27	River Road	North Limit of Wainfleet – East Limit of Wainfleet	26.2
45	Creek Road	Canborough Road – River Road	20.1
63	Canborough Road	West Limit of Wainfleet – Welland River (north limit of Wainfleet)	26.2
627	O’Riellys Road	River Road – North Limit of Wainfleet	26.2

City of Welland

Regional Road Number	Road Name	Segment	Width in Metres
23	Forks Road	West Limit of Welland – Highway 58	26.2
25	Netherby Road	Doan’s Ridge Road – East Limit of Welland	30.5
27	Riverside Drive	West Limit of Welland – Lincoln Street	26.2
		Lincoln Street – Prince Charles Drive	20.1
	West Main Street	Prince Charles Drive – King Street	20.1
	East Main Street	King Street – Ross Street	20.1

Regional Road Number	Road Name	Segment	Width in Metres
27	East Main Street	Ross Street – Wellington Street	26.2
		Highway 140 – Moyer Road	36.6
		Moyer Road – East Limit of Welland	26.2
	Eastbound Ramp from Moyer Road	Regional Road 84 to Regional Road 27 Eastbound	35
29	Webber Road	Murdock Street – Riverside Drive	36.6
	Lincoln Street	Riverside Drive – Prince Charles Drive	26.2
33	Humberstone Road	Highway 58 - Feeder Road	To be determined.
36	South Pelham Road	Webber Road – Woodlawn Road	26.2
41	Woodlawn Road	South Pelham Road – Seaway Mall Entrance	26.2
		Seaway Mall Entrance – Highway 406	35.0
50	Niagara Street	West Main Street – Thorold Road	23.2
		Thorold Road – North Limit of Welland	26.2
54	Prince Charles Drive South	Highway 58 – Lincoln Street	30.5
	Prince Charles Drive North / Rice Road	Lincoln Street – Woodlawn Road	26.2
	Rice Road	Woodlawn Road – North Limit of Welland	26.2

Regional Road Number	Road Name	Segment	Width in Metres
68	King Street	Division Street East – East Main Street	23.2
84	Miller Road	Townline Tunnel Road – Netherby Road	26.2
	Doan's Ridge Road	Netherby Road – East Main Street	26.2
	Moyer Road	East Main Street – Welland River	30.5
525	Townline Tunnel Road	Highway 140- Netherby Road	36.6
	Keefer Road	Townline Tunnel Road – Miller Road	35.0
527	Division Street	West Main Street – Burgar Street	20.1

Township of West Lincoln

Regional Road Number	Road Name	Segment	Width in Metres
2	Caistorville Road	South Limit of West Lincoln – Bismark Road	26.2
9	York Street	West Limit of West Lincoln – Caistorville Road	26.2
12	Grimsby Road	Highway 20 – North Limit of West Lincoln	26.2
14	Smithville Road / Townline Road	West Limit of West Lincoln – Canborough Street	26.2
	Canborough Street / Station Street / Thirty Road	Townline Road – North Limit of West Lincoln	26.2
20	Highway 20* / West Street	West Limit of West Lincoln – South Grimsby Road 5	35.0

Regional Road Number	Road Name	Segment	Width in Metres
20	West Street / Giffen Road / St. Catharines Street	South Grimsby Road 5 – Townline Road	20.1
	Highway 20*	Townline Road – East Limit of West Lincoln	35.0
24	Vineland Townline Road	South Limit of West Lincoln – North Limit of West Lincoln	30.5
27	Wellandport Road	Highway 20* – South Limit of West Lincoln	26.2
63	Canborough Road	South Limit of West Lincoln – Vineland Townline Road	26.2
65	Bismark Road	West Limit of West Lincoln – Wellandport Road	26.2
69	Twenty Mile Road	Highway 20* - Vineland Townline Road	26.2
73	Mud Street West and East	West limit of West Lincoln – East Limit of West Lincoln	26.2

* Regional Road 20 is under the jurisdiction of Niagara Region but retains the name Highway 20.

