2. FACTORS INFLUENCING TRANSPORTATION DEMAND IN THE STUDY AREA

The need for additional capacity has been identified in anticipation of increased transportation demand for both person trips and goods movement as a result of population and employment growth and to support growth in tourism and trade. Provincial policies, including the approved Growth Plan, also identify transportation as a foundation element in support of land use and economic growth.

A number of elements have a bearing on the potential future transportation capacity deficiencies within the Study Area. These elements must be well understood in order to appreciate the scope and nature of the transportation problems and opportunities that must be addressed. They include both transportation supply and demand characteristics.

Supply side characteristics include the capacity of existing and planned transportation system infrastructure for all modes of travel – road, transit, rail, marine and air, for the movement of both people and goods. Supply side characteristics have been described in the Overview of Transportation and Socio-Economic Conditions Report (December 2007).

Demand side characteristics include the potential future growth in person trips and goods movements and the alternative ways that those trips may be assigned to the transportation system. The following section discusses the factors that influence the future demand for transportation within the Study Area, namely the planned multi-modal inter-regional transportation system (supply), the movement of people and goods, policy, land use, economy, trade and tourism.

2.1 MOVING PEOPLE AND GOODS

The primary function of the inter-regional transportation system is to facilitate the movement of people and goods within and through the Study Area. This is accomplished by using all available transportation modes travelling across all jurisdictions with an emphasis on connections to:

- population centres, in particular, designated Urban Growth Centres;
- inter-modal facilities including international airports, major marine ports and railways;
- major transit station terminals; and
- economic zones and international gateways.

A schematic flow diagram reflecting the function of the inter-regional transportation system is presented in Exhibit 2-1.
Exhibit 2-1: The Inter-Regional Transportation System

The inter-regional transportation system consists of transportation facilities and services that allow people and goods movement trips to occur. The *Overview of Transportation and Socio-Economic Conditions Report* (December 2007) provides a description of the capacity of existing transportation system infrastructure for all modes of travel (road, rail, marine, transit and air) within and through the Study Area for the movement of people and goods. The inter-regional transportation system was described in terms of the existing networks of highways, municipal roads, transit, rail, marine ports and airports. An understanding of historical and current road traffic flows was established as well as service characteristics and flows for transit, rail, inter-modal facilities and air.

Given historical development, roads continue to play a fundamental role in the inter-regional transportation system. Roads provide connection to bus and rail transit facilities serviced by local municipal transit, VIA Rail, GO Transit and the intercity bus industry. They also provide connections to inter-modal freight rail facilities, airports and marine ports. Roads link directly to places of employment, manufacturing plants, distribution centres and retail outlets within communities. The road network is therefore an essential element of the multi-modal transportation system that provides for the movement of people and goods. Without a network of connecting roads, other modes cannot provide complete trip making.

Understanding the relationship among the existing and planned transportation facilities and services is critical in understanding the transportation needs for the future. However, the relationship between these transportation facilities and services and how the trip type and travel mode choice is made for moving both people and goods also shapes and
influences the future demand on the area transportation system. The following sections discuss factors other than the transportation facilities and services that influence people and goods movement within and through the Study Area.

### 2.1.1 Moving People

People travel for a variety of reasons at different times throughout the day and week. Travel mode choices are influenced by a number of factors grouped into three categories: personal characteristics, trip characteristics and the multi-modal transportation system, as shown in **Exhibit 2-2**

**Exhibit 2-2: Factors Influencing How People Travel**

![Factors influencing how people travel](image)

The personal characteristics of travellers influence their mode choice: demographic and socio-economic characteristics (age, gender, mobility, income, etc.) as well as personal preferences such as the importance of convenience, desire for active transportation, concern about the environmental impacts of travel and time constraints. Trip characteristics are another area of influence on mode choice; mode choice for travel to work may differ from mode choice for travel for education, shopping, or tourism and recreational purposes. Time of trip and the origin and destination locations will also affect mode choice.

The transportation system is the third area of influence. This includes a range of components, including: available travel routes; travel time (walking, waiting and in-vehicle); cost of travel (transit fare, automobile operating cost, road toll, parking, etc); travel conditions/congestion; public transit service quality, including increased service
speed, frequency, service reliability, convenience, comfort, user information, affordability and ease of access, and weather conditions.

The combination of these, often related, factors leads people to choose the most appropriate mode for their trip, with options including bus and rail transit, walking and cycling, automobile, and air/marine travel. The GGH Model uses the most important and measurable of these personal characteristics, trip characteristics and transportation system factors as inputs to determine the resulting automobile and transit person assignments.

Typically, a person makes at least one two-way trip each day. For example, a typical weekday’s travel might include the following trips: home-work; work-shopping; shopping-home.

Exhibit 2-3 illustrates the modes that might be used for trips taken throughout a typical weekday, based on those factors influencing mode choice.

Exhibit 2-3: Typical Weekday Trips and Mode Choice Options

Automobile travel makes up a significant part of total person travel throughout the Study Area. The inter-regional movement of people through the Study Area is primarily by personal automobile (97%) with the remaining 3% using transit (bus and rail). In many instances this is the only option, as many origin and destination locations are connected by roads, with limited or no transit services. Automobile travel offers flexibility in terms of time of travel and does not require any transfers. Multiple trips can be easily linked by automobile travel (e.g., dropping off children at school on the way to work). Cost of operation, road tolls and parking can influence the choice of the automobile mode, as well as personal characteristics such as ability to drive, car ownership and income. Road congestion, usually at weekday AM and PM peak periods, can be a problem for automobile travel. Environmental impacts and the inefficient use of the roadway, particularly by single occupant vehicles (SOVs) are also concerns.
Transit can be a convenient option where services are available. Transit uses road and rail space efficiently and generally has fewer environmental impacts than automobile travel, particularly SOVs. Transit usage is limited by such criteria as: areas to which service is provided; cost of service; public transit service quality, including increased service speed, frequency, convenience, comfort, user information, affordability and ease of access. As with automobile travel, road congestion is a problem for bus transit utilizing the road network, as this affects travel times and reliability. Rail transit can conflict with freight and compete for access on rail infrastructure owned and controlled by freight rail operators.

Walking and cycling are active modes of transportation that are convenient for relatively short trips. Both are beneficial in terms of their environmental and public health impacts. Choice of walking/cycling modes is influenced by demographics and personal characteristics, including age, ability, income, concern for the environment and recreational preferences. These “active transportation” modes are also constrained by weather and distance of travel, access to alternative transportation services for longer trips, as well as the availability of infrastructure such as cycle lanes, pedestrian pathways/sidewalks and bicycle parking areas immediately adjacent to longer-distance transportation facilities.

Air/marine travel is generally used less frequently for work trips and tourism and recreation purposes, and is convenient for long-distance trips. A limitation of these modes is the availability of connections from the airport and ports to tourist destinations and city centres. While air travel is an important travel mode for both international and out-of-province visitors to/through the Study Area, most person trips are currently made on the road network using either the automobile or transit services (public and private).

### 2.1.2 Moving Goods

According to research (for the Growth Plan) by the Ministry of Energy and Infrastructure Renewal¹, significant changes in Ontario’s economy have occurred over the past twenty years:

- Ontario’s economy is becoming increasingly export-based;
- The service sector has experienced the greatest rates of output growth over the past two decades; and
- Manufacturing and primary resource industries have stable or declining employment levels despite the growth in terms of economic output.

This economic shift influences the distribution of goods throughout the GGH and the regional transportation network must be able to accommodate shifting patterns in goods movements.

The movement of goods through and within the Study Area is primarily by truck followed by rail service, based on value of goods moved. Other modes of travel (marine and/or air) support international goods transport. Goods movement continues to rely on

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¹ Planning for Employment in the Greater Golden Horseshoe - Background Paper, May 2008
the road network for at least a portion of the journey, with truck transport either collecting or distributing goods to transportation terminals, manufacturing facilities, warehouses or retail outlets.

As illustrated in Exhibit 2-4, international trade flows and how goods are shipped varies at the international, continental and inter-regional trade scales. International trade is reliant on air and marine. Continental trade is reliant on all modes including air, marine, rail and highways. Inter-regional trade in the GGH is dominated primarily by rail and highways.

**Exhibit 2-4: Overseas Goods Movement**

Each shipper decides how (by which mode) goods are shipped at the global, continental and inter-regional scales. Exhibit 2-5 illustrates the path of a typical manufactured product from overseas to the GGH, from the manufacturing stage to delivery to the consumer. Typically, goods are shipped from overseas in large containers that arrive at foreign marine ports via truck and travel from the foreign marine port to a North American marine port. Once the shipment arrives at the North American marine port, the container is generally put on the rail system for longer distance shipping. The container will reach an inter-modal facility where it is moved from the rail system to a truck which then takes the container to a warehouse/distribution centre. From the distribution centre, trucks take the various products to retail outlets for sale to the consumer.

**Exhibit 2-5: Trip Chain of a Manufactured Product**
In today’s global economy, a manufactured product typically utilizes the truck mode for three of the five transportation movements previously described. Trucking accounts for over 60% of the total value of trade between Canada and the United States.

The mode selected to ship goods is a decision made by the shipper and is dependant on:

- Type and character of goods (e.g. bulk, weight, value);
- Cost of moving freight;
- Origin and destination of goods and available transportation connections;
- Travel distance (e.g. trans-ocean, continental, inter-regional);
- Urgency and reliability of delivery; and
- Convenience/efficiency of travel, including inter-modal transfers.

The following provides an overview of why certain products are shipped by each mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Type of Goods Typically Shipped</th>
<th>Why are certain products shipped by each mode?</th>
</tr>
</thead>
</table>
| Truck | Consumer Goods - household products | <500 km for journey length  
Increasing reliance on “just in time” delivery  
Multiple destinations of goods and without alternative linkages to the transportation system  
Relatively smaller quantities of goods shipped at one time |
| Rail  | Bulk Goods/Containers - forest products, chemicals, automotive, ore/minerals | >500 km for journey length  
Rail system connected efficiently to the origin of bulk goods  
Higher relative weight of products  
Large quantities of bulk goods shipped at one time |
| Marine| Bulk Goods/Containers - grain, iron ore, coal, general cargo/consumer goods | >500 km for journey length  
Efficient and cost effective mode for transport of goods overseas when compared to air  
Large quantities of goods shipped at one time |
| Air   | Machinery/Manufactured Goods - perishable foods, medical supplies/equipment | >500 km for journey length  
High value products  
High degree of time sensitivity  
Lower relative weight and quantity of goods shipped |

As indicated in the table above, trucks are used primarily for moving over products shorter distances and with multiple destinations. This is of significance to the Study Area as the existing inter-regional transportation system is primarily road-based and heavily reliant on commercial vehicle transport for goods.

2.2 GOVERNMENT POLICIES AND INITIATIVES

Policy documents provide direction on land use, growth, infrastructure planning, trade, tourism and recreation and environmental protection. These polices have strong potential to influence future transportation demand in the Study Area by shaping population and employment growth, stimulating economic and tourism growth and establishing a vision
for the transportation system. The policies provide the impetus for changing travel patterns, modes and volumes in the Study Area.

This study is being carried out within a policy framework that includes all relevant approved provincial planning policies, including the key principles, themes and directions embodied within these policies, as well as approved municipal official plans and transportation master plans of the Study Area upper tier municipalities with the intent of accommodating the future transportation and land use visions embodied in these documents.

The policies developed by various levels of government are consistent with respect to the direction on land-use planning and transportation to promote strong communities, a clean and healthy environment, and a strong economy. The policies recognize the complex inter-relationships among economic, environmental and social factors in planning.

The Study Team reviewed numerous policies and documents that form the policy framework for this study, including:

1) Provincial Policy Statement, Ministry of Municipal Affairs and Housing, March 2005
2) Growth Plan for the Greater Golden Horseshoe, Ministry of Public Infrastructure Renewal, June 2006
3) Greenbelt Act and Greenbelt Plan, Ministry of Municipal Affairs and Housing, February 2005;
4) Niagara Escarpment Plan, June 2005
5) The Bi-National Transportation Strategy for the Niagara Frontier, December 2005
6) Metrolinx Regional Transportation Plan, November 2008
7) GO Transit Strategic Plan – GO 2020, December 2008
9) Ontario-Quebec Continental Gateway and Truck Corridor, July 2007
12) Ontario Tourism Strategy, June 2004
13) Go Green, Ontario’s Action Plan on Climate Change, August 2007
16) Municipal Policies from the Region of Halton, Region of Niagara and City of Hamilton

The Provincial Policy Statement, Growth Plan and Greenbelt Plan provide the specific policy direction that must be incorporated in all MTO planning and decision-making processes affecting the Study Area. A copy of the policy framework is available in the NGTA Study Vision, Goals and Objectives Discussion Paper (August 2008).

2.2.1 Provincial Policy Statement

The Provincial Policy Statement, 2005 (PPS) recognizes the complex inter-relationships among economic, environmental and social factors in planning and embodies good planning principles. It includes policies on key issues that affect our communities, such as: the efficient use and management of land and infrastructure; protection of the environment and resources; and ensuring appropriate opportunities for employment and residential development, including support for a mix of uses.

PPS policies influence transportation demand primarily through municipal planning policy as the Planning Act, R.S.O. 1990 requires that official plans have regard for matters of provincial interest, and are consistent with the PPS. Specifically, municipalities shall include policies that integrate transportation and land use considerations at all stages of the planning process and provide the necessary infrastructure to support current and projected needs in a co-ordinated, efficient and cost-effective manner.

Several policies are salient for planning purposes for the Study Area. Section 1 of the PPS is entitled “Building Strong Communities” and includes a series of policies generally designed to support intensification and compact forms of development. It puts limits on the expansion of settlement areas, tying such expansions to the achievement of Provincial density targets, and requiring incremental expansion of urban areas. For example, Policy 1.1.3.7 states that “New development taking place in designated growth areas should occur adjacent to the existing built-up area and shall have a compact form, mix of uses and densities that allow for the efficient use of land, infrastructure and public service facilities.”

Section 1.3 of the PPS provides policy on Employment Areas, as follows:

1.3.1 Planning authorities shall promote economic development and competitiveness by:

1. providing for an appropriate mix and range of employment (including industrial, commercial and institutional uses) to meet long-term needs;

2. providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;

3. planning for, protecting and preserving employment areas for current and future uses; and
4. ensuring the necessary infrastructure is provided to support current and projected needs.

1.3.2 Planning authorities may permit conversion of lands within employment areas to non-employment uses through a comprehensive review, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

These policies highlight the need for growth to occur in support of economic expansion and diversification, including protecting employment areas from encroachment by other land uses. The need for infrastructure to support these areas is explicit in Policy 1.3.1.4, above, which is particularly relevant to the Study Area as it relates to provision of transportation capacity to support employment areas in the regions of Halton, Peel and York.

In general, the growth-related policies in the PPS reflect a stronger focus on intensification and compact development in the PPS than in previous provincial policy.

