Québec/Ontario High Speed Rail Project: Effects On The Urban System & Settlement Patterns

Project No. TRA-9004(412)

APPENDIX

February 1995
(Revised June 1995)

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IMPLICATIONS OF URBAN SYSTEMS THEORY ON HSR: A BRIEF SUMMARY

APPENDIX A: URBAN SYSTEMS THEORY — A BRIEF SUMMARY

A High Speed Rail system through a 1,200 kilometre corridor clearly constitutes a transportation investment of major significance. Because of the infrequency of projects of this nature, empirical evidence of its likely effects is not readily available. Therefore, transportation and urban growth theory is of particular importance to this study. Fortunately, extensive research has been undertaken into the general effects of transportation on urban systems and this Appendix provides at least a brief summary of the main tenets. A bibliography is contained at the end of this Appendix for those wishing to explore the subject in more detail.

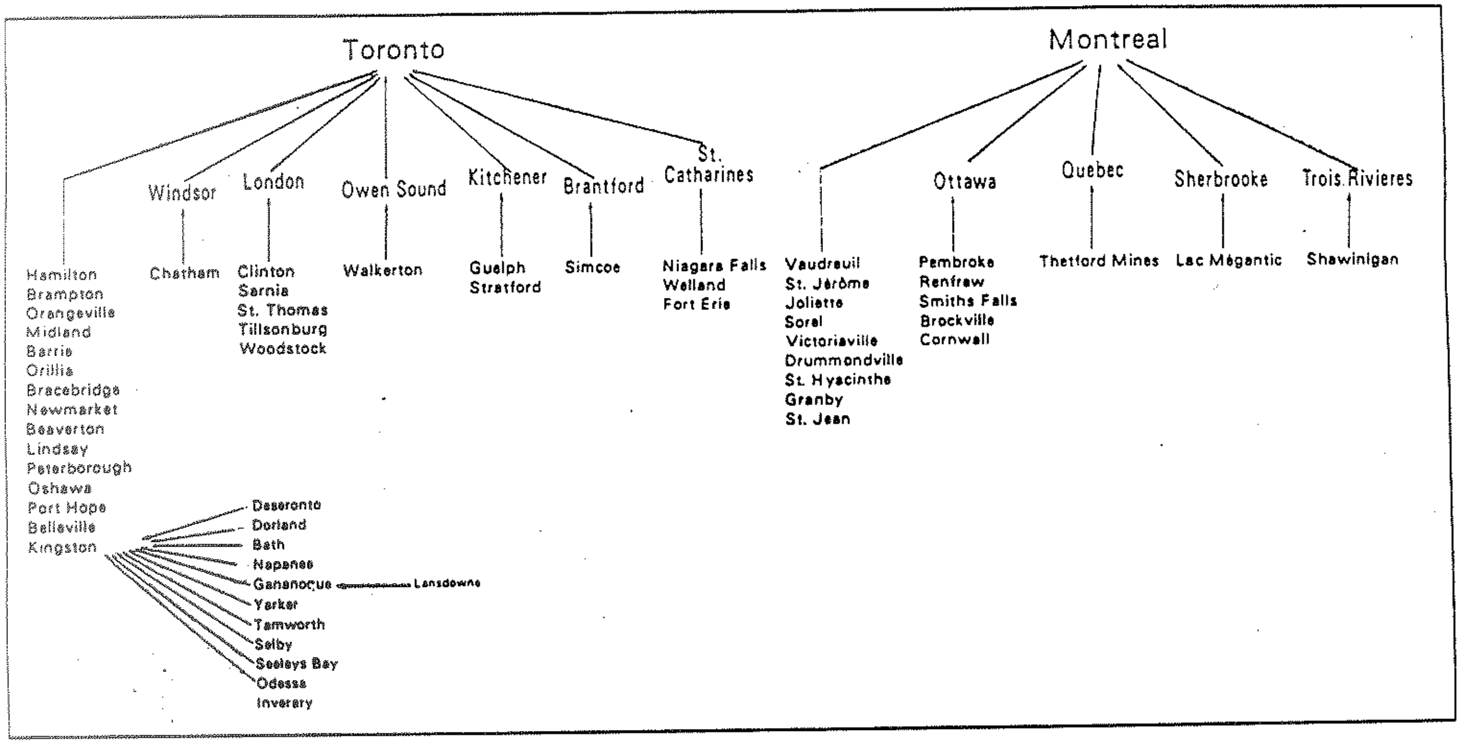
1.0 CITIES ARE ORGANIZED INTO "SYSTEMS"

There is a well-established theory of urban systems. Generally, the theory suggests that individual communities lie within "urban systems" which are defined by inter-community linkage patterns. These systems can be considered from a variety of geographic scales, from a global system of major metropolitan centres, to a national system of regional/local centres, to a provincial/sub-provincial system of centres. Within each system there is a clear hierarchy of cities and there has been a general trend towards increasing linkages between these areas (Exhibit A-1).

The spatial hierarchy under which cities are organized, according to the theory, is based on the following economic reasoning:

Exhibit A.1

A HIERARCHY OF COMMUNITIES EXISTS IN THE CORRIDOR



Source: "Main Street - Windsor To Quebec City", Maurice Yeates. 1975

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- Cities are located according to unique locational advantages/disadvantages;
- Economies of scale suggest that the bigger the trade area, the lower the average cost of delivery;
- Friction of distance mean that some activities have to continue being operated in smaller communities; and
- A hierarchy of cities allows for a spatial trade-off between centralizing and dispersing forces.

Urban systems theory also suggests that linkages between communities are a reflection of social and economic interaction. In general, urban systems benefit from increased accessibility between communities as a result of greater social and economic linkages between places.

There is a relationship between inter-urban accessibility and a hierarchy of cities. With increasing ease of getting from one community to another, there is an increasing opportunity for the cities within a system to establish more social and economic linkages, thus becoming more hierarchical and efficient.

2.0 IMPROVED ACCESSIBILITY BETWEEN COMMUNITIES WILL CONCENTRATE GROWTH IN LARGEST AREAS

Concurrent with improvements in transportation of all types and reductions in the cost and time of access between communities, there has been a continuing trend towards increased concentration in large cities over time. This relationship between transportation improvements and urbanization is based on the following logic:

- **Increased Economies Of Scale Can Be Realized If Transportation Costs Between Communities Are Reduced**

  Numerous academic studies have been undertaken showing the relationship between improvements to transportation (accessibility) and the resulting impact on urban systems. Generally this body of thought suggests that, with reduced costs of interaction between communities, there is an opportunity for economies of scale to be achieved by locating in larger urban areas. As an example, with poor accessibility between communities, it may be necessary to have construction companies in a number of medium-sized communities, such as Hamilton, Kitchener-Waterloo, London, and Oshawa, as well as in Toronto. But with increased accessibility between communities, creation of larger centralized construction companies located in the largest centre (Toronto in this example) may become the more efficient way of servicing these communities.

- **Larger Multiplier Effect In Larger Communities**

  A second reason for the increase in urban concentration over time is that there is a larger multiplier effect in larger communities. This means that any event which triggers growth (such as increasing manufacturing employment, increasing retail sales, increasing immigration) will result in more spin-off benefits to larger communities than to smaller communities. Extending the construction company example, a firm located in Toronto can obtain all its supplies from within Toronto. As well, its employees will tend to spend all of their retail expenditures within Toronto. A company in a smaller community may have to purchase supplies from elsewhere (an outflow from the local community) and its employees would tend to shop in other communities for many higher order goods (again, an outflow from the local community).

- **Empirical Research Confirms This Theory**

  Study after study has confirmed this trend towards increasing urban concentration, not only in Canada but in many other areas of the world. The investigations point to the fact that:

  - There have been steady reductions in the cost/time of access between places;

  - This has reduced the friction of distance; and

- Better accessibility means that bigger places tend to usurp the activities of smaller places:

    - Reduced friction of distance increases opportunities for greater economies of scale (more activities can be done from a single office); and

    - More activities done (trade areas served) from locations higher in the hierarchy.

In fact there are clear temporal links between significant innovations in transportation technology (introduction of trains, automobiles, airplanes, etc.) and the resulting patterns of urban settlement.

Thus, increasing urban concentration results from the economies of scale. These can be achieved in larger places given reduced transportation costs. When combined with the larger multiplier effect in larger communities, they provide a clear explanation for the observed trend of increased urbanization and concentration within communities at the top of the urban hierarchy.

The implication of this theory is that an HSR system should, in principle, foster concentration within larger areas because of an improved ability to conduct business and achieve economies of scale. The corollary is that communities which get by-passed would, in principle, become more peripheral within the hierarchy of cities.

3.0 THERE ARE STRONG PRESSURES FOR DECONCENTRATION *WITHIN* LARGER URBAN AREAS

Over the last two decades while larger urban areas, such as Toronto, Montréal, and Ottawa-Hull, have become relatively larger within the hierarchal system, they have also experienced substantial internal pressures to become more physically dispersed. This is the result of residents and employers taking actions to overcome declines in intra-centre accessibility (congestion) that occur as the size of the centres grow. For example, employers have found that relocating to peripheral locations with excellent transportation access can reduce travel time for employees. This also enables them to reduce their costs of operations (e.g. lower land costs, or rents). This trend towards deconcentration has been facilitated by steady transportation improvements within communities which allow both residents and businesses to be more locationally flexible.

These pressures for deconcentration within larger urban areas are well documented in many communities in North America and the world.

The pressures for deconcentration are less clear in smaller communities where there is not as much intra-urban congestion.

4.0 THERE ARE ALSO MANY EXTERNAL FACTORS WHICH STRONGLY AFFECT SETTLEMENT PATTERNS

There are many factors which will significantly affect Corridor growth and settlement patterns. In many situations, these factors are unrelated to whether or not HSR or other infrastructure investments are built. Recent research into this question has concluded that it is very difficult to isolate the impact on settlement patterns of specific transportation infrastructure proposals. Rather, it appears that external social and economic trends have the most significant effect on settlement patterns.

> *"The reorganization of urban systems, defined here as a substantial change in the relative size, role and interdependence of member cities, is largely determined by events occurring outside the system. Autonomous urban systems change very slowly and*

> *predictably. Open systems have the potential for very rapid change."*[1]

The Québec-Windsor Corridor, when viewed as an urban system is, by and large, "open" to a wide variety of external social and economic factors which could significantly change future settlement patterns.

Typically external factors which affect growth in the Corridor are international events, such as the collapse of communism, third world turmoil or economic globalization. Events of this nature have traditionally had major effects on immigration to Toronto and Montréal. By the same token, economic factors such as the North American Free Trade Agreement, or an oil embargo have significant impacts on the outlook for growth in the Corridor and on settlement patterns.

The extent to which these external factors dictate urban system growth and change reduces the relative significance of internal changes such as the construction of an HSR system.

5.0 URBAN SYSTEM THEORY IS DIFFICULT TO APPLY TO SPECIFIC INFRASTRUCTURE PROPOSALS

Although urban system theory has been well developed, it would be wrong to assume that it can be used to directly predict the effects that an HSR would have on communities within the Corridor. For the theory to be applied with any accuracy, it would be necessary for all other factors which influence communities to remain constant. This is clearly not how the world works.

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[1] *"The Reorganization of Urban Systems: The Role & Impacts of External Events", Jim Simmons, Research Paper 186, Centre for Urban and Community Studies, University of Toronto, September 1992, p. i.*

The fact that cities have developed extensive and complex linkages, many of which do not even involve the transport of passengers or goods, makes it very difficult to isolate the effect of a single, albeit very significant, investment, such as an airport or a new railway. Indeed, as was noted above, much of the academic work suggests that, compared to external factors, internal initiatives tend to only produce relatively minor results.

The theory of transportation and urban systems suggests that an HSR would improve the growth prospects of communities within the Québec-Windsor Corridor. This would be the result of improved inter-community accessibility fostering a more efficient system. More detailed effects, however, cannot be predicted based on theory alone. Despite this weakness, urban systems theory does provide an important framework within which to consider practical implications of the HSR.

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APPENDIX B

HSR EXPERIENCE IN FRANCE AND GERMANY

APPENDIX B: EFFECTS OF HSR TRANSPORT ON URBAN CENTRES IN OTHER COUNTRIES

1.0 INTRODUCTION

This Appendix provides a brief summary of the documented effects of HSR systems on urban centres and communities based on a review of literature from France, Germany and Switzerland. The material in this appendix is organized as follows:

- Nature of an HSR system;
- Effects at the super-regional level;
- Regional development travel patterns;
- Economic development;
- Tourism; and
- Urban areas.

Most of the literature focuses on the French experience simply because it is the only place with any extensive experience with an HSR system. This is particularly true in terms of the potential effects on settlement patterns and urban systems.

2.0 THE NATURE OF AN HSR SYSTEM

Before reviewing its effects on the urban fabric, it is important to emphasize a basic principle behind existing HSR systems that may sound obvious but which is fundamental in trying to understand the relation between HSR and urban and regional planning.

Current systems, exemplified by France's TGV, have been built to respond to commercial demand and thus are directed at servicing large cities with a minimum number of stops between them:

> *"Le TGV est un outil de la SNCF.*
>
> *La SNCF est un établissement public à caractère industriel et commercial auquel il a été demandé d'être rentable sur les liaisons passagers inter cités. Devant cette nécessité, il est clair que la stratégie suivie consiste à remplir au maximum les trains à grande vitesse et donc de desservir les cités pouvant proposer une masse critique de clients.*
>
> *Il n'est alors pas étonnant de voir se reproduire les anciens schémas ferrés, comme Paris-Lyon-Méditerranée, Paris-Bordeaux et Paris-Lille. Le rôle dévolu aux autres arrêts apparaît, dans ce cadre, des plus restreints, c'est-à-dire compléter le remplissage des rames TGV. La limite de cette fonction de complément se réduit alors dans l'arbitrage "grande vitesse" et "remplissage maximum".*
>
> *Plutôt alors que d'accuser la SNCF de ne pas faire, ce pour quoi elle n'est pas faite (l'aménagement du territoire),* ***il convient de se poser la question de l'arbitrage rentabilité des liaisons et aménagement égalitaire de l'espace."***[2]

It follows, therefore, that while the level of service is not the same in all countries, none have approached HSR projects from the standpoint of them being a regional planning initiative. They have been conceived and built for transport purposes, not to stimulate economic or social development. Therefore, there has been limited consideration of whether or not the HSR system should favour

[2] *L'Association des Villes Européennes TGV, La grande vitesse, outil d'aménagement du territoire?, étude réalisée par BIPE Conseil, janvier 1992.*

regional planning or economic development objectives ahead of commercially viable routes. However, many French observers have singled out the lack of discussions on this subject.

3.0 IMPACTS AT A SUPER REGIONAL LEVEL

The most obvious effect of a high speed transportation system is to create a spatial polarisation and concentration of economic activity. This effect is based mainly on a need to achieve speed which forces a limitation on the number of access points. The result is a transportation mode that renders space more **discontinuous** than inter-city highways or even traditional rail systems. Thus, entry and exit modes are accentuated while hinterland space is de-emphasized.

> *"**Le nouvel espace qui se constitue est un espace discontinu:** seuls comptent les points d'entrée et de sortie dans le réseau. Il se produit ainsi un effacement des espaces intermédiaires qui donne naissance à un véritable "effet tunnel" puisque l'itinéraire n'a plus d'importance. Quel voyageur du TGV Sud-Est peut dire par exemple quelles communes il traverse entre Lyon et Paris? Et même s'il reconnaît au passage les reste de l'abbaye de Cluny, il ne peut y accéder faute d'arrêt."*[3]

Also, because of its commercial imperatives, an HSR system is essentially an **urban** transportation system. To be efficient, a system cannot provide stops in every community. In France, it is accepted that an optimal TGV line serves two major cities between 300 and 500 kilometres apart with a minimum number of stops in between.

> *"Le TGV apparaît ainsi comme un mode de transport essentiellement urbain. Il doit relier des villes de taille importante pour que les trafics soient suffisants; il ne doit pas y avoir d'arrêts*

[3] *Le train à grande vitesse et le réseau des villes, François Plassard, Laboratoire d'économie des transports, Lyon, Colloque "Ville - TGV", Le Creusot, 1990.*

intermédiaires pour que les gains de temps apportés par la grande vitesse ne disparaissent pas. On voit alors se dessiner une structure théorique du réseau optimal: des noeuds situés à distance variant de 300 à 500 kilomètres, reliés par des lignes à grande vitesse sans arrêt intermédiaire. Compte tenu de la configuration particulière de l'espace français, Paris est nécessairement au milieu de ce réseau, mais il n'y a pas place pour toutes les villes françaises qui prétendent à la grande vitesse."[4]

In that sense, an HSR system consists of a "plane on rails" which has no more relation to the hinterland than does an airline system.

4.0 IMPACTS ON REGIONAL DEVELOPMENT

As already observed in France over the last ten years, the TGV has tended to strengthen the existing urban pattern by reinforcing the respective roles of the capital and the major regional centres (Lyon, Lille, Bordeaux ...).

4.1 The French Experience

In France, because of the economic importance of Paris, all TGV lines start or end in that city (TGV sud-est, TGV Atlantique, TGV nord). Also, SNCF has decided to build a system based on speed (over 300 kilometres per hour) with optimal commercial performance between large cities distanced between 300 and 500 kilometres.

Thus, all commentators agree that the TGV can only reinforce the existing centralized urban fabric with Paris in the middle and regional centres around it (Lyon, Lille, Bordeaux, Marseille). It already appears evident from the existing experience (TGV sud-est) that smaller communities are being left out. They either have a station where nobody uses the train (Montceau - Le Creusot) or no station at all.

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[4] Le train à grande vitesse et le réseau des villes, *François Plassard, Laboratoire d'économie des transports, Lyon, Colloque "Ville - TGV", Le Creusot, 1990.*

To help counter-balance this, regional authorities are now putting emphasis on the upgrading of **regional transportation systems** that will feed the TGV. These regional systems can take various forms; commuter trains (RER) in a suburban environment, improved conventional trains between intermediate urban centres (TER), or highways ...:

> *"Le moyen: collaboration entre les diverses collectivités locales*
>
> *Avec la nécessité de plus en plus actuelle de financements locaux pour obtenir les lignes TGV désignées comme peu rentables (moins de 8 per cent par la SNCF), avec la condition indispensable de faire de la gare le pôle de transport régional, émerge l'idée, non pas de la ville TGV coupée de son environnement, mais du territoire desservi par la grande vitesse.* ***Il dépendra de la qualité de la collaboration entre collectivités locales, la réussite ou l'échec de l'effet d'entraînement du TGV*** *(intercommunalité pour l'emplacement de la gare et la construction de projets immobiliers ou industriels). Dans ce cadre la RÉGION a un rôle décisif à jouer. Elle permettra l'irrigation de la gare par le TER (horaire adapté aux dessertes TGV) et fera donc profiter le TGV d'un large bassin de population. Elle participera au financement des lignes nouvelles TGV et devra alors participer à l'adaptation de la grande vitesse à son territoire (le* ***financement ne signifie pas seulement participer au risque économique, mais autorise le droit à la parole dans le tracé des lignes et l'exploitation du TGV****).*
>
> *Si cette condition est remplie, penser l'arrivée du TGV en termes de territoire à desservir et moins en termes de villes stricto sensus, les effets d'entraînement peuvent différer d'un site à l'autre selon les villes et selon les projets."*[5]

With such a network, secondary cities will be better connected to the major cities that are served by the TGV system.

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[5] *L'Association des Villes Européennes TGV, La grande vitesse, outil d'aménagement du territoire?, étude réalisée par BIPE Conseil, janvier 1992.*

"Les transports ferroviaires régionaux, actuellement complètement masqués par le succès du TGV et considérés comme secondaires par rapport à la construction d'une gare TGV, sont placés aujourd'hui face à un véritable défi: ou bien nous serons capables de transposer au niveau régional le progrès technique qu'a représenté le TGV pour constituer de véritables réseaux de villes étroitement articulés avec le réseau européen à grande vitesse, ou bien le transport régional restera le triste privilège des captifs, laissant quelques rares villes phares se hisser au niveau européen, et abandonnant les autres à un assoupissement local plus ou moins indolore."[6]

4.2 The German Experience

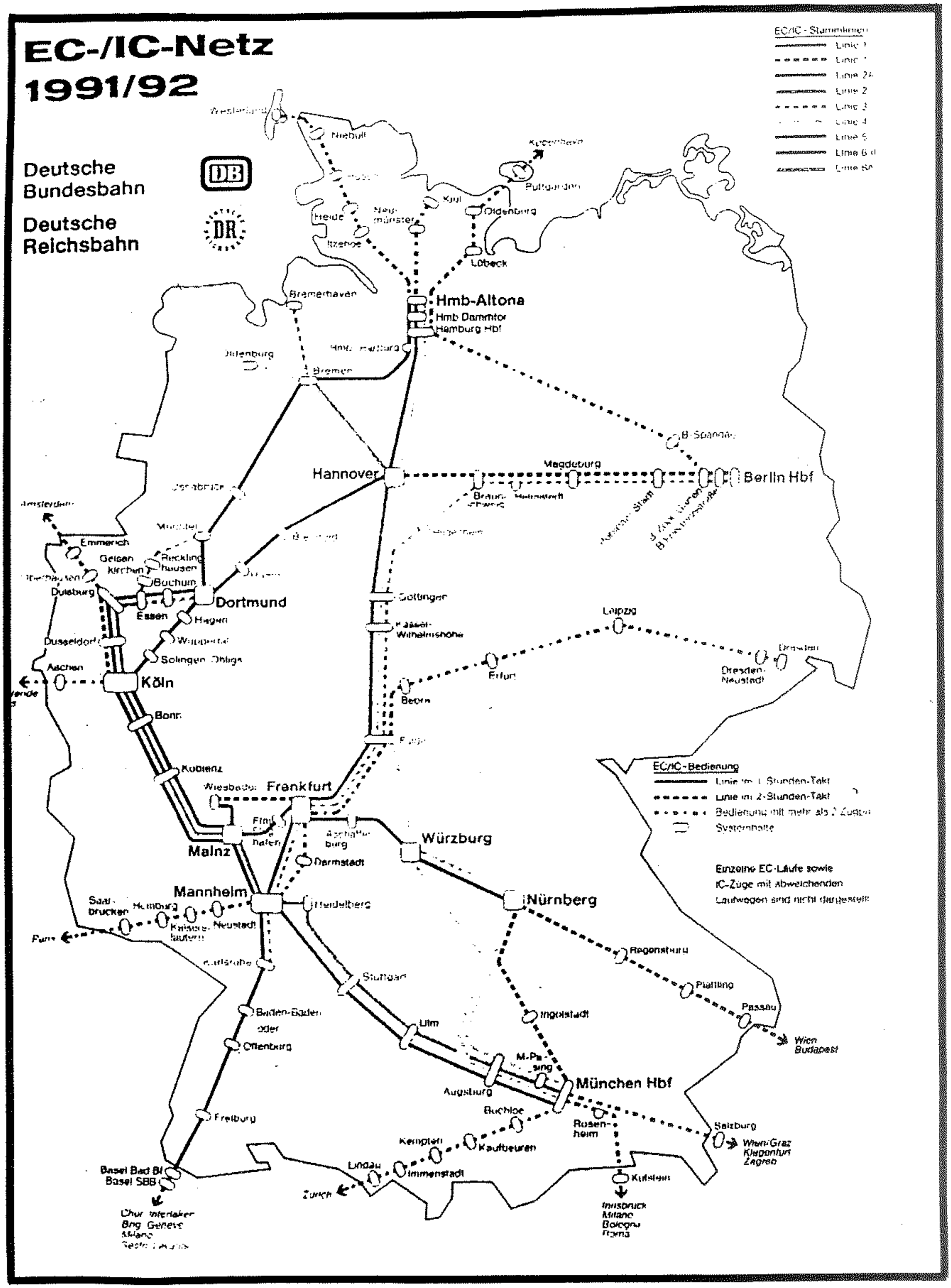
German authorities, on the other hand, have developed an HSR system that services a greater number of cities but which operates at a lower speed. Thus, between Hamburg and Munich, the high speed train line (maximum speed 250 kilometres/hour) services eleven cities on an hourly basis at an average speed of 120 kilometres/hour. Thus, the same level of service is provided for a major metropolitan centre like Hamburg (1,630,000 habitants) as to small regional communities such as Ulm (107,000 habitants).[7]

Since such a passenger service cannot generate the same level of profitability as the French TGV, the German system compensates by allowing freight trains at night on the same lines.

This approach is fundamentally different from the French with obvious impacts on local and regional development. Exhibit B-1 indicates the extent of this region-service oriented HSR system.