Minimum Site Triangle Requirements

Regional Intersection Type	Minimum Sight Triangle Dimension Requirements
Urban (signalized)	10 metres x 10 metres
Urban (non-signalized)	6 metres x 6 metres
Rural	15 metres x 15 metres

5.2 Infrastructure

Well planned and managed *infrastructure* is fundamental to attaining the Region's vision for thriving and resilient communities, and key to achieving the growth forecasts of this Plan.

The *infrastructure* policies that follow will ensure that the Region's existing and future *development* is supported by *infrastructure* that is planned, constructed, and managed in an integrated, efficient, and environmentally sustainable manner.

The Region will continue to prepare, update, and rely upon on long-term *infrastructure* master plans to ensure optimization and strategic timing of sound investments.

The policies in this section address the Region's existing and future *infrastructure* needs relating to drinking water, wastewater, stormwater management, waste, energy, and *utility* services.

The planning and *development of infrastructure* must be integrated with *climate change* resiliency. The Growth Plan for the Greater Golden Horseshoe directs that the Region develop policies to identify actions that will reduce greenhouse gas emissions, assess *infrastructure* risks and vulnerabilities, and identify actions to address these growing challenges.

The objectives of this section are as follows:

- a) undertake infrastructure planning, development, and asset management;
- b) supply municipal water and wastewater servicing within urban areas;
- c) restrict municipal water and wastewater servicing outside urban areas;
- d) provide municipal waste management services;
- e) ensure stormwater management is integrated into the planning process;
- f) ensure utilities are provided in an efficient and compatible manner; and
- g) support the development of green energy infrastructure.

5.2.1 Infrastructure Planning, Development, and Asset Management

- 5.2.1.2 *Infrastructure* planning, development, and asset management shall be undertaken in support of the growth management policies of this Plan and to promote *sustainability*.
- 5.2.1.3 A coordinated, integrated, and comprehensive approach should be used for the planning, development, and managing of *infrastructure* within municipalities, across lower and upper-tier municipal boundaries, and with other orders of government, agencies, and boards.
- 5.2.1.4 The Region shall align *infrastructure* planning with land use planning, infrastructure investment and watershed planning.
- 5.2.1.5 Leverage *infrastructure* investment to direct and support growth and *development* within *strategic growth areas* as well as to achieve the minimum *intensification* and density targets identified in this Plan.
- 5.2.1.6 Before consideration is given to developing new *infrastructure*, the Region shall optimize the use of existing *infrastructure*, and plan and direct growth in a manner that promotes efficient use of existing services.
- 5.2.1.7 The Region shall provide *infrastructure* and services within its jurisdiction to accommodate existing *development* and anticipated growth within the financial capability of the Region.
- 5.2.1.8 The Region will identify the full life-cycle costs of *infrastructure* and provide long-range, holistic, integrated and financially sustainable *infrastructure* planning based on the understanding of the co-relation between long-term *infrastructure* investment and long-term funding plans.
- 5.2.1.9 *Infrastructure* will be planned through the appropriate Ontario Environmental Assessment process ensuring full regard for the natural and cultural heritage of the region.
- 5.2.1.10 The Region will assess *climate change* impacts on *infrastructure* at a watershed scale.
- 5.2.1.11 The Region will promote the use of *green infrastructure*, integrate *green infrastructure* and *low impact development*, and consider integrating *green infrastructure* through *development* review and in *public works projects*.