Sections 1.6.1 and 1.6.2 of the PPS also urges co-ordination between growth planning and infrastructure planning, emphasizing efficient use of existing infrastructure as follows:

1.6.1 *Infrastructure and public service facilities shall be provided in a co-ordinated, efficient and cost-effective manner to accommodate projected needs.*

*Planning for infrastructure and public service facilities shall be integrated with planning for growth so that these are available to meet current and projected needs.*

1.6.2 *The use of existing infrastructure and public service facilities should be optimized, wherever feasible, before consideration is given to developing new infrastructure and public service facilities.*

Application to the NGTA Study Area

For the purpose of this project, the PPS therefore requires close examination of existing infrastructure to establish the potential to expand capacity before considering the development of new infrastructure. The PPS contains various policies in Section 2 that provide protection for natural and prime agricultural areas and are vital when considering potential new infrastructure. These policies will be key factors in the future identification and evaluation of transportation alternatives to address the problems and opportunities discussed in Section 4.

2.2.2 Growth Plan for the Greater Golden Horseshoe

The Growth Plan outlines a set of policies for managing growth and development and guiding planning decisions in the GGH over the next 25 years (2031). This broad based plan represents a planning “vision” for Ontario. As a part of this vision, the plan outlines a strategy for “Where and How to Grow”, “Infrastructure to Support Growth”, “Protecting What is Valuable” and “Implementation”.

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Similar to the PPS, Growth Plan policies influence transportation demand primarily through municipal planning policy as the Planning Act requires that official plans have regard for matters of provincial interest. Specifically, municipal official plans must conform to the Growth Plan’s population and employment intensification and density targets and growth forecasts. Key among these policies are the growth forecasts included in the plan, which set population and employment targets for each upper tier municipality in the GGH, through 2031. Schedule 3 forecasts for the NGTA area upper tier municipalities are shown in Exhibit 2-6. At this time, upper tier municipalities are in the process of allocating population and employment to local municipalities.
Exhibit 2-6: Schedule 3 Distribution of Population and Employment for the Greater Golden Horseshoe 2001-2031

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th></th>
<th></th>
<th></th>
<th>Employment</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
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<td>Region of Durham</td>
<td>530</td>
<td>650</td>
<td>810</td>
<td>960</td>
<td>190</td>
<td>210</td>
<td>310</td>
<td>350</td>
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<tr>
<td>Region of York</td>
<td>760</td>
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<td>1,300</td>
<td>1,560</td>
<td>390</td>
<td>590</td>
<td>700</td>
<td>780</td>
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<tr>
<td>City of Toronto</td>
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<td>2,780</td>
<td>2,530</td>
<td>3,080</td>
<td>1,440</td>
<td>1,540</td>
<td>1,600</td>
<td>1,640</td>
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<td>Region of Peel</td>
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<td>1,320</td>
<td>1,490</td>
<td>1,840</td>
<td>530</td>
<td>730</td>
<td>820</td>
<td>870</td>
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<tr>
<td>Region of Halton</td>
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<td>520</td>
<td>650</td>
<td>780</td>
<td>190</td>
<td>280</td>
<td>340</td>
<td>390</td>
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<tr>
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<td>540</td>
<td>590</td>
<td>660</td>
<td>210</td>
<td>230</td>
<td>270</td>
<td>300</td>
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<tr>
<td><strong>STAR TOTAL</strong></td>
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<td><strong>6,800</strong></td>
<td><strong>7,770</strong></td>
<td><strong>8,620</strong></td>
<td><strong>2,650</strong></td>
<td><strong>3,030</strong></td>
<td><strong>4,040</strong></td>
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<td>City of Kawartha Lakes</td>
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<td>City of Guelph</td>
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<tr>
<td>Region of Waterloo</td>
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<td>526</td>
<td>623</td>
<td>729</td>
<td>236</td>
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<td>324</td>
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<td>County of Brant</td>
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<td>39</td>
<td>157</td>
<td>173</td>
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<td>City of Brantford</td>
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<tr>
<td>County of Haltonmand</td>
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<td>53</td>
<td>56</td>
<td>17</td>
<td>19</td>
<td>19</td>
<td>20</td>
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<tr>
<td>Region of Niagara</td>
<td>427</td>
<td>442</td>
<td>474</td>
<td>511</td>
<td>186</td>
<td>201</td>
<td>206</td>
<td>213</td>
</tr>
<tr>
<td><strong>OUTER RING TOTAL</strong></td>
<td><strong>1,000</strong></td>
<td><strong>2,230</strong></td>
<td><strong>2,550</strong></td>
<td><strong>2,860</strong></td>
<td><strong>870</strong></td>
<td><strong>1,010</strong></td>
<td><strong>1,130</strong></td>
<td><strong>1,240</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>7,730</strong></td>
<td><strong>9,080</strong></td>
<td><strong>10,330</strong></td>
<td><strong>11,580</strong></td>
<td><strong>3,810</strong></td>
<td><strong>4,640</strong></td>
<td><strong>5,170</strong></td>
<td><strong>5,560</strong></td>
</tr>
</tbody>
</table>

Note: Numbers rounded off to nearest 10,000 for GGH municipalities, GGH Trail and Outer Ring Trail, and to nearest 1,000 for outer ring municipalities.
* Separate forecasts for these municipalities for 2021 and 2031 will be determined.
** Total may not add up due to rounding.
Halton Region is forecast to receive substantial growth in both population and employment – roughly doubling the current number of jobs and people in the region. Hamilton will increase in population by 150,000 people and 90,000 jobs, a more moderate increase in percentage terms but substantial in absolute terms. Niagara is forecast to have a relatively lower, but still substantial level of population and employment growth, adding 84,000 people and 32,000 jobs by 2031.

Exhibit 2-7 illustrates the overall employment growth projections in the GGH from 2001 to 2031 for the three upper tier municipalities, giving a sense of the scale of change in different portions of the corridor. The distribution reflects both current and likely future trends. Halton Region has grown very rapidly in recent years with the introduction of full urban services to a number of new growth areas, particularly Milton and portions of Oakville and Burlington. A new growth area in north Oakville and ongoing expansions to the employment areas in the Highway 401 corridor will provide for future growth. Such increases in population and employment will result in growth in person trips for work, school, shopping and recreation as well as goods movement trips related to manufacturing, trade, distribution services, and retail.

The Growth Plan is characterized by a series of specific policies and targets designed to encourage population and employment growth within existing urban areas, and discouraging urban sprawl. Among other policies, the Growth Plan directs that 40% of new residential development occur within existing urban areas, and requires that new development in greenfield areas occur at a minimum density of 50 jobs or persons per hectare. The Growth Plan also designates Urban Growth Centres, which are areas within certain municipalities (typically downtowns or other major nodes of higher density development) that will be the focus for intensification and be planned to achieve certain density targets.
There are five designated Urban Growth Centres in the Study Area:

- Downtown Milton
- Midtown Oakville
- Downtown Burlington
- Downtown Hamilton
- Downtown St. Catharines

Downtown Milton, Midtown Oakville, Downtown Burlington, and Downtown Hamilton have been assigned a density target of 200 people plus jobs per hectare, while St. Catharines has been assigned a target of 150 people plus jobs per hectare. These five centres are intended to be the location of substantial growth and will act as “Development Nodes” within the Study Area. The Growth Plan also establishes “Designated Greenfield Areas”, as shown in light purple on Schedule 6 of the Plan provided below. These are areas intended for expansion of settlement areas, subject to all the other policies of the plan.

In recognition of the unique economic importance of cross-border trade with the U.S., a Gateway Economic Zone and a Gateway Economic Centre have also been identified near the Niagara-U.S. border. The Gateway Economic Centre is represented by a diamond-shaped symbol on Schedule 6 (see Exhibit 2-8), and the Gateway Economic Zone is depicted in red along the Niagara River. This schedule and other maps in the Plan show the NGTA Corridor conceptually, describing it as a future transportation corridor.

The growth related policies affect the location and density of development, the availability of land, the mixture of uses and timing of development. The Growth Plan’s focus on intensification in built up areas, Urban Growth Centres, major transit corridors and stations, brownfield and greyfield sites, recognizes the need to evolve our reliance away from the automobile as the primary travel mode for commuting and other trips. It promotes transit infrastructure investment needed to support sustainable growth.

The Growth Plan also includes transportation policies to support growth. Section 3.2.2 makes specific references to the role of the transportation system within the GGH. It states that the GGH transportation system will be planned and managed to do the following (3.2.2.1):

a. provide connectivity among transportation modes for moving people and for moving goods.

b. offer a balance of transportation choices that reduce reliance upon and single mode and promotes transit, cycling and walking.

c. be sustainable, by encouraging the most financially and environmentally appropriate mode for trip-making.

d. offer multi-modal access to jobs, housing, schools, cultural and recreational opportunities, and goods and services.
e. provide for the safety of system users.

Under Moving People, the Growth Plan states that “Public transit will be the first priority for transportation infrastructure planning and major transportation investments (3.2.3.1). Similarly, for Moving Goods in Section 3.2.4: “The first priority of highway investment is to facilitate efficient goods movement by linking inter-modal facilities, international gateways, and communities within the GGH”.

Application to the NGTA Study Area

Consistent with the anticipated growth and policies for managing this growth, one can expect significant challenges on the transportation network through the Study Area, with increased goods movement and commuter, tourist and recreational travel. The future transportation problems and opportunities identified in the Study Area reflect the Growth Plan’s substantial increase in population and employment throughout the GGH. The Growth Plan also sets priorities for transportation investments in the GGH, beginning with transit for people movement and inter-modal linkages for goods movement.
Exhibit 2-8: Schedule 6 from the Growth Plan
2.2.3 Greenbelt Plan

The location of the Greenbelt will be a significant factor in the identification and evaluation of transportation alternatives to address the transportation problems discussed in Section 4 and opportunities discussed in Section 6. The Study Area includes a large portion of Greenbelt Planning Area. This study will fully integrate the goals, objectives and policy requirements of the Greenbelt Plan into the NGTA Corridor Planning and EA Study process through problem definition, alternative evaluation, impact assessment and mitigation in accordance to the infrastructure policies set out in Section 4.2 of the Plan.

Similar to the PPS and Growth Plan, the Greenbelt Plan policies influence transportation demand primarily through municipal planning policy as the Planning Act requires that official plans have regard for matters of provincial interest. The Greenbelt Plan has strict policies that address how transportation infrastructure will be constructed in specific areas and mandates the needs and justification that the provincial and municipal government must provide in proposing improvements to existing facilities or new facilities through the Greenbelt planning area. The Greenbelt Plan influences where development can occur, and how transportation infrastructure may be planned, designed and constructed in accordance to the Greenbelt Plan policies. This will influence trip making with respect to how and where trips are made between communities and Urban Growth Centres.

Section 4.2 of the Greenbelt Plan provides the policies that apply to infrastructure.

4.2.1 General Infrastructure Policies

1. All existing, expanded or new infrastructure subject to and approved under the Canadian Environmental Assessment Act, the Environmental Assessment Act, the Planning Act, the Aggregate Resources Act, the Telecommunications Act or by the National or Ontario Energy Boards, or which receives a similar environmental approval, is permitted within the Protected Countryside, subject to the policies of this section and provided it meets one of the following two objectives:

   a. It supports agriculture, recreation and tourism, rural settlement areas, resource use or the rural economic activity that exists and is permitted within the Greenbelt; or

   b. It serves the significant growth and economic development expected in southern Ontario beyond the Greenbelt by providing for the appropriate infrastructure connections among urban growth centres and between these centres and Ontario’s borders.

2. The location and construction of infrastructure and expansions, extensions, operations and maintenance of infrastructure in the Protected Countryside, are subject to the following:

   a. Planning, design and construction practices shall minimize, wherever possible, the amount of the Greenbelt, and particularly the Natural Heritage System, traversed and/or occupied by such infrastructure;
b. Planning, design and construction practices shall minimize, wherever possible, the negative impacts and disturbance of the existing landscape, including, but not limited to, impacts caused by light intrusion, noise and road salt;

c. Where practical, existing capacity and co-ordination with different infrastructure services is optimized so that the rural and existing character of the Protected Countryside and the overall urban structure for southern Ontario established by Greenbelt and any provincial growth management initiatives are supported and reinforced;

d. New or expanding infrastructure shall avoid key natural heritage features or key hydrologic features unless need has been demonstrated and it has been established that there is no reasonable alternative; and

e. Where infrastructure does cross the Natural Heritage System or intrude into or result in the loss of a key natural heritage feature or key hydrologic feature, including related landform features, planning, design and construction practices shall minimize negative impacts and disturbance on the features or their related functions, and where reasonable, maintain or improve connectivity.

Application to the NGTA Study Area

The Greenbelt Plan influences transportation demand in the Study Area primarily through municipal planning policy as official plans must have regard for matters of provincial interest. The Study Area includes a large portion of Greenbelt Planning Area, extending through the City of Hamilton and Region of Niagara. The location of the Greenbelt will be a factor in the identification and evaluation of transportation alternatives to address the problems discussed in Section 4 and opportunities discussed in Section 6.

2.2.4 Niagara Escarpment Plan

Stretching 725 km in length from Niagara to Tobermory, the Niagara Escarpment encompasses a range of habitats, physiographic regions and land-uses. It is the most distinctive landform in the Study Area, paralleling the southern and western shores of Lake Ontario and ranging in distance from one to several kilometres south of the lake. Originating in Queenston Heights, near Niagara Falls, and extending through the City of Hamilton and north through Halton Region, its size and environmental significance make the escarpment a significant natural heritage feature throughout the Study Area.

The Niagara Escarpment is classified as a UNESCO World Biosphere Reserve. A biosphere reserve is an international designation of recognition from UNESCO (the United Nations Educational, Scientific, and Cultural Organization) for an area in the world which is deemed to demonstrate a "balanced relationship between humans and the biosphere." It means that collaborative efforts among people in the designated area serve to promote the sustainability of local economies and communities, as well as the conservation of the terrestrial or coastal ecosystems they are in. This designation gives an area international recognition for the important ecological and cultural values in an area. Ontario's Escarpment was named a biosphere reserve in February, 1990. It is one of only 15 biosphere reserves in Canada, and part of a network of 531 reserves in 105 countries.
The 194,340 ha of Escarpment land is managed/governed by the Niagara Escarpment Commission (NEC) and the Niagara Escarpment Plan. The purpose of this Plan is “to provide for the maintenance of the Niagara Escarpment and land in the vicinity substantially as a continuous natural environment, and to ensure only such development occurs as is compatible with that natural environment” (NEP, 2005).

The Escarpment passes through some of the most heavily developed regions of Canada, although the population living on the Niagara Escarpment lands is relatively low (approximately 120,000). It is also part of the rich agricultural lands known as the tender fruitlands, which are renowned for producing fine wines.

Important attributes of the Niagara Escarpment are listed below:

- Escarpment sites in the Study Area include: geological formations (exposed rock faces, waterfalls, gorges, quarries), ANSIs and ESAs, conservation areas and parks, wooded areas, aquatic systems, rare species and habitat for significant species;

- The Escarpment forms an important natural barrier/physical division between the Lake Ontario Plain below (to the north) and the Haldimand Clay Plain above the Escarpment (to the south);

- The Escarpment provides tourism and outdoor recreation opportunities in the region (e.g. Bruce Trail, scenic viewpoints, wildlife viewing opportunities);

- The Niagara Escarpment is also a key hydrological feature in the Study Area. The headwaters of regional watersheds lay in the Escarpment; and

- The Niagara Escarpment provides a more or less continuous corridor of natural habitats from the U.S. border to beyond the City of Hamilton, along which migrating birds move at the appropriate seasons.