[6] *L'Association des Villes Européennes TGV, La grande vitesse, outil d'aménagement du territoire?, étude réalisée par BIPE Conseil, janvier 1992.*

[7] *Map.*


EC-/IC-Netz
1991/92
Deutsche Bundesbahn
Deutsche Reichsbahn
Hmb-Altona
Hmb Dammtor
Hamburg Hbf
Bremen
Hannover
Magdeburg
Berlin Hbf
Dortmund
Essen
Köln
Bonn
Koblenz
Frankfurt
Mainz
Mannheim
Würzburg
Nürnberg
Leipzig
Erfurt
Dresden
Regensburg
Passau
Stuttgart
Ulm
Augsburg
München Hbf
Salzburg
Karlsruhe
Baden-Baden
Offenburg
Freiburg
Basel Bad Bf
Basel SBB
Lindau
Kempten
Kaufbeuren
Buchloe
Rosenheim
Kufstein
Ingolstadt
Darmstadt
Heidelberg
Saarbrücken
Kaiserslautern
Neustadt
Aachen
Düsseldorf
Duisburg
Bochum
Hagen
Wuppertal
Solingen Ohligs
Emmerich
Münster
Göttingen
Kassel-Wilhelmshöhe
Lübeck
Oldenburg
Kiel
Neumünster
Itzehoe
Heide
Niebüll
Puttgarden
Bremerhaven
Plattling
Immenstadt
Wien Budapest
Innsbruck Milano Bologna Roma
Zürich
Paris
Amsterdam
EC/IC-Bedienung
Linie im 2-Stunden-Takt
Systemhalte
Einzelne EC-Läufe sowie IC-Züge mit abweichenden Laufwegen sind nicht dargestellt

5.0 IMPACTS ON TRAVEL PATTERNS

The French experience is the only one for which statistics are available showing the effects that an HSR system can have on travel patterns. Most of the available material is from the TGV sud-est line between Paris and Lyon that now has been in operation for more that ten years.

Traffic between Paris and south-east region of France has increased from 12.2 million travellers in 1980 to approximately 20.0 million in 1991. Directly between Paris and Lyon, the number of travellers has been multiplied by 25 to reach 37 million in 1991.

Most of this traffic (49 per cent) comes from trips that otherwise would not have occurred (induced travel). Modal switching has also generated new traffic: 33 per cent from the plane, and 18 per cent from the car. Between Paris-Lyon, the TGV has captured 50 per cent of airline passengers. For trips from Paris to other cities in the south-east region where travel time on the TGV ranges from three to six hours, the modal shift of plane to train has only been 25 per cent.

Even though the construction of the TGV has increased total travel between Paris and Lyon, for instance, the changes in travel patterns and their effects on the economic activity between the two cities have been much more dramatic:

> *"Cette progression remarquable du trafic ferroviaire peut être analysée plus précisément. On remarquera notamment que la première classe a connu une croissance plus forte de son trafic que la seconde. Le TGV permet bien à la SNCF de s'implanter sur le marché "riche". De la même manière, les déplacements pour*

motifs professionnels ont connu la plus forte augmentation, en particulier entre Paris et Lyon."[8]

The TGV, as stated before, constitutes a novel transport option and its impact has been more significant for first class than for economy class travel. This has been measured particularly by the increase in travel for professional motives between Paris and Lyon. This phenomenon is indicative of new trends in certain fields of economic activity, as discussed in Section 6.0.

The TGV has also modified the average duration of trips. It is now possible to travel between Paris and Lyon in the same day, even in the same half-day in certain cases. Thus, the TGV acts not unlike a mass transit system. This is due not only to the short travel time (two hours) but also to the frequency of the trains (hourly schedule).

The travel time and frequency also acts in the commutershed patterns between Paris and Lyon.[9] In fact, the total travel time on the "sud-est" line to different destinations varies between one hour twenty-five minutes to more than seven hours. It has been observed that for a half-day trip to Paris the maximum travel time is two hours (three hours and thirty minutes for a same-day trip). Beyond this time, any connecting station thus falls beyond the "access" sphere of the TGV system. It is not surprising then to find out that most of the repercussions from the first ten years of the line have been concentrated around Lyon's Part-Dieu station.

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[8] *Olivier Klein, Dix ans d'effets du TGV à Lyon: quels enseignements pour le corridor Québec-Windsor?, Montréal, 2 octobre 1991.*

[9] *Olivier Klein, Dix ans d'effets du TGV à Lyon: quels enseignements pour le corridor Québec-Windsor?, Montréal, 2 octobre 1991.*

Finally, it must also be noted that the appeal of the TGV as a "haut de gamme" train service has created almost a mythical effect on cities. The TGV has become a status symbol. You are in if you get it, you are out if you do not. Many cities in France feel left out because they have not been chosen to be on a TGV line. As stated before, this phenomenon has led to the creation of an association of TGV cities as a reaction to the pressures created on urban development by the construction of this first TGV line.

6.0 IMPLICATIONS FOR ECONOMIC DEVELOPMENT

In order to illustrate the effects of the TGV on economic activity and development, it is important to understand the existing economic situation between Paris and Lyon. The following table furnishes basic data in this respect.

	Île de France region (Paris)	Rhône/Alpes region (Lyon)
Population in 1982	10.07 million	5.02 million
Percentage of GNP	27.0%	9.0%
Percentage of active population in service industry (% of national total)	43.0%	9.6%
Percentage of national head offices	77.6%	3.0%

These figures demonstrate clearly how the relative weight of Paris in key economic sectors is disproportionately greater than its demographic weight. These figures also illustrate the relative domination of Paris with respect to Lyon in the French economy.

The economic effects resulting from the introduction of a TGV line has been marked in the tertiary sector (tertiaire supérieur) for two main reasons:

- This sector is, as shown above, key to economic growth in the region; and
- The sector is also particularly sensitive to the introduction of a TGV line because it is "people intensive".

Research work has shown that over a five year period (1980-1985) the share of trips for buying or selling of services has increased from 18 per cent to 22 per cent. Most significantly, this trend was found to be asymmetrical increasing 144 per cent in the Paris-Lyon direction but only 52 per cent in the other direction. The attractiveness of Paris is obvious in explaining this pattern.

Looking at the overall impact on the two centres in terms of economic activity, the following conclusions can be isolated:

- Businesses with a local sphere of activity have not been affected by TGV;
- Businesses with a regional sphere of activity have also been found to be relatively insensitive to the introduction of the TGV;
- Businesses with a regional market but operating on larger scale have profited from the TGV by establishing agencies in Paris;
- Local agencies of national or international head offices were found to be insensitive to TGV because location decisions are not influenced by factors such a passenger transport mode; and
- Businesses with a national or international market may profit from the TGV because of reduced travel costs.

In conclusion, the construction of the TGV sud-est line has not produced negative impacts on the Lyon economy. On the contrary, the increased activity of certain firms in the national market illustrates the level of competitiveness brought about by the TGV.

"C'est une constante de l'histoire économique des dernières décennies que de voir le poids relatif des dépenses de transport diminuer dans la consommation des entreprises. En outre, le TGV est apparu dans un contexte de crise économique grave, peu favorable à des mouvements spectaculaires. Dans ces conditions les effets du TGV dans ce domaine ne pouvaient être que réduits. Si une nouvelle infrastructure de transport n'est plus jamais en mesure de provoquer une délocalisation, elle peut en revanche l'orienter en attirant de nouvelles activités. Dans un contexte où les facilités modernes de déplacements sont largement répandues, le TGV apparaît comme un "bonus". La redondance des possibilités est, pour l'utilisateur, un gage de souplesse. De ce fait, et le phénomène se renforcera avec l'extension du réseau TGV, c'est la non disposition de ce service qui apparaît comme discriminante.

Néanmoins, il existe un certain nombre d'activités dont la localisation est presque totalement libre. Des bureaux avec équipements de télécommunication et des facilités de déplacements leur suffisent. Pour ce "créneau" très mobile, la présence du TGV peut être un élément déterminant. Le revers de cette extrême mobilité est que le choix d'un emplacement n'est jamais définitif et peut être remis en cause très rapidement. En dehors des opérations de réhabilitation des zones proches des gares qui sont habituellement menées lors de l'arrivée du TGV dans une localité, le marché de l'immobilier de bureau peut témoigner de ce phénomène. À Lyon, aux abords immédiats de la gare de "Part-Dieu", existe une demande très spécifique d'entreprises attirées par le TGV. Sur ce créneau, les aéroports également desservis par le TGV risquent, dans les années à venir, de devenir des localisations stratégiques. L'importance de cette demande très particulière est renforcée par le fait qu'elle peut servir de catalyseur aux opérations immobilières. Elle facilite leur démarrage, leur permettant dans un second temps d'attirer une clientèle plus large."[10]

[10] *Le train à grande vitesse et le réseau des villes, François Plassard, Laboratoire d'économie des transports, Lyon, Colloque "Ville - TGV", Le Creusot, 1990.*

Overall, the TGV is not a key influence on the location of enterprise. But its presence in a given region can help foster growth mainly in the service industry as was found in the Lyon region. The TGV can act as a "bonus", but the literature emphasizes the necessity for TGV-served cities to pursue aggressive economic development policies in order to attract business. It is thought that an HSR system can act as an economic stimulus for a region to the extent that political authorities are prepared to act with planning, foresight, and promotion in mind.

7.0 EFFECTS ON TOURISM

The effect on the tourism industry of the TGV can be summarized as follows. The TGV has stimulated demand for shorter trips (daily as opposed to 2 or 3 day trips), thus creating a potentially negative impact on the hotel industry, principally in a smaller urban centre (Lyon versus Paris).

Paris has profited from the faster travel time through and to expanded markets for shows, conventions, theatre, and other tourist attractions. New packages have been offered to tourists originating in Lyon and other regional centres. In the other direction, skiing regions like Albertville, are felt to have profited from the new system from increased travel from Paris.

8.0 EFFECTS ON URBAN AREAS WITHIN THE CORRIDOR

From the existing experience with HSR systems in France, Germany and Japan, it is obvious that this transport mode favours concentration of activity at both the macro and micro-planning levels.

As observed in France, a limited number of stations on a line tends to have two effects:

- Concentration of activity in "chosen" cities; and
- Gradual emergence of a feeling of "abandonment" from cities and/or regions that are by-passed.

This sense of abandonment is reinforced by the novelty of the TGV which is perceived as a first class transportation system. Thus, not being on the line relegates a City to "second class" status. This reality has led to the creation of a 48-member association of European TGV cities which aspire to obtain TGV service some day. As expected, most of these cities are in France but a number of other European cities have joined, including Barcelona.

The association has worked actively to promote a new direction to TGV development based on a regional approach. It favours, along with the implementation of additional TGV lines and stations, the development of a new regional "feeder" system to improve accessibility to TGV stations. This system could comprise improved commuter trains in large metropolitan areas, improved regional train service over larger regions and even the development of new highways to service stations. It is argued by the association that such an approach could have the immediate effect of generating traffic to existing TGV stations which are presently under-used and, on a long-term basis, fostering growth from the train system over larger areas.

It thus becomes clear for a great number of observers that the effect of an HSR system on a metropolitan area will vary greatly depending on the feeder approach that is chosen. For instance, if two large metropolitan areas are to be served strictly with downtown stations, it will be difficult for an HSR system to generate significant regionally dispersed impacts. On the other hand, location of a station in a more accessible area or development of a feeder system to and from suburban areas could modify significantly the transport and development patterns.

Based on marketing and profitability criteria, an HSR system can almost only be located at the core of an urban centre. Nonetheless, trade-offs between financial profitability and regional development have to be looked at in order to maximize the global benefits of such a costly transport system. What are the advantages of implementing a station in a suburban area compared to a downtown site based not only on traffic generated but also on job location and overall service to a community and surrounding hinterland?

The reflections that have taken place over the last few years in France render this discussion possible. An HSR system should not only be regarded as a transport system. It should also be looked at with the planner's eyes as a potential increase in accessibility between a number of urban areas.

Thus, the evaluation of station sites and line axis in specific metropolitan areas in the Québec-Windsor Corridor should take into account the lessons from France and be evaluated not only on their traffic and financial performances, but also on their pertinence in relation to urban and regional planning issues.

7.0 THE EFFECT OF TGV STATIONS IN FRANCE

Before entering any lengthy discussions on station location for a proposed HSR service in the Québec-Windsor Corridor, it is worthwhile to discuss some of the lessons learned from the location of TGV stations in France.

A SNCF project, the TGV was originally planned to optimize the commercial performance of the railway company. Thus, SNCF was interested in locating stations in the most profitable locations, irrespective of urban planning considerations. In that respect, SNCF mainly used well established existing stations for major urban centres (Paris, Lyon) and located new stations based on feasibility and commercial criteria.

Some of these new stations were located on the fringe of urban areas (Montchamin, Saint-Pierre-des-Caps, Vendôme, etc.), on vacant lands. Expected developments around those stations did not materialize as quickly as anticipated. TGV stations, it appears, were not sufficient catalysts of growth, and potential development around a station site had to be supported by a strategy to attract business activity to the vicinity of the TGV station:

> *"Reste, comme le souligne Jean Frébault, qu'«il ne suffit pas, pour employer un langage trivial d'urbanisme, de "tartiner" quelques zones violettes autour des futures gares TGV, de créer une zone d'activités autour de la future gare TGV, même si celle-ci s'appelle parc technologique ou technopôle». Les collectivités locales, en effet, doivent être conscientes de tous les enjeux liés à la grande vitesse, et, pour en tirer pleinement parti, elles doivent se doter d'un véritable projet de développement urbain, qui inclue non seulement une réflexion économique, mais qui tienne compte aussi des aspects urbanistiques, sociaux et culturels. Car le développement est un tout, il ne se limite pas simplement à l'activité économique. Il s'agit donc de penser globalement.*[11]

It became evident after a few years of operation that development around a fringe TGV station was not materializing and local authorities felt that a more voluntarist approach was necessary:

[11] *Association des Villes Européennes TGV, Actes du Colloque, 1990, p. 66.*

> *«La création d'un nouveau quartier d'affaires près d'une gare implantée en rase campagne comporte les mêmes risques, affirme-t-il, celui, notamment, d'être déconnecté par rapport à l'agglomération voisine, ou de donner naissance à un pôle d'urbanisation concurrent de ceux déjà existants».*[12]

This alternative planning approach was based on two conditions:

- Concerted planning initiatives to attract development; and
- Use of key public land holdings to trigger and focus the pattern of land development adjacent to the TGV station.

Based on this approach, a number of regions in France developed a fringe development pattern based on the greenfield image. Business parks and commercial centres were planned, trying to take advantage of the TGV and the presence of regional feeder systems (highways, regional trains, etc.). At present, only a few of those ventures have proved to be modestly successful. Vendôme is the best example:

> *"Vendôme, en tous cas, s'est donné les moyens de tenir son pari. Ainsi, elle a décidé d'appuyer le développement de son parc technologique sur la présence de structures de formation. Un premier établissement de formation continue y ouvrira ses portes dès septembre 1991: le Centre européen de recherche et de formation pour l'industrie graphique. Très orienté sur la percée de l'informatique dans les métiers graphiques, il permettra à Vendôme d'étayer son patrimoine industriel: la ville compte déjà dans ses murs l'imprimerie des Presses universitaires de France (six cents salariés au total). Il y favorisera peut-être aussi l'implantation d'autres entreprises graphiques, françaises ou étrangères. En effet, le groupe dont dépend ce futur centre de formation est lui-même allemand: quand on connaît la puissance de l'industrie graphique outre-Rhin, la stratégie vendômoise peut porter ses fruits.*

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[12] *Idem.*

Qui plus est, Vendôme a pensé son projet dans une perspective globale. L'arrivée du TGV s'accompagne d'une politique de dynamisation du tourisme et de la vie culturelle dans la région. Une manière d'attirer davantage de visiteurs, mais aussi, et surtout, une arme de plus pour séduire les investisseurs.[13]

In the case of Vendôme, a concerted development effort was planned around the city's traditional printing industry. Based on the implementation of a research centre on printing techniques, Vendôme aimed at attracting state-of-the-art businesses in this sector from both France and the European Economic Community (EEC).

As an alternative to the greenfield approach, other French cities chose a very different perspective. The re-emergence of the train station in the downtown core was intended to act as a catalyst for new urban redevelopment. A new concept was born: "Garopolis".

"GAROPOLIS ne signifie pas, pour nous, un monument à la gloire des chemins de fer, comme ont pu l'être certaines gares du XIX siècle. Il s'agit d'une opération d'urbanisme qui touche tout le quartier autour de la gare. En effet, c'est le mariage entre un tissu économique urbain, riche de services, et d'un pôle de transport haut de gamme, qui peut entraîner un fort développement économique. Ceci signifie que l'immobilier d'entreprises stricto sensus, n'est qu'une partie de ce projet, celui-ci devant se nourrir d'infrastructures de formation, de Palais des congrès, d'hôtels, de commerces. Ce n'est qu'à ce prix qu'on évitera le doux ennui des cités administratives et donc qu'on attirera des investisseurs."[14]

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[13] *Idem, p. 78.*

[14] *Association des Villes Européennes TGV, La grande vitesse: outil d'aménagement du territoire?, 1992, p. 53.*

Garopolis means that the train station is no longer seen as a 19th Century monument but as a catalyst to urban redevelopment physically, economically and even spiritually. The station became a focal point not only to office space but also to training centres, convention centres and hotels.

The best examples of this approach can be found in Le Mans and Lille where the new TGV stations were relocated downtown, more or less against the will of SNCF:

> *Depuis septembre 1989, Le Mans s'est rapproché de Paris: grâce au TGV, il faut désormais cinquante-cinq minutes pour se rendre à la gare Montparnasse, contre une heure quarante auparavant. Un progrès conquis de haute lutte. Au départ, la SNCF voulait faire passer la ligne Paris-Rennes au-dessus de la ville. Par ailleurs, les élus ont dû se battre pour que le TGV s'arrête non point en rase campagne mais au coeur de l'agglomération. Pari finalement gagné, et heureusement. Car cette victoire a produit une sorte de déclic. Les Manceaux ont out à coup pris conscience de leurs points forts et décidé de les valoriser pour dynamiser leur ville.*[15]

In Lille, the urban redevelopment around the TGV stations was not only seen as an urban planning initiative but essentially as a springboard to heighten the city to European status.

> *"Pour y parvenir, la ville possède plus d'une carte en main. Tout d'abord, elle se situe au coeur de la partie la plus riche et la plus dense de l'Europe: le quadrilatère Paris-Londres-Amsterdam-Cologne, fort de quelque soixante-dix millions d'habitants. Une situation que l'aménagement des lignes TGV Paris-Lille-Londres (prévu pour 1994) et Paris-Lille-Bruxelles-Cologne-Amsterdam (envisagé pour 1998), devrait considérablement valoriser. Londres à deux heures, Bruxelles à vingt-cinq minutes, Paris à moins d'une*

[15] *Association des Villes Européennes TGV, Actes du Colloque, 1990, p. 80.*

heure: grâce à la grande vitesse, la ville pourra se prévaloir d'une position tout à fait stratégique dans le nord-ouest de l'Europe."[16]

With the proposed downtown train station, Lille would be situated in the very heart of Europe, two hours from London, one hour from Paris, twenty-five minutes from Bruxelles.

Another basic condition required for downtown HSR stations to act as a redevelopment catalyst is a perceived importance of train stations within the urban landscape, both physically and symbolically. This condition has certainly existed in France but is not always similarly viewed in Canada. Within the central cores of cities (such as Montréal and Ottawa) train stations have simply disappeared from view or have been recycled for other uses.

Lessons from France have thus taught us the following about TGV stations:

- Downtown stations are preferred over fringe stations by most planners and city officials;
- Development around fringe stations does not necessarily attract development; and
- Downtown stations can act as a catalyst to redevelopment if accompanied by market pressure, concerted planning initiatives and key public land holdings.

[16] *Idem, p.82.*

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APPENDIX C

EFFECT OF THE PROPOSED HSR PROJECT ON COMMUNITIES WITHIN THE QUEBEC-WINDSOR CORRIDOR

APPENDIX C

This appendix contains the analyses that were undertaken for each of the following corridor communities:

1. Windsor
2. London
3. Kitchener-Waterloo
4. Toronto
5. Kingston
6. Ottawa-Hull
7. Montreal
8. Trois Rivieres
9. Quebec City
10. Drummondville
11. Hamilton

Each of the first nine community analyses contain three parts:

- Socio-economic overview;
- Analysis of the effect of providing HSR service; and
- Detailed station location.

The analysis of Drummondville and Hamilton are structured somewhat differently to reflect the fact that the HSR service will not service these communities.

In accordance with the work plan for this assignment, a considerably more detailed analysis of proposed HSR station locations in Ottawa-Hull, Montreal and Toronto was undertaken.

It should also be noted that the appendices for Quebec City and Trois Rivieres are presented in French. An English summary of key conclusions is provided at the end of these two appendices.

1. WINDSOR CMA

This appendix provides a profile of the Windsor area and its outlook for future growth. The potential impact of an HSR, as well as a consideration of potential station locations is then assessed in light of this outlook.

Key conclusions of this appendix are as follows:

- Windsor's growth prospects are significantly affected by the outlook for North America's automotive sector. In the past, restructuring of the automobile production has hurt the Windsor economy and kept its population from increasing.
- There is evidence to suggest that this pattern may change as Windsor's economy becomes more diverse and a number of development initiatives are implemented.
- Providing HSR service to Windsor would accelerate this improved socio-economic outlook. However, the magnitude of this HSR effect is by no means large enough to offset Windsor's dependency on the American auto sector.
- The proposed HSR station is appropriately located to provide good access, via links to other modes (mostly car), to all destinations within the Windsor community and regional trade area.

The appendix is organized into three sections: socio-economic outlook; effect of HSR on the Windsor community; and potential HSR station location issues.

1.1 SOCIO-ECONOMIC OUTLOOK

Windsor's outlook is linked to the future of the auto industry and this dependence may prove to be an asset to the extent that sectoral restructuring has abated for the time being.

1.1.1 Windsor Is A Manufacturing-Oriented Urban Area With A Stable Population

As a result of limited employment growth over the past decade, Windsor's population has remained relatively stable. Out-migration of young has been fuelled by a restructuring automotive sector. Although Windsor benefits from its location adjacent to Detroit, it is also vulnerable to the uncertainties of the North American auto sector.

- **Windsor Is Located At The Westerly Limit Of The Corridor**

  Windsor constitutes the western end of the Québec-Windsor corridor and is located at the natural boundary between Canada and the U.S. across from Detroit on the Detroit River.

  The City of Windsor is the focal point for a larger urban area which extends beyond Essex County in southwestern Ontario (Exhibit C-1.1). The City of Windsor, with a 1991 population of just over 190,000, constitutes the urbanized core of the region. The City is surrounded by a developing fringe of communities all of which experienced relatively rapid growth over the latter half of the 1980's. These fringe communities, together with the City, comprise the Windsor CMA which had a 1991 population of 262,000.

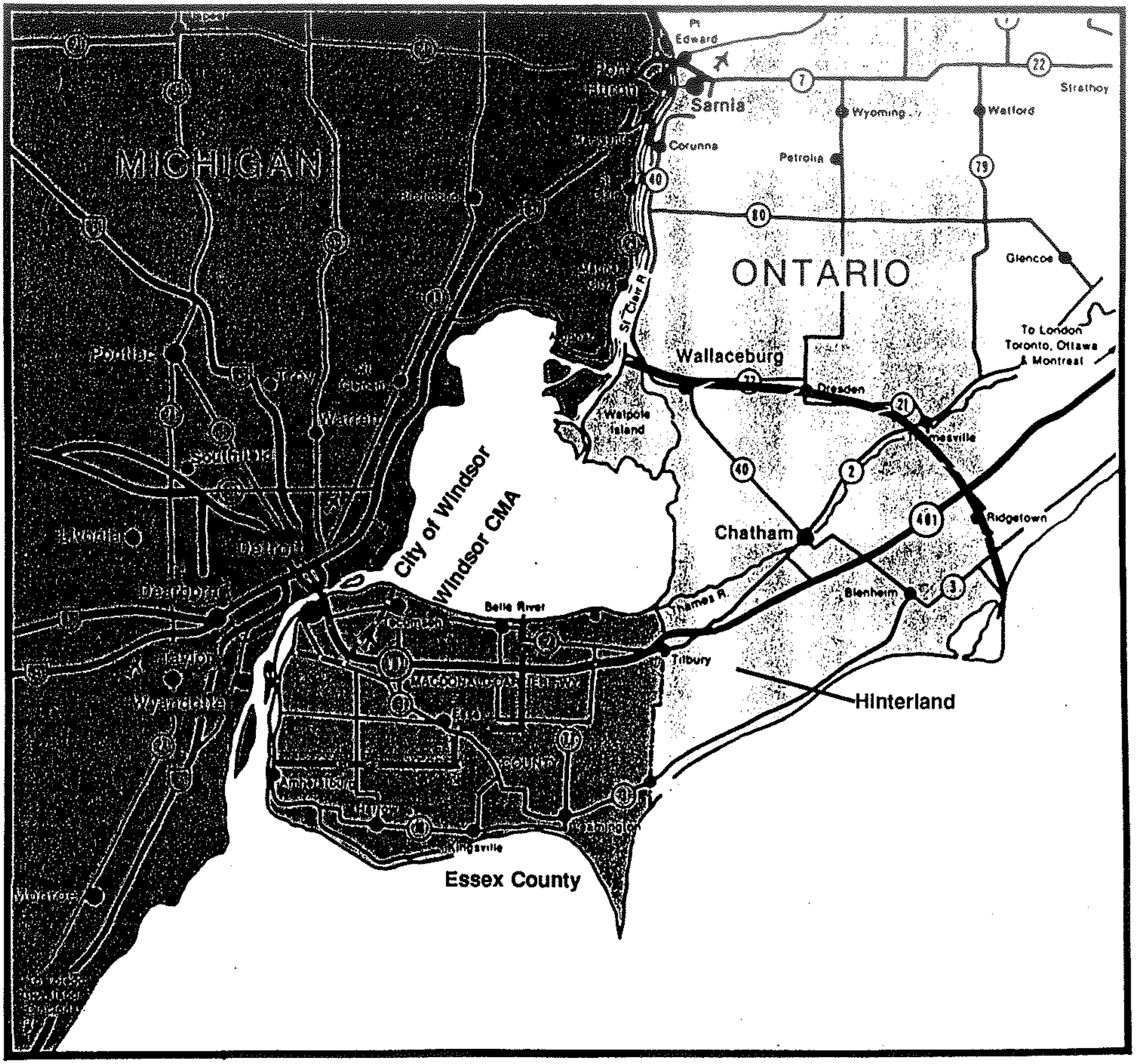
- **Population Has Remained Relatively Stable**

  Although fringe communities within the CMA experienced growth, this was generally a reflection of a shift from the core to fringe, rather than an increase in total regional population. The City's population actually declined over the 1986-91 period, with the population in the broader Windsor area remaining relatively stable for a long period of time.

