

**EASTERN ONTARIO TRANSPORTATION AND
LOGISTICS COMPETITIVE ANALYSIS
EXECUTIVE SUMMARY**

Prepared for:

Ontario East Economic Development Commission

by

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- Ministry of Transportation

The opinions expressed are those of the authors.

EXECUTIVE SUMMARY

The Research and Traffic Group was engaged by the Ontario East Economic Development Commission to undertake an assessment of the competitive position of Eastern Ontario from a transportation and logistics perspective. Specifically, the project includes an in-depth analysis of transportation and logistics issues specific to the automobile sector, focussing on those factors which may influence parts producers in selecting plant site selection. At present there are about 35 auto parts manufacturing plants in Eastern Ontario. In addition there are about 20 information communication and technology (ICT) companies providing products to the auto sector.

The *Terms of Reference* define the study area as follows:

Eastern Ontario includes 113 municipal entities with the following boundaries: on the east by the Counties of Stormont, Dundas & Glengarry and Prescott & Russell; on the north by the Ottawa River, including Renfrew County; on the west by the City of Kawartha Lakes, and the Counties of Peterborough and Northumberland.

The study involved a detailed assessment of the transportation competitiveness of select origins in the study area in accessing select Canadian and U.S. OEM's and Tier 1 parts producing locations in both countries. Sixteen communities from across Eastern Ontario were compared to locations in:

- southwestern Ontario;
- U.S. cities in the Great Lakes states;
- midwest U.S.; and
- eastern U.S.; and
- southern U.S.

Conclusions

This competitive analysis will be used specifically as part of the Ontario East Economic Development Commission's Eastern Ontario Automotive Sector Strategy, a partnership with a multi-Ministry team from the Government of Ontario. While it is difficult to generalize we found that in most cases:

- Study area origins can competitively access OEM's and tier 1's within the GTA compared to all competing sources.
- Study area origins can competitively access southern U.S. and Mexican markets compared to origins in southern and southwestern Ontario.

While other markets may be accessed at a lower transportation cost from closer competing locations it is clear that transportation cost is only one of many factors influencing competition. Many of those parts producers interviewed, in addition to relatively local markets, had customers in distant locations in the U.S. and some in Mexico.

Based on the evidence found through this analysis there is opportunity for the Ontario East Economic Development Commission to attract new auto parts manufacturing investment to the region.

The rates developed in this study for the automotive parts industry will generally apply to most secondary manufactured and consumer goods. In particular, the comparative analysis of rates

from study area origins vs. those from southern and southwestern Ontario will be generally valid for all similar goods.

Findings

Eastern Ontario is well served by the provincial highway network of both 400 series highways and two lane routes. Routes crossing the GTA are subject to delay at predictable periods during the early morning and late afternoon but unpredictable delays caused by collisions or disabled vehicles can cause significant unforeseen delays at any time. Completion of the eastern extension of 407 may relieve congestion on Highway 401 by diverting automobile traffic.

Eastern Ontario has a good network of rail infrastructure and connections and the easternmost study area locations are well sited for access to the Port of Montreal.

According to those interviewed, Customs and border security procedures can usually be accomplished in reasonable timeframes provided the protocols of the various border crossing and Customs clearance programs are followed.

Truck is the pervasive transportation mode within the automotive parts industry and is dominant in Eastern Ontario. There appeared to be a high degree of competition among service providers and no lack of service availability at competitive prices. This assessment is comparable with that noted outside the study area.

Same day truck service is available to all receiving locations within Ontario and to locations in border U.S. states. Most other U.S. locations can be accessed on a next day basis.

Distance from OEM's appears to be only one of several factors in determining sources of parts supply. More critical factors are total (delivered) price, quality, consistent and timely delivery. However, there appears to be a preference for large parts to be available from nearby sources and for certain assemblers to prefer to have key suppliers within one to three hours. The cost of transportation is often a relatively minor component of the overall competitive aspects of location in the automotive parts industry.