The Niagara Escarpment Plan (NEP), guides land use within an area defined by the Niagara Escarpment, from the Bruce Peninsula in the north to the Niagara River. The NEP limits development within the NEP area through limitations on new lot creation and limitations on permitted uses. Its intent is to balance development, preservation, and public use. Official plans are required to conform to the NEP. The NEP establishes land use designations, policies and criteria for the protection of the lands within its policy area. Land use within the NEP areas is divided into seven designations, the first three of which are afforded the most protection:

- Escarpment Natural Area
- Escarpment Protection Area
- Escarpment Rural Area
- Minor Urban Centre
- Urban Area
- Escarpment Recreation Area

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• Mineral Resource Extraction Area

Escarpton Natural Areas include wetlands, wildlife habitat, woodlands, steep slopes and ravines, and provincially and regionally significant Areas of Natural and Scientific Interest (ANSIs). These are relatively undisturbed areas that contain important natural and cultural heritage features.

Escarpton Protection Areas include areas that have been modified by land use activities that often form as a buffer for Escarpment Natural Areas (i.e. agriculture, residential). Escarpment Rural Areas also provide a buffer to the more ecologically sensitive parts of the Escarpment and encourage compatible rural land uses.

Although the NEP permits essential transportation facilities in the Escarpment Natural Area (where essential is defined as “that which is deemed necessary to the public interest after all alternatives have been considered”), it must be demonstrated that any new and/or expanded facility has the least possible impact on the natural environment and be consistent with the objectives of the Plan.

Application to the NGTA Study Area

The objective of the NEP is to design and locate new and expanded transportation and utility facilities so the least possible change occurs in the environment and the natural and cultural landscape. The NEP policies will impact where and how new transportation facilities are built to meet the increase in transportation demand in the Study Area. Similar to the Greenbelt Plan, the NEP influences where development, and to some degree infrastructure to serve development, can occur. This will influence trip making with respect to how and where trips are made between communities. The Niagara Escarpment extends along the length of the Study Area, from Niagara north to Halton.

2.2.5 The Bi-National Transportation Strategy for the Niagara Frontier

The Bi-National Transportation Strategy for the Niagara Frontier (December 2005) was developed to address existing and future transportation needs of the region’s border crossings and approach corridors. These needs are a component of the larger set of transportation improvements identified for the overall region.

The development of the Strategy was a joint effort led by MTO and the New York State Department of Transportation with participation from federal, state, provincial, regional, local governmental agencies and industry stakeholders from both sides of the border. Specifically, the Bi-National Transportation Strategy has the potential to influence transportation demand in the Study Area by facilitating the movement of people and goods across the U.S.-Canada border.

The 2005 report identifies that certain sections of the QEW operates at capacity during peak times and during the high tourist season. The report suggests that the QEW in its current condition will be unable to meet the travel demands between the Niagara Frontier and the GTA over the next 30 years. In addition to capacity issues, the report indicates that the existing highway system through the Niagara Frontier lacks the flexibility or network redundancy to provide for alternative high capacity routes in the event of disruption on the QEW.
The key elements of the Bi-national Transportation Strategy include:

- Cross-border co-ordination;
- Ensuring that all modes of transportation initiatives (road and other modes) are investigated;
- Working with Bridge Operators and regulatory agencies to provide adequate plaza capacity, and support enhanced traveller programs like FAST and NEXUS;
- Supporting expansions and improvements at existing crossings; and
- Use of technology to better manage approaches to international bridge crossings.

**Application to the NGTA Study Area**

The Study Area extends between the U.S. border and the GTA, and cross-border travel is an important element of people and goods movement to and through the NGTA corridor. The findings of the Strategy are being incorporated into the current study.

### 2.2.6 Metrolinx Regional Transportation Plan

Metrolinx is a provincial crown agency established by the Government of Ontario in 2006. This agency was tasked to develop and implement an integrated multi-modal transportation plan for the Greater Toronto and Hamilton Area (GTHA) – the metropolitan region encompassing the City of Toronto, the four surrounding regional municipalities (Durham, Halton, Peel and York) and the City of Hamilton. Its mandate includes providing seamless, co-ordinated transportation throughout the region. In November 2008, Metrolinx published its *Regional Transportation Plan: The Big Move.*

The Metrolinx RTP is the third piece in the province’s approach to prepare the GTHA for growth and sustainability, building upon the Greenbelt Plan and the Growth Plan. It reaches 25 years into the future toward a transportation system that provides connectivity among modes, encourages the most financially and environmentally appropriate modes, offers multi-modal access and shapes growth by supporting intensification. The Metrolinx RTP’s vision is of an integrated transportation system that enhances quality of life, environment and prosperity.

Thirteen goals and 37 objectives were developed to guide progress toward the vision. The Metrolinx RTP contains ten strategies needed to achieve the vision, goals and objectives, each including priority actions and supporting policies. Nine of the actions and policies were identified as Big Moves, those measures that will have the largest and most transformational impacts on the GTHA’s transportation system:

1. A fast, frequent and expanded regional rapid transit network.
2. High-order transit connectivity to the Pearson Airport district from all directions.
3. An expanded Union Station – the heart of the GTHA’s transportation system.
4. Complete walking and cycling networks with bike-sharing programs.
5. An information system for travellers, where and when they need it.
6. A region-wide integrated transit fare system.
7) A system of connected mobility hubs.
8) A comprehensive strategy for goods movement.
9) An Investment Strategy to provide immediate, stable and predictable funding.

Three sets of priorities are also identified for the RTP: for the first 15 years; years 15 to 25; and longer term. A substantial investment will be required to implement the RTP, with a total 25-year capital cost of $50 billion ($2 billion per year). The RTP proposes a broad range of actions and policies that may include legislative changes, the creation of new programs and/or establishment in the policy framework guiding decision making. Work is now underway toward the first transit construction projects in York Region and Toronto.

On May 14, 2009, the Greater Toronto and Hamilton Area Transit Implementation Act (Metrolinx Act) received Royal Assent, merging Metrolinx and GO Transit. The Metrolinx Act created a single transit agency with powers to move quickly to implement the RTP and confirmed that the RTP must continue to conform to the Growth Plans. It also gives Metrolinx the power to plan, own and operate GO Transit as well as other high-order transit projects included in the RTP. It requires Metrolinx to consult with all municipalities in the GTHA on any changes to the plan, thus ensuring that municipalities will continue to play a key role in the implementation of the RTP. The Act also requires Metrolinx to report to the province on an Investment Strategy to fund the balance of the RTP by 2013.

In order to assess the travel demand in the GGH and the impacts of the RTP policies and programs, Metrolinx used a comprehensive four stage travel demand model developed by MTO. This Greater Golden Horseshoe Model (GGH Model) was given to the Study Team for use in the NGTA Corridor Planning and EA Study. Section 3 provides further details on this model.

Application to the NGTA Study Area

The northern portion of the NGTA Study Area lies within the area covered by the Metrolinx RTP. The principles, priorities and planned system improvements in the RTP have been included in the NGTA Corridor Planning and EA Study and in the GGH Model’s Base Case and will be carried through as the study progresses. The Metrolinx RTP transit initiatives within the NGTA Study Area are described in Section 3 and Section 4.2.1.

As part of the MoveOntario 2020 Quick-Win Funding in the 2008 Provincial Budget, $32.8 million was committed for Hamilton: B-Line Improvements, King-Main Corridor; A-Line Improvements, James-Upper James Corridor, with service to the Hamilton Airport; James Street North GO/VIA Station to serve as a Gateway to the Niagara Region.

The Final Metrolinx RTP added two new projects for the 15-year Plan: Regional Rail in the Hamilton Area from James Street North Station to Stoney Creek; and Burlington Connector BRT from the Fairview GO Station to Downtown Burlington.
2.2.7 GO Transit Strategic Plan – GO 2020

As a result of the Greater Toronto and Hamilton Area Transit Implementation Act, merging GO Transit and Metrolinx, GO Transit is now the province’s operating arm of the Metrolinx provincial crown agency overseeing inter-regional public transportation services provided by trains and buses in the GTHA. In May 2009, GO Transit’s service area was expanded to include the upper tier municipalities of Dufferin, Durham, Halton, Niagara, Peel, Peterborough, Simcoe, Waterloo, Wellington and York and the single tier municipalities of Barrie, Guelph, Hamilton, Kawartha Lakes, Peterborough and Toronto.

The GO Transit Strategic Plan, GO 2020, published in December 2008, presents GO Transit’s direction to 2020 including its vision, objectives and goals, and service strategy. Alongside the Metrolinx RTP, this document provides the basis for GO Transit's capital, operating and annual business plans. The vision of GO Transit is to be the preferred choice for inter-regional travel in the GGH. To achieve this vision, six objectives and corresponding goals were identified:

1) Deliver a high-quality inter-regional transit service throughout the Greater Golden Horseshoe
2) Be a leader in customer service
3) Continue to enhance quality through organizational excellence
4) Be a model for sustainability, and be seen as a leader in “green” development and operations
5) GO Transit’s strong partnerships with stakeholders will maximize the benefit of GO services in the region
6) GO Transit’s operations will be economically sustainable

GO Transit’s Strategic Plan, in accordance with the Metrolinx RTP, represents a proactive approach to service development that will provide intensive services within the Core Service Area (corresponding to the central Built-Up Area where a significant portion of growth and development will be directed in accordance with the Growth Plan). Outlying Urban Growth Centres will be linked by appropriate inter-regional transit services. Peak-period train service will serve diverse travel needs, including contra-peak direction and between outlying activity centres. Peak period service in the Core Service Area will provide a train at least every 15 minutes in the peak direction and off-peak services will also be increased. High-speed GO Bus services and Bus Rapid Transit (BRT) services will increase, connecting Urban Growth Centres and other concentrations of activity. The GO Transit bus network will expand to provide frequent trips and more than twice the current amount of service, and appropriate transit services will link Urban Growth Centres that are outside of the GTHA.

The Plan also commits GO Transit to collaborate actively with public and private sector transportation partners to provide co-ordinated, convenient, integrated transit services. Connections between major services, well-designed “hub” passenger facilities, co-ordinated schedules, fare payment using a common fare card and comprehensive multi-
agency service information will encourage travellers to choose GO Transit and complementary local transit services from one end of their journey to the other.

A new program of capital investment to support GO Transit’s service development will enhance every aspect of its facilities, including: corridor infrastructure; Toronto Union Station; passenger facilities; vehicles; and maintenance, storage and support facilities.

The GO Transit Strategic Plan is compatible with the Metrolinx RTP in that both Plans reference similar transportation initiatives. The main difference is that while the Metrolinx RTP focuses on major municipal and higher order transit initiatives in the GTHA over 15 and 25 years (for 2024 and 2029 respectively), the GO Transit Strategic Plan addresses GO Transit improvements to 2020 for the GO Transit service area.

Application to the NGTA Study Area

The GO Transit Strategic Plan’s focus on inter-regional travel is relevant to the purpose of the NGTA Corridor Planning and EA Study. Measures that will affect transportation conditions in the Study Area have been included in the GGH Model, including full GO service to Hamilton, full service to Stoney Creek and a possible extension to Niagara.

A number of GO service extensions have recently been implemented/are planned for the NGTA Study Area. In June 2009 GO Transit began providing summer weekend and holiday rail service between Union Station and Niagara Fall, with services four times per day and stops at Port Credit GO Station, Oakville GO Station, Burlington GO Station, St. Catharines rail station, and Niagara Falls rail station. Weekday services are also being studied. Starting September 2009, GO Transit will begin operating a new bus service from its Burlington Rail Station to Grimsby, St. Catharines and Niagara Falls, with up to nine trips in each direction each weekday. Four park-and-ride facilities will be constructed in the Niagara Region to support this service. The first park and ride facility will be built at the QEW-Casablanca Boulevard interchange in Grimsby, with completion slated for late fall 2009.

2.2.8 National Policy Framework for Strategic Gateways and Trade Corridors

This policy framework, launched in July 2007 by Transport Canada, has been developed to advance the competitiveness of the Canadian economy in the rapidly changing area of global commerce. It will do so by providing focus and direction for strategies that foster further development and exploitation of the transportation systems that are key to Canada’s most important opportunities and challenges in international trade. Three strategic gateways/trade corridors were identified for this approach: the Asia-Pacific Gateway and Corridor; the Ontario-Quebec Continental Gateway and Trade Corridor; and the Atlantic Gateway.

The strategies advanced under this framework will enhance multi-modal integration of transportation systems, as well as their efficiency, safety, security and sustainability. The framework and the strategies it will support are instruments of national policy tailored to geographic, trade and transportation opportunities in different regions of Canada. This national approach emphasizes rigorous analysis and long-term planning in partnerships among governments and between public and private sectors. The framework
will also help to guide investment decisions for the new $2.1 billion fund for gateways and border crossings established by Budget 2007 as part of Building Canada, the federal government’s long-term infrastructure plan.

The framework calls for a new emphasis on the transportation system to maximize the contribution of Canadian transportation to global supply chains. The key will be an integrated approach to physical and policy infrastructure, placing transportation infrastructure at its core while going further to encompass other inter-connected issues of public policy, regulation and operational practice that directly impact how well the infrastructure works and how well Canada takes advantage of it. This system-based perspective helps to address considerations such as the roles of technology, environmental stewardship and security, which require more than traditional mode-specific approaches.

Gateway and corridor strategies are integrated packages of long-term investment and policy measures that advance the development and exploitation of gateways and corridors for national benefit. Future gateway and corridor strategies will be based on analysis through five “policy lenses”:

1. International commerce strategy
2. Volumes and values of national significance
3. Future patterns in global trade and transportation
4. Potential scope of capacity and policy measures
5. Federal role and effective partnerships

Using this framework, the federal government will work with its private and public sector partners to fully seize Canada’s commerce, transportation and geographic opportunities.

**Application to the NGTA Study Area**

The gateway corridor strategies coming out of this framework will influence the movement of people and goods within and through the Study Area. The NGTA Corridor Planning and EA Study will progress in the context of this framework, incorporating its integrated approach to infrastructure, policy, regulation and operational practice. The Study Area lies within the Ontario-Quebec Continental Gateway and Trade Corridor; it is discussed in detail in Section 2.2.9.

**2.2.9 Ontario-Quebec Continental Gateway and Trade Corridor**

The Ontario-Quebec Continental Gateway and Trade Corridor is one of the three Strategic Gateways and Trade Corridors identified in the National Policy Framework. In July 2007, the governments of Canada, Ontario and Quebec signed a Memorandum of Understanding (MOU) on the development of an Ontario-Quebec Continental Gateway and Trade Corridor. The goal of this partnership is to maintain and build upon Ontario and Quebec's world-class transportation system so that it remains a driver of international trade and economic growth for the future.
This gateway is a key component of Canada's multimodal transportation system. Its central location facilitates international trade and the domestic inputs toward foreign trade with the U.S. and other partners. The Continental Gateway includes strategic ports, airports, inter-modal facilities and border crossings, as well as essential road, rail and marine infrastructure that ensure this transportation system's connection to and seamless integration with Canada's Asia-Pacific and Atlantic gateways.

The Continental Gateway initiative is focused on developing a sustainable, secure and efficient multimodal transportation system that keeps Canada's economic heartland competitive, attractive for investment and essential for trade.