HEMSON

WINDSOR REGIONAL SETTING

Exhibit C1.1



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This stable population is generally a result of the net out-migration of young residents who were unable to find sufficiently attractive employment opportunities locally.

Exhibit C-1.2 provides a summary of additional socio-economic variables.

- **Windsor's Manufacturing Base Is Restructuring, With A Corresponding Increase In Service Sector Activity**

Windsor has been at the centre of Canada's automotive industry since 1925. Chrysler's Canadian operations are headquartered here, along with major facilities for Ford and General Motors. More importantly, the presence of the "Big 3" has attracted over 500 manufacturers of auto-related parts, supplying state-of-the-art machinery, tools, moulds, stamping, dyes, jigs, and fixtures. A review of the top employers in Windsor indicates the extent of the City's dependence on the auto sector. Chrysler employs almost 8,400, General Motors employs 4,500, and Ford employing over 4,000 employees. The list of major employers also includes a host of auto-related manufacturing companies of all sizes.

The presence of large food and beverage firms such as Hiram Walker and Omstead Foods does little to offset the dominance of auto related activities. Together these two companies employ about 1,850 compared to the 18,000 workers who are employed in Ford, Chrysler and GM assembly plants.

The dominance in Windsor of the auto sector makes the community highly vulnerable to its business cycles and sectoral restructuring. Due to the ongoing difficulties faced by the industry, Windsor was the only large community within the Québec-Windsor corridor to experience no increase in employed labour force between 1986 and 1991.

To some extent, growth in the service sector has offset the losses in traditional manufacturing activities. Over the period 1981 to 1986, the service sector grew by over 10 per cent and (in 1986) accounted for over 38 per cent of total employed labour force. Although more recent sectoral profiles of employment are unavailable, this trend towards increasing reliance on the service sector is likely to have continued.

HEMSON

WINDSOR CMA

Exhibit C1.2

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	253,988	262,075	3.2%
	1986	% of Total	
Pop. >65	31,200	11.9%	
Postsecondary Education	64,035	25.2%	
University Degree	16,900	6.7%	
	1986	1991	% Increase
Total Households	91,610	97,305	6.2%
Average Household Income	45,043	46,793	3.9%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			133,445
	1981	1986	1991
Employed Labour Force	104,120	116,901	117,725
	1991	15-24	25+
1991 Unemployment Rate	11.8%	16.2%	10.7%
1991 Participation Rate			64.7%

Source: Statistics Canada

EMPLOYMENT BY SIC	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	43,390	47,955	37.7%	10.5%
Services	44,030	48,435	38.1%	10.0%
Government	4,865	4,665	3.7%	-4.1%
Trans./Comm.	6,745	6,635	5.2%	-1.6%
Retail/Wholesale	18,620	19,515	15.3%	4.8%

Source: Statistics Canada

REAL ESTATE INDICATORS	
	1992
Average House Price	$109,239
	1988-92 Annual Average
Res. Units Sold	4,968
Value of Construction	
Residential	$174,999
Industrial	36,375
Comercial	48,275
Institutional	25,256

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	190,800	225,900	293,000	35,100	1.31%	67,100	1.31%
Household	75,100	96,200	130,700	21,100	1.92%	34,500	1.54%
Employment	90,000	111,600	128,700	21,600	1.67%	17,100	0.72%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

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- **Windsor Benefits From Its Location Adjacent To Detroit**

  Much of Windsor's growth prospects are related to its location immediately adjacent to the large urban area centred on Detroit. Detroit proper contains over 1.2 million residents with a considerably larger regional population (4.6 million) and encompasses an even larger number when the communities in the standard metropolitan statistical areas of Detroit and Ann Arbor are included. In fact, Windsor is sometimes regarded as a unique suburb of Detroit since a considerable number of residents regularly cross the border for various recreational and leisure activities.

  The proximity to Detroit reinforces the importance of the auto sector since Windsor is a logical location for Canadian divisions of Detroit's automotive sector. With the auto pact, the rationalization of North American vehicle assembly required certain components of automobile production (particularly assembly) to be located within Canada. A location in Windsor allowed for this cross-border rationalization to be accomplished efficiently. Continued evidence of this is shown by the more than $4 billion that the three automobile manufacturers have invested in Windsor over the past 15 years.

The overall character of Windsor is one of a manufacturing-oriented urban area which has experienced substantial restructuring as a response to the rationalization of North American automobile production. Due to slow employment growth over the past decade, Windsor has lost many of its younger population to other urban areas. This trend has resulted in a relatively stable population growth pattern.

1.1.2 Modest Growth Outlook Is Forecast, Although Opinions Vary

Although little growth has occurred over the past decade, the socio-economic forecasts prepared for the HSR project anticipate a turn-around in this pattern. While the economic restructuring has kept growth low for some time, there are a number of longer-term factors which may prove positive for the Windsor economy.

- **Socio-Economic Forecasts Project Growth In Windsor**

Windsor's population is anticipated to increase from a level of 191,000 currently to a level of just under 300,000 by the year 2025 (refer to Exhibit A-1.2). This would represent a significant change from the past 7 years experience (0.85 per cent annual growth rate), although the compound annual growth rate over the forecast period is only slightly above 1.3 per cent. Households are anticipated to increase at a marginally faster rate with over 50,000 new households being created over the next 35 years.[1]

Employment prospects are projected to increase at a compound growth rate of 1.67 per cent over the next 10 years, declining to a rate of 0.72 per cent for the longer-term outlook (between 1986 and 1991 Windsor effectively had no employment growth).

- **These Forecasts Represent A Departure From Historic Trends**

The projections, although not implying overly optimistic growth rates, would be a departure from historic trends in growth. They also differ from recent forecasts prepared by the municipality which anticipate a "no growth" outlook.

- **Despite Uncertainty, Longer-Term Outlook May Prove More Positive**

Despite the drawback of a heavy reliance by Windsor on the automotive sector, there are a number of longer-term factors which may prove more positive.

  - <u>Windsor Benefits From North American Auto Sector</u>

    Although the domestic auto sector has been forced to undergo restructuring, there seems no doubt that the demand for vehicles in North America will continue in the foreseeable future. North America's "love affair" with the automobile shows no sign of letting up and what is good for automobile manufacturers has proven to be good for Windsor. Recent publications suggest that much of the restructuring of North America's automobile production has

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[1] *This increase will result primarily due to a general decline in household sizes.*

now occurred and that the domestic manufacturers are now reasonably well positioned to compete effectively with foreign manufacturers. There are also now many parts and technology intensive smaller firms in Windsor which do not rely entirely on the "Big 3" automobile manufacturers. This means that, despite a focus on automobile assembly, Windsor's manufacturing economy is becoming more diverse and, therefore, less affected by the prospects of any particular company.

- There Is Ample Capacity To Accommodate Growth

  Another plus of the Windsor economy is that there is ample capacity to accommodate growth. There is a plentiful supply of industrial lands, a skilled labour force and planned municipal infrastructure to accommodate growth.

- Exciting Municipal Initiatives Are Planned

  There are also two significant municipal initiatives which could foster commercial development within the Windsor community. Windsor has been designated as the location of Ontario's first large casino with projected patronage estimated to reach 12,000 visitors per day. These is also a large convention/visitor facility. Both of these are planned for a location within the downtown area, although the casino site has not yet been finalized and may include an interim location.

These factors suggest modest growth outlook for Windsor. Although there are some concerns about the vulnerability of this community to the auto sector, a number of factors suggest that Windsor is a large urban area that will realize some form of benefit from the growth anticipated in Ontario.

1.2 EFFECTS OF HSR ON THE WINDSOR COMMUNITY

This section addresses the potential effect that an HSR would have on the Windsor community. A discussion of existing links to other corridor centres is then followed by an investigation of the potential impact of HSR on these links.

It is argued that the HSR effect on Windsor will be modestly positive, but by no means sufficient to offset Windsor's dependence on the North American automobile industry.

1.2.1 Windsor's Links To Other Corridor Centres Focus On London And Toronto

Currently, Windsor's strongest inter-city links are with London and Toronto.

- **Windsor Has A Modest Rate Of Inter-Community Travel**

  Windsor has a rate of *inter-community travel* of approximately 13 trips per resident by all modes.[2] This is a moderate rate of inter-community travel (Toronto is about trips per resident and Kitchener is over 40 trips per resident) which reflects both the relationship between Windsor and other communities, as well as the fact that Windsor is large enough to be somewhat self-sufficient in meeting the needs of residents and employees.

- **Travel Is Heavily Auto-Oriented**

  Inter-city travel between Windsor and other corridor centres is heavily auto-oriented. The travel survey indicates that close to 90 per cent of trips from Windsor to London and Toronto are by car. This is not surprising given the ease of auto travel in south-western Ontario and the distances to these centres which tend to favour auto trips. It is generally less convenient and more expensive to take the train, bus or plane.

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[2] *Total annual **inter-community** trips by all modes per resident.*

- **Non-Business Component Dominates Inter-Community Travel**

  The profile of inter-city travellers also shows that the non-business component accounts for almost 80 per cent of travel from Windsor to London and Toronto (by all modes). Although it is not surprising to have a non-business component which exceeds the business component, the magnitude for the Windsor community is significantly higher than the corridor average of 72 per cent.

- **Business Linkages Are Highly Skewed To London And Toronto**

  Business linkages are highly skewed towards London and Toronto. In fact, London-Windsor business linkages are among the highest per capita rates in the corridor. However, the absolute number of travellers is relatively low in comparison to business travel between other corridor communities.

  Business travel is overwhelmingly by car, with other modes (air, rail and bus) accounting for less than 15 per cent of all trips. This compares to a corridor average of 65 per cent.

1.2.2 HSR Will Have A Modest Impact On Windsor

A review of the HSR's impact on existing links to other corridor centres indicates that there will be a modestly positive impact on Windsor. Although there is no doubt that HSR would enhance accessibility and tourism initiatives, Windsor's overall growth outlook is likely to be affected much more by broader economic and demographic factors.

- **Train Travel Will Become More Popular**

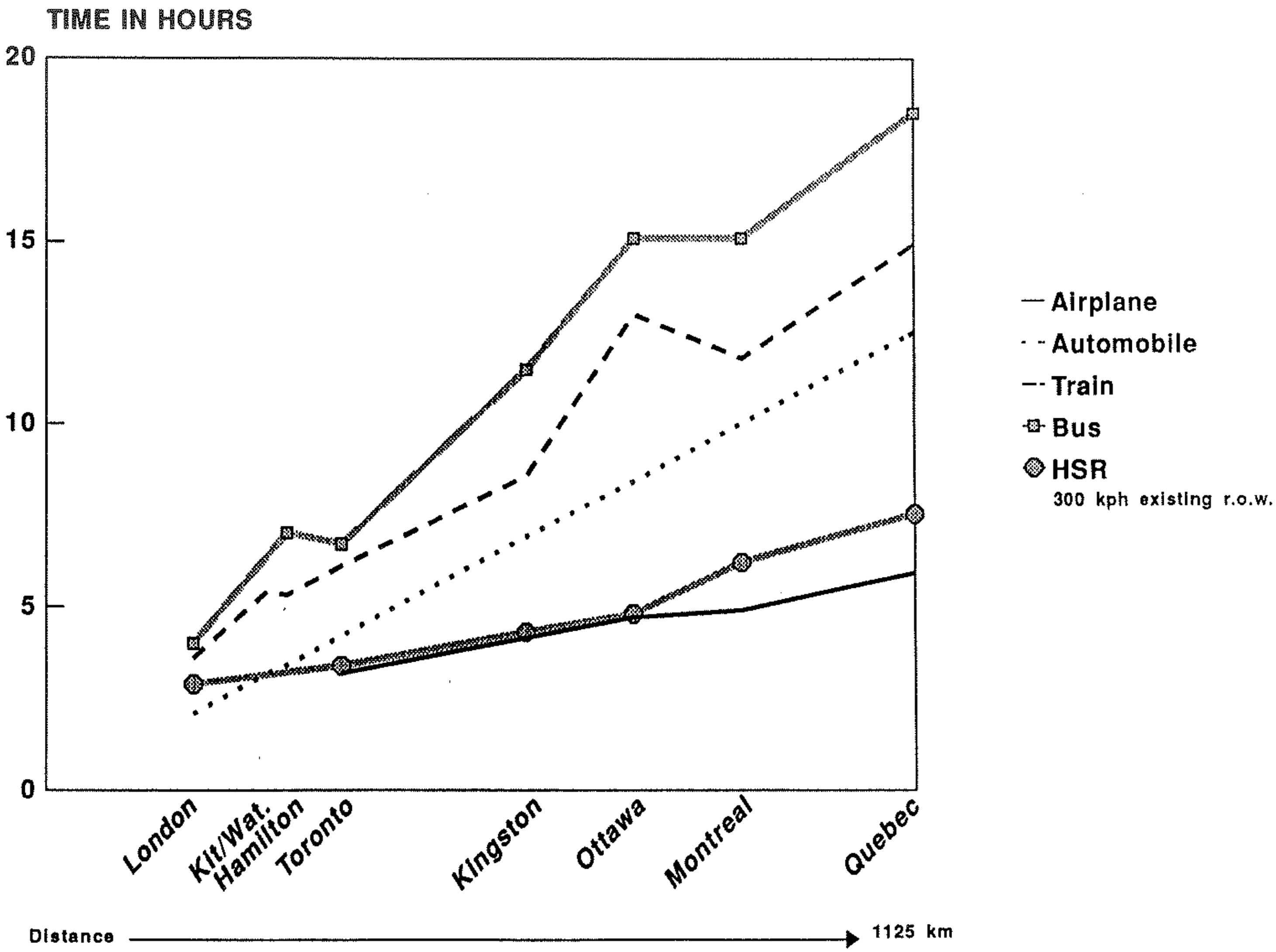
  Exhibit C-1.3 shows the door-to-door travel times between Windsor and other corridor communities for the HSR and other modes. This analysis indicates that the HSR would provide a modest improvement to inter-city accessibility. More important than time savings, however, would be the increased service level.

  One of the most significant effects of the HSR will be to alter the modal choice of travel between Windsor and other corridor centres. As an example, travel between Windsor and Toronto is currently undertaken primarily by the automobile. Currently, VIA rail only accommodates approximately 8 per cent of trips to Toronto. With

Exhibit C1.3

HEMSON

DOOR TO DOOR TRAVEL TIME: BY MODE (WINDSOR TO OTHER CORRIDOR CENTRES)



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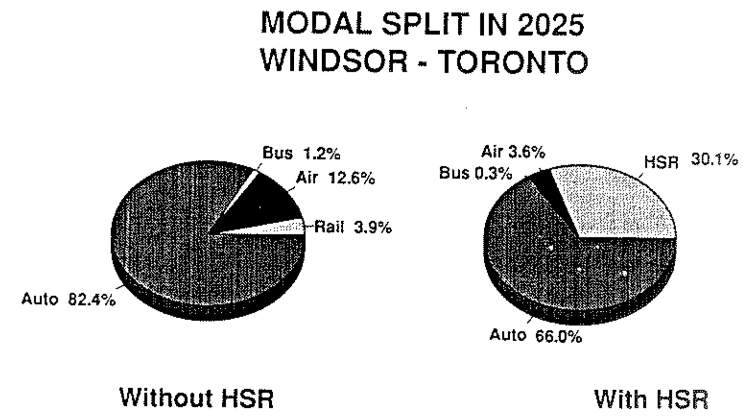
the HSR, however, this pattern of modal choice is projected to change.



Notes: - 2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.
- 2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.

By 2025 it is anticipated that close to 30 per cent of all trips will be taken by HSR. A similar shift in modal choice is projected to occur between Windsor and other centres. While the HSR is not likely to be the primary mode of travel, the importance of rail travel is certainly expected to increase with the HSR in place.

- **Tourism Initiatives Would Be Enhanced**

One of the clearest HSR affects would be the enhancement of tourism-related initiatives in Windsor. First of all, Windsor would become a more attractive Canadian entry point for American visitors since it would have an 'exciting' and rapid form of access to other major tourist destinations in South Central Ontario and Québec. In addition, HSR service would increase the attraction of gambling trips from Central Ontario to Windsor. Previous studies completed as part of the HSR project indicate that HSR tourism potential would likely be exploited by professional tour operators and gambling is a prime example of such an opportunity for package trips.

At the same time it is important to recognize that much of Windsor's success in tourism and especially as a casino town stems from its role as an unofficial suburb of Detroit. As such, its visitors are quite different from those to other cities since they are predominantly short-term in nature.

- **Manufacturing Location Patterns Will Not Change As A Result Of The HSR**

  As suggested by the earlier findings of this assignment, it is unlikely that HSR would significantly change the location patterns of manufacturing activities in Windsor. This is due to the limited importance of inter-city passenger travel in the location decisions of manufacturing companies.

- **But Overall Growth Outlook Is Unlikely To Be Altered Dramatically**

  While there are clearly potential positive impacts of HSR, particularly in reducing the sense of remoteness, it is clear that the primary factors affecting the outlook for Windsor will continue to be economic and demographic rather than inter-city passenger travel.

- **HSR Service Would Compliment Local Planning And Economic Development Objectives**

  A review of local Official Plans, economic development studies and discussions with staff indicate that the HSR would compliment municipal priorities in the following ways:

  - HSR service, to the extent that it fosters economic growth and diversity would reinforce longstanding community development objectives in Windsor;

  - HSR service would increase the market potential for the new Casino, an important current economic development initiative in the community; and

  - HSR service could trigger modest development in the immediate vicinity of the proposed station location. This development, assuming that it is done in an appropriate fashion, is desired by the local municipality.

For these reasons, the HSR effect on Windsor is considered to be modestly positive, but by no means large enough to override the influence of the automobile industry.

1.3 STATION LOCATION ISSUES

The analysis now focuses on the effect of alternative station locations. Although only one station location has been proposed (in the suburban south area of the City), theoretical alternative station locations were considered so as to provide a context.

The conclusion of this analysis is that for Windsor the specific station location is not a key factor as the station will act mostly as a modal transfer point rather than as a direct connection to a dominant destination point. In other words the proposed location is as good as any, given that most travellers will arrive from or depart to widely dispersed locations.

1.3.1 Station Location Is Not Likely To Have A Significant Impact

Population and employment within Windsor is relatively dispersed with the exception of a higher density core area, which for technical reasons, would not likely be suitable as an HSR station location. Because of the dispersed character of the community the significance of a station location will be limited. Any location in Windsor will be accessible to the larger Windsor region.

- **Travellers Are Destined For A Widely Dispersed Geographic Area**

  Travellers originating or destined for Windsor would not be tied to a specific concentrated location within Windsor. Unlike Montréal or Toronto, which have very substantial downtown concentrations, visitors to Windsor are more likely to be destined for widely dispersed locations.

- Those visiting friends and relatives will stay in private residences which are widely distributed throughout the region;

- Business travellers are few in number. Many originate or are destined for a widely dispersed number of locations. The central core, while important, is not overwhelmingly important to the overall region;

- Cross border travellers using the HSR will not be influenced by the station location; and

- Tourists, would be more focused towards downtown, especially if this is the chosen location for the Casino.

The lack of a dominant origin/destination eliminates any obviously preferable station location. Instead, a location with wide accessibility is suggested.

- **HSR Users Are Unlikely To Walk To Their Ultimate Destination**

  The lack of a clear concentration of origins or destinations means that an HSR station within Windsor will be more an inter-modal transfer point than a destination in itself. Because of this, HSR travellers are unlikely to walk to or from the station no matter where it is located.

  All potential HSR station locations are therefore likely to involve the transfer of passengers to or from some other mode such as car, taxi, bus, etc.

The major importance of the HSR would be to provide high speed rail service **to and from Windsor**... not to serve a specific location **within Windsor**.

1.3.2 Station Location Is Unlikely To Attract Major Developments

The HSR station will mostly be a place for travellers to switch between modes (such as car, taxi, bus, etc.) en route to their ultimate destination. With this in mind, and in light of projected passenger forecasts, it is suggested that the HSR station is unlikely to trigger major nearby development, and thus will not likely trigger major increases in property values.

- **Uses Beside HSR Station Will Focus On Inter-modal Transfers**

  As discussed, the major land use activities related to an HSR station in Windsor will be related to the need to transfer passengers to and from the HSR. Automobile uses are likely to be the primary mode and, for this reason, adjacent land uses, such as the following, can be anticipated:

  - Bus and taxi stands;
  - Drop-off points;
  - Car rental agencies;
  - Parking lots; and
  - Regional roads.

- **Some Commercial Development May Occur Near HSR Station**

  It is likely that some commercial development would be attracted to locate near the HSR station. There is likely to be some additional overnight accommodation needed. This could be for business and tourist trips attracted to Windsor for longer stays and also to serve cross-border tourists who may stay in Windsor en route to and from the United States or Central Ontario.

  The relatively small number of business and tourist travellers indicates that Windsor is not at present a major origin or destination point compared to other HSR centres. For this reason, the market in Windsor has tended to be relatively limited and highly competitive.

  However, the outlook for this community is for significant growth considering Windsor's recent performance over the past decade. This improved growth outlook would enhance the prospects for commercial development opportunities although the extended time horizon of this growth will impose a constraint on short term feasibility.

2. LONDON CMA

This appendix provides an analysis of the HSR effect on London. Key conclusions of this appendix are as follows:

- London is the largest community in south-western Ontario and serves as the regional service centre for a large hinterland. The economy is diversified and the outlook is for continued growth.
- A review of inter-city travel patterns indicates that London's primary links are to Toronto with secondary ties to Windsor and Kitchener. Much of this travel is by car. Business reasons account for approximately 25 per cent of total trips.
- Although the HSR would improve accessibility to some centres in the corridor, the extent of this improvement is modest. London's key prospects depend primarily on its location with respect to highway location and its diversified manufacturing economy. Against this background, improvements to inter-city passenger travel will have a significant but not a major impact on growth and settlement patterns in London.
- A downtown HSR station would offer excellent service to the significant concentration of employees and activities in the downtown core area. The existing VIA Station location has excellent access to this core area and there is potential for redevelopment activity near an HSR station.
- A fringe location near Highway 401 would compliment the existing "business park" character of the area. Broad development trends and the presence of a number of large facilities in this area suggest there are opportunities to establish linkages between the HSR and adjacent land uses.

The appendix is organized into three sections: socio-economic outlook; effect of HSR on London; and potential HSR station location issues.

2.1 SOCIO-ECONOMIC OUTLOOK

London is the biggest community in south-western Ontario and serves as the regional centre for a large hinterland. The economy is diversified and the growth outlook is for continued growth.

2.1.1 London Is A Diversified City Which Functions As The Regional Service Centre For Much Of South-Western Ontario

- **London Is Located On Highway 401, A Two Hour Drive West Of Toronto**

  The London CMA is about 200 kilometres west of Toronto on Highway 401. The population of the CMA is just over 380,000, an increase of over 10 per cent from a 1986 population of 340,000 residents. The City of London accounts for over 300,000 or 80 per cent of this total CMA population.

- **London's Location Has Made It The Logical Regional Service Centre**

  London's location at the intersections of Highway 401 and 402, as well as its proximity to Highway 403, has made it the logical location for a number of regional functions. Major corporations, such as Coca-Cola, the LCBO, Northern Telecom, Bell Canada, Canada Post, and Labatts have all chosen to locate in London in order to serve the south-western Ontario market.

  London also has a number of government and institutional activities which serve a large regional hinterland. These include:

Organization	Employment
• Ministry of Transportation	735
• Other provincial ministries	600
• London Psychiatric Hospital	760
• Victoria Hospital	3,500
• St. Joseph's Health Centre	2,000
• Canadian Forces Base	1,000
• University of Western Ontario	3,850
• Fanshawe College	1,250

London's hinterland, according to retail shopping patterns and migration data, extends over a wide area and includes over 1.4 million residents (Exhibit C-2.1).