- 5.2.1.12 Construction of new, or expansion of existing municipal water, wastewater and stormwater *infrastructure* should only be considered where the following conditions are met:
- a) strategies for water conservation and other water demand management initiatives are being implemented in the existing service area;
 - b) plans for expansion or for new services shall serve growth that achieves the growth management targets for *intensification* and density in this Plan; and
 - c) plans have been considered in the context of applicable inter-provincial, national, bi-national, or state-provincial Great Lakes Basin agreements and are in compliance with the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement.
- 5.2.1.13 Updates to the Regional Water and Wastewater Master Servicing Plan may be implemented through amendments to the Niagara Official Plan as required. New and expanding regional *infrastructure* and facilities may be reviewed by the Region's Urban Design Section in consultation with relevant Regional divisions and local municipalities.
- 5.2.1.14 The Region shall give priority for the provision of new municipal water and sewage services within *urban areas* to:
- a) growth that aligns with the Region's Water and Wastewater Master Servicing Plan;
 - b) existing *development on individual on-site sewage services and/or individual on-site water services* within the *urban areas*;
 - c) existing *development* having deficiencies in existing *municipal water and wastewater systems/services* to meet minimum water quality objectives and minimum pollution abatement objectives, as established by the Region in consultation with appropriate Provincial and Federal Ministries;
 - d) industrial *development* creating employment opportunities, which shall be assigned a higher priority than new residential *development*;
 - e) *development and redevelopment* within the *strategic growth areas* which produce an intensive and compact form of *development*; and
 - f) support areas with District and Secondary Plans.

- 5.2.1.15 The Region shall develop Stormwater Management Guidelines giving guidance on best practices and innovation for development applications and public works projects and to assist in addressing climate change impacts.
- 5.2.1.16 Planning for stormwater management shall:
- a) conform with Section 3.2 {Watershed Planning};
 - b) be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;
 - c) minimize, or, where possible, prevent increases in contaminant loads;
 - d) minimize erosion and changes in water balance, and prepare for the impacts of *climate change* through the effective management of stormwater, including the use of *green infrastructure*;
 - e) mitigate risks to human health, safety, property, and the environment;
 - f) maximize the extent and function of vegetative and pervious surfaces;
 - g) promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and low impact development; and
 - h) consider *green infrastructure* and other measures which address the impacts of *climate change*.
- 5.2.1.17 Local municipalities shall develop *stormwater master plans* or equivalent for serviced *settlement areas* that:
- a) Are informed by *watershed planning* or equivalent;
 - b) Protect the *quality and quantity of water* by assessing existing stormwater facilities and systems;
 - c) Characterize existing environmental conditions;
 - d) Examine the cumulative environmental impacts of stormwater from existing and planned development, including an assessment of how extreme weather events will exacerbate these impacts and the identification of appropriate adaptation strategies;

- e) Incorporate appropriate *low impact development* and *green infrastructure*;
 - f) Identify the need for stormwater retrofits, where appropriate;
 - g) Identify the full life-cycle costs of the stormwater *infrastructure*, including maintenance costs, and develop options to pay for these costs over the long-term; and
 - h) Include an implementation and maintenance plan.
- 5.2.1.18 The Region will develop a Long-Term Waste Management Strategic Plan in consultation with the local municipalities. Policy direction will be implemented through an amendment to this Plan.
- 5.2.1.19 The Region will design, operate, and monitor *waste management* facilities in such a manner as to promote sustainability and public health and, wherever feasible, provide for future adaptive re-use opportunities in accordance with applicable local Official Plan policies and Provincial requirements.
- 5.2.1.20 *Waste management* systems shall be located and designed in accordance with provincial legislation and standards.

5.2.2 Supply Municipal Water and Wastewater Servicing within *Urban Areas*

- 5.2.2.1 Adequate water supply and sewage collection shall be provided to meet the existing and future *development* needs in alignment with the growth management policies of this Plan, the Water and Wastewater Master Servicing Plan and the Region’s capital budget process.
- 5.2.2.2 *Municipal water and wastewater services* are the required form of servicing for *development* in *urban areas*.
- 5.2.2.3 Private *lateral connections* to regional water or wastewater mains are discouraged.
- 5.2.2.4 The Region will endeavor to:
- a) maintain sufficient reserve capacity in its water and wastewater *infrastructure* and facilities to provide operational flexibility and meet potential changes in servicing conditions;
 - b) ensure new *development* will not put the Region out of compliance with regulations and the Region will consider opportunities to maintain or reduce wet weather overflow occurrence; and,
 - c) provide reliability, redundancy and security in its water and wastewater systems with attention to high risk and critical areas.