Border congestion delays clearly provide a barrier to access to the U.S. market but they do not offer any competitive disadvantage to parts produces in the study area vs. those located elsewhere in the province. The primary infrastructure barrier for eastern Ontario is the congestion in the GTA.

There would appear to be opportunity for further exploiting the study area's border location by bringing goods in by rail or the heavier truckloads allowed in Canada and shipping out by truck across the Thousands Islands Bridge to the U.S. market.

Chapter Summaries

CHAPTER 1 and CHAPTER 2 (Introduction and Study Conduct)

Automobile assembly plants depend on a steady supply of parts from which to assemble product. There is a lengthy supply chain feeding each assembly plant that can ultimately be traced back to sources of steel, aluminum, plastic, and other feedstock.

Some automotive parts suppliers produce parts for the aftermarket (replacement parts) as well as for the original equipment manufacturer (OEM). Tires, brakes, and exhaust systems are typical aftermarket products. Distribution networks differ significantly between OEM parts distribution and parts distributed to independent parts supply companies and major retailers of automotive parts and service.

Most parts producers have some core business within a same day or next morning delivery distance (about 800 km) while three hours (150-200 km) is considered a more desirable delivery distance. It is important though to appreciate that there are no firm rules governing distance between supplier and assembler. The economies of scale gained from long production runs of a particular part may offset transportation costs to distant and widely dispersed customers.

Globally, there is steady growth in automotive assembly and parts production in developing countries, notably in China, India, and Eastern Europe.

In 2005, Canada exported \$22 billion of auto parts to the U.S., an amount that has been relatively constant over the six-year period 1999-2005. In the same year, 2005, Canada imported \$32 billion of auto parts from the U.S.

Due to changing market demand and competition from the new domestic suppliers, there is general consensus that each of the traditional assemblers will have to restructure substantially and that this will involve closure of some of the existing assembly plants, sale of equity interest in parts suppliers, and potentially more outsourcing of assembly work.

Interview Guides were developed using mostly open-ended questions with the goal of encouraging the interviewee to provide insight into the importance of transportation and logistics to that company and to learning about how the interviewee (or his company) views eastern Ontario. The methodology and analysis relied heavily on information and data gathered in interviews. Over 70 interviews were conducted successfully including with five of the six Ontario automotive assemblers, parts producers within and outside the study area, freight carriers operating to and from the region, industry association representatives, government officials knowledgeable about the automotive industry and international bridge authorities.

CHAPTER 3 (Road Network, Borders and Routings)

Road Network

Industries and carriers interviewed identified improvements to Ontario highway infrastructure that they believed would be beneficial in enhancing the flow of goods between the study area and key markets. Specifically, they identified six laning of the 401 east of Port Hope, improving traffic flow through the Greater Toronto Area (GTA), completing Highway 407 to Highway 35/115, and improving access to international crossings at the Niagara Frontier and Michigan.

The current Ministry of Transportation five year plan includes some limited widening to six lanes in the vicinity of Port Hope and Kingston and further widening to ten lanes in the vicinity of Ajax. However, most of the planned capacity improvements are focused west of the GTA and between the GTA and the U.S. border. There is no budgeted commitment to complete Highway 407.

Borders

Five of the seven busiest truck crossings between Canada and the United States (Ambassador Bridge is ranked number 1 and the Thousands Islands Bridge is number 7) are closely related to this study while one, Lacolle, PQ (number 5) may be of lesser current interest – but of potential future interest. The crossings at Cornwall and Johnstown (Prescott) are not among the top 20. Even before the traffic disruption post 9/11 there were serious congestion problems at some locations, most notably the Windsor-Detroit crossing although congestion also occurs from time to time at the other crossings. Since then, security concerns heightened the levels of scrutiny at all border points. This led to serious problems with the regular just in time flow of goods for the automotive industry between Ontario and the U.S.

Interviewees indicated that serious problems crossing the border for regular truck commerce appear to have diminished recently. According to those interviewed, Customs and border security procedures can usually be accomplished in reasonable timeframes provided the protocols of the various border crossing and Customs clearance programs are followed.