Through the summer of 2009, Ontario, Quebec and the federal government will work with the private sector and other key public sector stakeholders to develop a comprehensive infrastructure, policy, and regulatory strategy with recommendations for the short (less than five years), medium (six-ten years) and longer term (eleven-fifteen years) to support international trade through this gateway.

The MOU will include the following:

- Economic factors and geographic parameters – geographic scope; economic indicators and trends; international trade patterns; and current trade agreements
- Inventory and diagnosis – analysis of current multi-modal transportation system; transportation demand forecast; and evaluation of performance of current and planned infrastructures
- Identification of challenges and opportunities – current and future components of the gateway; congestion issues; environmental issues; policy and regulatory aspects; skills development, and technology deficiencies
- Scenarios and action proposals – research and data requirements; potential changes to regulatory, institutional, labour and technology aspects; and infrastructure priorities
- Implementation plan – actions for short, medium and long term; and strategic communications plan

Application to the NGTA Study Area

Major transportation facilities in the NGTA Corridor such as Highway 401, CP/CN railways and inter-modal facilities form strategic and integral part of the Ontario-Quebec Continental Gateway. Planning for improvements to the transportation system in the Study Area requires close co-ordination between the two initiatives. As planning for the Ontario-Quebec Continental Gateway and Truck Corridor progresses, its findings regarding infrastructure, policy and regulatory strategy will be incorporated into the current study.
2.2.10 Discovering Ontario – A Report on the Future of Tourism

This report, commissioned by the province of Ontario, was prepared by the Ontario Tourism Competitiveness Study and released in February 2009. Its mandate was to develop a plan, including specific steps for public and private sectors, to support the growth and long-term viability of tourism in Ontario. The Study consisted of a wide variety of research studies and a broad-based consultation process.

The overarching goal is that Ontario becomes one of the world’s preferred places to visit, with an aim to double tourism receipts by 2020. The report focuses on some key elements: the importance of tourism’s economic contribution to Ontario, including its generation of significant employment; definition of tourism regions; recognition and standardization of Destination Marketing Fees (DMFs); encouraging markets; providing a better tourism product; strategic marketing; developing critical tools, such as way finding; building a renowned workforce; and developing pride of place.

Four strategies were identified to achieve the overarching goal:

1. Work Together – Change how government and industry work together to develop tourism and foster economic growth
2. Set Standards for Success – Become more internationally competitive
3. Invest Wisely – Maximize the impact of private and public tourism investments on new and revitalized product across Ontario
4. Reach out – Welcome consumers before they arrive, when they get here and during their visit to Ontario

A set of milestones was developed from 2010 through 2020 to reach the goal of doubling Ontario’s tourist receipts to $44 billion, with the initial steps including naming and finalizing tourism regions, taking initial steps toward creating Destination Marketing and Management Organizations (DMMOs) and holding the G8 summit in Huntsville.

Twenty specific recommendations were developed to support these four goals, including investment in transportation infrastructure, which acknowledges the importance of efficient, effective and safe transportation to tourism in Ontario. Steps under this recommendation include: supporting expansion of provincial transit, active transportation facilities and environmentally friendly alternatives; supporting negotiations regarding port infrastructure and marine border crossings; and working with municipal leaders in key tourism gateways to prioritize transportation infrastructure requirements that would support tourism.

Application to the NGTA Study Area

The importance of transportation in supporting Ontario’s tourism industry is highlighted in the Discovering Ontario Report. Tourism and recreation activities and associated travel are important for the NGTA corridor, and the Planning and EA Study will progress in this context.
2.2.11 Building a National Tourism Strategy - A Framework for Federal / Provincial / Territorial Collaboration

The National Tourism Strategy (2006) relates specifically to the factors influencing the tourism industry, identifying challenges and setting priorities for strengthening tourism competitiveness developed by the federal/provincial/territorial (FPT) governments in consultation with industry.

The strategy’s vision is to “make Canada a sustainable and top-of-mind tourist destination, renowned worldwide for its exceptional and unique year-round, quality travel experiences”.

Key challenges raised during industry consultations include:

- Comprehensive research to better understand the expectations of travellers (including impacts of an aging population and changing travel patterns);
- More cohesive marketing and promotional campaigns while reflecting provincial/territorial realities and diversity in Canada;
- Further development of Aboriginal tourism;
- Human resource strategies to attract and retain employees in the industry;
- Investments in tourism infrastructure;
- Efficient and integrated transportation systems (addressing the challenge of Canada’s vast territory and diverse geography); and
- Broadening and adopting sustainable tourism and best practices.

Under the transportation heading, the document discusses a number of difficulties, including: the high cost of air travel in remote areas and limited transportation options; the need to better integrate the national transportation system to allow passengers to connect easily between modes of transportation, including cross-border travel.

The Strategy identifies six key priorities for immediate action and collaboration, reflecting input obtained from the tourism industry through consultation.

1. Accessible Destination – Border Crossing: ensure the efficient flow of tourists to and from Canada.

2. Accessible Destination – Transportation: emphasize the need to implement transportation policies and programs that take into consideration national, provincial/territorial and regional tourism economic benefits; emphasize the importance of ensuring transportation policies enhance the ability of tourists to travel to and within Canada.

3. Exceptional Experiences – Product Development: ensure that existing products are enhanced and new products developed to take advantage of new and emerging opportunities.

4. Exceptional Hosts – Human Resources: ensure that the supply of the tourism/hospitality labour is consistent with the demand.
5. Exceptional Reputation – Tourism Information and Statistics: improve access by governments, business, and stakeholders to relevant information and analysis for decision making; improve measurement of tourism’s performance and impact on the economy.

6. Exceptional Reputation – Tourism Marketing: better harmonize and co-ordinate marketing activities between the CTC and provinces/territories (P/T) to better position Canadian destinations; optimize existing resources through increased government collaboration.

Application to the NGTA Study Area

This tourism strategy has the potential to influence transportation demand in and through the Study Area by promoting areas of Canada such as Toronto and Niagara as world class tourist destinations. It emphasizes the importance of providing an efficient, integrated and secure transportation system and travel choice options to facilitate tourist travel, and recognizes the importance of transportation policies, programs and infrastructure as enablers to building a strong and sustainable tourism industry.

2.2.12 Go Green: Ontario’s Action Plan on Climate Change

Go Green: Ontario’s Action Plan on Climate Change (August 2007) includes some of the most comprehensive, forward-looking steps on the environment that Ontario has ever contemplated. GO Green sets firm targets and goals towards making better, greener choices that will save money, help the economy and help the environment.

Go Green is a five-point action plan:

1. Green Targets: Short, medium and long-term targets for reducing Ontario’s greenhouse gas emissions, starting now and continuing through mid-century. Measures to achieve these targets include new regulations, conservation, a phase-out of coal-fired power plants, much more renewable energy and new programs and incentives for Ontario consumers, businesses, and municipalities to get green;

2. MoveOntario 2020: The largest transit investment in Canadian history – a $17.5 billion plan that includes 52 rapid transit projects in the GTA and Hamilton. It calls for 902 km of new or improved rapid transit, creating 175,000 jobs during construction;

3. Creating Jobs by Going Green: The Next Generation Jobs Fund, a new $650 million program, will secure the next generation of high-paying jobs for Ontarians by supporting businesses’ commercial development, use and sale of clean and green technologies and businesses in Ontario;

4. Green Power: A $150 million investment will help Ontario homeowners fight climate change, conserve energy and adopt green technologies, including:
   - Long-term targets to double the amount of electricity from renewable sources by 2025;
   - Increase from 10 to nearly 700 windmills, in place or planned;
• Standard offer for clean energy to enable power users to improve their efficiency through cogeneration (combined heat and power electricity production); and

• Removing other barriers that prevent more widespread use of cogeneration.

5. Grow Green: In addition to the Greenbelt Act, which ensures there will always be nature and open spaces around Ontario’s most populated areas, 50 million new trees will be planted in southern Ontario by 2020. Growing Green also includes growing more sustainable, energy-efficient, transit-friendly communities under the Places to Grow Act, setting strong targets and bringing in new programs to promote locally grown Ontario food.

Application to the NGTA Study Area

Go Green’s MoveOntario 2020 transit projects will influence travel patterns in the areas within and through the Study Area. Any new infrastructure considered to address the problems and opportunities identified in this document will need to be evaluated in the context of the Go Green’s vision and targets to reduce greenhouse gas emissions.

2.2.13 Straight Ahead – A Vision for Transportation in Canada

Straight Ahead - A Vision for Transportation in Canada is a federal government policy paper prepared by Transport Canada which covers the full spectrum of long-term transportation issues in Canada, ranging from airline and railway competition issues to critical infrastructure needs, environmental pressures and safety and security imperatives. The document provides the vision, the policy framework and principles that will guide the Government of Canada's decisions in the years ahead in key areas such as marketplace policies, strategic infrastructure investments and initiatives in support of the broader government agenda on competitive cities and healthy communities, climate change and innovation and skills.

Straight Ahead provides specific directions and calls for action in many areas, including:

• Concrete steps to preserve and improve the benefits of competition, including improved recourse for rail shippers against the market power of railways;

• Confirming its made-in-Canada policy on airline competition, with gradual and reciprocal liberalization of our international air markets;

• New measures to improve transparency in advertising airfares;

• Maintaining safety and security as the cornerstones of Canada's transportation policy, with a clear focus on the need to continually improve safety and security for Canadians;

• A comprehensive review process for transportation merger proposals, for example between Canadian and American railways;

• An emphasis on infrastructure investments aimed at reducing congestion in Canada’s cities and bottlenecks at the Canada-U.S. border and in our trade corridors;
- A clear focus on environmental issues, with specific measures - such as promoting vehicles and fuels that produce fewer emissions, increased use of alternative modes of transportation for passenger travel, and more efficient transportation of goods - to support the government's Climate Change Plan;
- New legislation for VIA Rail and legislative amendments to strengthen publicly funded passenger rail services; and
- Support for partnerships to address skills shortages and innovation challenges in the transportation sector.

Application to the NGTA Study Area

This document sets the overall context for transportation planning for all modes of travel in the Study Area. Marketplace/competition issues, infrastructure, environmental protection, security and innovation will be important elements to consider as potential alternatives to address the transportation problems and opportunities are identified.

2.2.14 Southern Ontario Highways Program, 2008 to 2012

This document, published in August 2008, presents an annual update of the five-year construction program for Southern Ontario highways. It begins with highlights of a number of 2007 accomplishments: building 53 km of new highways; building 6 new bridges; repairing 192 km of highways; and repairing 74 bridges. In 2008, the Ontario government invested a record amount of more than $2 billion to repair and expand highways, roads and bridges across the province, with $192 million designated for Southern Ontario highway construction.

The Program lists all major highway projects already under construction or starting in 2008, as well as a five year outlook to 2012. Projects are listed under the headings of Expansion and Rehabilitation. Major highway projects are generally greater than $1 million; several hundred smaller valued projects were also completed in 2008.

The document also recognizes the importance of long term planning to ensure first-class transportation infrastructure for the future. Potential future directions beyond 2012 include the following:
- Optimizing, expanding or extending existing highways
- Developing new highway corridors
- Identifying and implementing transportation solutions on strategic transportation corridors
- Evaluating options for transit and other modes of transportation

Application to the NGTA Study Area

The program includes current and future highway improvements in the NGTA Study Area, including widening of sections of the QEW and rehabilitation of Highway 405, which will be included in the study's assessment of 2031 transportation conditions. The NGTA Corridor Study is included in the Program as a Future Southern Ontario Project.
2.2.15 Ontario’s Tourism Strategy

This 2004 document provides a strategy for long-term sustainable growth of Ontario’s tourism industry, including a framework identifying the areas for action through to 2010. It is to serve as a tool to bring the tourism industry and different levels of government together to focus efforts and take advantage of the assets available for tourism in Ontario.

The strategy includes four goals for the future of Ontario’s tourism industry:

- Ontario is an internationally recognized travel destination, renowned for the superior quality of its tourism experiences, attractions and services.
- Ontario is a top competitor in global tourism, with an increased share of the domestic, U.S. and international tourism markets.
- Tourism contributes to economic prosperity and a higher quality of life in communities across Ontario.
- The Government is actively engaged with industry stakeholders, providing coordinated and strategic leadership to ensure the continued growth and vitality of tourism in Ontario.

Five key enabling mechanisms are also identified to provide a solid foundation and support implementation of the Strategy: Infrastructure; Market Intelligence; Tourism Investment; Information Technology; and Business Skills Development. The next step is for industry and government to work together to develop the implementation plan, including roles and responsibilities and priorities and timelines.

In 2007, an update report was published, highlighting the progress and achievements to date, including specific efforts related to the priorities outlined in the Strategy.

Application to the NGTA Study Area

The importance of Toronto and Niagara as tourist destinations is highlighted as is the point that greater collaboration between Toronto and the Niagara Region will strengthen them as destinations and major gateways for tourism in the province.

The document also recognizes the transportation issues across the province that can act as barriers to smooth travel for tourists and the point that the ability of visitors to move around easily makes for more pleasant visits. All modes of transportation are recognized (road, train, air, water, transit) and require attention from a tourism perspective. It states that transportation links between Toronto and Niagara need to be enhanced. Under the Strategy’s Infrastructure heading, ongoing investment in highways, connecting roads and public transport is promoted to support the tourism industry.

2.3 LAND USE

The relationship between land use and the inter-regional transportation system is fundamental. Trip making, travel patterns and modal distributions are largely a function of how land is organized and used. The pattern of land use is influenced by the level of accessibility provided by the transportation system.
Several natural environmental features influence the provision of transportation services and mobility in the Study Area. These include the Niagara Escarpment and the designated Greenbelt Area. Currently a limited number of road and rail corridors cross these existing natural constraints. The influences of sensitive natural habitats or specific geographic conditions, such as wide river valleys, have a significant bearing on the provision of transportation facilities. Historically, infrastructure has only been located in areas where construction was uncomplicated unless, as in the case of railways, large structures were required regardless of location.

### 2.3.1 Municipal Policies

In addition to provincial policies, local area policy documents exist, or are currently being developed, that are being considered in the context of the NGTA Corridor Planning and EA Study. At the municipal level, official plans provide the context and boundaries within which a municipality operates with regards to land use, development and growth and helps to ensure that future planning and development will meet the specific needs of the community. The Planning Act requires that an official plan conform to, or does not conflict with provincial plans, has regard for matters of provincial interest, and is consistent with the Provincial Policy Statement.

The official plan contains policies governing various land use designations, such as residential, commercial, industrial, agricultural, open space and recreation. These designations are broadly established on a land use map. Other policies relate to environmental management, economic development, transportation and community improvement.