- 5.2.2.5 The potential impact of climate change on the planning and sizing of water and wastewater *infrastructure* shall be considered.
- 5.2.2.6 Water and wastewater facilities shall be designed with consideration to reducing energy use and greenhouse gas emissions.
- 5.2.2.7 The Region will review a combination of servicing strategies including *infrastructure* and non-*infrastructure* solutions to meet wet weather level of service and provide sufficient wastewater capacity. The Region will work collaboratively with the local municipalities to reduce wet weather flows in the sanitary system.
- 5.2.2.8 Within *urban areas* partial services shall only be permitted in the following circumstances:
- a) where they are necessary to address failed *individual on-site sewage services* and *individual on-site water services* in existing *development*; or,
 - b) to allow for infilling and minor rounding out of existing *development* on partial services provided site conditions are suitable for the long-term provision of such services with no negative impacts.
- 5.2.2.9 Any extensions of the existing water supply or sewage disposal systems of the local municipalities must have the prior approval of the Region.
- 5.2.2.10 Where *development* is proposed on lands adjacent to an existing or proposed sewage treatment facility, the location of *development* shall be determined by appropriate noise and odour studies that identify suitable separation distances and mitigation measures.

5.2.3 Municipal Water and Wastewater Servicing Outside of Urban Areas

- 5.2.3.1 *Lateral connections* to regional water or wastewater mains are not permitted outside the *urban areas* boundaries.
- 5.2.3.2 Extension of municipal water supply mains or municipal sewers shall not be extended outside the *urban areas* except:
- a) where necessary to correct an existing health problem as determined by the Medical Officer of Health or where there is a clean-up order from the Ministry of the Environment, Conservation and Parks, and provided all alternatives to municipal mains for resolving health concerns have been considered; and
 - b) where extensions of the water supply system are for necessary operating purposes, such as the looping of existing mains, the

replacement of existing mains, and the interconnection of *urban areas*.

5.2.3.3 All *development* outside the *urban areas* shall be serviced by sustainable *individual on-site water* and *individual on-site sewer systems*, except an existing lot of record outside the *urban areas* may be permitted to connect to existing municipal services subject to the following:

- a) where municipal sewers or water supply mains have been extended outside the *urban areas* to correct an existing health problem as determined by the Medical Officer of Health or where there is a clean-up order from the Ministry of Environment, Conservation and Parks.

5.2.3.4 Individual water supply and sewage disposal systems are permitted outside the *urban areas* provided the site conditions are suitable for the long-term provision of such services with no negative impacts.

5.2.4 Municipal Waste Management Services

5.2.4.1 The Region will provide for the disposal and treatment of solid wastes to the local municipalities, and in alignment with the Region's Long Term *Waste Management* Strategic Plan.

5.2.4.2 The disposal and treatment of solid wastes shall be provided for in an integrated manner that evaluates full life cycle impacts with respect to financial and environmental sustainability, public health, and aesthetics.

5.2.4.3 The Region shall provide waste management systems that are of an appropriate size and type to accommodate present and future requirements, and facilitate, encourage, and promote reduction, reuse, and recycling objectives.

5.2.4.4 The selection of all solid waste disposal sites will involve consideration of:

- a) the compatibility of the methods of operation with adjacent land uses;
- b) the nature of bedrock and soil conditions in order to reduce the likelihood of groundwater contamination;
- c) operational economics, transportation costs, maintenance, land prices, opportunity for future expansion, etc.; and,