- **London Has A Strong Economic Base**

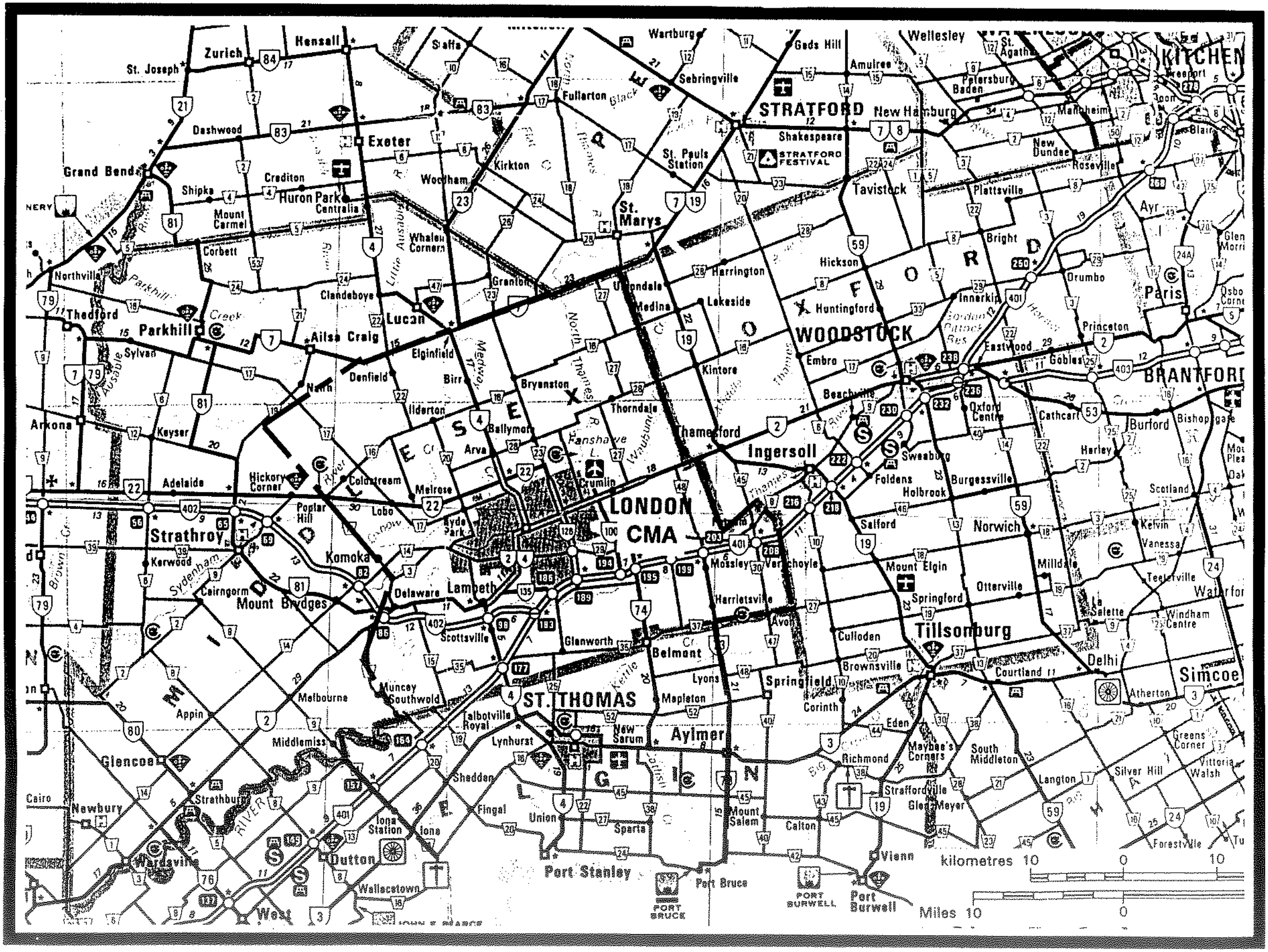
  London is home to a number of significant office employers including London Life, Canada Trust, and the south-western Ontario regional offices of the five main charter banks.

  London's economic base is also supported by a strong manufacturing sector with manufacturing accounting for approximately 20 per cent of total employed labour force. Most importantly, London's manufacturing sector has not been as detrimentally affected by the kind of restructuring which has occurred in the automotive and steel sectors. Between 1981 and 1986 manufacturing employment remained relatively stable compared to a number of other communities which have experienced decline. Key employers include companies such 3M, Ford, GM, and Northern Telecom as well as a range of other small and medium sized firms.

The stability and broad diversity of London's economy is reflected in average house prices which have increased steadily since 1988 and have not undergone the correction felt by many central Ontario communities. London's strong economy is also evidenced by the above-average labour force participation rate of over 70 per cent (Exhibit A-2.2).

LONDON REGIONAL SETTING

Exhibit C2.1



2.1.2 Growth Outlook Is Positive

- **Socio-Economic Forecasts Call For Strong Growth In London**

  Socio-economic forecasts prepared for the HSR project indicate a substantial amount of growth is anticipated for the London community. Over 190,000 new residents are anticipated by the year 2025 with a corresponding increase in households and employment (Exhibit (C-2.2). Although this represents close to a 50 per cent increase over current levels, it translates into a modest 1 to 2 per cent growth rate per annum.

- **Local Conditions Confirm This Positive Outlook**

  A review of local economic and social factors indicates that these growth projections are likely to be achieved given London's diversified economy and excellent location in south-western Ontario.

  - London Benefits From Growth In Ontario

    One of the key features of London's strengths is that when Ontario grows, London benefits. This is because many of London's manufacturers, and in fact much of its service economy, is directly linked to the provision of services to south-western Ontario as a whole. To the extent that the outlook for population growth in Ontario is positive, London benefits. Many of London's manufacturers are related to population growth rather than to specific North American sectors (for instance, 3M, Coca-Cola, the LCBO, and the insurance industries all will benefit from general population growth in Ontario).

LONDON CMA

Exhibit C2.2

POPULATION / HOUSEHOLD DATA

	1986	1991	% Increase
Population	342,302	381,522	11.5%
	1986	% of Total	
Pop. >65	42,145	11.0%	
Postsecondary Education	94,020	27.5%	
University Degree	31,470	9.2%	
	1986	1991	% Increase
Total Households	129,380	146,905	13.5%
Average Household Income	43,491	47,690	9.7%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA

1991 Total Labour Force			211,690
	1981	1986	1991
Employed Labour Force	161,789	172,794	193,615
	1991	15-24	25+
1991 Unemployment Rate	8.5%	13.4%	7.3%
1991 Participation Rate			70.7%

Source: Statistics Canada

EMPLOYMENT BY SIC

	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	50,705	50,295	27.0%	-0.8%
Services	74,430	83,885	45.1%	12.7%
Government	8,190	8,480	4.6%	3.5%
Trans./Comm.	10,410	11,000	5.9%	5.7%
Retail/Wholesale	30,045	32,340	17.4%	7.6%

Source: Statistics Canada

REAL ESTATE INDICATORS

	1992
Average House Price	$138,327
	1988-92 Annual Average
Res. Units Sold	6,487
Value of Construction	
Residential	$275,058
Industrial	38,364
Comercial	137,898
Institutional	56,701

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	342,500	407,600	532,300	65,100	1.35%	124,700	1.34%
Household	134,700	173,400	237,200	38,700	1.96%	63,800	1.58%
Employment	162,700	202,600	235,300	39,900	1.70%	32,700	0.75%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

- There Is Ample Capacity To Accommodate Growth

  Another reason why London is likely to achieve this positive growth outlook is that the City has recently undergone an annexation process that has added a significant amount of well-located lands to accommodate growth. In particular, the annexation included the area along Highway 401 frontage in south-eastern London which has experienced rapid growth over the past five years. This added potential ensures that market pressure can be accommodated.

2.2 EFFECT OF HSR ON THE LONDON COMMUNITY

2.2.1 London's Main Link Is To Toronto, With A Secondary Ties To Windsor And Kitchener

A review of inter-city travel patterns indicates that London's primary links are to Toronto with secondary ties to Windsor and Kitchener. Much of this travel is by car. Business trips account for approximately 25 per cent of total trips.

- **London Has A Relatively High Rate Of Inter-City Travel Between Corridor Communities**

  A review of the total number of passenger trips between London and other corridor centres indicates that over 8.5 million trips occur annually. Of this, close to 8 million, or 94 per cent were undertaken by car. On a per capita base, this equates to over 22 trips per resident,[1] which is relatively high compared to other corridor communities.

- **Most Trips Are To Toronto By Car**

  Over half of all inter-city trips between London and other corridor centres are to Toronto. Of secondary importance are Kitchener and Windsor, each of which account for approximately 20 per cent.A key feature is that London's links to these other communities are

[1] *Total annual **inter-community** trips by all modes per resident.*

primarily by car. Windsor and Kitchener are easily accessible by car due to the relatively short distance to these centres. As a result of somewhat limited air service and relative accessibility, the increased distance to Toronto does not appear to discourage the use of the automobile.

- **Business Linkages Reflect London's Service Sector Focus**

  A profile of inter-city travellers between London and Toronto (which constitutes the bulk of its inter-city travel) indicates a significantly above-average concentration in service sectors, particularly wholesale and retail trade. There are also an above-average number of business travellers in the manufacturing and construction sectors.

  A final point worth noting is that the business component of inter-city travel is, as in all other centres, highly skewed towards automobile travel.

2.2.2 HSR Will Have A Modest Effect On London

Although the HSR will improve accessibility to other centres in southern Ontario, the extent of this improvement is modest. London's prospects will continue to stem from its highway linkages and its diversified service and manufacturing economy. Improvements in inter-city passenger service will enhance some sectors but will not have a major overall impact on growth and settlement patterns in London.

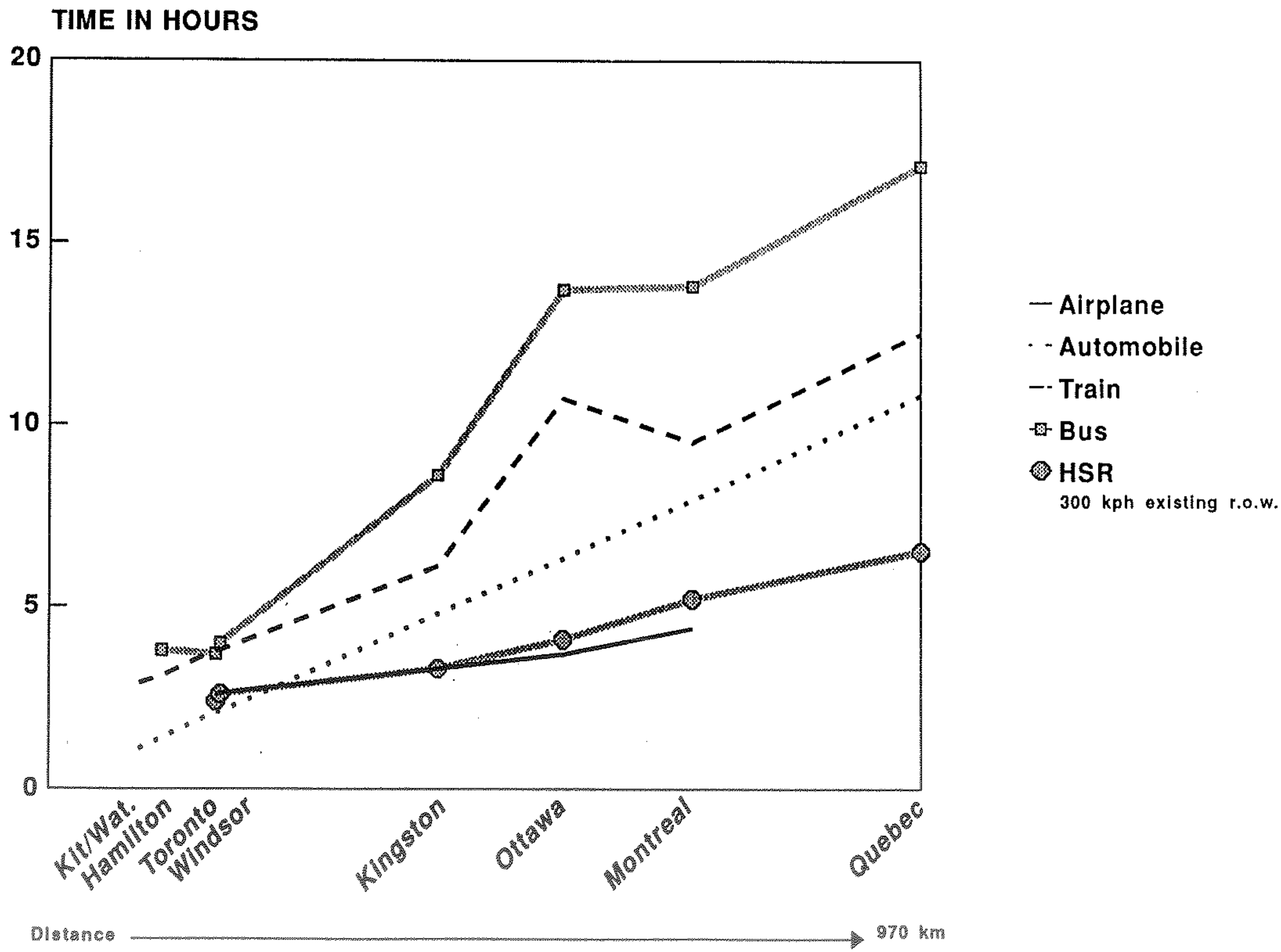
- **HSR Improves Accessibility To Other Centres In Southern Ontario**

  A review of accessibility between London and other corridor centres indicates that HSR would provide a modest improvement in service (Exhibit C-2.3). However, for the key centres of Windsor, Kitchener-Waterloo, and Toronto, it will be difficult to attract travellers away from the convenience of their cars. The distances to these centres are not great enough to allow HSR to achieve sufficient time-savings to compensate for the loss of convenience provided by the car.

Exhibit C2.3

HEMSON

DOOR TO DOOR TRAVEL TIME: BY MODE (LONDON TO OTHER CORRIDOR CENTRES)



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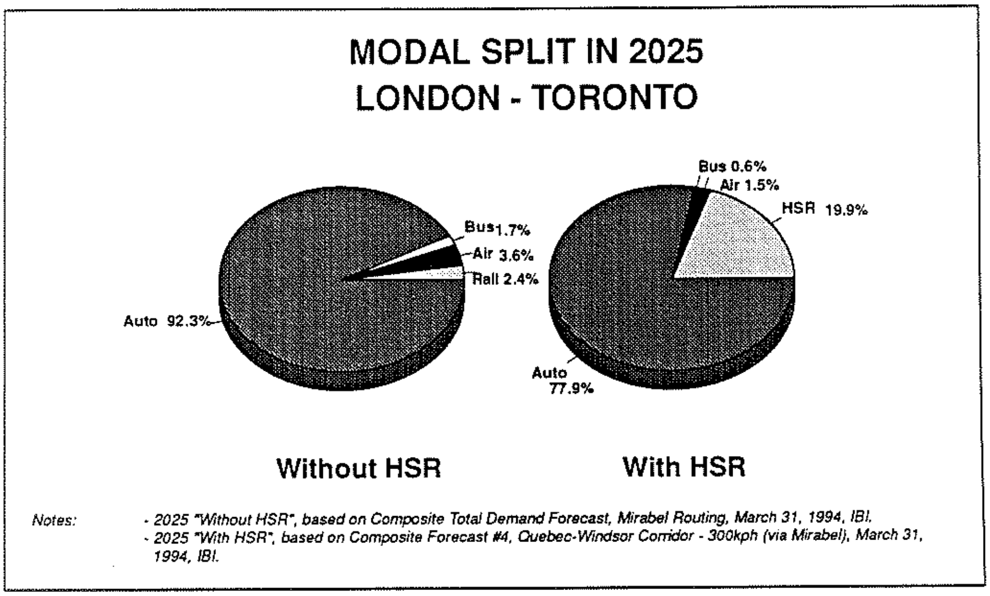
- **Train Travel Will Become More Popular**

One of the most significant effects of the HSR will be to alter the modal choice of travel between London and other corridor centres. As an example, travel between London and Toronto is currently undertaken primarily by the automobile. VIA rail only accommodates approximately 5 per cent of trips to Toronto. With the HSR, however, this pattern of modal choice is projected to change.



By 2025 it is anticipated that close to 20 per cent of all trips to and from Toronto will be taken by HSR. A similar shift in modal choice is projected to occur between London and other centres. While the HSR is not likely to be the primary mode of travel, the importance of rail travel is certainly expected to increase with the HSR in place.

- **HSR Could Expand London's Service Sector Role**

  At present London is clearly the regional service centre for south-western Ontario. With HSR this role could be increased, particularly to the point of attracting activities from the greater Toronto area. Whereas now London is too distant from Toronto to be a realistic location for Toronto servicing organisations requiring frequent trips into the centre. However, with a reliable, comfortable and rapid inter-centre HSR this situation could change. The chances of attracting new organizations or expanding the role of those already in place would probably be greater if the HSR station were to be located downtown within walking distance of office buildings.

- **HSR Could Have A Negative Effect On Tourism And Recreation**

  While HSR might encourage additional visitors to consider London as a tourist destination, this potential benefit is likely to be more than offset by the number of London residents who will take advantage of the increased accessibility to recreation and shopping facilities in larger urban centres like Toronto. More simply put, London residents will have a greater opportunity to choose between local theatre arts, etc., and travelling to major tourist attractions in Toronto, such as Skydome, the Eaton Centre, theatre, performing arts, restaurants, etc. The net effect on London could be somewhat negative because there are not major tourist destinations within this community to offset the potential loss of expenditures as Londoners visit other communities.

Although there are potential benefits, particularly for the service sectors, the general conclusion is that HSR would not significantly alter London's population, economic and settlement pattern outlook. London's future is strongly tied to the overall growth in the Provincial economy and its role as a regional service centre for south-western Ontario. Improvements to inter-city passenger service are unlikely to substantially alter this outlook.

2.3 EFFECT OF STATION LOCATIONS

This final section reviews the effect of alternative station locations. It is argued that both downtown and fringe locations have merits, but they are of a different nature. A downtown station would provide excellent service to the office sector whereas a fringe location would tend to accelerate the development of business park activities near Highway 401.

2.3.1 Two Alternative HSR Station Locations Are Being Considered

According to the routing study, two alternative station locations are being considered for the HSR.

- **Station Is Proposed Near Highway 401 In South-East London**

  For the over 300 kilometres per hour technology, the composite route includes a potential station location in south-east London near Highway 401 (Exhibit C-2.4).

- **HSR Station Is Proposed In The Downtown Area For 200-250 kph Composite Route**

  The routing study also considers a location in the downtown core of London, presumably adjacent to or near the existing VIA Station. This option is only proposed for the 200-250 kph composite route.

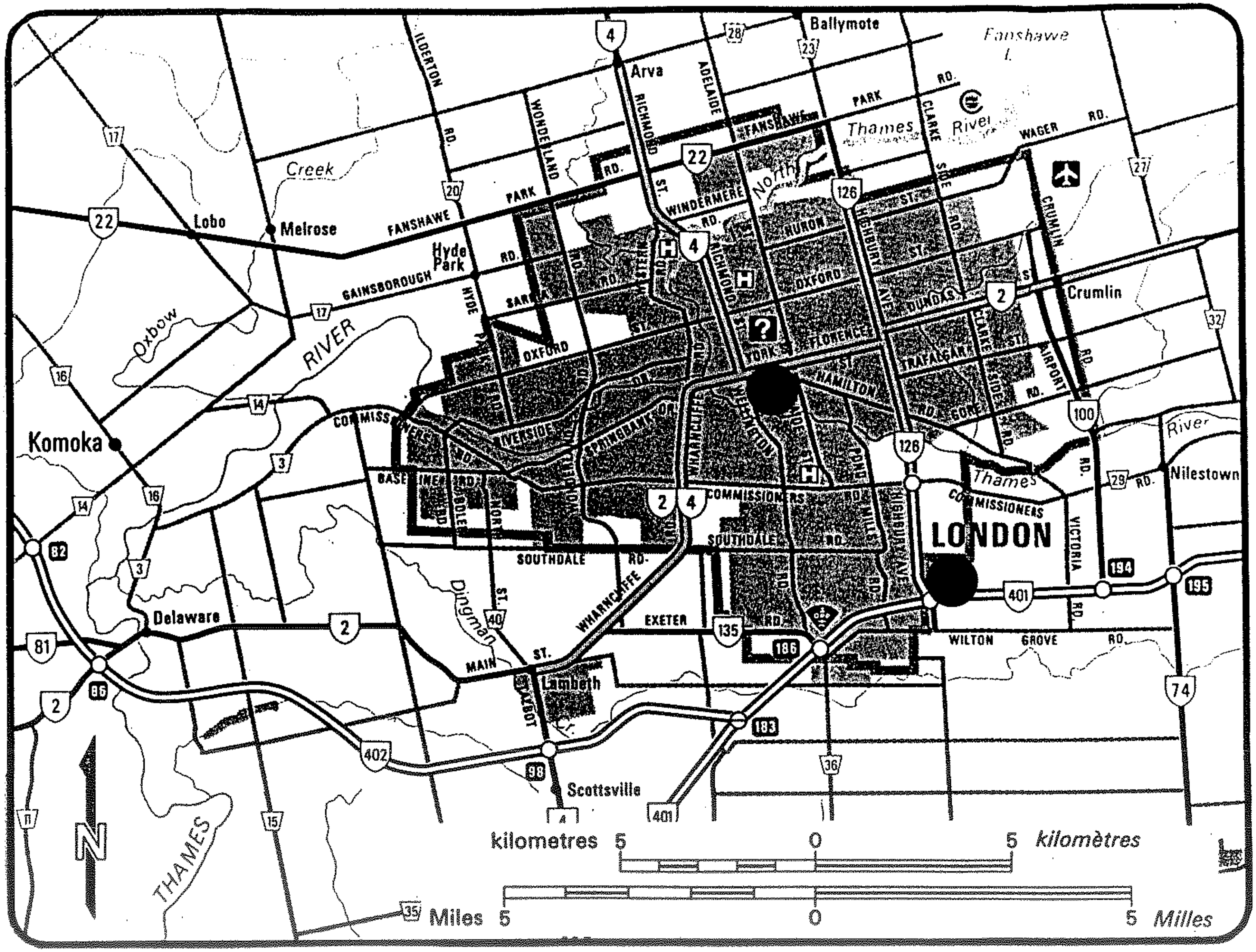
2.3.2 Downtown Location Would Provide Better Service To The Office Sector

An HSR station located in the downtown area would offer better service to the significant concentration of employees and activities in the downtown core area. The area near to the existing VIA Station location provides excellent access to the core area and there would likely be potential for redevelopment near an HSR station. The importance of the core area is deserving of emphasis since it acts as the focus for a large area around London. At the same time there are other facilities such as

HEMSON

POTENTIAL HSR STATION LOCATIONS

Exhibit C2.4



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hospitals which are important to the region but which are not located in the core.

- **Significant Concentration Of Office, Institutional And Commercial Development**

  Of the corridor centres, London's downtown is one of the more prominent and successful. This success is partly due to the presence of major insurance companies, as well as to the City's commitment to focusing retail and recreation activities in the downtown area. The recently-approved Official Plan for London has specific policies to ensure the continued economic viability of the downtown core and these policies have facilitated a number of major redevelopments over the past three years.

- **Station Location Would Provide Direct Access To These Destinations**

  An HSR station in the core area would provide direct access to the most concentrated sections of the downtown area. For this reason, there would be somewhat less intermodal demand than at a suburban station.

- **HSR Station Could Trigger Redevelopment In Its Vicinity**

  London's downtown core will continue to grow. An HSR station, which would play a prominent and prestigious role in the City, would tend to attract redevelopment to the vicinity. A station would also reaffirm the core area's preeminent status within the London region.

  Opportunities for redevelopment could include office and institutional uses, a hotel, in addition to inter-modal transfer facilities to serve the broader London regional market. Although potential redevelopment would be attracted to the new station area, the growth would be the result of redistribution of existing demand rather than induced demand created by HSR. In terms of real estate values this could increase property involved in the vicinity of the HSR station.

2.3.3 Location Near Highway 401 Could Accelerate Business Park Activities

A fringe location near Highway 401 would not offer the same benefits as a downtown location, however there are other benefits that could be realized in this location.

- **HSR Station Would Develop Links To Adjacent Business Park**

  The existing "business park" character of lands near the proposed over 300 kph composite route station location, as well as the presence of a number of large regional facilities in this area suggest there is an opportunity to establish linkages between HSR and adjacent land uses.

  - The Area Is Already Characterized By High End Business Park Development

    The proposed location for an HSR station, at Highway 401 between Wellington Street and Highway 126, is adjacent to an area of substantial business park development. There are a number of high quality regional distribution centres, many of which are significant employers. It is also one of the fastest growing areas of London with ample vacant land to ensure continued growth in this area of London.

  - An HSR Station Would Compliment Business Park Activities

    Based on the French experience, an HSR station can, if appropriately promoted, be used to enhance business park locations. In France there are a number of stations with direct links to business parks where HSR users commute in on a semi-regular basis from other larger urban areas. Office organisations with high inter-city travel characteristics can also successfully locate within business parks.

    London's south end may offer opportunities to link an HSR station to surrounding business park activities. Many firms in this area have strong links to Toronto (they are regional distribution centres with head offices in Toronto) and there is an opportunity for additional development to capitalize on the potential for easy access to Toronto. There are also the inherent locational benefits of London (its convenient access to other centres in South-Western Ontario) that suggest the area will benefit from an HSR station.

- **HSR Station Will Also Be A Modal Transfer Point**

  Aside from any links to the adjacent business park, the HSR station will also be an important inter-modal transfer point. The high dependency on the automobile dictates that uses such as taxi stands, visitor drop-off points, car rental agencies, parking, and access routes to the road network, will all play an important role at a south-London HSR station site. There would obviously be a need for links to the regional and local bus system, however, these would be much less significant than the needs of the automobile.

  A key advantage of a fringe station location is that it could function more easily as an inter-modal transfer point for the wider regional market.