Plans are being developed or are underway to upgrade most of the major border crossings pertinent to the transport of Eastern Ontario auto parts. A new crossing is being planned between Windsor and Detroit and upgrades to infrastructure and/or border facilities are expected at Cornwall-Massena, the Thousands Islands Bridge (Ivy Lea-Alexandria Bay), Peace Bridge (Fort Erie-Buffalo) and the Blue Water Bridge (Sarnia-Port Huron). Details of the border crossing programs are set out in the chapter.

Routing

In particular it was found that four factors bearing on costs influence carrier routing selections:

- Toll road avoidance, particularly the New York Thruway, the Pennsylvania Turnpike, and Highway 407 in Ontario.
- Avoidance of jurisdictions with higher taxes, particularly fuel taxes such as in New York State and Pennsylvania
- Avoidance of locations with traffic congestion such as the GTA, the general vicinity of New York City and congested international crossings.
- Generally minimizing mileage not only to control vehicle operating costs but also because company drivers and owner operators are paid by the mile.

Much of the movement of auto parts into and out of the U.S. involves two way moves – parts in one direction and return of racks and totes in the other. Other operations involve two distinct freight movements. The chapter details the restrictions placed on the use of foreign equipment and drivers that can affect carrier ability to solicit return loads and to operate efficiently.

While the Thousand Islands Bridget route may not always show as the preferred route to the southern U.S. based on computer logic, other factors may weigh in favour of the route with goods ultimately routing that way. Accordingly, the importance of the Thousand Islands Bridge and I-81 to Eastern Ontario should not be minimized.

CHAPTER 4 (Rail and Marine Services)

Eastern Ontario has a good network of rail infrastructure and connections. The two national Canadian railways, Canadian National (CN) and Canadian Pacific (CP), have high capacity main lines running through the area that connect with other smaller Canadian railways and with the major U.S. railroads at Montreal, the Niagara Frontier and the Ontario-Michigan gateways.

Railways operate in a much more restrictive market (than truckers) with shippers having access to only one or at best two major carriers –although there are numerous situations where rail also competes with truck or marine modes for business. All assemblers in Canada (except Daimler Chrysler) have access to the services of at least CN or CP.

During the past twenty years, the number of major railroads in the U.S. has declined drastically resulting from two main forces, bankruptcy and mergers. There remain only four major U.S. domiciled railways Norfolk Southern and CSX Transportation in the east and Burlington Northern Santa Fe and Union Pacific in the west.

CN and CP operate conventional intermodal terminals at Montreal and Toronto that handle goods moving across the continent. Triple Crown, a subsidiary of the Norfolk Southern Railway offers a “RoadRailer” service via CN’s Concord Yard at Toronto to and from selected destinations in the U.S.

The marine mode does not directly handle auto parts traffic into or out of Eastern Ontario. All shipments to or from the East Coast are routed overland by truck (to Montreal, Toronto, US East Coast ports) while trans-Pacific movements are trucked to/from rail intermodal terminals at Montreal and Toronto.

CHAPTER 5 (Transportation Rates)

Trucking Services

Truck is the pervasive transportation mode within the automotive parts industry. Parts can be easily accommodated within tandem axle 53 foot dry van semi-trailers, which are standard within the trucking industry for commodities that fill a trailer without exceeding maximum weight limits.

Essentially truckers today do not accept any business at prices that do not cover fully allocated costs. The days of backhaul rates prevalent in the last century, where carriers would run for little more than gas money are, for the most part, over. If the carrier must drive empty for a portion of the return trip, before picking up a load, the cost of the empty return miles are generally reflected in a higher cost on the original out bound movement.

Automotive parts are normally shipped in totes or bins or on racks or pallets, most of which are returnable. Many of the companies interviewed indicated that these materials handling items were returned on a ratio of one return load for each outbound load. In some cases items were collapsible so that the return ratio was one return load for two or three outbound loads.

Same day service is available to all receiving locations within Ontario and to locations in border U.S. states. Most other U.S. locations can be accessed on a next day basis. West coast or some Mexican border destinations would normally be third day delivery with one driver (550 miles per day average) but second day service is possible with a team of two drivers.