- d) compliance with the policies of Chapter 3, and specifically Section 3.1 {Natural Environment System}, of this Plan.
- 5.2.4.5 Site and rehabilitation plans will be developed prior to the use of a particular site for solid waste disposal. These plans should make provision for:
- a) the control of odour, vermin, and other nuisances;
 - b) the phasing of the site expansion;
 - c) the ultimate use of the site;
 - d) landscaping and berms;
 - e) access; and,
 - f) a uniformly high standard of operation.
- 5.2.4.6 The Region will investigate the application of waste diversion techniques, including the reuse and recycling of construction material.
- 5.2.4.7 Proposed *development* within the influence area, as determined by Provincial Land Use Compatibility Guidelines or through site specific study, of all *waste management* facilities shall demonstrate that the solid *waste disposal site* shall will not have any unacceptable adverse effects on the proposed *development* and will not pose any risks to human health and safety.
- 5.2.4.8 Notwithstanding, the following compatible uses may not require a study provided that the solid *waste disposal site* water table is not affected and excavations shall not result in landfill gas migration or removal of a visual screen buffering of the landfill from the public view: utilities, waste-processing facilities, above-grade transportation routes, forestry activities, and gravel pits, quarries and other mining activities. No new land-use shall be permitted within 30 m of the licensed perimeter of an operating solid *waste disposal site*.
- 5.2.4.9 *Development* on, or within 250 metres of a non-operating *waste disposal site* (e.g., old closed landfills) shall address Provincial requirements for contaminated sites.
- 5.2.4.10 *Development* within 500 metres of a non-operating *waste disposal site* shall also demonstrate that there is no risk to human health and safety from landfill gas.
- 5.2.4.11 The Region will identify and support new opportunities to enhance waste reduction, composting and recycling initiatives and for energy

from waste, source reduction, reuse, and diversion, where appropriate.

5.2.4.12 When exploring new food and organic waste resource recovery systems, the Region will pursue regional approaches, including considering potential partnerships with neighbouring municipalities and private industry.

5.2.4.13 Approvals for new or expanded resource recovery systems will address the Provincial Land Use Compatibility Guidelines and the Guidelines for the Production of Compost in Ontario, to ensure appropriate siting and compatibility between uses and adjacent uses as well as to prevent or mitigate adverse effects from odour, noise and other contaminants.

5.2.5 Stormwater Management and the Planning Process

5.2.5.1 All new *development* and redevelopment in settlement areas must be provided with separate storm drainage systems or separate storm drainage connections.

5.2.5.2 The Region will collaborate with the local municipalities for the provision of adequate storm drainage facilities.

5.2.5.3 Proposals for large-scale *development* proceeding by way of a secondary plan, plan of subdivision, vacant land plan of condominium or site plan will be supported by a stormwater management plan or equivalent, that:

- a) conforms with Section 3.2 {Watershed Planning};
- b) is informed by a *subwatershed* plan or equivalent;
- c) all proposals for *development* or *redevelopment* are designed based on an integrated treatment approach in order to address requirements for water quality, erosion control, flood control, thermal mitigation and water budget to minimize stormwater flows and reliance on stormwater ponds, which includes appropriate *low impact development* and *green infrastructure*;
- d) establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces;
- e) stormwater management facilities are designed to support key features and ecological functions in the Region's *Natural Environment System*, where possible; and

- f) aligns with the *stormwater master plan* or equivalent for the *settlement area*, where applicable.

5.2.6 Provision of Utilities

- 5.2.6.1 The Region will coordinate with both private and public *utility* providers and the Local Municipalities to ensure that utilities are planned and managed in a manner that supports the objectives and policies of this Plan.
- 5.2.6.2 The joint use of rights-of-way and corridors is encouraged wherever feasible for various facilities in order to:
 - a) lessen the impact on the environment of uncoordinated alignments of various single purpose authorities; and
 - b) avoid land use and *development* conflicts associated with such rights-of-way and alignments.
- 5.2.6.3 The construction of utilities shall comply with the *natural environment system* policies of this Plan.
- 5.2.6.4 Necessary public utilities will be provided in accordance with the servicing needs of existing and future *development* and with economic, safety and environmental considerations.
- 5.2.6.5 The Region and local municipalities will confirm, as part of the *development* review process, that *utility* providers are able to provide services to support the proposed *development* in a timely manner and that, if required, appropriate locations for large *utility* equipment and *utility* cluster sites have been determined.
- 5.2.6.6 The Region will review and comment on Environmental Assessment Studies and may participate in the Environmental Assessment process for major *utility* related projects to ensure that potential impacts on matters of Regional and Provincial interest are addressed.
- 5.2.6.7 *Utility* providers proposing to locate, relocate, or replace a facility within a Regional Road allowance will require Regional approval and be subject to the provisions of all applicable Regional policies, by-laws, standards, and guidelines.
- 5.2.6.8 The Region will continue to advise *utility* providers of the need to:
 - a) consult with the Region and local municipalities;