- **HSR Service Would Be Consistent With Local Planning And Economic Development Objectives**

  A review of local Official Plans, economic development studies and discussions with staff indicate that the HSR would compliment London's municipal priorities in the following ways:

  - HSR service, to the extent that it fosters economic growth and diversity would reinforce community development objectives in London;

  - HSR service could trigger modest development in the immediate vicinity of the proposed station location. This development, assuming that it is done in an appropriate fashion, is desired by the local municipality.

  - A downtown station would clearly reinforce a longstanding municipal desire to maintain the preeminence of the core area as a central community focus

  - A fringe HSR station, located in the vicinity of Highway 401, between Wellington Street and Highway 126, would reinforce municipal plans for this area to be a major new growth focus in London's south end. A recent annexation has resulted in the City's urban boundaries being considerable expanded in this location.

3. KITCHENER-WATERLOO CMA

This appendix provides an analysis of the HSR effect on the Kitchener-Waterloo area. Key conclusions of this appendix are as follows:

- The Kitchener-Waterloo CMA encompasses three large communities and has a population of approximately 360,000 people. It is also surrounded by a number of other communities including Guelph, Paris, Brantford and Woodstock.

- Because of its diverse economy and its proximity to Toronto, Kitchener-Waterloo has benefited significantly from Ontario's population and employment growth over the past decade.

- Future prospects continue to be positive as the Kitchener-Waterloo community becomes "closer" to the developing fringe of Toronto, and the area's diverse manufacturing sector attracts new investment and population growth.

- Although HSR links, to Toronto in particular, would provide improved service along a well established corridor of inter-city travel, the magnitude of this positive effect is hard to isolate because substantial growth is anticipated with or without the HSR.

- The proposed HSR station location provides an opportunity to accelerate the development of adjacent business park development. The locational advantages of Kitchener-Waterloo, the prestige associated with the HSR service and the direct link to Toronto's core would all contribute to make lands adjacent to the HSR station an attractive location for office and industrial activities.

- Of the communities potentially served by HSR, Kitchener-Waterloo is the one most likely to generate any significant daily commuter ridership. This will tend to enhance the residential market in the area surrounding the station location.

3.1 SOCIO-ECONOMIC OUTLOOK

As a result of Kitchener-Waterloo's strong economy and proximity to Toronto, this community has benefited significantly from Ontario's recent growth. Kitchener-Waterloo has the highest per cent of labour force involved in manufacturing of all corridor communities and growth is anticipated to continue as this community becomes increasingly central within the southern Ontario urbanized area.

3.1.1 Kitchener-Waterloo Is A Manufacturing Centre With Strong Links To Toronto

Kitchener-Waterloo is a large region comprised of three distinct component municipalities. The region has a strong manufacturing base which relies on excellent transportation accessibility.

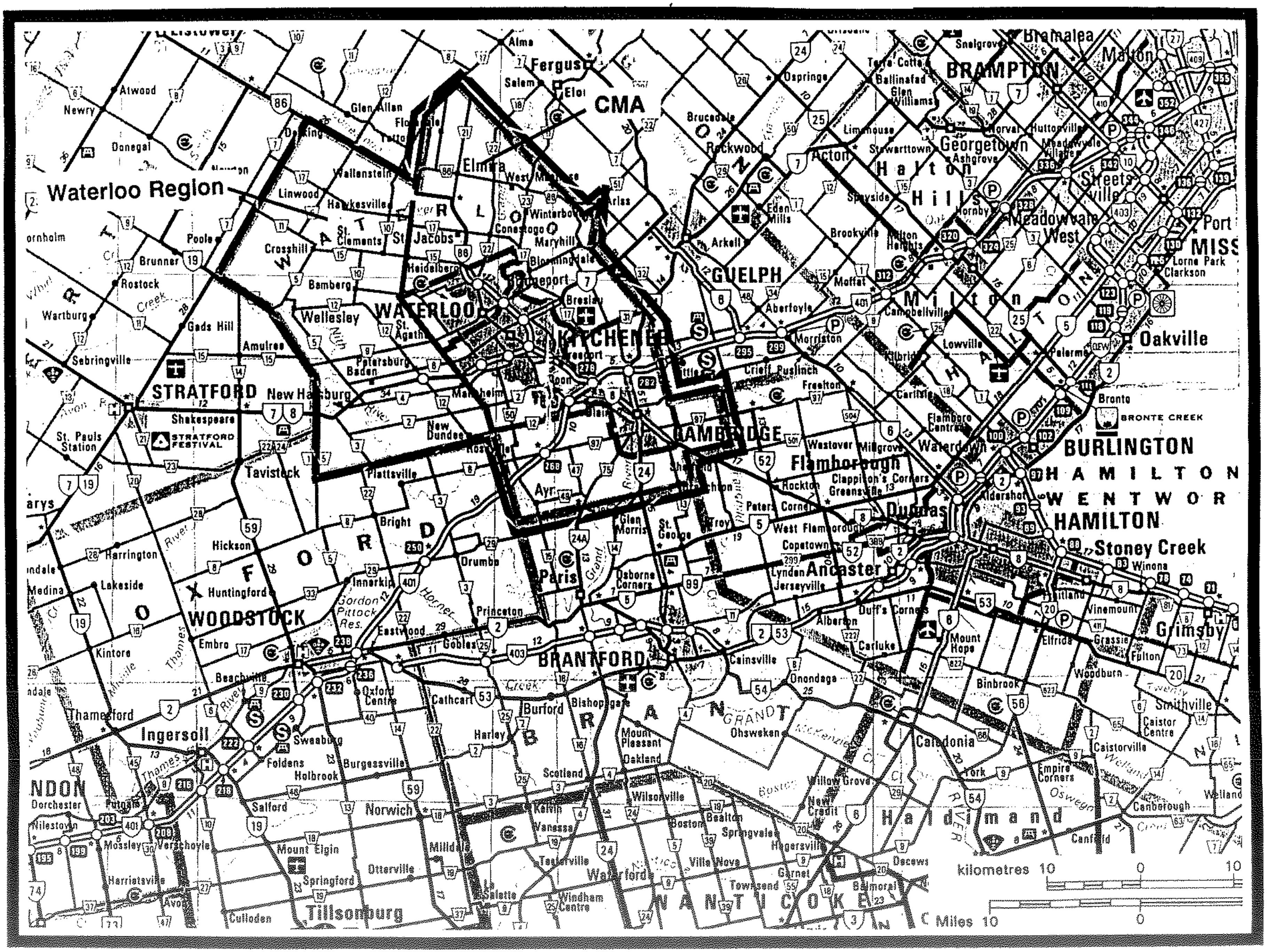
- **Kitchener-Waterloo Is Located Along The 401, A One Hour Drive West Of Toronto**

  Kitchener-Waterloo is located on Highway 401, approximately 60 kilometres west of Pearson International Airport in Toronto. The region is located at the intersection of a number of highways, (Highways 401, 8, 24, 7 and 85) which provide the area with excellent access to surrounding areas. Kitchener-Waterloo is also located less than 15 kilometres from the community of Guelph making this area a highly urbanized region of south-central Ontario.

  The Kitchener-Waterloo Census Metropolitan Area (CMA) covers a large land area and has a population of approximately 360,000 people. A larger geographic area, the Regional Municipality of Waterloo, includes the CMA as well as surrounding rural communities. It had a 1991 population of approximately 378,000. Kitchener-Waterloo's area of socio-economic influence extends beyond the Region's borders particularly to the north for which it serves as a regional service centre (Refer to Exhibit C-3.1).

KITCHENER-WATERLOO REGIONAL SETTING

Exhibit C3.1



There has been substantial population growth in Kitchener-Waterloo over the past decade with current population levels representing a 15 per cent increase over 1986 levels.

- **The Region Is Comprised Of Three Component Communities**

One of the key land use characteristics of Kitchener-Waterloo is that it is comprised of three distinct municipalities. North of Highway 401 the cities of Kitchener and Waterloo have a single urbanized area as their respective developing fringes overlap. The City of Cambridge to the south is still physically separated from the other two municipalities by undeveloped land areas.

- Kitchener

The City of Kitchener is the largest of the three component municipalities with a 1991 population of approximately 170,000. Known originally as "Berlin" (the name was changed during the first world war), the original municipality of Kitchener was settled by German Mennonites migrating from Pennsylvania. Kitchener has the largest concentration of employment within the region, with over 80,000 jobs (about 45 per cent of the CMA total employment). The Kitchener downtown area contains a significant concentration of office jobs including several major insurance firms.

- Waterloo

The City of Waterloo is located immediately north of the City of Kitchener with virtually no break in the urban development between the two municipalities. It has a population of approximately 71,000 residents, and accommodates 43,000 jobs. Waterloo has two universities, Waterloo and Wilfred Laurier. The University of Waterloo, because of its emphasis on applied technology and computer sciences, has been instrumental in the significant growth of technology-oriented firms in the area.

- Cambridge

  Cambridge (formerly known as Galt and Hespler) has a population of 93,000 residents, making it the second-largest of the three component municipalities. It is the location of approximately 43,000 jobs, or about 23 per cent of the CMA's 185,000 jobs. Cambridge is physically separated from Kitchener and Waterloo by the Highway 401 corridor, as well as substantial tracts of vacant lands. Cambridge is best known as the location of the Toyota assembly plant.

Although these three communities comprise the urbanized core of the Kitchener-Waterloo CMA, it is important to emphasize that the three communities are still relatively distinct.

Although not part of the Kitchener-Waterloo community, Guelph is also an important centre that is located 20km to the east. With a population of 86,000 it is only slightly smaller than Cambridge. Guelph is similar in many ways to Kitchener-Waterloo in that it has a significant manufacturing base and a university. It is also a part of the "Technology Triangle," a term used by local economic development departments to describe the high-tech combination which has grown up in the area.

- **There Is A Strong And Diversified Manufacturing Sector**

Kitchener-Waterloo has the highest share of its jobs in manufacturing centres in the Québec-Windsor Corridor. Major manufacturing firms in the Region include:

• J.M. Schnider Inc.	2,200 employees
• Kaufman Footwear	1,300 employees
• Budd Canada	1,250 employees
• Lear Seating	750 employees
• Arrow Company	500 employees
• MTD Produce Ltd.	500 employees
• Toyota Corporation	500 employees

Despite the presence of major employers, Kitchener's manufacturing sector is not dominated by large firms. Rather, Kitchener-Waterloo's manufacturing base is based more on a large number of small and medium sized firms, many of which are technology-intensive. This makes the Kitchener-Waterloo economy less susceptible to restructuring, cyclical down-turns, outdated capital stock and downsizing that has been experienced in other corridor centres. In fact, Kitchener-Waterloo is one of the few municipalities in which manufacturing employment actually grew during the 1981-1986 period.

Although it is diversified, Kitchener-Waterloo still has a strong role in the automotive and steel industries, as is the case with most local economies in southern Ontario. Toyota Corporation has an assembly plant in Cambridge, providing employment for over 400.

- **Kitchener-Waterloo Benefits From Its Location Near Toronto**

  One of Kitchener-Waterloo's key strengths is its proximity to Toronto. This proximity has created growth pressure stemming from its competitive advantage of lower land prices and housing costs. This competitive advantage has made Kitchener a popular destination for manufacturing operations formerly located in Toronto.

  The proximity to Toronto has also resulted in one of the few situations within the Québec-Windsor corridor of inter-city commuting. According to the Consumer Contact survey, approximately 5,000 commuter trips between Kitchener-Waterloo and Toronto are undertaken daily. These trips are exclusively by car along Highway 401 and it is likely that most are to the employment area surrounding Pearson International Airport.

These socio-economic conditions suggest that Kitchener-Waterloo is one of the more healthy communities within the Québec-Windsor corridor. The area has enjoyed substantial growth on the strength of a diverse manufacturing and service sector.

3.1.2 Kitchener's Growth Outlook Is Positive

A strong economy, capacity for growth and proximity to Toronto will ensure continued growth pressure in Kitchener-Waterloo.

- **Socio-Economic Forecasts Predict Strong Growth**

  Kitchener-Waterloo's outlook for growth is one of the more positive of the corridor communities. From an existing base of approximately 385,000 residents, close to 275,000 additional people are anticipated to locate there over the next 35 years. The compound annual growth rate forecast of 1.9 per cent is among the highest of all corridor communities. A similarly rapid rate of household growth is anticipated with approximately 130,000 new households anticipated to be resident within the CMA.

  Employment is also projected to increase at one of the highest compound growth rates of any corridor community. At 2.25 per cent annually, this growth rate would result in an estimated 120,000 new jobs over the next 35 years.

  Exhibit C-3.2 provides the details of these socio-economic forecasts as well as a summary of other social and economic indicators.

- **Land Supply And Proximity To Toronto Confirm This Positive Outlook**

  A review of local circumstances suggest the socio-economic forecasts represent realistic growth scenarios for these communities. This is because Kitchener-Waterloo will increasingly benefit from its excellent location in south central Ontario adjacent to Toronto and its well-located vacant land supply.

  - Kitchener-Waterloo Benefits From Its Location

    Two key aspects of Kitchener-Waterloo's location contribute to a positive growth outlook. First, as Toronto continues to expand, Kitchener-Waterloo will become "closer" to additional employment opportunities and other amenities. At the same time, Kitchener-Waterloo will continue to enjoy price advantages. House prices are currently 30 per cent[1] lower than those in Toronto and industrial land prices are less than half of those in Toronto. These factors will continue to make Kitchener-Waterloo an

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[1] 1992 year end MLS listings show average residential prices at $210,000 in Toronto and $145,000 in Kitchener.

HEMSON

Exhibit C3.2

KITCHENER-WATERLOO CMA

POPULATION / HOUSEHOLD DATA

	1986	1991	% Increase
Population	311,195	356,421	14.5%
	1986	**% of Total**	
Pop. >65	33,670	9.4%	
Postsecondary Education	78,515	25.2%	
University Degree	23,830	7.7%	
	1986	**1991**	**% Increase**
Total Households	110,150	128,110	16.3%
Average Household Income	44,518	49,976	12.3%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA

1991 Total Labour Force			200,715
	1981	**1986**	**1991**
Employed Labour Force	141,466	161,184	182,665
	1991	**15-24**	**25+**
1991 Unemployment Rate	9.0%	14.2%	7.7%
1991 Participation Rate			72.7%

Source: Statistics Canada

EMPLOYMENT BY SIC

	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	65,535	69,040	40.3%	5.3%
Services	51,765	62,735	36.6%	21.2%
Government	5,420	5,480	3.2%	1.1%
Trans./Comm.	6,335	6,750	3.9%	6.6%
Retail/Wholesale	24,880	27,285	15.9%	9.7%

Source: Statistics Canada

REAL ESTATE INDICATORS

	1992
Average House Price	$145,015
	1988-92 Annual Average
Res. Units Sold	4,371
Value of Construction (millions)	
Residential	$302,652
Industrial	34,651
Comercial	91,013
Institutional	62,548

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	386,800	492,700	665,000	105,900	1.88%	172,300	1.51%
Household	139,400	192,100	272,100	52,700	2.50%	80,000	1.76%
Employment	197,400	263,300	316,300	65,900	2.24%	53,000	0.92%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area

pluram inc.

attractive alternative location to Toronto with a corresponding increase in spill-over growth.

Another strength of Kitchener-Waterloo is its strategic location in south central Ontario, at the intersection of a number of major highways. It serves a large hinterland, particularly to the north, and any growth in this outlying area will tend to reinforce Kitchener-Waterloo's role as the regional service centre.

- There Is Ample Capacity To Accommodate Growth

  Kitchener-Waterloo has an ample and well-located supply of vacant land to accommodate additional growth. The region is comprised of three municipalities, which in total contain an ample supply of vacant land. The opportunity is enhanced by the fact that Highway 401 runs through the future development area between Cambridge and Kitchener/Waterloo. While water supply is relatively constrained, there are sufficient supply options available to ensure that future needs can be met.

Kitchener's proximity to Toronto, its skilled labour force and diverse economy have enabled this community to benefit significantly from Ontario's recent growth. Future prospects will continue to be positive as the Kitchener-Waterloo community becomes "closer" to the developing fringe of Toronto, and the area's diverse manufacturing sector continues to attract new investment and population growth.

3.2 EFFECT OF HSR ON KITCHENER-WATERLOO

As might be expected given it's proximity to Toronto, Kitchener-Waterloo (and an even greater extent, Guelph) has a very high rate of inter-city travel. This propensity to travel to other corridor centres (mostly Toronto) suggests that improvements to accessibility, such as HSR, will have a positive impact on the

Kitchener-Waterloo community. At the same time, Kitchener's superior location and diversified manufacturing base suggests that the community will continue to grow rapidly whether or not an HSR link is provided. For this reason, the HSR is suggested to have a potentially modest, positive impact on the Kitchener-Waterloo community; otherwise improving an already good situation.

3.2.1 Kitchener-Waterloo's Main Link Is To Toronto

- **Kitchener-Waterloo Has A Very High Rate Of Inter-City Travel**

  Kitchener-Waterloo has very high linkage rates with other communities in the Québec-Windsor Corridor. These per capita rates of inter-city travel are the highest, by far, in the corridor. The close to 32 trips per capita[2], are almost double the rate of the next highest community, and far above the corridor average of approximately five trips per capita. In terms of actual volumes, it translates into an estimated 15 million inter-city trips annually. This is equal to the total for Montréal, an urban area that has a population ten times larger than Kitchener-Waterloo.

- **Most Trips Are To Toronto By Car**

  Of the 14.9 million annual trips, over 11.5 million are to Toronto. This level of inter-city travel is close to double that of the next highest city-pair link (Montréal-Québec) and clearly indicates a very high level of interaction. The most logical reason for this interaction is the relatively short distance between Toronto and Kitchener-Waterloo.

  A review of passenger travel from Kitchener-Waterloo to other communities indicates that 14.5 million trips of the total 14.9 million trips use automobile as the primary mode.

  Due to the relatively short distance and ready highway access, it is not surprising that well over 95 per cent of all trips between Kitchener-Waterloo and Toronto are by car.

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[2] *Total annual **inter-community** trips by all modes per resident.*

- **There Are Secondary Links To London And Hamilton**

  Although travel to Toronto dominates inter-city travel, there are secondary linkages to London (1.5 million trips annually) and Hamilton (over 1 million trips annually).

- **Business Linkages Are Highly Car-Oriented**

  Automobiles account for close to 99 per cent of total business trips between Kitchener-Waterloo and other corridor communities. A review of the travel patterns between Toronto and Kitchener-Waterloo indicates how highly skewed travel patterns are in favour of the automobile.

	Annual Trips (000) Business		
	Total	Business	Share
• Car	11,400	2,500	22%
• Bus	238	26	11%
• Rail	34	4	12%
• Air	2	1	50%
All Modes	11,674	2,531	95%

Business travel by car accounts for well over 97 per cent of travel between Toronto and Kitchener-Waterloo.

Another character of the business linkages between Toronto and Kitchener-Waterloo is that there is an above-average representation of manufacturing activities in inter-city business travellers. Whereas the corridor average is about 19 per cent of business travel, 26 per cent of Kitchener trips are involved in manufacturing. This reflects Kitchener-Waterloo's high degree of manufacturing employment activity.

This review suggests that linkages between Kitchener-Waterloo and Toronto are the most highly developed of any city-pair within the Québec-Windsor corridor. Proximity and excellent access foster this high degree of intercity linkage, with the automobile being the predominant mode of choice for both business and non-business travellers.

3.2.2 The HSR Would Improve Kitchener-Waterloo's Positive Outlook

By improving accessibility between Toronto and Kitchener-Waterloo, the HSR would provide improved service along a well established corridor of inter-city travel. However, it is difficult to isolate the magnitude of this positive effect because Kitchener-Waterloo (as a result of its excellent location and industrial diversity) is likely to grow substantially, irrespective of whether or not an HSR link is provided.

- **HSR Improves Accessibility To Toronto**

  The HSR improves accessibility between Kitchener-Waterloo and other corridor centres (Exhibit C-3.3). To the extent that this fosters additional linkages, then the HSR would have a positive impact on Kitchener-Waterloo. The effect of the HSR will vary to some extent, depending on potential station locations *in Toronto.*

  - A large share of linkages between Kitchener-Waterloo and Toronto focus on the large employment concentration in Mississauga, at the western fringe of the Toronto urban area. This means that an HSR station at Pearson International Airport would provide service to one of the more important locations from Kitchener's perspective.

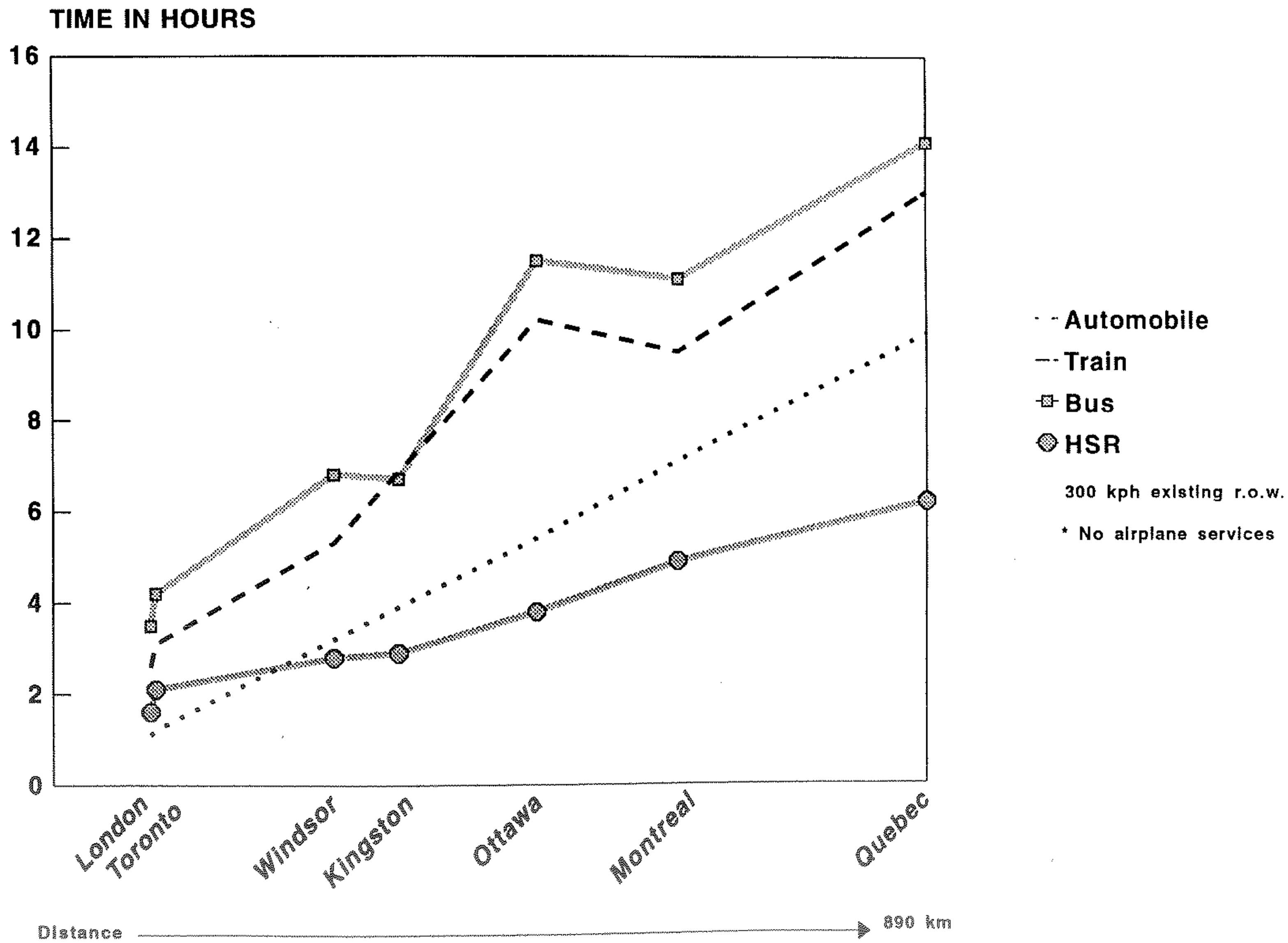
  - At the same time however, the most significant accessibility improvement will be experienced by those travellers from Kitchener-Waterloo who are destined for the core area of the City of Toronto (Union Station). This is because Kitchener - Mississauga trips are relatively easy to make by automobile and the HSR would not dramatically improve accessibility to this area. Kitchener - downtown Toronto core trips, on the other hand, are much more likely to encounter traffic congestion within the Toronto area. As a result, the HSR, which will offer half hour service to Union Station, would be a very attractive alternative for travellers faced with the prospects of driving through traffic congestion.

- **Travellers Will Still Drive To Toronto**

  One of the effects of the HSR will be to alter the modal choice of travel between corridor centres. However, travel between

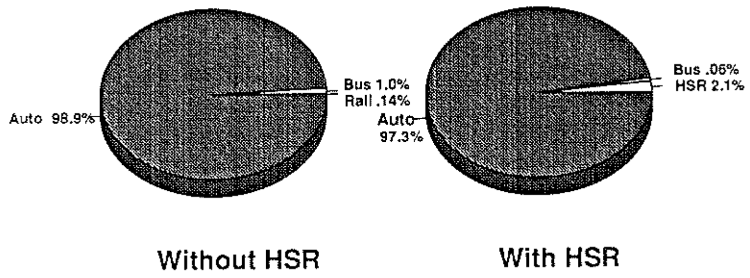
Exhibit C3.3

DOOR TO DOOR TRAVEL TIME: BY MODE (KITCHENER TO OTHER CORRIDOR CENTRES)



Kitchener and Toronto is anticipated to be dominated by the automobile, with or without HSR.