The primary cost component of truck operation is labour. For several years there has been an emerging shortage of truck drivers and the average age of drivers has been steadily climbing. Drivers are engaged either as “company drivers” to operate company owned trucks or as “owner operators” who own their tractor and provide a long term contract service for the company. Contracts incorporate a fuel surcharge that is usually recalculated weekly, based on reference to prevailing fuel prices and an agreed benchmark.

Currently in Ontario, a driver may not drive a truck after having driven for 13 hours or having been on duty for 15 hours without first taking 8 consecutive hours off duty. In the U.S., federal *Hours of Service* regulate driving time for drivers that cross state lines. Under the most recent *Hours of Service* rules, drivers cannot drive more than 11 hours for every 10 hours they are off duty.

Other Transportation Modes

Domestic intermodal services are not commonly employed in the automotive parts industry in Canada (except to Western Canada) although there is considerable use of domestic intermodal within the U.S. on Triple Crown’s RoadRailer service.

Offshore import and export marine container services are provided to the study area via the Canadian ports of Montreal, Halifax, and Vancouver as well as New York, Baltimore and U.S. west coast ports. Containers move between the study area and the ports of Montreal and New York by truck and by rail (rail is frequently used to Toronto with the container then moved to destination by truck). There is no available domestic or transborder marine service suitable for moving automotive parts to, from, or within the study area.

Regular use of air freight service within the automotive industry is minimal and restricted to very high value items or those requiring tight security such as VIN plates but it can be used occasionally to meet customer demand in the event of production or surface transportation system failures.

Transportation Rates

Confidential truck rate information was provided by parts producers and carriers. Little difference was noted among rates for comparable services. For shipments to OEM's, the transportation arrangements are usually made by the assembler or through a contracted third party logistics provider. This minimizes transportation costs due to the large volume of business being transacted, particularly when collection routes for less than truckload shipments are being established. Carrier costs are influenced by delays at border crossings and transiting the GTA. Consistent delays are likely to eventually influence rates.

Truckers' freight rate quotations are generally all-inclusive price with the exception of the fuel surcharge, which is calculated separately because of the wide fluctuations in fuel prices. These all inclusive rates include such things as international bridge crossing tolls.

Charges for highway tolls are not assessed because carriers avoid toll roads wherever possible. However, if a shipper wants a particular shipment expedited, and toll roads are used, the carrier will generally advise the shipper that any highway toll costs will be an additional charge.

Ocean freight rates (including truck transfer) for offshore movement via Montreal for the Smiths Falls and Hawkesbury origins should be no higher than for Peterborough or Belleville (via Toronto). For shipments between Asia and Eastern Canada (using Vancouver or West Coast US ports), there is little, if any, difference in overland charges between the West Coast and either Montreal or Toronto. Accordingly, Eastern Ontario points could have a rate advantage over some other Ontario points.

Despite repeated calls and assurances that information would be kept confidential the Canadian railways declined to provide any useful rate data. Ton-mile rate data for automotive traffic was obtained from the U.S. Surface Transportation Board.

CHAPTER 6 (Eastern Ontario's Transportation Competitiveness)

In interviews with parts producers and trucking companies within the study area there appeared to be a high degree of competition among service providers and no lack of service availability at competitive prices. This assessment is comparable with that noted outside the study area.

Transportation Routing

Access to OEM locations in Ontario apart from Oshawa, generally requires movement through the GTA. Movements between Eastern Ontario and the U.S. can be routed over any of the several St Lawrence River crossings, most notably at the Thousands Islands. In discussions with carriers and shippers, it was noted that this crossing was used for eastern seaboard and southern U.S. destinations even in cases where the mileage may be slightly longer than using

Michigan crossings. However, it was not considered a viable option to access the U.S. midwest due to the level of state taxation and tolls on the New York State Thruway and the Pennsylvania Turnpike. Distance from OEM's appears to be only one of several factors in determining sources of parts supply.