- b) review the region-wide inventory of *cultural heritage resources* and *areas of archaeological potential* prior to undertaking construction, demolition, or maintenance projects;
- c) consult with the Region and local municipalities;
- d) mitigate any impacts on *cultural heritage resources* including *archaeological resources* through acceptable conservation measures; and
- e) place equipment and devices in locations which do not detract from the visual character of cultural heritage resources and do not have a negative impact on the architectural integrity of these resources.

5.2.7 Green Energy Infrastructure

- 5.2.7.1 The Region shall closely monitor the Provincial regulations and provide appropriate policies to support the development of green energy *infrastructure*.
- 5.2.7.2 The Region will promote opportunities for the *development* of energy supply including electricity generation facilities and transmission and distribution systems, district energy, and *renewable energy systems* and *alternative energy systems*, to accommodate current and projected needs.
- 5.2.7.3 Subject to Provincial requirements, the Region will review the siting of all renewable energy generation facilities within the context of all policies of this Plan.
- 5.2.7.4 Wind energy systems and associated distribution *infrastructure* shall be located, designed, and constructed to eliminate or minimize adverse impacts on agricultural operations, lands, and activities; significant *natural heritage features*; existing mineral aggregate operations; and cultural and built heritage resources.
- 5.2.7.5 Wind energy systems shall be designed and constructed to be appropriately buffered and/or separated from sensitive land uses to prevent adverse effects and to minimize the risk to public health and safety.
- 5.2.7.6 Wind energy systems are generally permitted throughout the Region subject to applicable local municipal criteria, Provincial Plan policies, and policies set out in this Plan, except large scale wind energy systems will require a Regional Official Plan Amendment.

- 5.2.7.7 Application for wind energy *development* should comply with Section 7.9 for Complete Applications and the following:
- a) a justification/impact report that demonstrates:
 - i. the need for, and public benefit of, locating the proposed generating capacity in these areas;
 - ii. an assessment of impacts on agricultural operations, lands and activities, *natural heritage features*, nearby residences and other sensitive land uses in the area; and,
 - iii. the means of minimizing any adverse effects.
 - b) a visual impact assessment;
 - c) a noise report demonstrating compliance with Provincial requirements; and
 - d) a report demonstrating compliance with Provincial shadow flicker guidelines.
- 5.2.7.8 The *development* of new or expanded wind energy systems within an area regulated under the *Niagara Escarpment Planning and Development Act* will be subject to the provisions of the Niagara Escarpment Plan. The policies of this Plan and policies in local Official Plans will be the basis for providing municipal comments to the Niagara Escarpment Commission during the review of wind energy system applications.
- 5.2.7.9 The *development* of new wind energy systems in areas adjacent to or on known deposits of aggregate, mineral or petroleum resources shall be permitted where it has been demonstrated that the energy system serves a greater long-term public interest during the lifetime of the wind energy system than the resources noted above and does not compromise the future extraction of the aggregate, mineral or petroleum resource.
- 5.2.7.10 The *development* of wind energy systems shall be prohibited where they may cause a potential aviation safety hazard as determined by Transport Canada or the appropriate agency.