Municipal policies have the potential to influence transportation demand in the Study Area by shaping the patterns of demand and in turn impacting the modes of travel that demand will use. Transportation demand can be influenced by:

- Land use patterns - directing growth to specific locations in a municipality (e.g. while the magnitude of travel demand is dependent on the various types of land uses, the distribution of travel in a region is affected by the location and density of the corresponding land use);
- Service requirements and location – policies outlining what services such as roads, water mains, sewers, parks and schools will be needed and where they are to be located impacts the timing, location and type of transportation infrastructure required;
- Order and location where development will occur – dictates timing of transportation development;
- Development related policies - in-fill housing, mixed-use development and brownfield redevelopment strategies influence where new residential, industrial and commercial developments locate;
- Economic development policies – attract investment into a community in terms of new employment opportunities and are a catalyst for development of special nodes (i.e. industrial parks, energy parks);
• Transportation Master Plans - integration of land use and transportation growth management policies to identify long-term infrastructure needs to meet future transportation demands and provide a context and framework for future transportation decisions;

• Transit Strategies - developing neighbourhood communities to mix commercial, residential, services, amenities, reducing the need to drive (transit oriented development). Effective transit depends upon density and the number of people that can be served within a close proximity of a transit route; and

• Co-ordination of planning policies between regions - willingness of municipalities to create planning policy that transcends to a more regional view, not only expanding to other areas but facilitating transportation planning between regions.

There are three upper tier municipalities in the Study Area including the Region of Niagara, the City of Hamilton and the Region of Halton. The following sections discuss the key policy documents that provide the future transportation and land use visions that impact the Study Area.

Region of Niagara

The Regional Municipality of Niagara is one of several regional governments which have been established by the province of Ontario since 1969. The Region of Niagara covers 1896 sq. km (715 sq. miles) and is made up of twelve unique and distinct local municipalities. The area varies from larger populated cities of St. Catharines and Niagara Falls with their urban intensive features, to smaller municipalities such as Fort Erie, Grimsby, Welland, Niagara-on-the-Lake, Thorold, Port Colborne, Pelham, Wainfleet, Lincoln and West Lincoln with a more rural or natural area setting.

Niagara’s growth is governed by the Niagara Regional Policy Plan (2007), Niagara Economic Development Strategy (2005-2010), Niagara Transportation Strategy (2002) and Smart Growth Initiatives (2001). An implementation framework has been created for the Smart Growth Initiatives, and includes elements such as financial incentives for brownfield development. Niagara’s Regional policies identify limited transportation capacity and congestion on the QEW as major deterrents to economic growth.

The region is also in the process of formulating a Growth Management Strategy (Niagara 2031) that will identify potential nodes and corridors for future development through 2031. The second phase of the Niagara 2031 study was completed in January 2008 and the region has projected long-term growth prospects. Using 2031 Growth Plan forecasts for its low scenario of future growth (511,000 people, 218,000 jobs and 218,000 housing units by 2031), the Niagara 2031 Growth Management Strategy’s objectives include providing an urban structure plan for gateway economic zones and corridors in the region.
The first phase of the Growth Management Strategy estimates the region’s supply of vacant industrial employment land at 2953.5 hectares, with the five municipalities of Welland, Niagara Falls, Port Colborne, Fort Erie and Thorold accounting for 82% of the total land inventory in Niagara’s 12 municipalities. The region’s commercial land supply is estimated at 1,026 ha (58% of which is located in Niagara Falls) and the region and municipalities are in the process of determining residential land supply. Exhibit 2-9 displays the distribution of land uses across Niagara Region.

Exhibit 2-9: Niagara Region Land Use Distribution

The Regional Niagara Policy Plan is the main regional document that guides future development and environmental preservation in the region. Of relevance to this study are the plan’s specific directives regarding future population, employment, and transportation in the region.

With regard to population, the regional policy requires municipalities to designate a minimum of a ten year land supply of residential and other land uses, supported by similar designation on the part of the region. In collaboration with municipalities, the plan specifies that the region is to prepare municipal population and household estimates to project future housing needs and their distribution in the region.

To enhance industrial growth, the plan allows Niagara Region to establish regional industrial parks and supporting transportation services to attract industry to the region. It also instructs local municipalities to take similar initiatives to increase local employment. Continued support to the Niagara Economic and Tourism Corporation by the region is expected to facilitate economic development through business retention and attraction of new businesses. The region is also responsible for regulating the supply of retail facilities
across the region, and reserves the right to review major proposals for new commercial
development and expansion of existing development in local municipalities.

As part of the regional strategy, the document identifies two future development corridors
– along the Highway 406 route between Thorold and Port Colborne, and the existing
QE-W route between Niagara Falls and Fort Erie. Policy provisions detail that future
studies should determine the need for and location of employment and residential lands
for the two corridors. Staged development is intended for the two corridors, access to
which is to be facilitated by the completion of Highway 406 and a possible mid-peninsula
transportation corridor (the former Niagara-GTA corridor), with regional support to
determine the need, location, and timing of the corridor. The Niagara Transportation
Strategy provides specific direction for these corridors. Plans for Highway 406 include
access from Port Colborne to the possible NGTA Corridor and the provincial highway
system as well as highway connectivity between Port Colborne and other urban areas in
Niagara Region. With regard to the QEW, the Transportation Strategy includes diversion
of truck traffic from the QEW to the possible NGTA Corridor as well as limiting QEW
widening to areas where improvements are planned.

The regional policy plan stresses that future industrial and commercial areas are to be
planned considering transportation facilities, with an emphasis on the potential for public
transit and separate rights-of-way for the same within highway rights-of-way. Specific
policies also support the development of air transportation, as well as regional studies to
determine upgrading of the existing rail system depending on future use for both
passengers and freight. A formal alliance with the St. Lawrence Seaway Authority is
being sought to reduce the Welland Canal’s restrictive impact on local area development
and land-based traffic. The plan emphasizes the region’s need to attract employment,
develop tourism, and provide affordable housing, and link employment and residential
areas to achieve long-term economic growth. The document emphasizes encouraging
development south of the Niagara Escarpment (to preserve prime agricultural land),
safeguarding Niagara Region’s agricultural base, and improving economic conditions for
the farming community.

Overall, Niagara Region’s employment and economic growth statistics are comparatively
lower than those of neighbouring regional municipalities. A significant proportion of the
region’s workforce is employed in other areas of the GGH (including Hamilton and west
GTA municipalities). Business services, transportation and communication, and
accommodation and food services are the sectors that have seen the maximum
employment growth in recent years. Future economic growth is likely to concentrate in
municipalities which are well populated, have high employment rates, and have vacant
employment lands (Niagara Falls, St. Catharines, Grimsby, and Welland witnessed the
highest population growth between 2001 and 2006, while St. Catharine’s, Niagara Falls,
Welland, and Fort Erie saw the highest employment growth in the region). According to
the policy documents, Niagara’s economic development depends heavily on plans for
enhanced transportation capacity in the near future to promote economic growth in the
region.
City of Hamilton

In February 2003, Hamilton City Council authorized staff to develop a new official plan for the City to be completed in two phases. The Rural Hamilton Official Plan was completed during the first phase. The second phase will include the development of policies and mapping for the Urban Area.

The Downtown Hamilton Secondary Plan (DHSP) guides development in the downtown by focusing on the overall roles and physical form; it does not deal with regulatory details. The DHSP provides guidance for the physical development of the downtown to foster a dynamic mix of urban residential, commercial and institutional activities across the downtown. The planning for the transportation corridor in the Study Area will consequently need to ensure that the land use and infrastructure growth policy between and within the Sub-Area Growth Strategy zones are suitably addressed.

The City of Hamilton comprises both a major urban centre and rural communities. Within the urban centre significant employment opportunities are provided for the residents in the form of manufacturing, medical and institutional land uses.

Hamilton has two key growth planning documents – the Growth Related Integrated Development Strategy (GRIDS) and the Hamilton Official Plan. GRIDS was developed between 2003-2006 as a growth management exercise using the “triple bottom line approach”, which uses social, economic, and environmental criteria to evaluate growth options. GRIDS was a technical exercise that examined all issues related to growth management, developed a series of growth options, and ultimately provided a preferred option to shape development based on these criteria. The GRIDS final report, issued in May 2006, adopts the growth option shown in Exhibit 2-10.
The Preferred Growth Strategy that emerged from the GRIDS process forecasts a population growth target of 80,000 by 2031 (echoing the Places to Grow forecast). Housing growth is specified at a 26,500 unit level of intensification around key nodes and corridors and 31,900 units total planned on vacant lands. Regional, commercial and community nodes and corridors destined for mixed use are also identified in the preferred growth option. Future urban boundary expansion in Stoney Creek is expected to provide for new residential growth.

In the context of its ongoing economic expansion and increasing growth, Hamilton International Airport and associated employment lands are the focus of the Hamilton Growth Strategy. The GRIDS report centres on the importance of the Special Policy Area of the airport lands. It is intended that these lands compensate for Hamilton’s present lack of employment lands, and in doing so becoming a key element in Hamilton’s economic growth. Hamilton’s 2005 Economic Development Strategy also recognizes this need for an airport-related employment area akin to a business park.

The final Growth Strategy document specifies the addition of lands south, east, and west of the existing airport area to the Airport Special Policy Area, thus adding 1050 ha of employment lands to Hamilton’s existing airport employment lands. As the main impetus for future economic growth in Hamilton, this move is expected to facilitate access for a broader residential base to employment opportunities generated by airport lands and also allow for easier transportation linkages.
Region of Halton

The Region of Halton is located on the western edge of the GTA, encompassing a land area of approximately 967 sq km with a 25-km frontage along Lake Ontario. The region is comprised of four local municipalities including: the City of Burlington, the Town of Oakville, the Town of Halton Hills, and the Town of Milton.

The region’s Official Plan, updated August 17 2006, incorporates policies that address goals and objectives by dividing the geographic area into the Urban System, the Rural System and the Greenlands System.

The Official Plan provides detailed policies on environmental quality, human services, heritage resources, urban services (water supply and wastewater treatment), economic development, transportation, energy and utilities. The plan also includes the strategy for implementation to achieve the goals and objectives as well as on-going monitoring of the effectiveness of plan policies.

Halton’s growth is governed through its official plan. The Region of Halton’s Official Plan is being updated through a process called “Sustainable Halton”, which will bring the Regional Official Plan into conformity with the provincial Growth Plan. Phase 1 of Sustainable Halton included 22 separate background studies addressing a wide range of growth-related issues. Although these were extensive studies, Phase 1 did not get into developing options for growth management. This is the subject of Phase 2, which is currently underway.

Until Sustainable Halton is complete and the Regional Official Plan is amended, the previous growth management policies will remain in effect. However, the update process is significantly advanced and the NGTA study will consider its results for direction concerning the scale and direction of growth in Halton, especially as this exercise is considering a 2031 horizon year. It is worth noting that at this time, the Region of Halton and its constituent municipalities have concerns with the implications of the Growth Plan that are being evaluated through the growth planning process.

In terms of the current and future location of employment areas, each of the four local municipalities in the region (Oakville, Burlington, Milton, Halton Hills) have designated employment areas and a considerable supply of vacant lands.

The employment lands in the older parts of Burlington are along the QEW and Highway 403. Newer employment lands are in the vicinity of Burloak Drive and Upper Middle Road – the Bronte Creek Business Park, and along Highway 407 – the Alton Business Park. A new employment district has been identified in the northeast corner of Burlington at Tremaine and Highway 407, but a secondary plan has not been prepared for the district.

The employment lands in the older parts of Oakville have developed along the QEW and the Highway 403 link, indicating the importance of highway connectivity to such facilities. Very few vacant parcels remain on these lands, with the exception of the Winston Park West lands and the Burloak lands. As the Winston Park West lands are not currently serviced, the only district with a range of serviced vacant parcels is the Burloak
district. A major new employment area has been planned as part of the North Oakville Secondary Plan, along Highway 407, which will come on stream in the near future.

Halton Hills has employment areas located in Georgetown and Acton, and in a new employment land area in the south of the municipality, along the north side of Highway 401. Employment lands in the urban areas are generally occupied, although much of the land is in small parcels. The most marketable employment lands are located in the newer areas along Highway 401 and 407, a corridor about 9 km long extending from James Snow Parkway to Winston Churchill Boulevard in Georgetown.

Milton was chosen for significant urban expansion in the Halton Urban Structure Plan of 1994. To implement the plan, Official Plan changes were made to the Halton Plan in 1999 and to the Milton Plan in 2000. Pre-expansion industrial areas in Milton were located along Highway 401, as well as some small sites along Bronte Road and around the GO station. The main expansion employment land area is known as Phase 1, and is located on the north side of Highway 401 between Highway 25 and James Snow Parkway. Services have recently been extended to the Phase 1 area. The Phase 2 area has been designated south of Highway 401 on the east side of the Milton urban area. Milton has experienced rapid employment growth as a consequence of the introduction of these areas.

2.4 ECONOMY

The Study Area is characterized by a strong primary employment sector, particularly in Niagara; strong construction and manufacturing sectors, and localized strengths. Over the past several decades, employment growth in Ontario has been driven by the service sector, with wholesale trade as the second largest industry. The economy of the GGH is being reshaped by a number of demographic and economic factors.

2.4.1 Historical Economic Trends

In recent years employment growth in Ontario has been driven by the service sector, while goods producing industries such as agriculture, manufacturing, and resources have not generated substantial new employment. **Exhibit 2-11** ranks the sectors of the Ontario economy by their average annual growth rate in employment over the past twenty years. Service sectors dominate the list, with business services at the top of the list. Wholesale trade is the second largest sector, with the next four highest sectors being services – education, health care, accommodation/food, and finance.
In the future, it can be anticipated that this structural change in the GGH economy will continue to affect businesses in the NGTA, with increased competitive pressures affecting goods producing sectors most strongly.

Ministry of Finance long-term economic growth projections are outlined in Exhibit 2-12, which shows a lower rate in Ontario than historical levels. These forecasts were completed before the current recession and therefore may overstate the current period economic performance. It is important to note that planning for transportation facilities should not focus on short-term economic performance because economic trends underlying transportation demand are long-term. Structural changes will affect the pattern of demand over the course of decades, whether the economic conditions are recessionary or expansionary.

Exhibit 2-12: Ontario Ministry of Finance Economic Growth Projections

<table>
<thead>
<tr>
<th>Ontario Key Economic Variables, Base-Case Scenario</th>
<th>Projection (Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005-09</td>
</tr>
<tr>
<td>Real GDP Growth</td>
<td>2.9</td>
</tr>
<tr>
<td>Real GDP per Employee Growth</td>
<td>1.2</td>
</tr>
<tr>
<td>Employment Growth</td>
<td>1.7</td>
</tr>
<tr>
<td>Unemployment Rate*</td>
<td>6.4</td>
</tr>
<tr>
<td>CPI Inflation</td>
<td>1.9</td>
</tr>
<tr>
<td>1982-89</td>
<td>3.9</td>
</tr>
<tr>
<td>1990-94</td>
<td>1.5</td>
</tr>
<tr>
<td>1995-99</td>
<td>2.4</td>
</tr>
<tr>
<td>2000-04</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Source: MKI, Centre for Spatial Economics
Data presented at the April 4, 2008 Niagara Economic Forum shows that the region is lagging in overall economic growth, but performing well in certain areas. Overall, Gross Domestic Product (GDP) growth is slower in Niagara than in Hamilton or in Ontario as a whole (see Exhibit 2-13). However, the same presentation noted that about 4,200 businesses opened in Niagara between 1999 and 2007, while 3,600 closed. The growth was focused in small and medium size enterprises, leading to the conclusion that Niagara was diversifying its economy.