More critical factors are total (delivered) price, quality, consistent and timely delivery. However, there appears to be a preference for large parts to be available from nearby sources and for certain assemblers to prefer to have key suppliers within one to three hours. Furthermore, as distance increases so does the transportation cost component and the opportunity for delay in transit.

GTA Congestion

Congestion within the GTA and its effect on transportation costs, services and timely delivery was mentioned by almost all those interviewed as being a significant barrier in conducting their business with customers or suppliers located in, or west of, the GTA.

In December 2004 the Ontario Minister of Transportation, in a forward to a Technical Report on Goods Movement in Central Ontario prepared by iTrans Consulting, committed to a seven point program to develop "*long-range transportation strategies . . . to move goods into and through central Ontario.*" Of the seven points, highway expansion, border investment and initiatives, the Freight Forum, and Long Combination Vehicles appeared to be the most promising.

The study area is well served by the provincial highway network of both 400 series highways and two lane routes. However, access to OEM locations in Ontario apart from Oshawa, generally requires movement through the GTA. (Some origins in the northwestern part of the study area can access Alliston via Highway 9 thus avoiding the most congested parts of the GTA).

Examination of the Ontario Ministry of Transportation's (MTO) current five-year plan for highway development reveals several initiatives to address GTA congestion. These focused primarily on providing additional lanes on Highway 401 at the eastern extremity of the GTA and in providing High Occupancy Vehicle lanes on segments of the Queen Elizabeth Way (QEW). There is no current financial commitment to completing Highway 407 to link with Highway 35/115, nor to increasing lanes on Highway 401 at the western extremity of the GTA. An updated five-year plan is expected following the provincial budget in the spring of 2007.

However, several planning activities are underway within MTO for potential future highway development that may ease GTA congestion and improve truck movement between eastern Ontario and points to the west. Environmental assessment for the eastern extension of Highway 407 beyond Brock Road is underway. The recommended routing is an extension eastward to Highway 35/115 and two north-south links within Durham Region that will connect with Highway 401.

Border Issues

Efforts among the various levels of government on both sides of the border to address the need for an additional crossing at Windsor have been underway for several years. The location of a new crossing has yet to be established and its completion is estimated to be eight to ten years in the future. There have also been proposals to convert an existing rail tunnel for exclusive use by trucks but there are no evident plans to proceed.

MTO has planned lane additions to highway 401 in southwestern Ontario that will improve access to both Windsor and Sarnia crossings but they will not address the local congestion problems leading to the border.

Additional lanes are planned by MTO for the access to the Blue Water Bridge and planned lane additions on the QEW in St. Catharines and in Niagara Falls will improve access to the Niagara Frontier.

Just beyond the eastern extremity of Ontario, Transport Canada and the Quebec Ministère des Transports plan to extend Highway 30 (as a toll road) from the Chateauguay area to meet with Highway 20 near Vaudreuil. This will allow an effective by-pass of Montreal and much quicker access to the border crossing at Lacolle.

The Thousand Islands Bridge route can experience congestion at peak travel times. This mostly occurs on weekday afternoons when traffic can be backed up to Highway 401.

Border congestion delays clearly provide a barrier to access to the U.S. market but they do not offer any competitive disadvantage to parts producers in the study area vs. those located elsewhere in the province. The primary infrastructure barrier for eastern Ontario is the congestion in the GTA.

As with border congestion issues, Customs clearance and security formalities do not offer any competitive disadvantage to parts producers in the study area vs. those located elsewhere in the province.

The greater the distance any destination is from Ontario then the less the proportionate disparity between eastern and southwestern Ontario origins.

Study Area Competitiveness

The Chapter provides a detailed assessment of the transportation competitiveness of select origins in the study area in accessing select Canadian and U.S. OEM's and Tier 1 parts producing locations in both countries. Sixteen communities from across Eastern Ontario were compared to locations in:

- southwestern Ontario;
- U.S. cities in the Great Lakes states;
- midwest U.S.; and
- eastern U.S.; and
- southern U.S.