5.2.8 Provide Direction to Local Municipalities

- 5.2.8.1 Local municipalities shall include policies in their official plans that address the following:

- a) *infrastructure* planning, *development*, and asset management shall be undertaken in alignment with Chapter 2 of the Regional Official Plan, *infrastructure* investment and *watershed planning*, and promote sustainability;
- b) before consideration is given to developing new *infrastructure*, the municipality shall optimize the use of existing *infrastructure*, and plan and direct growth in a manner that promotes efficient use of existing services;
- c) the location, design, construction, and operation of local *infrastructure* will be *sustainable*, strategic, and cost-efficient, and minimize adverse impacts on the natural environment, agricultural lands, and existing landscape;
- d) in coordination with the Region, comprehensively approach and integrate growth allocated by the Region with required *infrastructure* and establish priority and phasing policies for *water and wastewater services*;
- e) necessary public *utilities* will be provided in accordance with the servicing needs of existing and future *development* conforming to stated priorities and with economic, safety and environmental considerations;
- f) the municipality shall assess *infrastructure* risks and vulnerabilities, including those caused by the impacts of climate change, and identify actions and investments to address these challenges, which could be identified as part of municipal asset management planning;
- g) the municipality shall consider through site plan control the *development* of *green infrastructure*, such as naturalized retention ponds and rain gardens to increase stormwater offset;
- h) prior to approval of *development*, the municipality shall ensure that required *water and wastewater services* and servicing capacity is available to support the *development*;
- i) construction of new, or expansion of existing municipal water, wastewater and stormwater *infrastructure* should only be considered where the following conditions are met:
 - i. strategies for water conservation and other water demand management initiatives are being implemented;

- ii. plans for expansion or for new services are to serve growth that will achieve the growth management targets for *intensification* and density in this Plan; and,
- iii. plans have been considered in the context of applicable inter-provincial, national, bi-national, or state-provincial Great Lakes Basin agreements and are in compliance with the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement;
- j) the local municipality is responsible for local *water and wastewater services*;
- k) existing municipal *combined sewer* and storm drainage systems shall be separated, where feasible and economical;
- l) all new *development* which is proposed to be connected to existing *combined sewer* facilities shall be served with separated systems within the property limits of the *development*. The connection to the *combined sewer* will only be considered once a new separated storm outlet has been determined unachievable and the available capacity within the existing *combined sewer* services has been confirmed;
- m) develop stormwater master plans or equivalent for *settlement areas*;
- n) implement sustainable stormwater management plans and strategies as part of *development* and *redevelopment*;
- o) planning for stormwater management shall:
 - i. be integrated with planning for sewage and water services and ensure that systems are optimized, feasible and financially viable over the long term;
 - ii. minimize or prevent increases in contaminant loads;
 - iii. minimize erosion and changes in water balance, and prepare for the impacts of a changing climate,
 - iv. mitigate risks to human health, safety, property, and the environment;
 - v. maximize the extent and function of vegetative and pervious surfaces; promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and *low impact development*;

- vi. promote stormwater management best practices, including stormwater attenuation and re-use, water conservation and efficiency, and *low impact development*; and,
 - vii. consider *green infrastructure* and other measures which address the impacts of climate change.
- p) prior to construction, new or expanding local *infrastructure* will be assessed for risks and vulnerabilities caused by the impacts of *climate change*;
 - q) in collaboration with the Region, the municipality should ensure that their Official Plan, zoning by-law, plan of subdivision approvals and site plan approvals for new *development* comply with the Region's requirements for waste collection to ensure safe and efficient waste collection and diversion and includes support for the resource recovery of food and organic waste for their residents;
 - r) during the *development* review process, the municipality will promote enhanced waste reduction, composting and recycling initiatives, and the identification of new opportunities for energy from waste, source reduction, reuse, and diversion, where appropriate. Consideration shall be given to increased convenience and access for waste diversion collection programs to promote participation;
 - s) subject to Provincial requirements, the municipality will prepare official plan policies and zoning for the review of new or expanding renewable energy generation facilities to ensure consideration of safety, compatibility, and other impacts; and
 - t) policies 5.2.2.10, 5.2.4.7, 5.2.4.8, and 5.2.4.9 and 5.2.5.3.