**Exhibit 2-13: Census Metropolitan Area GDPs 1997-2006**

<table>
<thead>
<tr>
<th>Census Metropolitan Area</th>
<th>1997 to 2006 Percent Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oshawa</td>
<td>46.1</td>
</tr>
<tr>
<td>Ottawa-Gatineau (Ontario part)</td>
<td>44.2</td>
</tr>
<tr>
<td>Toronto</td>
<td>41.6</td>
</tr>
<tr>
<td>Kitchener</td>
<td>40.8</td>
</tr>
<tr>
<td>Hamilton</td>
<td>34.2</td>
</tr>
<tr>
<td>Windsor</td>
<td>33.2</td>
</tr>
<tr>
<td>Kingston</td>
<td>32.2</td>
</tr>
<tr>
<td>London</td>
<td>31.8</td>
</tr>
<tr>
<td>St. Catharines - Niagara</td>
<td>26.3</td>
</tr>
<tr>
<td>Greater Sudbury</td>
<td>23.0</td>
</tr>
<tr>
<td>Thunder Bay</td>
<td>15.1</td>
</tr>
<tr>
<td>ONTARIO</td>
<td>37.8</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, Community Benchmarks
Source: MKI, Paul Knaflec, Community Benchmarks, as presented at April 4, 2008 Niagara Economic Forum.
(http://www.niagaracanada.com/)

**Exhibit 2-14** presents location quotients for each sector in the three upper tier municipalities in the NGTA. A location quotient is a simple ratio that compares the amount of employment in each sector in a given area to a larger area (in this case, the GGH as a whole) to determine the relative strength of particular sectors. The sectors highlighted in yellow have a slightly above-average concentration of employment in that upper tier region. The sectors highlighted in orange are substantially above-average concentration in that sector.
Exhibit 2-14: NGTA 2001 Location Quotient Analysis

<table>
<thead>
<tr>
<th>Location Quotient Analysis - 2001 Employment by Sector</th>
<th>Halton</th>
<th>Hamilton</th>
<th>Niagara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>1.15</td>
<td>1.23</td>
<td>3.13</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.44</td>
<td>0.54</td>
<td>0.91</td>
</tr>
<tr>
<td>Construction</td>
<td>1.16</td>
<td>1.11</td>
<td>1.19</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1.19</td>
<td>1.10</td>
<td>0.93</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1.19</td>
<td>0.63</td>
<td>0.64</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>1.09</td>
<td>1.09</td>
<td>1.16</td>
</tr>
<tr>
<td>Transportation, Warehousing</td>
<td>0.86</td>
<td>0.94</td>
<td>0.86</td>
</tr>
<tr>
<td>Finance, Real Estate</td>
<td>0.76</td>
<td>0.64</td>
<td>0.54</td>
</tr>
<tr>
<td>Business Services</td>
<td>0.90</td>
<td>0.61</td>
<td>0.60</td>
</tr>
<tr>
<td>Education</td>
<td>0.92</td>
<td>1.29</td>
<td>1.05</td>
</tr>
<tr>
<td>Health</td>
<td>0.87</td>
<td>1.61</td>
<td>1.12</td>
</tr>
<tr>
<td>Information, Culture, Recreation</td>
<td>0.77</td>
<td>0.74</td>
<td>1.17</td>
</tr>
<tr>
<td>Accommodation, Food</td>
<td>1.13</td>
<td>1.04</td>
<td>1.76</td>
</tr>
<tr>
<td>Other Services</td>
<td>1.06</td>
<td>1.17</td>
<td>1.12</td>
</tr>
</tbody>
</table>

Source: MKI, Based on Statistics Canada 2001 Census Data

In this comparison, the Study Area is characterized by a strong primary sector, particularly in Niagara, strong construction and manufacturing sectors, and localized strengths in sectors such as health (Hamilton) and accommodation/food (Niagara).

### 2.4.2 Future Economic Trends

**Population and Employment Forecasts**

Population and employment forecasts are conducted at a number of different levels of government. The forecasts in Schedule 3 of the Growth Plan (see Exhibit 2-6) establish the target population and employment for each of the upper tier municipalities in the Study Area through to 2031. Local growth management planning will be required to conform to these totals.

The forecasts in Schedule 3 of the Growth Plan demonstrate very different growth futures for sections of the Study Area. Halton Region is forecast to receive substantial growth in both population and employment, roughly doubling the current number of jobs and people in the region. Hamilton will increase in population by 150,000 people and 90,000 jobs to 2031, a more moderate increase in percentage terms but a substantial one in absolute terms. Niagara is forecast for slower growth, adding 84,000 people and 32,000 jobs.

In Hamilton, although population growth has been slow over the past several decades, new growth areas will provide capacity for expansion over the next two decades. The continual western movement of new growth areas over the preceding decades, in addition to established servicing, highways, and transit capacity, makes Hamilton a logical location for growth.
Niagara’s slower growth reflects the less urbanized character of the region and its location. Niagara is driven more by local factors than its relationship to the GTA. Its strengths in agriculture, tourism, and quality of life are unique. The manufacturing sector in Niagara has slowed in line with this sector in the broader Ontario economy. Growth will depend on factors such as the future strength of the tourism economy, the health of the St. Catharines and Niagara Falls industrial sectors, the success of the proposed Gateway Economic Corridor and Economic Centre, and the economic impacts of continued settlement.

Of all sectors, health services are anticipated to generate the largest number of jobs in the Study Area over the coming decades, followed by education, retail trade, and business services. Employment in the manufacturing and utilities sectors is expected to stay stable notwithstanding the current decline in the manufacturing sector. The primary sector is expected to lose employment overall. Wholesale trade and distribution is anticipated to increase employment.

The growth in wholesale trade and distribution will likely spur the demand for increased transportation infrastructure for industries requiring rapid access to key markets, borders and ports. Warehousing and wholesale trade are transport dependent industries that will shape the need for transportation infrastructure. Specifically in the Study Area, Niagara Region’s strong agricultural sector and co-incident need for transportation of perishable goods is dependent on efficient and climate-controlled modes of transportation for effective distribution.

The services sector has seen a rapid increase in employment growth and is forecast to continue growing. Significant employment areas are being shaped in downtowns, mixed-use commercial areas, and office nodes. Employment growth is increasingly being led by sectors such as education, finance, health care, accommodation and food services, and is generating a heightened demand for personal travel facilities and the delivery of goods and services on a local scale.

**Commuting Patterns**

A review of employment data for 2001 based on place of work and place of residence Census data indicate that most of the municipalities in the Study Area had more net “out-commuting” than “in-commuting”. In Halton Region, all municipalities had net out-commuting except Milton. In Hamilton, more than 32,000 more workers were employed outside Hamilton than the number of jobs within the city itself. Niagara Region, Niagara-on-the-Lake and St. Catharines had net in-commuting, while most other municipalities had a higher number of workers employed outside the municipality. Where such commuting patterns exist in large geographical regions like Halton and Niagara, the private automobile often accounts for the majority of work trips, with the exception of communities linked by high quality transit services.

**Location of Employment Growth**

Employment areas in the GGH have traditionally developed in proximity to key transportation facilities such as the 400 series highways and rail facilities. Although access to transportation infrastructure still remains a key consideration for Ontario’s
dominant manufacturing sector, there is a noticeable decline in the pace of employment growth in industrial areas. This trend is largely attributable to the need for competitiveness and efficiency to achieve global competitiveness, and a consequent increase in automation and outsourcing of manufacturing-related activities to second or third party business and logistics sectors.

Aligned with the overall GGH trend of a move toward increased business sector employment, a significant proportion of the projected growth is likely to occur in office-based jobs and business parks on designated employment lands. As discussed above, the growth forecasts indicate that much of the travel demand generated in the Study Area will stem from Halton Region and Hamilton.

Vacant employment lands in south Halton municipalities of Oakville and Burlington are distributed along the length of the QEW, with sizeable employment areas in Milton/Halton Hills. Much of the new travel demand in the Study Area will be generated by these areas in Halton, as well as by the eight existing or new business parks in Hamilton. Key employment areas include Hamilton Airport, North Oakville (Highway 407) and the Highway 401 corridor in Milton. There is also the emerging Niagara Gateway Economic Zone initiative, which proposes to establish a significant employment area along the Niagara border, together with the identification of Welland as a Gateway Economic Centre. These emerging areas are to be the focal points for industrial expansion in the NGTA over the coming years.

### 2.4.3 Global Trade

Although the economic downturn being experienced in the Study Area in late 2008/early 2009 is relatively recent, the economic fundamentals of the area have been changing for some time. New global dynamics have been reshaping the economy. The remarkable surge of the Canadian dollar relative to the U.S. dollar over the past several years, most significantly in 2007, is causing ongoing negative impacts on manufacturing and related sectors. The traditional strength of the province as a manufacturing and trading economy is facing new challenges. Finally, further tightening of the Canadian labour market has started to affect the economy in meaningful ways, as international immigration increasingly supplies Ontario with growth in its workforce - the ability to fulfil the needs of various economic sectors for skilled and unskilled workers will be dependent on a continued influx of immigrants to Ontario. Although the current recessionary conditions have eased labour market shortages to some extent, the structure of Ontario’s population makes this a long-term trend, as declining birthrates and an aging domestic population will increasingly make immigration the lifeblood of the labour market

Over the past several decades, Ontario’s economy has become heavily export-based, but export growth is slowing down as a proportion of economic expansion. As of 2006, export to other provinces or other countries represented about 70% of Ontario’s GDP\(^2\). Half of the province’s GDP is exported to other countries, nearly all of which is to the U.S. Ontario’s high level of International trade makes its economy particularly sensitive to external factors.

\(^2\) MKI, Statistics Canada, Trade Statistics 2006
In the NGTA Study Area, several International factors have particular impact. These include the following:

- Globalization and corresponding efficiency pressures on Canadian producers;
- Border policy and security policy in the U.S., especially as these affect tourism and goods movement across the border;
- Demand for goods produced in the area, such as steel and transportation equipment (automobile industry); and
- Specific trade-related factors such as the end of the Auto Pact and World Trade Organization (WTO) policy.

**Globalization**

The increasing integration of the global economy is not a new phenomenon – it has been occurring for more than 50 years. However, the past two decades have seen a relatively rapid reduction in trade barriers and the establishment of economic relationships across national boundaries. As an example, Canada (and not the U.S.) is now negotiating a bilateral trade agreement with the European Union (EU). The EU collectively is a much larger economy than the U.S. and Ontario may benefit from this agreement resulting in new competitive pressures on goods production in North America. The advent of containerized freight, the relatively low cost of marine shipping and the lower cost of manufacturing in other world markets have caused stresses on the manufacturing sectors in Canada and specifically in the GGH, as companies are forced to compete by cutting costs. These pressures were also generated/exacerbated by the signing of the Free Trade Agreement (FTA) with the U.S. and the North American Free Trade Agreement (NAFTA), which brought Mexico into the Canada-U.S. trade bloc.

Weakness in Canadian manufacturing may be exacerbated if protectionism becomes a global response to the current economic crisis. Although some firms have been unable to compete in this climate, and have closed or relocated out of the GGH, many other manufacturers have streamlined their production processes to become more efficient producers. New technologies have also resulted in opportunities to automate production, with the unfortunate by-product of job losses.

The full impact of globalization remains to be seen, but has generally been both a negative (job losses) and a positive (increased efficiency) for the GGH economy. In the future, it can be anticipated that this structural change in the GGH economy will continue to affect businesses in the NGTA, with increased competitive pressures affecting goods producing sectors most strongly; thus emphasizing the need for an efficient transportation system to address the competitive pressures.

**Border Policy and Security**

The U.S. and Canada enjoy the world’s largest bilateral trade relationship. The scale of this relationship has depended on the continuous and reliable flow of goods across the Canada-U.S. border.
Since the events of September 11th, 2001 various measures have been taken to tighten up U.S. border security. Both the Government of Canada and the Government of Ontario have worked with the U.S. government to ensure these measures have minimal impact on the trade relationship, efforts which are widely considered to have been successful in limiting the impact of increased security measures. Although trade was certainly disrupted by September 11th, long-term impacts have been moderate (tourism from the U.S. has been more seriously impacted by related factors, as discussed in Section 2.5).

Procedures at the U.S. border crossings are a critical factor affecting this study. A significant tightening of security policy, or new trade barriers, could restrict demand for goods movement. These issues are being resolved with various programs including FAST (Free And Secure Trade: use of bar-code documents for fast border clearance of approved drivers, carriers and importers) and NEXUS (expedited border clearance program for approved Canadian and American citizens).

In a more general economic sense, the major lingering impact of September 11th and other unexpected events such as the 2003 SARS crisis may be the sense of uncertainty created for firms with a strong International trade orientation. Both SARS and September 11th were reminders of the constant risk that an unforeseen event may close down trade channels or significantly impact relations with various trading partners. In part, this fact may be the reason for domestic (Inter-provincial) trade becoming an increased focus for firms in the Study Area – a trend which has been identified both in our interviews with economic development professionals and in economic statistics.

**Auto Pact**

Established in the early 1960’s, the Canada-U.S. Auto Pact created a special bilateral trade relationship for the automobile industry. The Auto Pact “eliminated trade tariffs between the two countries and created a single North American manufacturing market. Tariffs between the two countries were eliminated on cars, trucks, buses, tires and automotive parts.”[^3] In the late 1990s, a complaint was filed by the European Union and Japan to the World Trade Organization (WTO) that the Auto Pact violated International trade laws. The WTO Dispute Panel ruled in favour of the complainants in 2001 and the Auto Pact was abolished.

The Canada-U.S. automobile industry relationship is inter-connected and inter-dependent; however, the recent rise of the Canadian dollar to near-parity is causing heavy cost pressures on parts producers, in particular, and may represent an ongoing threat to this bilateral industry. More significantly, recent months have seen the serious impact of the global economic downturn, and associated financial difficulties for the major automakers. Although it is impossible to determine at this point the shape and scale of Ontario’s automobile industry once it emerges from this time of restructuring, a scenario that sees a leaner, smaller automobile sector seems more likely than not at this point.

2.4.4 International Trade

As discussed above, Canada and the U.S. enjoy the largest bi-national trading relationship in the world, with goods movement through the Niagara Peninsula accounting for approximately 10% of all Canada-U.S. trade. As seen in Exhibit 2-15, the value of goods traded between the two nations has been steadily increasing since 1989, emphasizing the importance of a long range infrastructure improvement strategy to support long term goals.


![Graph showing value of goods traded between Canada and the U.S.](image)

Source: MKI, Transport Canada, adapted from Statistics Canada International Trade database

Ontario’s trade with the U.S. is dominated by the motor vehicle industry (42% of exports and 30% of imports by value in 2007) - automotive manufacturing, parts, transport vehicles and engines. The NGTA Corridor provides a transportation corridor for trade between Ontario and the U.S. Northeast and South regions via the Niagara River Gateway crossings of the Peace Bridge and Queenston-Lewiston Bridge.

Through this region, the dominant mode of transportation for goods has been trucking and it is expected that trucking will continue to be the dominant mode for goods movement in the Study Area for the foreseeable future. This is discussed further in Section 4.3.

All transportation modes are reflecting the growth in trade industry. The total value of rail trade has increased from approximately $34 billion in 1998 to approximately $53 billion in 2007 and it has been predicted that container volumes in Continental U.S. and Canada could increase by over 75% which would further increase the volume of rail trade. Marine shipping accounts for 19% of the total value of goods shipped by Canada to world trading partners. The total value of international goods shipped by air increased

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4 MKI, Statistics Canada, Trade Statistics 2006
5 MKI, Ministry of Economic Development and Trade, Trade Statistics (http://www.ontarioexports.com/resources/GeneralInfo.asp)
by 68% between 1997 ($57 million) and 2007 ($96 million) and is expected to continue to increase.