The following classifications were used to determine competitiveness:

- significant rate advantage – where the Eastern Ontario origin is more than 50% less expensive;
- rate advantage – where the Eastern Ontario origin is 15% to 50% less expensive;
- similar – where the Eastern Ontario origin is +/- 15% different; and
- disadvantage – where the Eastern Ontario origin is more than 15% more expensive.

The following table provides a summary of the competitiveness of Ontario East for the shipment of parts to select OEM destinations.

Delivering to OEMs: Transportation Price Competitiveness of Eastern Ontario

OEM Destination	vs. Southwestern Ontario (London)	vs. Upper Midwest U.S. (IN and OH)	vs. Southern U.S. (NC and VA)
GM Oshawa	Advantage when west of Kingston	Significant advantage or advantage throughout Ontario East	Significant advantage or advantage throughout Ontario East
Ford Oakville	Similar when west of Cobourg, and disadvantage elsewhere	Significant Advantage for Kokomo origin and west of Kingston for Cleveland origin.	Significant advantage throughout Ontario East
DCX Brampton	Similar when west of Trenton	Significant advantage for 23 comparisons, advantage for 5 and similar for 4.	Significant advantage throughout Ontario East
Honda Alliston	Competitive from Cobourg-west/north, similar west of Kingston	Significant advantage or advantage for 30 of 32 comparisons.	Significant advantage throughout Ontario East
Toyota Cambridge	Disadvantage throughout Ontario East	At least an advantage when west of Kingston for Cleveland origin and throughout for Kokomo origin	Significant advantage throughout Ontario East
DCX Windsor	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Significant advantage or advantage throughout Ontario East
GM Lansing, MI	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Significant advantage or advantage throughout Ontario East
GM Janesville, WI	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Advantage or similar throughout Ontario East
Honda, E. Liberty, OH	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Ontario East similar for 24 comparisons, disadvantage for 8.
GM Spring Hill, TN	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East
Toyota, Georgetown, KY	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East
Hyundai Montgomery, AB	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East
Laredo, TX (Mexican OEMs)	Competitive west of Kingston	Disadvantage throughout Ontario East	Competitive for 5 comparisons, disadvantage for 27.

The following table provides a summary of the competitiveness of Ontario East for the shipment of parts to select Tier 1 parts producing destinations.

**Delivering to Tier 1 Parts Suppliers:
Transportation Price Competitiveness of Eastern Ontario**

OEM Destination	vs. Southwestern Ontario	vs. Upper Midwest U.S.	vs. Southern U.S.
Newmarket	Significant advantage or advantage west of Brighton, similar for Trenton/Belleville and disadvantage elsewhere	Significant advantage or advantage when west of Hawkesbury/Cornwall, where it is similar for Cleveland origin. Significant advantage throughout for Kokomo origin.	Significant advantage throughout Ontario East
Guelph	Disadvantage throughout Ontario East	At least an advantage from Kingston-and-west for Cleveland origin and throughout for Kokomo origin	Significant advantage throughout Ontario East
London	Disadvantage throughout Ontario East	Significant advantage for 11 comparisons, advantage for 10, similar for 6 and disadvantage for 5.	Significant advantage for 31 comparisons, advantage for 1.
Massena, NY	Significant advantage in 42 comparisons, advantage in 5, and similar for 1 (Lindsay-vs-Newmarket).	Significant advantage throughout Ontario East	Significant advantage throughout Ontario East
Kokomo, IN	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Advantage for 5 comparisons, similar for 24, disadvantage for 3.
Cleveland, OH	Disadvantage for 44 comparisons, similar for 4.	Disadvantage throughout Ontario East	Advantage or neutral throughout Ontario East
Detroit, MI	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East	Significant advantage or advantage throughout Ontario East.
Richmond, VA	Similar for 45 comparisons disadvantage for 3.	Similar throughout Ontario East for Kokomo origin. Disadvantage throughout Ontario East for Cleveland origin.	Disadvantage throughout Ontario East
Gastonia, NC	Similar for 25 comparisons, disadvantage for 23.	Disadvantage throughout Ontario East	Disadvantage throughout Ontario East

While it is difficult to generalize it was found that in most cases:

- study area origins can competitively access OEM's and tier 1's within the GTA compared to all competing sources.
- study area origins can competitively access southern U.S. markets compared to origins in southern and southwestern Ontario.