5.2.8.2 Local municipalities should include policies in their official plans that address the following:

- a) in coordination with the Region, establish official plan policies and other measures for the planning and construction of new *infrastructure* that addresses the principles of environmental sustainability including but not limited to:
 - i. reducing energy demands;
 - ii. designing *development* to optimize passive solar energy gains;

- iii. providing for on-site, renewable energy generation and co-generation and district energy systems;
 - iv. maximizing water conservation, including water efficient landscaping and collection and reuse of clean water;
 - v. providing appropriate stormwater infiltration at the source;
 - vi. integrating green roofs into energy and water conservation strategies;
 - vii. providing for collection and storage of recyclable and organic wastes on site;
 - viii. integrating active transportation and transit into *development* plans; and
 - ix. maintaining and enhancing hydrological and *natural heritage features* and functions.
- b) the municipality will encourage the joint use of rights-of-way and corridors wherever feasible for various facilities in order to:
- i. lessen the impact on the environment of uncoordinated alignments of various single purpose authorities; and,
 - ii. avoid land use and *development* problems associated with such rights-of-way and alignments.

5.3 Public Spaces, Recreation, Parks, Trails and Open Space

Parks, open spaces and trails provide an opportunity for healthy recreational activities, tourism and appreciation of *cultural heritage resources* and natural resources. Planning for open space encourages physical activity, supports mental health, increases the use of *active transportation*, and provides linkages between *natural heritage features*.

The objective of this section is to:

- a) plan for the inclusion of open space in communities.

5.3.1 Open Space in Communities

- 5.3.1.1 The Region shall ensure the provision of public open space and adequate parkland in the review of district and secondary plans to facilitate the creation of healthy, *complete communities*.
- 5.3.1.2 The Region will, in partnership with the local municipalities, the Niagara Peninsula Conservation Authority, and other interest agencies:
- a) maintain a map of publically accessible parkland, open space and trails to support the connectivity of *natural heritage features* and the achievement of *complete communities*, and inform the Regional Greening Initiative, as per policy 3.5.1.3 {Climate Change};
 - b) explore opportunities to plan new trails or develop/enhance existing trails on a cross-boundary basis to enhance interconnectivity where practical and feasible; and
 - c) promote good stewardship practices for publicly accessible parkland and open spaces, specifically when adjacent to the *Natural Environment System*.
- 5.3.1.3 The Region supports efforts to designate Niagara region as a UNESCO Global Geopark to foster conservation, education and sustainable economic development.
- 5.3.1.4 The Region encourages the Province to continue acquiring lands to further develop the Niagara Escarpment Parks System, including the Bruce Trail, which provides significant economic and environmental benefit to the Region.

5.3.2 Provide Direction to Local Municipalities

- 5.3.2.1 Local municipalities shall include policies in their official plans that address the following:
- a) the acquisition of parkland in accordance with the provisions of the Planning Act, and/or direction to pass by-laws that allow for the acquisition of parkland; and
 - b) integration of *development* with, and connectivity to, existing and proposed parks and trails.

- 5.3.2.2 Local municipalities should include policies in their official plans that address the following, where applicable:
- a) maintenance and improvement of public access to shorelines and dedication of shorelines to the local municipality or other public agency where there is a public benefit to the overall trail system. *Development* that will constrain ongoing or planned shoreline acquisition should not be permitted; and
 - b) open space, park and recreational opportunities with the Welland Canal *Cultural Heritage Landscape*.
- 5.3.2.3 Local municipalities may be required to reflect additional policy direction from this section in their official plans as determined through consultation with the Region.
- 5.3.2.4 The Region encourages the local municipalities to:
- a) develop park/trail master plans to strategically and equitably plan for the acquisition, use and management of publically-accessible parks, open spaces and trails, including shorelines, to best serve the needs of all local residents. Master plans should clearly identify, plan for and protect these resources;
 - b) consider climate change when planning for parks, open space and trails, including opportunities for tree planting;
 - c) establish an open space system within *settlement areas*, which may include opportunities for urban agriculture, rooftop gardens, communal courtyards and public parks; and
 - d) evaluate public lands being disposed for potential acquisition for recreation and open space uses in concert with other growth needs, including reuse of abandoned *rail facilities* and *utility corridors* for trail development.