International trade is a critical component of the Canadian, Ontario, and NGTA economy. Given the location of the Study Area, trade with the U.S. is of primary concern in terms of identifying trends in International trade that are drivers for transportation demand.

Canada’s consulate in Buffalo summarized the dramatic increase in Canada-U.S. trade in this way in a 2007 overview: Canada's trade with the U.S. is responsible for more than half (52%) of the GDP. The U.S. represents roughly 4/5 of Canada's exports and 2/3 of its imports. Canada, in return, represents 23.5% of America's exports and 17.4% of its imports. In 2006, Canada was the number one foreign market for goods exports for 39 of the 50 states, and ranked in the top three for another 8 states. In fact, Canada is a larger market for U.S. goods than all 25 countries of the European Union combined, which has more than 15 times the population of Canada. The U.S. is also the largest foreign investor in Canada and the most popular destination for Canadian investment, making Canada the 7th largest investor in the U.S. accounting for 7.6% of all Foreign Direct Investment (FDI) in that country.

The dramatic growth in trade with the U.S. is evident in Exhibit 2-16, showing the percentage of the Ontario economy (GDP) that consists of exports. While the percentage of the Ontario economy that consisted of exports rose steadily through the 1990s, exports reached a plateau since 2000 in percentage terms slowing to grow at the same pace as the rest of the economy. However, since mid-2005, exports have stagnated with the total dollar values of exports from Canada as a whole as reported in late 2007 actually below those in late 2005. The appreciation of the Canadian dollar, the automobile industry restructuring and slower economic cycles in North America have played a significant role in this slowdown.

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7 MKI, Agriculture and Agri-Food Canada, General Overview of the Canadian Consulate General - Buffalo Post Territory (http://www.ats.agr.gc.ca/us/4073_e.htm)
Exhibit 2-16: Ontario’s Exports to Other Provinces and Other Countries

Exhibit 2-17 shows the Ontario Ministry of Finance’s forecasts for growth in exports and imports to the year 2025. The forecast is for a slight increase over current levels, but lower than the rates of increase in the 1980s and late 1990s. Trade growth is likely to continue to outpace the overall growth in the economy. Clearly, as trade is a major driver of goods movement, there will be increased demand for transportation system capacity and inter-modal integration in support of International trade in coming years.

Exhibit 2-17: Ontario Import/Export Projections

Source: MKI, Ontario Ministry of Finance

Source: MKI, Statistics Canada and the Centre for Spatial Economics
The statistics in Exhibit 2-18 help give a sense of the goods moving through the Niagara border. Trade with New York, Pennsylvania and Ohio total more than $94 billion, approximately 16% of the $576.4 billion total Canada-U.S. trade in 2007\(^8\).

**Exhibit 2-18: 2007 Canadian Trade with United States**

<table>
<thead>
<tr>
<th>Canada Trade with U.S. States</th>
<th>Exports to U.S. States ($ billions)</th>
<th>Imports to Canada ($ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>26.1</td>
<td>13.1</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>12.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Ohio</td>
<td>15.4</td>
<td>19.1</td>
</tr>
</tbody>
</table>


Canadian trade with other countries including China has also increased dramatically since 2000, although the vast majority of trade consists of imports. In practice, the influx of Chinese goods has had two impacts on the GGH economy: it has provided further competition to domestic manufacturers in certain sub-sectors; and it has helped drive the expansion of the logistics/warehouse sectors of the GGH economy.

The ongoing economic shift from manufacturing toward service sector employment creates an opportunity to align provincial land use policy and transportation investment in order to support the major employment areas and related growth sectors in the Study Area. It provides an opportunity to play catch up, if required, to support the manufacturing and distribution/logistics sectors and international trade. Transportation facilities can also be identified to support road and transit infrastructure for personal travel at employment nodes characterized by the service sector, as well as population growth areas. Finally, given the strategic and structural challenges likely to face the manufacturing sector in the Study Area over the coming years, investment in transportation infrastructure may provide a needed boost to a sector currently experiencing a very difficult competitive climate.

### 2.4.5 Domestic Trade

Ontario's trade patterns within Canada have historically reflected both geography and the economic structure of the province. Throughout the 1990s and early part of this decade, roughly half of Ontario's inter-provincial imports came from Quebec, and Quebec was the destination for about 40% of Ontario's inter-provincial exports\(^9\). One-third of Ontario's exports were to Alberta and British Columbia, with the balance spread among the Maritime provinces, Newfoundland, Manitoba, and Saskatchewan. These patterns are shown in Exhibit 2-19. More recently, the value of Ontario’s imports from Alberta has risen, likely as part of the oil and gas boom. The total amount of inter-provincial trade continues to expand slightly faster on an annualized pace than the economy as a whole,

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\(^8\) Foreign Affairs and International Trade Canada (http://www.international.gc.ca/commerce/strategy-strategie/r1.aspx)

\(^9\) MKI, Statistics Canada, National Accounts System, Input-Output database
and grew at an average rate of 5.4% between 1997 and 2006. Intra-provincial trade grew by 6.0% over the same time period. Even when adjusted for inflation, the value of goods traded increased faster than most measures of broader economic growth. In terms of geographic patterns, however, Ontario’s inter-provincial trade patterns remain relatively constant.

Exhibit 2-19: Ontario’s Inter-Provincial Trade in 2005


The content of import and exports has shifted, to some degree. Ontario’s inter-provincial exports are dominated by services, which comprise roughly half of inter-provincial exports by value, followed by manufactured goods, and food and tobacco products. Ontario’s imports from other provinces are more heavily weighted to goods, with about one-third of inter-provincial imports being services, and the balance including manufactured goods, food products, and commodities such as oil and gas, lumber, and mining products.

Intra-provincial trade in Canada is dominated by construction, which by definition is almost entirely domestically consumed. Roughly one-third of domestic trade by value in 2005 within provinces was construction, followed by agricultural products (13.3%), energy (10.0%), and other utilities (8.5%). Domestic demand within the province can be measured through a variety of indicators, including retail trade, housing starts (the number of residential building construction projects begun during a specific period of time), and consumer spending. Most of these indicators as of late 2008/early 2009 were showing the impacts of the current economic recession. As the largest province and one of the most rapidly growing, until 2008 Ontario has by far the largest domestic retail market (although 2005-2007 saw the fastest growth rates in Alberta and Saskatchewan). However, the recent recession has impacted the province and domestic demand is currently slumping more severely than in other provinces.

12 MKI, Statistics Canada, National Accounts System, Input-Output database
13 MKI, Statistics Canada, CANSIM (Canada’s Socioeconomic Database), Table 080-0014
2.5 TOURISM AND RECREATION

The Study Area is a popular destination for tourism and recreation activities. Its tourism and recreation industry is comprised of visitors from within Ontario (intra-provincial), elsewhere in Canada (inter-provincial), the U.S. and from overseas. A number of factors affect tourism and recreation within the Study Area, including the strength of the Canadian dollar, global economic conditions, fuel prices and government measures such as the U.S.’s Western Hemisphere Travel Initiative (WHTI).

The following sections provide an overview of tourism in the NGTA Study Area. Analysis by PKF Consulting is based on available information from the Statistics Canada’s Travel Survey of Residents in Canada (TSRC) and the International Travel Surveys (ITS). This analysis uses the following Statistics Canada definition of a tourist/person trip:

- Any overnight visitor staying at least one night away from their usual place of residence;
- Any same-day visitor travelling 40 km or more one-way from home, inclusive of all provinces, without staying overnight.

This is a change from pre-2006 data collection. Although the TSRC began in reference year 2005, the study underwent considerable revision over the course of the year. Data capture and weighting platforms were not finalized until reference year 2006. Consequently, the new domestic tourism volume and value time-series commences with reference year 2006.

According to Statistics Canada’s Travel Survey of Residents in Canada (TSRC) and International Travel Surveys (ITS), in 2007, there were 16.4 million visitors to the Study Area. These 16.4 million person visits consisted of approximately 10.6 million households with an average size of 1.8 people per visiting household. Over the past ten years, total visitation to the Study Area has declined at an annual compound growth rate of -1.3%, as shown in Exhibit 2-20. Same day visits make up about 55% of total visits.

The majority of the tourism and recreation trips to the NGTA Study Area are destined to the Niagara Region. Overall, 78% of the 2007 same-day and overnight visitor trips to the Study Area were to Niagara, highlighting the particular importance of tourism travel to this section of the NGTA Corridor.

There was an estimated $2.0 billion in total visitor spending in the Study Area in 2007, averaging about $124 per person. The major spending categories were transportation, accommodation, food and beverage, entertainment and recreation, and retail and other items.
Almost half (49%) of all 2007 visitors to the Study Area were travelling with pleasure as their primary purpose. This was followed by visiting friends and relatives (34%), personal/other reasons (11%) and business (6%). As the majority of visits to the area were for pleasure, seasonality plays a role. About 35% of all 2007 visitor travel to the Study Area occurred during the summer months (July, August, and September). This was followed by spring (25%), fall (24%) and winter (<17%). Overall, approximately 39% of 2007 pleasure trips occurred during the summer. Trips made from the U.S. and overseas were most likely to occur during the summer (41% and 44%, respectively).

Domestic travellers made up about 64% of the total person visits to the Study Area in 2007, as shown in Exhibit 2-21. Intra-provincial travel accounted for almost 63% of total visits, with almost 3% from the rest of Canada. Visits from the U.S. made up about 30% of the total, and about 6% were from overseas.

Exhibit 2-20: Overall Visitation to the NGTA Corridor

Exhibit 2-21: Inbound Visitors to the NGTA Corridor
There are a number of transportation options available for visitors to the Study Area, including highways, buses and rail transit, as well as international and regional airports. Automobile is the main mode of visitor transportation, used by about 88% of visitors to the Study Area in 2007. Approximately 5% of trips were made by bus and over 1% by plane. Less than 1% of trips used train and boat modes of transportation.

Tourist facilities in the Study Area will be enhanced by a number of planned and active initiatives. The Niagara Convention & Civic Centre is currently under construction and scheduled for opening in spring 2011. This 28,000 square foot complex is estimated to generate 63,000 new room nights in its first year of opening, increasing to 132,000 room nights by 2013. In March 2009 the Ontario Lottery and Gaming Corporation issued a Request for Proposal for a multi-purpose Entertainment Centre with approximately 5,000 seats. Project Niagara, proposed for Niagara-on-the-Lake and currently in the feasibility stage, will include an outdoor amphitheatre and Phase I is expected to open by 2012/13.

A range of factors affect tourism and recreation travel to the NGTA Study Area, including Ontario’s and global GDP, disposable income and consumer spending; fuel prices; exchange rates, particularly the recently strong Canadian dollar; new passport rules and highway congestion levels and traffic density near border crossings.

According to the most recent Provincial Outlook published by the Conference Board of Canada (Winter 2009), the near term will be challenging for Ontario’s economy, primarily due to the recession in the U.S. and the downsizing of the automobile industry. Another factor affecting tourism is the U.S.’ Western Hemisphere Travel Initiative (WHTI) regulations, requiring all travellers to present a valid passport or other approved secure document when entering the U.S. from within the western hemisphere. The first phase of the WHTI regulations went into effect at airports in January 2007 and generated record-high demand for passports. The second phase was implemented at all land and sea border crossings in June 2009 and may result in reduced cross-border tourist/pleasure travel.

Overall, tourism and recreation trips made by intra-provincial, inter-provincial, U.S. and overseas travellers to the Study Area are expected to increase over the long term by approximately 1.2% per year between 2007 and 2030, to reach 21.7 million visitors by 2030. This projected growth is shown in Exhibit 2-22. Same day and overnight trips are expected to increase over this period, as shown in Exhibit 2-23.
2.5.1 Domestic Tourism and Recreation

Total domestic visitation accounts for about 64% of the 2007 total person visits to the Study Area. There were approximately 16.4 million Canadian person visits, corresponding to 7.9 million households with an average household size of 1.6 persons.
Domestic visitors contributed approximately $1.1 billion to visitor spending in the Study Area (55% of total 2007 visitor spending), with Canadians spending an average of $108 per visit. Total domestic tourism to the Study Area has increased an average of 2.8% per year over the past ten years. Same day visits comprise about 66% of total 2007 visits.

Domestic visitors travelled to the Study Area in 2004 predominantly to visit friends and relatives (44%) and for pleasure purposes (also 44%). Business reasons were cited by 7% of visitors, and Personal/other factor driven visitation accounted for the remaining 5%. Domestic visits to the Study Area were most likely to occur during the summer, at 31% in 2007. Fall accounted for about 27% of visits and 23% were in the spring. About 19% of 2007 visits occurred during the winter. The automobile was the main mode of travel for 2004 domestic visits, used by about 95% of travellers to the Study Area.

2.5.1.1 Intra-Provincial Tourism and Recreation

Intra-provincial travel (within the province of Ontario) made up about 63% of all visits of the Study Area in 2007. Intra-provincial travel in Ontario declined in recent years but the five year outlook is positive, showing growth through to 2010, led by business visits and same day travel. Such growth will be partly due to the implementation of the WHTI, which may encourage some residents to choose to travel within the province instead of to the U.S.

In addition to travel from outside of the Study Area, residents of the Study Area travel both outside of and within the area for tourism and recreation purposes. In 2007, approximately 11.0 million trips were made by residents of the Study Area.

Visiting friends and relatives and pleasure accounted for a similar number of resident trips in 2007, 44% and 43%, respectively. Business accounted for almost 8% of resident trips and personal/other reasons were the purpose for the remaining 5%. Likely due to the large number of trips to visit friends and relatives, resident trips were relatively well distributed throughout the year in 2007. Approximately 31% travelled during the summer, followed by 25% in the spring, 24% in the fall, and 20% in the winter. In 2007, tourism and recreation travel by NGTA residents was generally made by automobile (89%), with 6% plane, 3% bus and around 2% train/boat. Highway congestion levels will impact same day travel, and other influences on intra-provincial tourism and recreation include disposable income and new passport rules for travel to the U.S.

2.5.1.2 Inter-Provincial Tourism

Inter-provincial travel (from the rest of Canada) to the Study Area accounts for about 2% of the total trips made in 2007. Like travel within Ontario, inter-provincial travel to Ontario is projected to grow through to 2010. The weakness of such travel in recent years can partly be attributed to the strength of the Canadian dollar, favouring Canadians to travel to U.S. and overseas destinations. Of inter-provincial travel to the Study Area in 2007, about 51% of visits were from Quebec. Alberta represents the second largest number of out-of-province visits, accounting for 22%. Similar to intra-provincial travel, the implementation of the second phase of the WHTI may encourage some Canadians to travel within Canada, and potentially to the Study Area, as opposed to travelling to the
U.S. Key drivers for inter-provincial travel include disposable income, tourism prices in Ontario, new passport rules and highway congestion for same day travel.

2.5.2 U.S. Visitation

In 2007, U.S. visitors made up almost 30% of total person visits to the Study Area, with an average visiting household size of 2.3 people. The near border states of New York and Michigan contributed the most visits, with 56% and 7% of total U.S. visits, respectively.