While other markets may be accessed at a lower transportation cost from closer competing locations it is clear that transportation cost is only one of many factors influencing competition and may be as low as 1% of total costs. Many of those parts producers interviewed, in addition to relatively local markets, had customers in distant locations in the U.S. and some in Mexico.

Non – automotive Industries

The rates developed in this study for the automotive parts industry will generally apply to most secondary manufactured and consumer goods. In particular, the comparative analysis of rates from study area origins vs. those from southern and southwestern Ontario will be generally valid for all similar goods.

There would appear to be opportunity for further exploiting the study area's border location. Across Canada there are several examples of logistics activities at border points for the redistribution of commodities produced in the hinterland and shipped by rail or truck to points adjacent to the border for export to the U.S. Typically, product is shipped to the border point by rail or in heavy truckloads and then redistributed by truck to destination. There are a number of reasons why such activity is economic:

- Rail transportation may be the most economic mode for the commodity but the eventual customer may not have rail access and consequently requires truck delivery.
- The Canadian railway may provide advantageous rates to a Canadian border destination because it can control its equipment return but may charge significantly higher rates for an interline movement that has to be transferred to a U.S. railway for eventual delivery.
- The higher maximum gross vehicle weight limits in Canada than in the U.S. make it economic to ship heavy truckloads to a Canadian border point for redistribution in lighter loads within the U.S.
- The closer proximity to destination of the facility can be used advantageously to mix partial loads of different products into single shipments.
- Positioning inventory at the border may facilitate a more prompt and competitive response to U.S. customer demand than shipping from a more distant Canadian origin.

CHAPTER 7 and CHAPTER 8 (Competitive Advantages and Disadvantages and Positioning Eastern Ontario's Advantages)

Disadvantages

- Traffic congestion within the GTA that results in increased and uncertain transit times for access to destinations west of Toronto is the most significant transportation disadvantage for Eastern Ontario.

Positioning Automotive Advantages

- Focus automotive parts industry development around supplying GM Oshawa, Ford Oakville, Honda Alliston and Daimler-Chrysler Brampton exploiting the competitive advantage over supply origins west of the GTA and in the U.S.
- Explore opportunities to attract Tier 1 suppliers of components of relatively high value to weight and cube ratio where transportation cost is a lower contributor to overall delivered cost than lower value heavy or bulky components.
- Focus on Tier 2 suppliers where delivery schedules to clients may be more flexible than for Tier 1's.
- Identify potential Tier 2 suppliers that can competitively access Tier 1 locations via the St. Lawrence River bridges (e.g. Massena, NY).

Positioning Non – Automotive Advantages

- Identify other industries with national or continental distribution where transportation costs and transit times are less sensitive than the automotive industry.
- Seek opportunities for distribution operations that can take advantage of access to population concentrations in the GTA and western Quebec as well as the northeastern U.S.
- Explore opportunities for border trans-loading or reload centres for commodities such as lumber.
- Utilize advantage of proximity to both markets in the GTA and western Quebec.
- Take advantage of ability to undertake economic national distribution through intermodal terminals located in Toronto and Montreal as well as trucking services.
- Access to U.S. eastern seaboard and southern markets via the Thousand Islands Bridge and via Quebec is a competitive advantage that can be leveraged.
- The presence of an extensive rail network facilitates receipt of large shipments of raw materials and for outbound shipments or rail-oriented finished products.

Addressing and Overcoming the Disadvantages

- Clearly identify to the Ontario government the inhibiting effect of GTA congestion on the industrial development of eastern Ontario.
- Maintain a watching brief on all planned and potential highway developments and improvements that may ease GTA congestion and press for steady progress and early completion.
- Promote research, using GPS technology, to accurately quantify the cost and other implications of GTA congestion on truck movements transiting the area.
- Focus on automotive parts/high value parts where cost of transportation is insignificant in overall product costs.