MODAL SPLIT IN 2025
KITCHENER/WATERLOO
- TORONTO



Notes: - *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

- **Limited Impact On Tourism Is Likely**

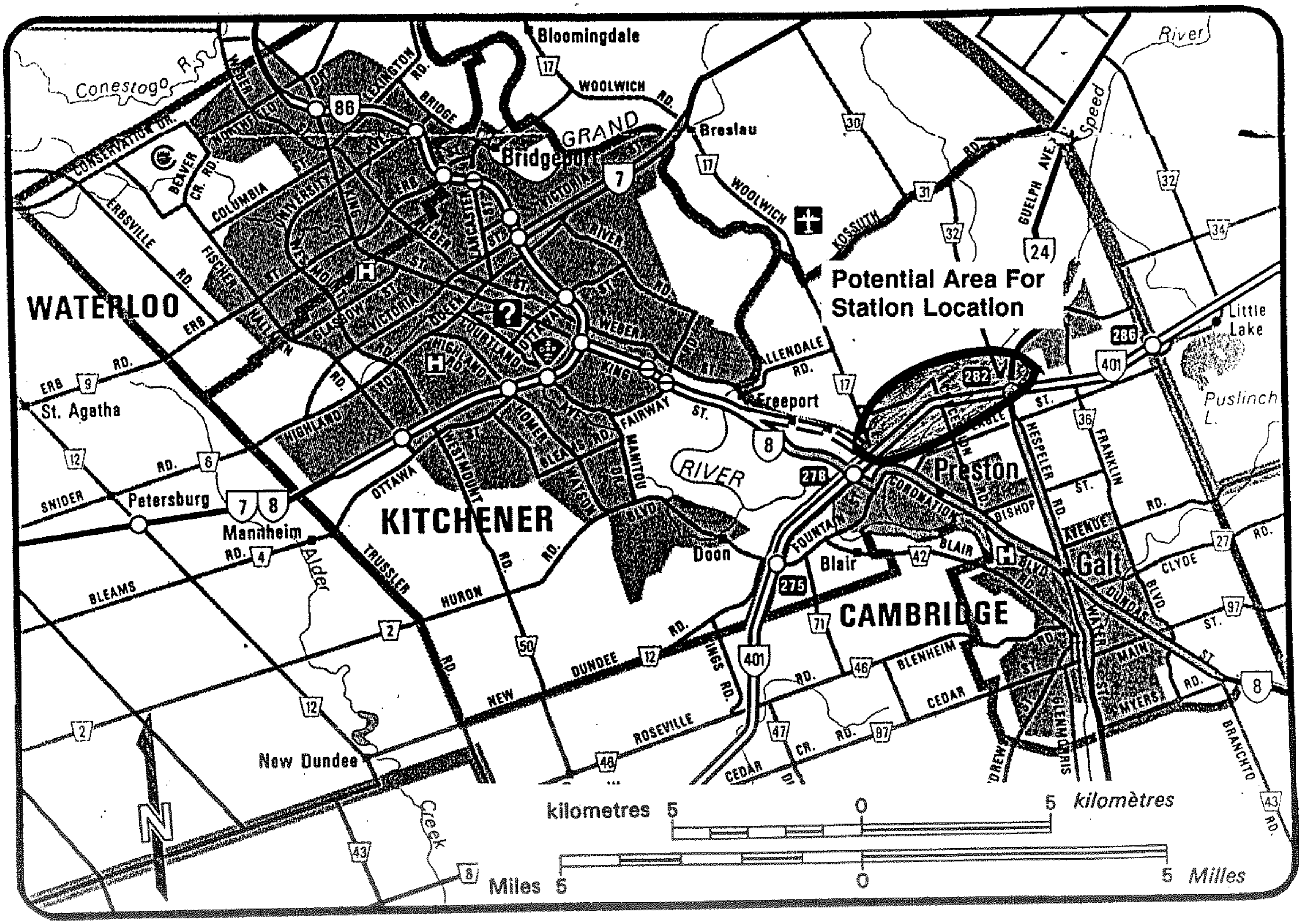
  Although it holds an Octoberfest and is close to the home of the Stratford Festival, Kitchener-Waterloo is not a major tourism destination. This means that the HSR would have only a modest effect on Kitchener-Waterloo's tourism sector, since experience elsewhere suggests that HSR tends to reinforce established tourist destinations.

  The HSR would improve access to the recreation and shopping amenities offered in Toronto, particularly those located in the downtown core area. For instance, the opportunities for trips to Skydome, the Toronto Eaton Centre, Ontario Place, Metro Convention Centre and many other downtown Toronto events would be greatly enhanced. This improved accessibly to Toronto could result in a net outflow of local tourism expenditure potential.

The Kitchener-Waterloo area, including Guelph, is likely to do well with or without an HSR service. The primary effect of the HSR will be one of a perceptual nature with the HSR having a positive impact on the area's promotion as a high-technology manufacturing centre and an attractive place to work and live.

POTENTIAL HSR STATION LOCATION

Exhibit C3.4



3.3 EFFECT OF STATION LOCATIONS

The scope of the analysis now turns to the effect of HSR station location. Although only one station is proposed near the intersection of Highway 401 and Highway 8, other station locations were considered from a hypothetical point of view. It is concluded that the proposed station location would be an effective location for servicing regional markets, as well as offering good opportunities for links to the emerging business park uses in the immediate vicinity.

3.3.1 HSR Station Is Proposed Near Highways 401, 8 and 24

Both composite routes anticipate an HSR station in the vicinity of Highway 401 between the Highway 8 and 24 interchanges. (Exhibit C-3.4). A location within the downtown of Kitchener, Waterloo or Cambridge has not been proposed at this point.

3.3.2 Proposed Station Location Is Highly Accessible

The proposed station location would provide excellent access for travellers to and from a wide area within and beyond Kitchener-Waterloo. This has a number of benefits given the fact that actual destinations (places of employment and residences) are widely distributed throughout the region. The proposed HSR station location is central and provides excellent regional access to all of the component communities within Kitchener-Waterloo, as well as excellent links to the neighbouring community of Guelph.

- **Travellers Are Destined For A Wide Geographic Area**

  - Business Activity Is Widely Distributed Throughout The Region

    As a result of the fact that Kitchener-Waterloo Region is actually composed of three separate component municipalities, there is no single "downtown" area in which a single large concentration of employment and business activities exist. As noted above, all of the communities have separate employment bases including both office areas and industrial areas. For this reason, it is likely that business travellers visiting Kitchener-Waterloo will be destined to locations which are distributed over a wide geographic area.

- Private Residences Are Also Widely Distributed Throughout The Region

  A similar situation is likely for the origin/destination of non-business travellers. This is because there is a wide geographic distribution of residential development throughout Kitchener-Waterloo.

- **Proposed HSR Station Is Central, And Offers Direct Links To Major Highways**

  As a result of the wide geographic distribution of passenger origin/destinations within Kitchener-Waterloo, any single HSR station will require passengers to use another mode (mostly automobile) in order to reach their ultimate destination within Kitchener-Waterloo. By the same token, HSR travellers destined to other corridor communities, especially Guelph, will generally use their car to reach the HSR station.

  This means that the "best" HSR station location would be one that has superior access to regional road networks ... thus making it easier for HSR passengers to get to the station itself, or to reach their ultimate destination from the HSR station.

  The proposed HSR station has a central location within the middle of three component communities, and offers direct highway links. This makes it an excellent location for serving the wider geographic area of Kitchener-Waterloo.

3.3.3 Station Location Reinforces Land Use Planning Objectives

Most of the vacant land surrounding the proposed HSR station location is designated for future business park growth. The HSR, to the extent that it encourages linkages between Toronto and Kitchener-Waterloo, as well as the prestige image of the HSR, could accelerate development of these lands, thus supporting community land use and economic development priorities. There are also opportunities for actual links between the HSR station and future business park activities.

There are also large tracts of undeveloped land in this area, a large majority of which is owned by the Ontario Government. This land north of Highway 401 is slated for future business park development and has already benefited from the construction of the Toyota assembly plant. With infrastructure planned to accommodate growth, this large tract of vacant land is likely to be a focus of economic growth within the region, particularly given its central location and ready highway access.

There are French examples of HSR stations that have developed links with adjacent business park activities. Often, these concentrations of large offices, industrial buildings and corporate head offices are located in fringe or ex-urban locations within 1 to 2 hours from Paris. In these cases, the HSR stations often serve two functions:

- The HSR station provides a central focus for the business park because it represents a direct link to Paris; and

- The HSR station provides a more traditional access point (involving a switch from another transportation mode) to the HSR system for commuters, business travellers, etc.

There is an opportunity for the proposed HSR station in Kitchener-Waterloo to serve these two functions. The area surrounding the potential HSR station location is already characterized by high quality business park with Toyota's new assembly plant. Also, the area is one of the fastest growing in the region with much of the new business and commercial development anticipated to be within this location.

An HSR station in this location would complement and possibly accelerate the development of adjacent business park activity. There is an opportunity to attract firms who wish to benefit from the advantages of a location in Kitchener-Waterloo (price of land, cost of labour, lack of traffic congestion, etc.), but need ready access to Toronto (particularly the downtown core area).

3.3.4. Downtown HSR Station Would Be Less Successful Than Proposed Location

As a final consideration, a review was undertaken of "theoretical" downtown station locations despite the fact that none are being proposed. An initial point is that a "downtown" location is difficult to find within Kitchener-Waterloo because this area is characterized by three component communities, each with their own central core areas. An HSR station in any one of the component cores (i.e. Kitchener, Waterloo or Cambridge downtowns) would tend to reduce the level of HSR service offered to other communities within the region. The fact that there are three "downtowns" argues for a centralized station location with excellent regional access rather than a downtown location which serves one community but others to a lesser degree. For these reasons it is suggested that a downtown HSR station location would be less successful than the proposed HSR station location at Highway 401 and 8.

4. TORONTO CMA

This appendix provides a profile of the effect of the HSR on Toronto. Key conclusions of this appendix are as follows:

- Close to four million residents live in the urban area defined as the Toronto CMA, however, Toronto's social and economic sphere of influence extends far beyond the limits of the CMA. The population of this larger urban area, generally within 100 km of Toronto, exceeds 6.3 million residents or just under one quarter of Canada's entire population.

- The Toronto CMA is currently estimated to be growing at about 100,000 new residents annually, with increases between 1986 and 1991 being over 500,000. This is a very substantial amount of growth...the equivalent of adding the population of Kingston or Trois Rivières every one and a half years.

- Toronto's outlook for the next 30 to 40 years will be affected by a number of changes, but there is little doubt that Toronto will continue to be a focus of growth.

- A total of 26 million trips annually are undertaken between Toronto and other major urban areas within the Québec-Windsor corridor. These figures suggest that intercity linkages within the corridor, particularly those within Ontario, focus on Toronto.

- The HSR, to the degree that it brings other corridor communities "closer" to Toronto, will tend to reinforce Toronto as a centre of social and economic activities.

- The proposed station locations at Pearson, Union Station and Pickering provide good service coverage for this large urban area, as well as key connections to Canada's busiest airport and Toronto's financial core.

4.1 SOCIO-ECONOMIC OUTLOOK

The Toronto CMA is a large urban area with close to 4 million residents and 2 million jobs. Toronto is a significant concentration of social and economic activity within Canada and the Québec-Windsor Corridor.

4.1.1. Toronto Is A Large Urban Area With A Rapidly Growing Population

- **Toronto Is A Large Urban Region**

  Toronto is centrally located within southern Ontario on the north shore of Lake Ontario, at the broad converging point of major Highways 401, 400, 404, 403 and 407.

  Almost 4 million residents live in the urban area defined as the Toronto CMA which is made up of a number of smaller municipalities. "Toronto" can refer to a number of alternative geographic boundaries.

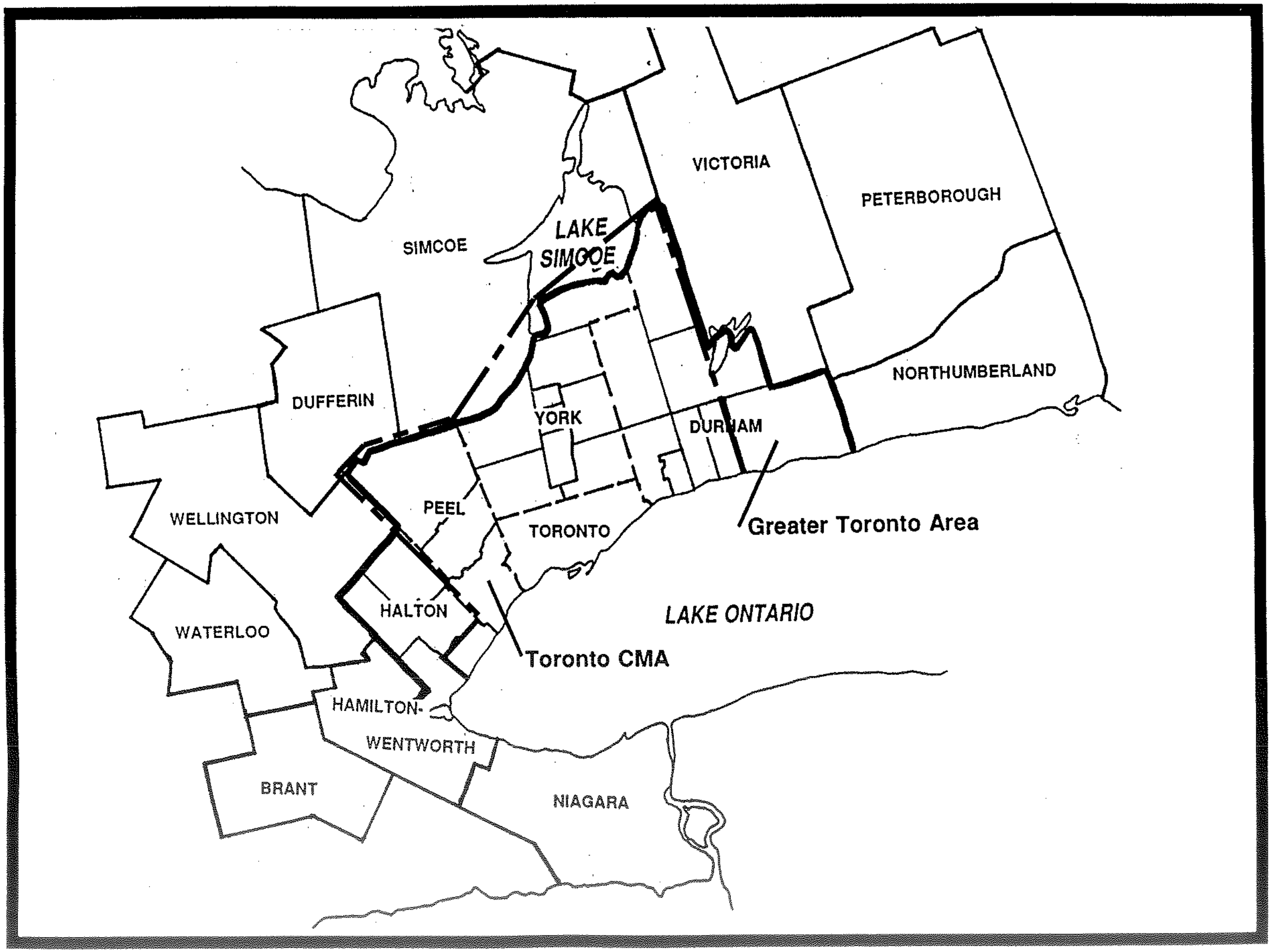
  - The City of Toronto, with a 1991 population of 635,000 is generally considered to be the central core of the region. The downtown financial core as well as the commercial subcentres along the Yonge Street spine at Bloor Street, St. Clair and Eglinton Avenue are all located with the City of Toronto.

  - The Municipality of Metropolitan Toronto includes the City of Toronto, plus the surrounding municipalities of Scarborough, North York, Etobicoke, East York and York. The population of Metro Toronto was approximately 2.3 million in 1991.

  - The Toronto CMA includes a number of surrounding suburban municipalities, the largest being Mississauga, Brampton, Oakville, Markham, Vaughan, Richmond Hill, Newmarket, Ajax and Pickering. Total population in the Toronto CMA stood at 3.9 million in 1991. (Exhibit C-4.1).

TORONTO REGIONAL SETTING

Exhibit C4.1



- The Greater Toronto Area (GTA) refers to the combined regional municipalities of Halton, Peel, York, Durham and Metropolitan Toronto. Together, these regions accommodate over four million residents.

- **Toronto Has An Extensive Hinterland**

Toronto's social and economic sphere of influence extends far beyond the limits of the CMA. The Toronto CMA is surrounded by other large urban areas such as Hamilton (to the west), and Oshawa (to the east). In fact there is virtually no break in urban development between Toronto and these neighbouring urban areas. There is also a ring of communities which are somewhat further removed from Toronto (Barrie, Kitchener-Waterloo, Guelph, Brantford, St. Catharines and Peterborough) which have strong links to Toronto.

The population of this larger urban area, generally within 100 km of the Toronto CMA, exceeds 6.3 million residents or just under one quarter of Canada's entire population.

- **Population Growth Has Continued In Spite Of Economy**

Rapid population growth has occurred in spite of the recent recession and continuing economic restructuring. The Toronto area is currently estimated to be growing at about 100,000 new residents annually, with an increase between 1986 to 1991 of over 500,000. This is the equivalent of adding the population of Kingston or Trois Rivières every one and a half years.

This level of growth is occurring for two main reasons:

1. A High Level Of Migration

In previous recessions migration tended to reduce with economic activity because it originated elsewhere in Ontario and Canada. The source of recent migration, however, is mostly foreign which is less susceptible to short-term economic conditions.

2. A Large Number Of Children Were Born

In 1992, more babies were born in Ontario than during any year previously. This has occurred despite low fertility rates because of the "baby boom" echo effect in which a disproportionate number of females are within the peak child bearing age group of 20-40 years old. Over time this echo effect will moderate.

Within the Toronto CMA, most of the population growth is occurring in the outlying communities. As the Toronto CMA grows, its impact on the abutting Counties and Regions (the Toronto Hinterland) also increases.

Population growth in the hinterland area has also been rapid. Together the Toronto CMA and its Hinterland accounted for over 75 per cent of the growth in Ontario's population during the last decade.

4.1.2. Economic Recession Is Over, But Restructuring Continues

The boom of the late 1980s began to diminish by late 1989, when manufacturing activity began to slow down. The service sector began to feel recessionary effects by 1991. The recession resulted in the loss of about 200,000 jobs in the Toronto CMA and a sharp run-up in the unemployment rate from 6.3 per cent in 1990 to 10.8 per cent in 1992. Real estate and construction activity entered a steep slump as the overheated housing and commercial property markets of the Toronto CMA and adjacent areas collapsed.

Although economic activity declined through 1990 and 1991, there has been modest growth in 1993 and 1994. While the economy remains fragile and unemployment high, the recession is now "technically" over.[1] The engine of growth to date has largely been U.S. demand for Ontario exports or increased consumer expenditures. In recent months, however, an improvement has been occurring in job prospects within the Toronto CMA.

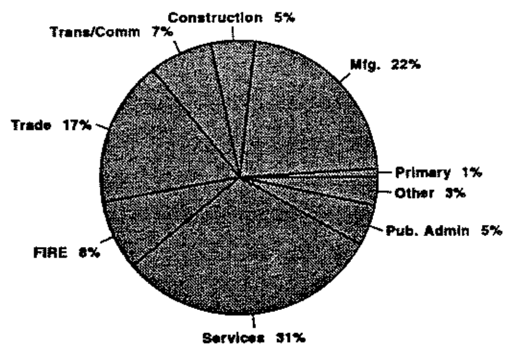
[1] *Statistics Canada defines a recession as a period with two consecutive quarters of GDP decline. According to this definition, the recession is now over.*

The situation is complicated by the massive economic restructuring that is occurring in Southern Ontario. Even before the recession, Toronto's economy was shifting focus from goods-producing sectors to service-related sectors. The impact of the restructuring has been to complicate, deepen, and even prolong the recession as companies downsize, streamline and re-focus their activities. The result is that, as the recovery takes hold and manufacturing industries increase output they will not follow the same recovery path experienced between 1983 and 1989 following the 1982-1983 recession but will more likely see employment contraction and downsizing as they seek growth through productivity improvements.

4.1.3 Toronto's Employment Base Is Diversified

Employment activity breakdowns illustrate the diversity of the Toronto's CMA labour force. This breakdown shows that Toronto is free of dependence on any one particular sector of the economy.

LABOUR FORCE BY INDUSTRY DIVISION 1986
TORONTO CMA



Source: Statistics Canada

4.1.4. Core Area Office Employment And Suburban Business Parks Contribute To Toronto's Economic Strength

Toronto's financial core remains the centre for the largest portion of office activity in the Toronto region. Office employment in the City of Toronto, which is home to the region's financial core, accounted for over 60 per cent of the City of Toronto's employment base in 1991. This translates into approximately 250,000 office employees.

In suburban locations across the Toronto region, employment areas are no longer dominated by traditional manufacturing and heavy industrial uses. Approximately 40 per cent of employment in suburban areas across the Toronto area can be found on employment lands. Employment lands, typically but inaccurately described as industrial lands, are concentrations of land extensive activities that include a wide variety of traditional industrial, commercial, transportation, and utility uses, as well as the difficult to define industries of the "new economy". Over the 1980-1990 period, absorption of employment lands across the Toronto region has averaged 800 net hectares per year.

These and other socio-economic indicators are displayed on Exhibit C-4.2.

4.1.5. Outlook For Toronto Is Positive

Toronto's outlook for the next 30 to 40 years will be affected by a number of changes. However there are three fundamental factors which suggest that Toronto will continue to be a focus of growth:

- Toronto will continue to be a conduit for links between Canada and the global economy;
- Toronto's economy is well positioned to compete in key knowledge based sectors; and
- Toronto is a highly attractive destination for immigration.

The following sections review each of these factors.

- **Toronto Is Canada's Established Entry/Exit Point For Cross-Border Linkages Within A Global Economy**

  Toronto is the primary link between Canada and the rest of the world.

  > *"Certain major metropolitan areas have become transaction centres linking the nation to the network of international capital markets....[During the eighties] Toronto became the major conduit between*

HEMSON

Exhibit C4.2

TORONTO CMA

POPULATION / HOUSEHOLD DATA

	1986	1991	% Increase
Population	3431981	3,893,046	13.4%
	1986	**% of Total**	
Pop. >65	376,715	9.7%	
Postsecondary Education	923,740	26.9%	
University Degree	377,300	11.0%	
	1986	**1991**	**% Increase**
Total Households	1,199,800	1,366,700	13.9%
Average Household Income	53,541	59,450	11.0%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA

1991 Total Labour Force			2,229,095
	1981	**1986**	**1991**
Employed Labour Force	1,665,558	1,856,679	2,039,805
	1991	**15-24**	**25+**
1991 Unemployment Rate	8.5%	13.3%	7.5%
1991 Participation Rate			71.7%

Source: Statistics Canada

EMPLOYMENT BY SIC

	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	519,950	555,705	28.3%	6.9%
Services	697,285	831,510	42.3%	19.2%
Government	87,560	94,365	4.8%	7.8%
Trans./Comm.	135,965	142,905	7.3%	5.1%
Retail/Wholesale	310,615	340,255	17.3%	9.5%

Source: Statistics Canada

REAL ESTATE INDICATORS

	1992
Average House Price	$209,265
	1988-92 Annual Average
Res. Units Sold	56,876
Value of Construction	
Residential	$3,737,579
Industrial	692,475
Comercial	1,950,900
Institutional	587,686

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	3,912,800	4,913,600	6,576,400	1,000,800	1.77%	1,662,800	1.5%
Household	1,382,300	1,851,600	2,558,600	469,300	2.27%	707,000	1.6%
Employment	2,003,000	2,622,600	3,108,200	619,600	2.09%	485,600	0.9%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

pluram inc.

the rest of the country and the international capital markets."[2]

Air passenger volume statistics are one indicator that confirms Toronto's role as a link to other countries: just under half of Canada's air links to other countries are channelled through Toronto's Pearson International Airport.

	1991 Volume Of Passengers (Million)[3]		
	United States	**Other Countries**	**Total**
• Toronto-Pearson	5.9	3.5	9.4
• Montréal-Dorval	2.1	0.0	2.1
• Montréal-Mirabel	0.2	2.0	2.2
• Vancouver	2.2	1.3	3.5
• Rest of Canada	2.1	0.4	2.5
Total	12.5	7.2	19.7

When specific cross-border origin-destinations are reviewed, this pattern is even more pronounced.