U.S. visitors contributed approximately $665 million to total visitor spending within the Study Area in 2007 (about 33% of total visitor spending), with an average of $134 per person. On average, the number of annual U.S. visits decreased by 6.6% per year over the past ten years, with a large decrease in 2003 largely due to the combined effects of SARS and the Iraq War. Over this period, same day U.S traffic to the Study Area has decreased by close to 60% while overnight visitors decreased by 18%.

In 2007, almost 62% of U.S. visits to the Study Area were for pleasure purposes. About 11% travelled to visit friends and relatives, and 4% travelled for business purposes. Personal/other reasons accounted for 23% of trips. The majority (41%) of 2007 U.S. visitation occurred during the summer months, with 29% in the spring, 17% in the fall and 13% in the winter, which confirms the strong seasonality of pleasure travel to the Study Area. Approximately 87% of trips made from the U.S. to the Study Area in 2004 were by automobile, followed by bus (5%), and the remainder by boat, train and plane.

2.5.3 Overseas Visitation

Overseas visits accounted for 5% of total travel to the Study Area in 2007, and the average size of the households visiting the area was 1.8 people. In 2007 overseas visitor spending was approximately $229 million (12% of total spending), with an average of $253 per person visit. The two largest overseas markets were the United Kingdom and Japan, contributing about 21% and 10%, respectively, to total 2007 overseas visits.

Unlike domestic and U.S. visits, in recent years the Study Area has seen a continual increase in overseas visitation: from 1998 to 2004, total overseas visitation volumes increased by 10%, then by 5% to 2007. Overall, overseas visitation to the Study Area has increased by an annual compound growth rate of 1.5% over the past ten years. A significant rebound was seen in 2004, where trips increased to surpass 2001 volumes. In 2007, about 52% of overseas trips were overnight, while 48% were same day. Note that an overseas same day visit is counted for each unique destination visited by an overseas visitor in one day (e.g., an overseas visitor to Toronto taking a same day trip to Niagara Falls).

Overseas visitors to the Study Area in 2004 primarily travelled for pleasure and to visit friends and relatives (45% each). About 7% travelled for business related purposes and the remaining 3% of trips were made for personal/other reasons. Similar to trips from Canada and the U.S., the majority of visitation took place during the summer months (44%), followed by 28% in the spring, 19% in the fall and 9% in the winter.
Of all visitors to the Study Area, those from overseas used the most balanced variety of modes of transportation. As with the other markets, automobile was the dominant mode, with a 2004 automobile mode share of approximately 43% (private and rented). Bus was used by 19% of visitors, then plane (8%), followed by train and boat.

Looking forward, overseas visits will be influenced by factors including economic conditions of the country of origin, cost of travel (including effects of exchange rates) and GDP.

2.6 OTHER INITIATIVES

There are several long term planning initiatives that may directly or indirectly influence transportation demand in terms of magnitude and distribution in the Study Area. These focus on moving people and goods, and include initiatives to increase transportation choices and improve transit and road capacity. These initiatives have been undertaken by a variety of organizations, including the Canadian federal and provincial governments, Transportation Service Providers and U.S. government bodies.

Each of the following initiatives has the potential to affect both transportation supply and demand in the Study Area and broader areas of influence. These policies, programs and projects may influence travel patterns and provide additional transportation choices and transit and roadway capacity. Policy directions toward increased transit and active transportation influence travel patterns and mode choices. The information gathered from these initiatives has been fed into the modelling exercise and assessment of current and future conditions.

Many of these initiatives support the objectives of the Growth Plan (see Section 2.2.2), as this document provides a framework for implementing the Government of Ontario’s overall vision and managing growth through to 2031. Transportation planning in Ontario aims to support the planned growth contained in the Growth Plan and do so in accordance with the Plan’s policies.

The following initiatives may result in increased options and transportation capacity and greater choice in some areas. The purpose of the NGTA Corridor Planning & EA Study is to examine long-term transportation problems and opportunities to the year 2031 and consider alternative solutions to provide better inter-regional linkages within and to the Study Area.

2.6.1 Brantford to Cambridge Transportation Corridor Environmental Assessment Study

In June 2008, MTO initiated this Individual Environmental Assessment (EA) Study to address the problems and opportunities relative to the inter-regional movement of people and goods in the Brantford and Cambridge area to 2031. The area of study includes portions of the County of Brant, County of Wellington, Region of Waterloo, the Cities of Brantford and Cambridge, including the Downtown Cambridge and Downtown Brantford Urban Growth Centres (as identified in the Growth Plan), and a portion of the City of Hamilton. This study will build upon earlier work and improve consultation, align transportation opportunities with the Growth Plan, and expand the area of analysis. A
This study will address the needs of the GGH due to its evolution into a large geographic region with many centres of economic activity, employment, and population, and therefore dispersed travel demand for goods and people. A transportation network is needed linking the Brantford and Cambridge Urban Growth Centres through an integrated system of transportation modes. The EA process will identify and validate the area transportation system problems and opportunities and evaluate a variety of alternatives to address them. MTO will co-ordinate with other Ministries and municipalities as the EA moves forward. The study will address issues including the lack of inter-regional transit linking the Urban Growth Centres, limited highway capacity, the lack of a comprehensive highway access management plan, and the limited co-ordination of inter-regional transportation and local land use planning.

The Brantford to Cambridge corridor study area overlaps with the northern portion of the Study Area in the City of Hamilton. Proposed transportation options in the Brantford to Cambridge corridor may directly or indirectly affect transportation demand and patterns in the NTGA Study Area. The Brantford to Cambridge Transportation Corridor EA Study is being fully co-ordinated with the NGTA Corridor Planning and EA Study.

2.6.2 GTA West Corridor Planning and Environmental Assessment Study

Initiated by MTO in December 2006, the study is consistent with the Growth Plan that identified a GTA West Corridor. The area of study includes portions of the County of Wellington, Region of Peel, Region of Halton and the Region of York, the Urban Growth Centres of Downtown Guelph, Downtown Brampton, Vaughan Corporate Centre and Downtown Milton (as identified in the Growth Plan), and the communities of Acton, Georgetown, Woodbridge and Bolton.

As economic activities in the GGH evolve to an economy of multiple centres, the Guelph-Kitchener/Waterloo-Cambridge triangle is becoming an important area in addition to Downtown Toronto and the several economic centres that surround it. The concentration of population and employment in the Guelph-Kitchener/Waterloo-Cambridge triangle introduces new transportation challenges and it is important that these economic centres be better linked for people and goods movement.

The purpose of this study is to examine long-term transportation problems and opportunities and consider alternative solutions to provide better linkages between Urban Growth Centres in the GTA West Corridor Study Area. The focus will be on developing an integrated, multi-modal transportation system that offers choices for the efficient movement of people and goods. As a first step in the formal EA process, a Terms of Reference was approved in March 2008.

This study is ongoing with work including developing project-specific goals and objectives; developing Travel Demand Forecasting approaches; exploring existing and future transportation-related conditions; and identifying specific inter-regional transportation problems and opportunities in the Study Area. The specific need for any
proposed undertaking(s) and a description of the proposed undertaking(s) will be
determined during initial phases of the EA study and will be based on the approved
government policies and planning objectives that are in place at that time.

In general terms, the study includes: assessing the need for additional transportation
capacity in the GTA West corridor; identifying the specific transportation problems and
opportunities within the Study Area; developing, assessing, and evaluating a range of
transportation alternatives to address the identified transportation problems and
opportunities; and preparing a multi-modal Transportation Development Strategy (TDS).

The Highway 401 is a common boundary between the study areas of the GTA West
Corridor Planning and EA Study and the NGTA Corridor Planning and EA Study.
Future transportation facilities within these study areas could potentially connect directly.
Although these studies are separate, with distinct purposes to address different
transportation issues, they share the overarching goals and issues of transportation within
the GGH. The two studies are following a similar timeline and there is a high level of co-
ordination between them.

2.6.3 Peace Bridge Expansion Project

The Buffalo and Fort Erie Public Bridge Authority (PBA) has initiated a Bi-National
Integrated Environmental Process (BNIEP) that considers, as a single action, capacity
improvements to the Peace Bridge, Plazas and Connecting Roadways in the Towns of
Fort Erie, Ontario and Buffalo, New York. The proposed alternative solutions would
provide operational, functional and security improvements to reduce congestion and
improve the overall efficiency and functionality of the existing Peace Bridge border
crossing facility.

The Peace Bridge border crossing serves as a major International link in the Canadian
and U.S. national highway systems – serving as a key economic conduit for trade and
tourism between the U.S. and Canada. The Peace Bridge connects the QEW in Fort Erie,
Ontario with Interstate 190 in Buffalo, New York.

This project is intended to address needs including border crossing operations; safety;
bridge structure; capacity; environmental; economic; modal inter-relationship; system
mobility; social demand; and economic development.

The primary objectives of the project are the following:

- Provide for a federal border inspection station that meets customs and border
  protection’s security and operational requirements;
- Provide for operational flexibility and redundancy that will accommodate
  operational changes at other regional border crossings due to security measures;
- Provide adequate capacity for the movement of vehicles in expedited release
  programs;
- Provide adequate bridge, plaza, and connecting roadway capacity to efficiently
  and safely serve present and future projected traffic conditions (year 2040);
- Provide direct connections to and from the adjacent highway system and local arterial streets;
- Prevent queue ends from reaching adjacent highway and local street systems;
- Reduce overall travel times across the border;
- Eliminate conflicting traffic movements and improve circulation within the federal inspection station (plaza);
- Eliminate or reduce the use of local streets for highway to highway commercial traffic; and
- Provide safe accommodations for bicycle and pedestrian traffic.

A draft Environmental Impact Statement (EIS) was issued for the project in September 2007 and work then focused on a bridge redesign to minimize and mitigate the environmental impacts on migratory birds and the protected Common Tern expected with the original design. A preferred bridge design is to be selected and a Final EIS completed for circulation in Fall 2009. A Record of Decision (ROD)/ final environmental approval is expected by the end of 2009, followed by property acquisition and detailed design, over 18-24 months.

### 2.6.4 Continental 1

Continental 1 is a bi-national alliance of business, community and government leaders dedicated to developing an economic transportation system between Toronto and Miami, crossing at the Peace Bridge. The not-for-profit organization has a long term goal of creating a 2,400 km (1,500 mi) four-lane highway that will help communities along the route capitalize on economic development and growth. The organization was incorporated in July 2000.

Four key goals were established by the coalition:

- Secure designation of Continental 1 as a federally recognized trade and travel corridor
- Secure funding for the construction of Continental 1 (Route 219) from Springville, New York, to its point of intersection with Interstate 86 at Salamanca, New York
- Secure funding for preliminary engineering and environmental studies for that part of Continental 1 (Route 219) from Bradford, Pennsylvania, to its intersection with Interstate 80 at DuBois, Pennsylvania.
- Build an organization with long term sustainability.

Two federal grants have been secured by Continental 1. The first grant was put toward a comprehensive study of the proposed corridor and was administered by the Pennsylvania Department of Transportation. This study was completed in the summer of 2007 and focused on: trade and tourism economic development opportunities that can be enhanced through improved transportation; transportation infrastructure needs to take advantage of these economic opportunities; and non-traditional sources of funding.
The second grant is being administered by the New York Department of Transportation and is directed to increase public awareness of Continental 1 and to establish a stable base for Continental 1’s continued operations. This work also involved conducting a comprehensive study of trade and travel corridors. The study began late spring of 2008.

2.6.5 Greater Buffalo-Niagara Frontier Urban Area Freight Transportation Study

This study, undertaken by the Greater Buffalo-Niagara Regional Transportation Council is to examine current truck, rail, air and marine freight movements to identify areas where system capacity improvements are required. It will comprise five technical memorandums and a final report. Major concerns to be addressed are: mobility and reliability; environmental improvement; economic stability and competitiveness; safety; and security.

The study will include the following:

- Description of the existing economy of the Niagara Region near the border and the relationship between the freight transportation system and its economy, and analysis of transportation’s impact on economic growth
- Benchmark of existing freight demand, capacity and operating characteristics
- Projected freight levels in the region for five-year increments through 2025
- Current levels of cross-border trade between the Niagara and Canada for five-year increments through 2025, and origin-destination (including trans-shipment points near border areas of cross-border freight movement)
- Assessment of the local transportation system’s ability to accommodate future freight growth
- Project or program proposals to address future freight transportation needs
- Analysis of public vs. private benefits of the proposals and a sensitivity analysis of their impact on the future economy of the area
- Terminal volume feasibility study to look at the amount of overseas shipping containers arriving or departing the Buffalo/Niagara Region via Canadian ports
- Preparation of a final report

A series of initiatives are proposed that will provide a catalyst for economic development. Because of the increasing demand for multi-modal freight transportation, emphasis is placed on facilitating integration among freight transportation modes. Specific initiatives are provided for motor carrier freight, rail freight, air cargo, maritime transport and logistics centres. Next steps include assessment of public and private benefits, and economic, cost/benefit and sensitivity analyses.

2.6.6 A Sustainable Strategy for Developing Hamilton as a Gateway

This report was prepared by the McMaster Institute for Transportation and Logistics and released in April 2009. It examines the City of Hamilton in terms of its potential as a
goods movement gateway serving the southern Ontario region. The main objectives of the research are the following:

- To enhance our understanding of the underlying factors and conditions needed to establish Hamilton as a gateway
- To analyze the patterns of transportation, and associated emissions, as well as economic and job creation impacts that are likely to emerge in the region under the different scenarios
- To promote sustainable transportation while maintaining economic growth and prosperity and assessing environmental impacts
- To outline a coherent vision and many of the associated steps in developing Hamilton into a successful gateway

The report highlights the forces behind seamless logistics: competitive pressures; externalization of production activities; inter-modality (relating to the ways separate modal systems can be brought together); time (e.g., just-in-time production); and the rise of e-commerce and e-business.

Successful gateway examples are reviewed and in the context of implications for Hamilton, with the following characteristics identified: emphasis on being uncongested; effective at building consensus, partnerships and alliances; very good at self-promotion; effective transport-focused organizations; embrace containerization. Comprehensive modelling and analysis exercises are presented at regional and local levels, addressing patterns of land-use, traffic congestion and resulting emissions.

It is concluded that Hamilton is already a significant economic player on a national and regional scale; yet has not reached its full potential from goods movement, sustainability or economic development perspectives. The need for a holistic approach is highlighted, balancing economic growth, population growth, infrastructure investments and sustainable practices. A multi-faceted approach is therefore proposed, leading to ten recommendations for developing Hamilton as a goods movement gateway:

1. Create a transport-focused gateway organization
2. Pursue prudent residential and public transit development to accommodate gateway growth
3. Enhance Hamilton’s image through appropriate marketing
4. Pursue targeted developments near the airport
5. Develop containerization facilities at the Port
6. Pursue intensified use of Hamilton’s business parks
7. Emphasize brownfield development
8. Adopt sound taxation and regulatory policies
9. Develop human capital
10. Continue to maintain and improve Hamilton’s existing transport infrastructure

Hamilton lies within the Study Area. The findings of this report confirm the transportation issues in the Study Area and the recommendations will be re-evaluated as part of the next stage of work.