	Air Passenger Travel To Major U.S. Cities 1991 (000's)[4]			
	Toronto	**Montréal**	**Vancouver**	**Ottawa**
• New York	723	342	58	46
• Chicago	298	96	42	17
• Los Angeles	242	88	226	19
• Boston	236	92	18	6
• Miami	228	172	24	18
• Tampa	193	71	8	23
• San Francisco	181	55	169	18

[2] *The North American City, 1991, Maurice Yeates, Chapter Two.*

[3] *Statistics Canada - Catalogue 51-005.*

[4] *Statistics Canada - Catalogue 51-205.*

Air travel is only one indicator of Toronto's links to the rest of the world. There are also tremendous cross border data flows based on an ever increasing amount of global telecommunications... be they telephone calls, faxes, data transmission via modems, satellite linkages, etc. The difficulty is that concrete data on the volume and origin-destination of these linkages is virtually non-existent. However, a review of international business activity suggests that Toronto is a key focus of Canada's links to the global economy. For example, Toronto accommodates:

- The headquarters of 45 of the 59 foreign banks in Canada;
- The headquarters of over half of Canada's largest foreign owned corporations;
- The headquarters of 22 (16 of which are foreign owned) of Canada's top 30 computer firms;
- Eighty per cent of Canada's stock exchange value and 11 of the top 13 investment dealer head offices; and
- The headquarters of 40 per cent of the Financial Post's top 500 industrial companies.

Continued economic globalization and the formation of international trading regions suggests that the Toronto CMA will increasingly become the focal point for Canada's social and economic links to the rest of the world. Urban systems theory reinforces the conclusion that growth and economic activity will be increasingly concentrated at locations of cross-border linkages. This has profoundly important implications for Toronto's growth outlook.

- **Suburban Business Park Development Has Fostered Structural Change, Making The Economy Highly Competitive**

The rapid growth of Toronto's suburban business parks is a second reason for Toronto's positive growth outlook. This investment in new capitol stock means that the Toronto CMA economy is well positioned in terms of international competition. Considerable structural change has already occurred as traditional manufacturing jobs continue to be lost from the mature industrial areas within the Toronto CMA. This trend reflects the normal movement out of older industrial areas to newer greenfield sites when a company needs to expand to a new plant.

This decline in older industrial areas has been offset by rapid suburban business park absorption. As this development occurs the knowledge-intensive sectors have been growing and establishing new roots within the Toronto CMA. In particular, the past five years have continued to see growth in the telecommunications, pharmaceutical, biotechnology, business services and financial service sectors, many of which are located in suburban business parks. These organizations use space and people differently and often select a greenfield site as a location. The Toronto CMA's future will be built on these knowledge-intensive sectors -- an economic base that is already showing strength.

- **Toronto Is A Highly Attractive Destination For Foreign Migrants**

The third, and probably most important reason for Toronto's positive growth outlook is immigration.

Historically, Canada has had one of the most open immigration policies in the world. There are compelling reasons for Canada to continue this tradition, including:

- Canada Needs Immigrants

  Demographic forces (the aging of the baby boom) will trigger a sharp increase in the dependency ratio[5] in Canada starting early in the next century. This could mean that the number of people who work will be exceeded by the number of people who don't work. This will have significant long term social implications in terms of tax burdens, pension costs and labour force growth.

- Many People Want To Immigrate

  There is an ever increasing number of people who could potentially immigrate to Canada. The United Nations

[5] *A ratio of non-labour force to labour force aged population, technically defined as the population under 20 and over 65, divided by the population aged 20 to 65.*

recently noted that there are an estimated 100 million people who are currently seeking to live in another country, and that this will be a key issue to be addressed as the world reaches the turn of the century. Political and economic realignment (particularly in former communist countries but also in an increasingly democratic and market-oriented Latin America), rapid population growth, third world poverty and political turmoil all contribute to the growing pressure for immigration.

These factors will have a profound effect on growth in the Toronto CMA. The Toronto CMA has always been a popular destination for international immigration; one-third of Canada's immigrants settle in Toronto. The recent Federal target of 250,000 immigrants annually translates to about 80,000 new arrivals each year in the Toronto CMA.

Toronto's cultural diversity, traditional acceptance of new cultures, employment opportunities and housing supply will ensure that the Toronto CMA will continue to attract many immigrants.

4.1.6 Forecasts For Toronto Confirm This Positive Growth Outlook

Socio-economic forecasts prepared as part of the High Speed Rail project confirm the positive outlook for the Toronto area discussed above. A very significant amount of growth is forecast.

	Increase During Period (000's)		
	1992 - 2005	**2005 - 2025**	**1992 - 2025**
• Population	1,001	1,663	2,664
• Employment	620	486	1,106
• Households	469	707	1,176

Although population is anticipated to increase by over 2.5 million, this does not imply high annual growth rates. Compound annual growth rates for Toronto's population are expected to average between 1.5 and 1.8 per cent during the forecast period, compared to 2.9 per cent during the last 40 years.

Other forecasts being prepared for various government agencies in the Toronto area are also calling for a similar level of growth.[6] The implication of this is that planning is underway to ensure that infrastructure availability does not become a constraint to this area's growth outlook.

Through a combination of globalization and domestic structural change, the make-up of Toronto will be transformed over coming decades.

4.2 EFFECT OF HSR ON THE TORONTO COMMUNITY

The analysis now focuses on the potential effect of the proposed HSR on Toronto. Given Toronto's socio-economic position within the corridor, particularly in Ontario, HSR would tend to reinforce the centralising trend towards Toronto.

4.2.1. Toronto Is A Central Focus Of Inter-City Travel Within The Corridor

Toronto's role as a conduit of passenger traffic between Canada and the rest of the world has already been discussed in this appendix. The analysis now focuses on Toronto's links with other urban centres within the Québec-Windsor corridor.

- **Toronto Has The Most Linkages To Other Corridor Communities**

  Inter-city passenger statistics indicate that Toronto is one of the focal points within the Québec-Windsor corridor. A total of 26 million trips are undertaken between Toronto and other major

[6] *These studies are ongoing initiatives of the Greater Toronto Coordinating Committee, and the planning departments of Metropolitan Toronto, and the regions of Peel, Durham, York, and Halton.*

urban areas within the Québec-Windsor corridor.[7] This level of inter-city passenger travel exceeds other communities by a wide margin. For instance, Montréal's links to other corridor centres are approximately 15 million passenger trips, and smaller communities such as London, Ottawa, all have passenger volumes in the seven to ten million range.

Another pattern which is evident from these statistics is that Toronto is one of two Ontario communities which have strong links to Québec communities. There are few inter-provincial linkages between corridor urban centres with the exception of Toronto - Montréal and Ottawa-Montréal city pairs. Generally this confirms a hierarchical nature of the urban system in which smaller communities in Ontario have their linkages to Toronto as the higher order centre and it having the primary link to Québec. This corresponds with urban systems theory which suggest that both Toronto and Montréal are at the top of the urban hierarchies within the provinces of Ontario and Québec respectively.

- **Travel To Corridor Centres Is Highly Car Oriented**

Of the 26 million inter-city trips between Toronto and all other centres, approximately 85 per cent or 21.7 million trips were undertaken by automobile. This modal split is a function of the number of communities that are within comfortable driving distance of Toronto. For instance, trips between Toronto and Kitchener-Waterloo exceed 11 million (42 per cent) of Toronto's total 26 million trips.

Although air passenger linkages become more important as distance increases the car continues to be used surprisingly often, even for distances over 500 kilometres. For instance, of the 3 million trips between Toronto and Montréal approximately 1.2 million of these (40 per cent) were undertaken by car, equal to the 1.2 million air passenger trips between the two communities.

[7] *In a way, this estimate is low because the Consumer Contact survey under-represents Hamilton. No surveys were undertaken of linkages between Hamilton and Toronto along the QEW. Were this link to be included, total volumes in Toronto could be as much as ten million higher than the 26 million trips.*

- **Toronto Is A Focus For Business Travel In The Corridor**

In terms of business travel, Toronto is a key generator of trips between corridor communities. In total, approximately 6.7 million business trips are made between Toronto and other corridor communities, representing over two thirds of all inter-city business travel within the corridor. This compares with just under 4 million trips to Montréal, 2.2 million trips to Ottawa-Hull and 1.8 million trips to Québec.

Of the 6.7 million total Toronto business linkages, over one third are with Kitchener-Waterloo, and about one fifth with Montréal.

Business Trips Between Toronto And Other Corridor Communities (000)		
• Kitchener/Waterloo	2,500	37%
• Montréal	1,329	20%
• London	1,079	16%
• Ottawa-Hull	1,032	16%
• Kingston	433	6%
• Windsor	286	4%
• Québec	82	1%
Total	6,741	

The large volume of business trips is not surprising given the concentration of business activities (particularly head office) and the predominance of service sector activities located in Toronto. There are also a large number of convention facilities which attract business travellers to visit Toronto. This travel generation component is discussed in more detail in the following sections.

- **Business Travel Reflects Service Sector Orientation Of Economy**

A sectoral profile of inter-city business travellers parallels the distribution of employment within the Toronto CMA, although manufacturing activities appear to generate relatively fewer inter-city business trips between corridor communities.

	Distribution Of Employment By Sector	
	Business Travel To Toronto	Employment To Toronto
• Prim/Mfrg/Cnstr	22.3%	28.3%
• Trans/Comm.	12.5%	7.3%
• Retail/Wholesale	20.4%	17.3%
• Services	41.5%	42.3%
• Government	3.3%	4.8%

Services account for over 40 per cent of both employment and business trips. Manufacturing/construction and retail/wholesale trade each account for an additional 20 per cent of business travel to the CMA.

- **The Downtown Core Area Is The Primary Destination Of Inter-City Travellers**

A key characteristic of business travel to Toronto is the large proportion that is focused on the central downtown area of the City of Toronto. Although the Toronto CMA covers an extremely large geographic area, the destination of close to 50 per cent of all inter-city business travellers is a hotel or business meeting in a downtown location. This focus is particularly relevant given that the City of Toronto accommodates less than 30 per cent of total employment within the Toronto CMA. It indicates that business activities in the downtown area have a greater propensity to generate inter-city business trips than do activities in suburban locations.

This pattern reflects the fact that the downtown area accommodates the largest concentration of service sector organizations . They include head offices (particularly in the financial and business service sectors), government, universities, hospitals, and other institutions such as Ontario Hydro and the CBC. Earlier work on this assignment suggested that overall, this collection of services related activities generates more than its proportionate share of inter-city business travel.

The next most popular destination for business travellers were the municipalities of Mississauga and Etobicoke, both of which are located adjacent to Pearson International Airport. Mississauga had just under 15 per cent of all business travel and Etobicoke had just under 14 per cent.

These figures suggest that intercity linkages within the corridor, particularly those within Ontario, focus on Toronto. Size is certainly a contributing factor but this central focus is true even after discounting for Toronto's larger population and employment base. It is evident that many high order[8] functions are located in Toronto and this tends to generate a greater degree of inter-city passenger travel.

4.2.2. HSR Will Reinforce The Central Role Of Toronto

The HSR, to the degree that it brings other corridor communities "closer" to Toronto, will tend to reinforce Toronto's as a centre of social and economic activities.

- **HSR Provides Improved Accessibility To Other Corridor Centres**

  A review of the proposed travel times between Toronto and other centres indicates that the HSR will improve accessibility to other corridor centres (Exhibit C-4.3). In particular, communities between 300 to 500 kilometres away from Toronto will experience the most significant improvement to inter-city accessibility.[9] Ottawa, Kingston and Windsor, and to a lesser extent Montréal and London will all be better connected to Toronto as a result of the HSR.

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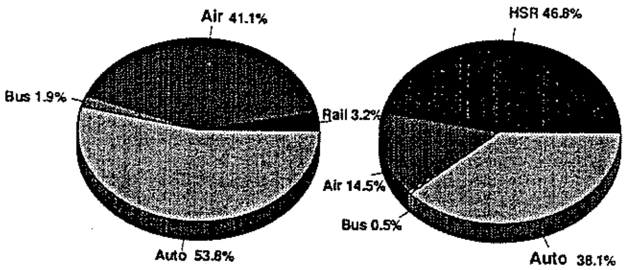
[8] *Business and institutional activities are often grouped into a hierarchical system containing a range of low to high order functions. The highest order functions are where key strategic decision making is undertaken, with lower order activities concentrating on the implementation of higher order directives. In terms of inter-city travel, higher order activities would be anticipated to trigger relatively more inter-city passenger trips as a result of the need to cover large trade areas, conduct business with other firms and generally be involved in a greater degree of activities which require face-to-face contact.*

[9] *This corresponds with HSR's documented optional operating distance and which provides travel time improvement over both car (dominant mode for short distance travel - less than 300 kilometres) and the airplane (dominant mode for travel over 500 kilometres).*

- **Train Travel Will Become More Popular**

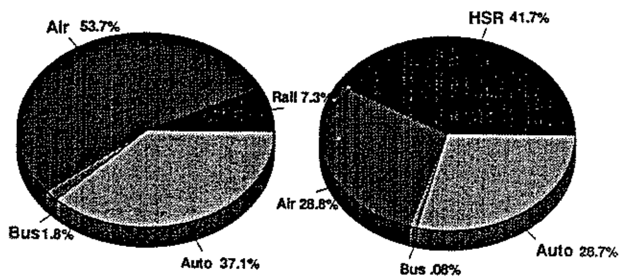
  One of the most significant effects of the HSR will be to alter the modal choice of travel between Toronto and other corridor centres. As an example, travel between Toronto and Montreal or Ottawa-Hull is dominated by the automobile and airplane. With the HSR, however, this pattern of modal choice is projected to change.

MODAL SPLIT IN 2025
OTTAWA - TORONTO



Without HSR **With HSR**

MODAL SPLIT IN 2025
TORONTO - MONTREAL

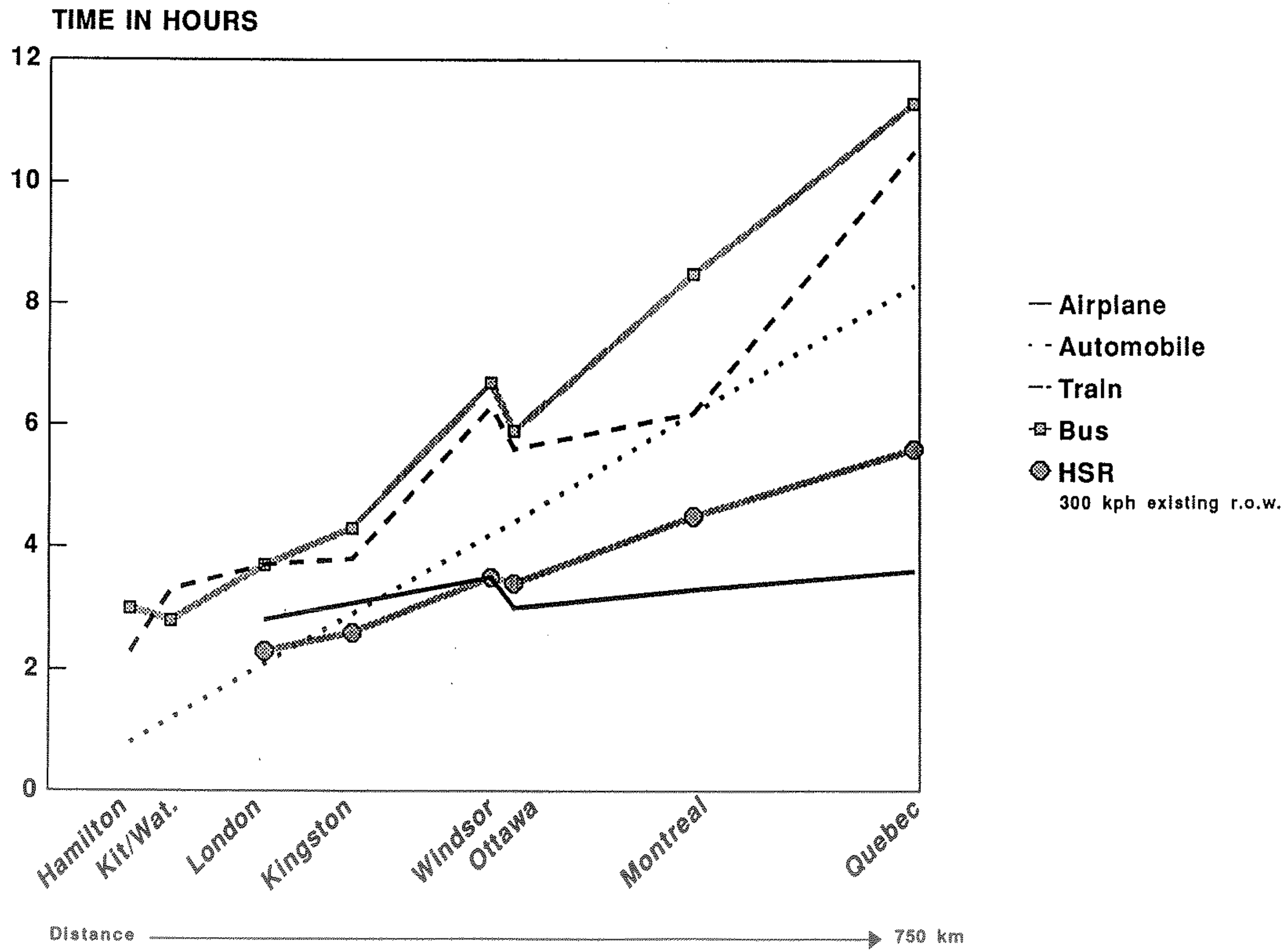


Without HSR **With HSR**

Notes:
- *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

Exhibit C4.3

DOOR TO DOOR TRAVEL TIME: BY MODE (TORONTO TO OTHER CORRIDOR CENTRES)



By 2025 it is anticipated that over 40 per cent of all trips to Ottawa-Hull and Montreal will be taken by HSR. A similar shift in modal choice is projected to occur between Toronto and other centres. The HSR is in fact projected to be the primary mode of travel to Ottawa and Montreal. The importance of rail travel is certainly expected to increase with the HSR in place.

- **Toronto's Attraction As A Tourist Destination Will Be Reinforced**

One of the most significant effects of HSR would be to reinforce Toronto as a tourist destination. In effect, the HSR will expand the trade area of Toronto's major tourist attractions. These include:

- The Toronto Eaton Centre;
- Theatres/Opera/Ballet;
- Roy Thompson Hall;
- SkyDome;
- Art Gallery Of Ontario;
- CN Tower;
- Royal Ontario Museum;
- Ontario Place;
- Harbourfront; and
- The Ontario Science Centre.

The HSR is particularly well suited to packaged tours to visit Toronto's shopping and recreational amenities.

- **There Will Be A Positive Effect On The Overnight Accommodation Sector**

The HSR would likely have a beneficial overall effect on Toronto's overnight accommodation sector...currently estimated to be in the order of 25 to 30 thousand rooms. There is no doubt that the HSR will reinforce Toronto as a tourist and business destination which should enhance the key hotel market. However, this positive effect could in part be offset by the increased ease of access which enables some visitors to substitute day trips for overnight stays in Toronto.

Weighing these positive and negative potential effects, it seems most likely that the accommodation sector will experience a net benefit primarily because it is difficult to see all there is to see in

Toronto in a single day. For this reason, the overnight accommodation sector will likely benefit, although it may experience an adjustment period as operators re-position their marketing efforts in order to ensure that they benefit from new tourism opportunities.

- **Toronto Will Become A More Attractive Business Destination**

  For reasons discussed previously, HSR would also increase business travel to and from Toronto. This is particularly true in terms of service and institutional sectors concentrated within the Toronto CMA because these sectors tend to generate more inter-city travel than do other sectors.

  With ready access to major convention centres and business locations Toronto will be reinforced as a travel centre.

- **However, Overall HSR Effect Is Unlikely To Be Dramatic When Compared To Other Factors Shaping Toronto's Future**

  Despite these positive effects on business and tourism the overall effect of the HSR will be modest. The reason is that HSR, while providing an improvement in travel, would not offer the major time savings required to dramatically alter travel habits.

  The passenger forecasts confirm this limited overall effect of the HSR. It is estimated that, by the year 2005, some 12 to 20 thousand HSR passengers will either board or get off the HSR in Toronto each day. This is a significant number of rail users compared to today's VIA patronage and would represent a major realignment in the respective roles of the station and Pearson airport. However, the overall amount of induced travel is relatively small. It is also small in relation to other travel activities (T.T.C., GO etc.).

  For this reason the magnitude of the HSR effect is likely to be modest when compared to other factors shaping the growth outlook for Toronto over the next 30 to 40 years. As noted in the socio-economic outlook, Toronto's growth prospects depend on many external factors such as global economic trends and immigration, factors which will not be significantly affected by the HSR.

In conclusion, the HSR is likely to have a positive impact on Toronto, particularly in terms of the business service and tourism sectors. Despite these positive impacts, many of the factors affecting Toronto's growth outlook will not be altered by HSR. Its role would, as an influence on Toronto, not be a fundamental factor of change.

4.3 STATION LOCATION ANALYSIS

Three station locations are proposed in Toronto and these do not differ between the alternate composite routes. The impact of these locations in Toronto is significant. For this reason, station planning of necessity would have to be planned in the context of the GTA planning exercises — GTA 2021: Infrastructure and the GTA Transportation Plan — which addresses the long and short-term transportation directions for the region.

4.3.1 Three HSR Stations Are Proposed

Irrespective of which route or technology is selected, an HSR station would be located within the City of Toronto (the downtown core of the CMA) at Union Station. Additional HSR stations are being considered at Pearson International Airport and in Pickering.

4.3.2 Union Station Is An Excellent Downtown Location

The proposed HSR station in Union Station in downtown Toronto has a number of advantages.

- **Union Station Provides Direct Access To Many Destinations Of Potential HSR Users**

  One of the most important advantages of a Union Station location is that it provides direct access to a very wide range of potential destinations for HSR users. Over 50 per cent of all inter-city travellers to the CMA are destined to the City of Toronto. There are over half a million jobs located in the downtown core of the

City (from Bloor St. down to the waterfront) as well as a tremendous number of head offices, government offices, university/colleges, hospitals and luxury hotels.

Also located within the downtown core are many major tourist attractions including:

- Eaton Centre;
- Theatres/Opera/Ballet;
- Roy Thompson Hall;
- SkyDome;
- Art Gallery Of Ontario;
- CN Tower;
- Royal Ontario Museum;
- Ontario Place; and
- Harbourfront.

Many of these amenities are within walking distance of Union Station (refer to Exhibit C-4.4).

- **Union Station Is Well Connected To Other Travel Modes**

Another advantage of Union Station is that it provides excellent access to other travel modes that link Toronto to regional markets. From Union Station it is extremely easy to transfer to the following travel modes.

- T.T.C. subways and buses (Metro Toronto transit)
- GO Transit trains and buses (Greater Toronto area travel)
- Greyhound, Gray Coach, Voyageur and other buses (domestic and international)
- VIA Rail (domestic and international train service)
- Island Airport (small craft plane service)

While automobile traffic is congested in the downtown core, it is relatively easy to reach surrounding areas via an extensive network of major highways (QEW, Highway 427, Don Valley Parkway) and major arterial roads.

- **Union Station Location Enhances Competitive Advantage Of HSR Service**

  The key merit of Union Station is that it would enable full advantage to be taken of HSR's "downtown-to-downtown" travel potential with other HSR centres. This is a key selling point of HSR and a location within Union Station would minimize access time for travellers with core area destinations. There are over a half a million employees within a 15 to 20 minute walking distance from Union Station and HSR would provide a significant improvement in downtown to downtown service for these potential travellers.

- **Union Station Location Is Likely To Increase Land Values In The Immediate Vicinity**

  Investigations to date suggest that HSR stations in and of themselves are not generators of demand for commercial development. However, in situations where there is already development pressure, an HSR station acts as a catalyst and focus of development opportunities. This is likely to be the case with Union Station.

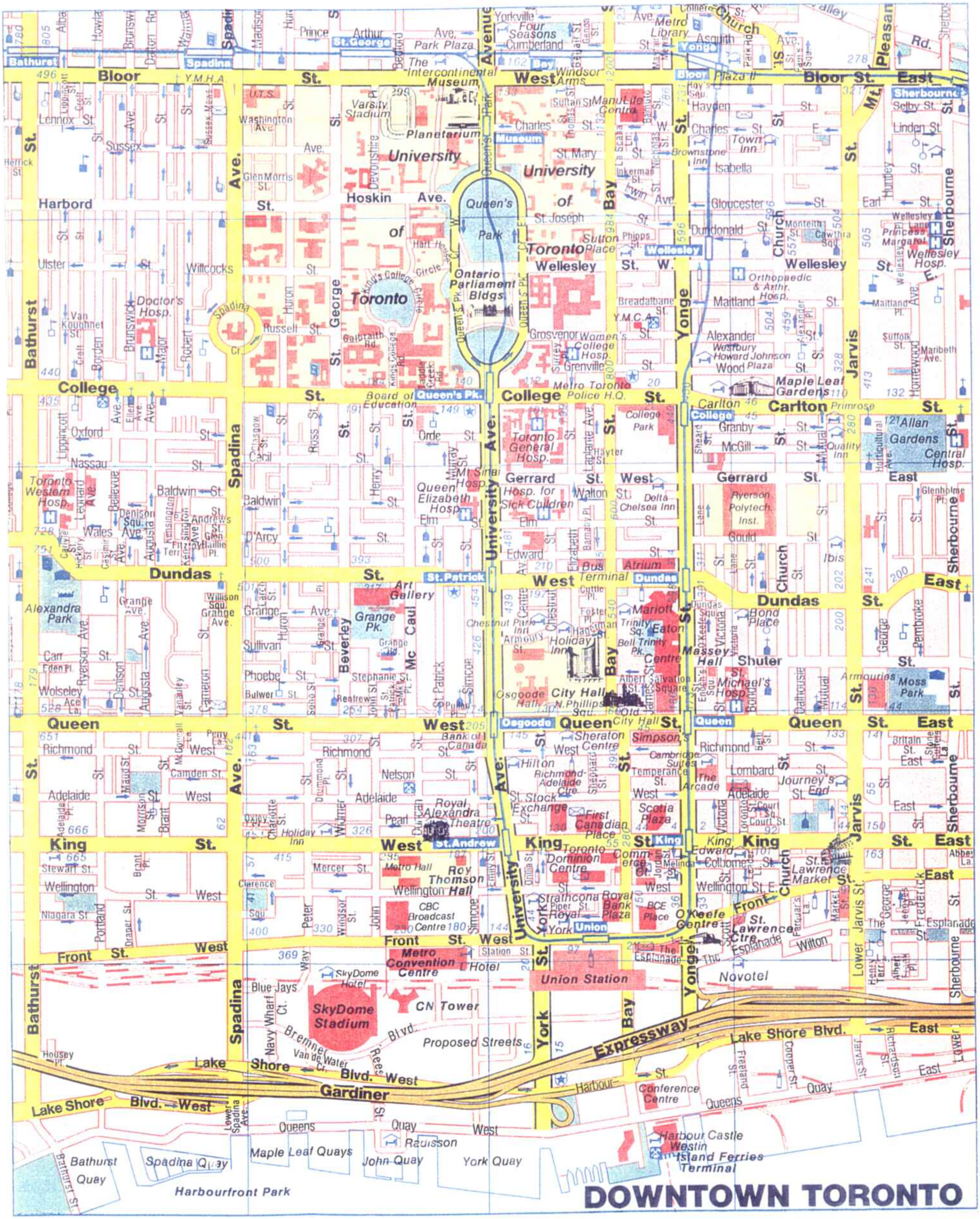
  - <u>There Is Development Pressure In The Core Area</u>

    Currently there is an over supply of office and retail space within the Toronto CMA, resulting from over building which occurred during the late 1980's. Despite these conditions, there is considerable long term growth projected as a result of the generally positive outlook for Toronto as a key economic and population growth centre. Much of this growth will translate into pressure for new development within the core area.

  - <u>Opportunity For Commercial Development Near HSR Station</u>

    With market pressure for growth, there is an opportunity for the HSR station to become a focus for new development in Toronto's core.

Exhibit C4.4



DOWNTOWN TORONTO
Bloor St. West
Bloor St. East
Harbord St.
Wellesley St. W.
Wellesley St.
College St.
Carlton St.
Gerrard St. West
Gerrard St. East
Dundas St. West
Dundas St. East
Queen St. West
Queen St. East
King St. West
King St. East
Front St. West
Lake Shore Blvd. West
Lake Shore Blvd. East
Gardiner Expressway
Queens Quay West
Queens Quay East
Bathurst St.
Spadina Ave.
St. George St.
Queen's Park
University Ave.
York St.
Bay St.
Yonge St.
Church St.
Jarvis St.
Sherbourne St.
Avenue Rd.
Mt. Pleasant Rd.
University of Toronto
Ontario Parliament Bldgs.
Museum
Planetarium
Varsity Stadium
Toronto General Hosp.
Hosp. for Sick Children
Mt. Sinai Hosp.
Toronto Western Hosp.
Ryerson Polytech. Inst.
Maple Leaf Gardens
Allan Gardens
Moss Park
Alexandra Park
Grange Pk.
Art Gallery
City Hall
Eaton Centre
Massey Hall
Royal Alexandra Theatre
Roy Thomson Hall
CBC Broadcast Centre
Metro Convention Centre
SkyDome Stadium
SkyDome Hotel
CN Tower
Union Station
Royal York
Toronto Dominion Centre
First Canadian Place
Scotia Plaza
St. Lawrence Market
St. Lawrence Ctre
O'Keefe Centre
Novotel
Harbour Castle Westin
Island Ferries Terminal
Conference Centre
Harbourfront Park
Bathurst Quay
Spadina Quay
Maple Leaf Quays
John Quay
York Quay
Radisson
Proposed Streets

This is particularly true since the lands adjacent to Union Station are poised to become the new focus of development within the Toronto core. Over the last 10 to 20 years there has been a gradual but steady shift of the downtown core to the west and southwest of the established financial core area. Immediately adjacent to Union Station are the downtown railway lands owned by Marathon Realty and CN Realty. Major mixed use developments have been proposed for these "Railway Lands" and there is little doubt that they will be the logical next development area in the Toronto core.

An HSR station would accelerate the development of this area by providing a locational focus for future growth and a competitive advantage over other more remote office development sites. This enhanced marketability would likely translate into higher land prices.

- Potential Development Could Include Many Activities

  Within these development lands the HSR could help market a number of potential developments including:

  - Overnight accommodation, since proximity to downtown amenities and HSR links to other communities could be used as a marketing feature.

  - Office space, because developers would be able to market something that no (or few) other sites in Toronto can offer; direct access to the HSR.

  - Convention facilities, using the regional accessibility as a marketing tool to attract business and other convention activities using the HSR.

  - Residential development, marketed as either a place to live or (more likely) a place to stay in Toronto for people from other corridor communities who frequently stay in Toronto for extended periods.

The key effect of the HSR station would be to accelerate the marketability of lands surrounding Union Station. The HSR station would be a significant and unique amenity for this area.

4.3.3 An HSR Station At Pearson Airport Could Have Mixed Results

One of the most interesting decisions in terms of the HSR station locations is whether or not to locate a station at Pearson International Airport. As noted earlier in this appendix, Pearson International handles an enormous volume of domestic international and corridor air traffic; almost 20 million passengers per year. Clearly an HSR location at this location would benefit from direct access to all of these inter-city air travellers. In addition, an HSR station at Pearson would improve travel times for airline passengers in other Corridor centres. For example, travellers destined for an international city from London, Ontario could decide to leave their cars at the London HSR station rather than driving to Toronto, thereby reducing their overall travel time.

Despite these obvious advantages, there are a number of subtle points which need to be considered. These are as follows:

- An HSR station at Pearson International Airport, in addition to a downtown HSR station, could potentially deter HSR passengers originating from downtown Toronto destined for other corridor centres from using the HSR beyond Pearson Airport. The HSR could, in effect, encourage a greater number of downtown travellers destined for other corridor centres to choose planes as a preferred mode of travel. Thus, the HSR might be used as a "shuttle service" between the Toronto core and Pearson International Airport. However, this would only be the case if the cost-savings of switching modes at Pearson and the availability of connecting flights were sufficient enough for travellers to make this switch.

- The bulk of inter-city travellers in southern Ontario are located within comfortable driving distance of Pearson Airport. Well over 6 million Ontario residents live within 100 km from Pearson Airport. These travellers can get to Pearson with relative ease, and do not face an extended airport access time which would encourage them to switch to the HSR. To attract these passengers, the HSR would need to offer free or low cost parking at the boarding station (e.g. London) as well as a direct connection to the airport terminal itself.

- An additional stop in Toronto would slow HSR service between Toronto and other urban centres to the west of Toronto.

- A Pearson station would serve as an effective collection point for HSR passengers who prefer to board or disembark from the train at a west-Toronto point, thus avoiding a trip to the downtown area.

For all of these reasons a station at Pearson is considered to have important merits, but there are other factors which need to be considered. A key point is that an HSR station at Pearson improves travel times for corridor travellers connecting to international and domestic flights.

4.3.4 Pickering Station Would Function As An Intermodal Transfer Point

The potential HSR station in Pickering would function primarily as a place to change travel modes. The lack of major origins/destinations near to the site suggests that HSR travellers would need to board another mode (most likely the automobile) to reach their destination. For this reason the primary land use activities surrounding the HSR station in Pickering will be related to:

- Taxi stands;
- Parking lots;
- Car rental agencies;
- Drop off points;
- Public mode stations; and
- Etc.

An HSR station is unlikely to be a sufficient stimulus to trigger significant new commercial development. This is because the density of development falls off considerably at the fringe of the developed area of Toronto. As demonstrated in France, it is rare that an HSR station on its own is a sufficient catalyst to trigger demand for new commercial development unless there is an existing market in the area to begin with.

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5. KINGSTON

This appendix provides an analysis of the HSR effect on Kingston. Key conclusions of this appendix are as follows:

- The Kingston area's most important component is the City of Kingston, which is home to about 40 per cent of the census agglomeration population;

- The growth of Kingston has kept pace with the growth of Southern Ontario, primarily as a result of its strong institutional sector and role as regional service centre;

- Future prospects will continue to be positive as the institutional sector will continue to play an important role;

- As a result of significantly reduced travel time to all other Corridor communities, Kingston will largely benefit from the HSR; the improvement is particularly significant as Kingston does not have regular airline connections to other centres;

- Kingston's position as a tourist destination would benefit from the HSR;

- Kingston would be best served by a new station located near Highway 401. That station could incorporate a bus terminal and could become the focus of an office research park; and

- The new station considered by the Routing Study for the 300+ route is somewhat remote from Kingston. This could reduce the effectiveness of the station as a passenger collection point and it would certainly reduce the prospects for triggering development near the station.

The appendix is organized into three sections: socio-economic outlook, effect of HSR on Kingston and potential HSR station location issues.

5.1 SOCIO-ECONOMIC OUTLOOK

As a result of an important institutional sector, Kingston has been somewhat insulated from the ups and downs of the economy. A large institutional employment sector and major Canadian university explains Kingston's position as the Corridor's community with the most educated population. Kingston will continue to grow as a result of the benefits it gets from its important institutional sector.

5.1.1 Kingston Is An Important Institutional Centre

The Kingston area is the second largest city in Eastern Ontario, however, it is the smallest Corridor centre. The region has a strong institutional base and important manufacturing and tourism sectors.

- **Kingston Is Located Along Highway 401, About Two Hour And Half Drive From Toronto**

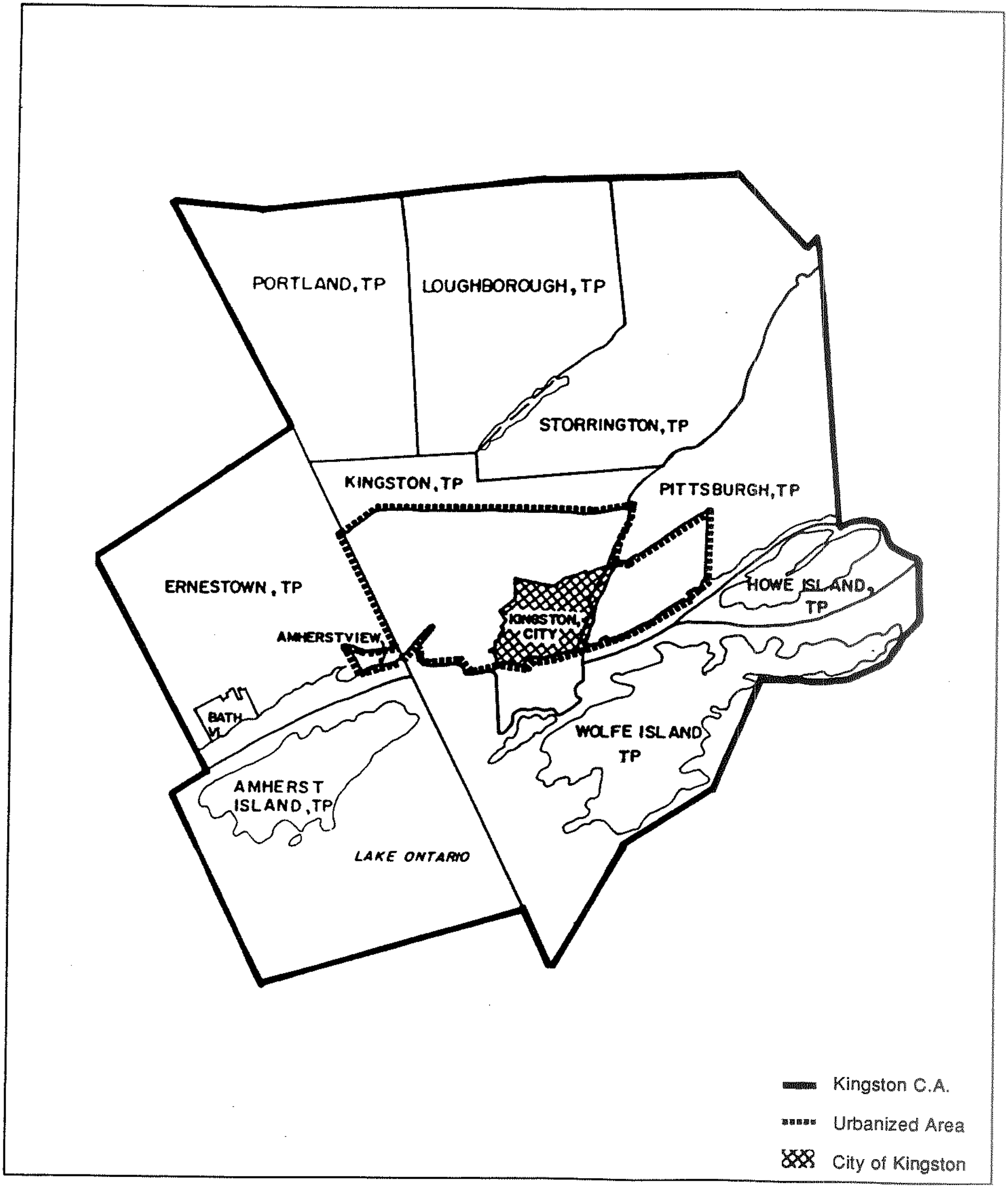
  Kingston is located on Highway 401, about half way between Toronto and Montréal. A two hour trip along Highway 15 links Kingston with Ottawa. Its strategic location between Toronto and Montréal and between Toronto and Ottawa-Hull has helped it play an important role as regional centre for commerce and service.

- **The City Of Kingston Is The Heart Of The Region**

  The City of Kingston has a population of 56,700 compared to 136,401 for the overall census agglomeration (CA). (Exhibit C-5.1). It also accounts for more than half of the households in the CA. The population of the city, which is almost completely urbanized, has been decreasing slightly over the past 20 years.

Exhibit C5.1

Kingston - Regional Map



	Kingston		Rest of CA	
	1971	1992	1971	1992
• Population	59 050	56 700	105 930	136 400
• Households	17 240	N / A	23 480	51 290

The city houses the majority of the region's institutions and specialized services and commerces. Tourist activities located downtown have developed and the area located near the waterfront was the subject of extensive transformation to accommodate high density residences.

- **The Townships Surrounding Kingston Are Experiencing Urban Development**

The City of Kingston as well as parts of Ernestown and Pittsburgh Townships, accommodate the built-up urban area. The developing fringe of Kingston has experienced residential, commercial and industrial development over the last 20 years. These townships have accounted for most of the single family housing construction while the City of Kingston has accommodated more of the higher density residential development.

There is an ample supply of land for future development in the three areas. In particular, an important industrial zone is located in the Township of Kingston south of Highway 401.

- **Kingston Is An Important Institutional Centre And Regional Service Centre**

Employment in the institutional and governmental sectors accounts for a large share of the region's total employment. About 18,500 people were employed by government directly or by government-funded institutions in 1989 within the urban core of the CA. By contrast, there were about 8,500 jobs in manufacturing and industry in 1988[1]. Institutional and government activities in Kingston contribute to its economy in many ways: by the wages paid to

[1] *City of Kingston, Basis for the official Plan, 1989, p.40.*

employees and spent locally; by the outside of region "client" of the various institutions brought to Kingston and the activities they generate; and by the spin-off generated in the service and manufacturing sectors by research activities taking place in hospitals and universities.

These institutions contribute not only to the economic well-being of the Kingston area but also to the overall quality of life for area residents. World-class medical and academic facilities are readily available; large picturesque open spaces and recreation facilities are provided by the institutions; heritage buildings are preserved; and the cultural milieu of the area is rich[2].

Some of the most important employers of the institutional and government sectors are, in order of importance:

- The Department of National Defense (Royal Military College and Kingston Base located in Pittsburgh township);
- Queen's University;
- Kingston General Hospital;
- Corrections Canada;
- Hotel Dieu Hospital; and
- Ministry of Transportation, Ontario.

The institutional sector supports the activities of business service firms. These firms also take advantage of Kingston's role as regional service centre. Kingston's three indoor shopping malls and the important downtown commercial area attract shoppers from a wide area. This secondary market area for commerce and services located in Kingston extends more or less from Trenton to Brockville along the 401 corridor.

[2] *Ibid, p. 40*

- **Kingston's Industrial Sector Is Dependent On A Few Large Industries**

  The Kingston manufacturing sector is not as important a component of its economy as most other Corridor centres which have a larger share of their population involved in manufacturing. In 1989, five large industries (Alcan, Dupont, Northern Telecom, Celanese and the Urban Transportation Development Corporation (UTDC)) employed approximately half of the manufacturing labour force. The overall importance of the industrial sector has been decreasing over the last 20 years as the service sector has grown.

  In particular, Alcan had numerous layoffs but the company intends to maintain their research facilities in Kingston. The company, which is located north of the city, holds important tracts of land not far from the railway tracks that are available for redevelopment, a result of the downsizing of their operations.

  Additional socio-economic indicators are presented on Exhibit C-5.2.

5.1.2 Outlook For Kingston Is Positive

Kingston has maintained a level of growth comparable to Southern Ontario's centre as a result of its strong institutional sector. That sector will continue to support the growth of the local economy.

- **Kingston's Growth Rate Exceeds Other Areas In Eastern Ontario**

  Kingston, like Ottawa-Hull, has maintained a significant level of growth both in terms of population or employment. While Eastern Ontario has not grown at the same rate as Southern Ontario, Kingston like Ottawa has performed well.

  This growth can be attributed largely to the importance of the institutional sector. This sector has sustained the growth of service activities while the industrial sector lost some of its importance.

Exhibit C5.2

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	122,650	136,401	11.5%
	1986	% of Total	
Pop. >65	16,690	12.2%	
Postsecondary Education	35,490	29.0%	
University Degree	21,665	17.7%	
	1986	1991	% Increase
Total Households	44,280	51,290	15.8%
Average Household Income	34,903	N/A	N/A

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			N/A
	1981	1986	1991
Employed Labour Force	N/A	60,330	N/A
	1991	15-24	25+
1991 Unemployment Rat	N/A	N/A	N/A
1991 Participation Rate	N/A	N/A	N/A

Source: Statistics Canada

EMPLOYMENT BY SIC	1981	1986	1986 Distribution
Primary/MFG/Construction	-	12,405	19.2%
Services	-	29,305	45.5%
Government	-	9,490	14.7%
Trans./Comm.	-	3,295	5.1%
Retail/Wholesale	-	9,965	15.5%

Source: Statistics Canada

REAL ESTATE INDICATORS	
	1992
Average House Price	$125,826
	1988-92 Annual Average
Res. Units Sold	1,441
Value of Construction	
Residential	$106,623
Industrial	9,414
Comercial	27,905
Institutional	35,675

Source: MLS, Statistics Canada

GROWTH OUTLOOK

				1992-2005		2005-2025	
	1992	2005	2025	Increase	Annual Growth	Increase	Annual Growth
Population	169,300	200,600	260,600	31,300	1.3%	60,000	1.3%
Household	64,900	83,100	113,100	18,200	1.9%	30,000	1.6%
Employment	75,300	93,300	107,800	18,000	1.7%	14,500	0.7%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

- **The Institutional Sector Will Continue To Support The Local Economy**

  Despite current discussions about the financing of government activities, Kingston's institutions in higher education, health and penitentiaries are not in areas of public administration that are likely to suffer significant cutbacks. Hospitals will still be important as the population continues to age although their operations might transform. Research activities associated with the University and the hospitals will also likely continue to develop.

  As a result, the economy will continue to rely heavily on the institutional sector. This sector will support the growth of services. The public research effort will produce spin-offs in services and in manufacturing.

- **The Tourism And Recreation Sector Will Maintain Its Importance**

  Kingston benefits from an attractive setting along Lake Ontario (a popular sailing centre) that has established this community as a centre of year-round outdoor recreation. It has a lively downtown area with a very interesting historical district. Fort Henry is another important tourist destination. It is also the logical entry point for the discovery of the Thousand Island area. With these assets, tourist activity will maintain their importance.

5.2 HSR IMPACT WILL BE SIGNIFICANT

HSR impact will be important in Kingston given that unlike other centres of the Corridor, it does not have an airport with regular links to other communities. Kingston's status will increase as a result of HSR service since it will be put on the same level as much larger centres with HSR stations. The overall effects of HSR on the economy will be positive given the special importance of the institutional sector in Kingston and the support it provides to local business service firms as well as Kingston's attractiveness as a tourist destination.

Moreover, the possible deconcentration of research activities and commuting to Ottawa-Hull would also help Kingston benefit from the HSR. Then, even if HSR would further encourage the concentration of activities in larger centres, the special asset of Kingston in terms of its economic base and close proximity to Ottawa-Hull will help offset this effect.

5.2.1 Kingston Has Important Links With Toronto And Ottawa-Hull

- **Kingston Is Largely Oriented Toward Toronto And Ottawa**

  Kingston's rate of inter-travel (on a per capita basis) is higher than any other centre of the Corridor. This can be explained by the fact that as the size of the city decreases, it is more and more dependent on other cities. But in the case of Kingston, the presence of the University, the Canadian Force base and the correctional facilities (prisoners have visitors and permissions) explain in part this high propensity for travel.

  Kingston links are mostly with Toronto (2.3 million passenger trips) and Ottawa-Hull (900,000). Business trips account for 20 per cent of the trips between Kingston and Toronto. Business trips also accounts for 20 per cent of all trips between Kingston and Ottawa-Hull. As an indicator, the number of business trips between Kingston and Toronto is half the number between Toronto and Ottawa-Hull, a much more important centre.

- **Train Travel Is Important For Kingston**

  Travel to and from Kingston accounts for a large share of rail travels in the corridor. In particular, the train trips between Kingston and Toronto account for 13 per cent of all rail trips. Rail share of all modes is high at 8 per cent between those two cities. Rail travel between Ottawa-Hull and Kingston is also important.

  This high rail use probably has to do with the fact that Kingston has relatively limited air service and therefore train is the best alternative to car travel. Moreover, the service is convenient with a travel time station to station of about three hours between Kingston and Toronto and even less between Kingston and Ottawa-Hull.

5.2.2 HSR Will Have A Positive Effect On Kingston

- **HSR Will Significantly Increase Kingston Accessibility**

  Kingston would be more accessible from all destinations in the Corridor as a result of HSR. HSR would provide a very attractive alternative to car travel especially for distant locations where it would provide a great reduction in travel time. Travel time with HSR between Kingston and Ottawa-Hull and Kingston and Toronto corridors will be less compared to car travel time.

  The new service would be a major improvement since Kingston does not have frequent air service to other centres. HSR would offer a radically different service rather than compete with the airplane. The service would provide a major improvement compared to existing rail service.

  This improved accessibility was taken into account by the forecast study since Kingston has the highest percentage of induced trips of all HSR centres. The magnitude of induced trip (trip that would not have taken place without HSR) is especially important between Toronto/Kingston and Ottawa-Hull/Kingston with a 6.1 per cent and 14.4 per cent increase from 2025 base demand that would be induced.[3]

- **Train Travel Will Become More Popular**

  One of the most significant effects of the HSR will be to alter the modal choice of travel between Kingston and other corridor centres. As an example, travel between Kingston and Toronto is currently undertaken primarily by the automobile. VIA rail accommodates approximately 8 per cent of trips to Toronto. With the HSR, however, this pattern of modal choice is projected to change.

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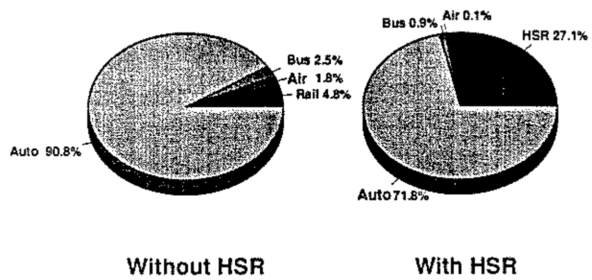
[3] *2025 "with HSR" based on composite forecast #4, Quebec-Windsor Corridor — 300 kph (via Mirabel), March 31, 1994, IBI.*

MODAL SPLIT IN 2025
KINGSTON - TORONTO



Notes: - *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

By 2025 it is anticipated that about 27 per cent of all trips will be taken by HSR. A similar shift in modal choice is projected to occur between Kingston and other centres. While the HSR is not likely to be the primary mode of travel, the importance of rail travel is certainly expected to increase with the HSR in place.

- **HSR Will Improve The City's Status And Encourage Tourism**

With HSR, Kingston would be part of the limited number of centres with a station in the Corridor. It would be the smallest agglomeration of the group of HSR centres with whom it will share the new ease of access provided by HSR.

Research activities could be further developed as Queen's University resource could be used and shared with more ease. The university will become more attractive to out of the region students and new staff would be attracted by the ease of travel to their home town provided by HSR.

Tourism will develop as Kingston links with Ottawa, Toronto and Montréal improve. It will be easier to visit Kingston as part of a trip to one of the more important tourist centres. Tours could be organized which could combine an HSR trip with a scenic tour to visit Kingston and the Thousand Islands.

- **Export-Oriented Services And Research Activities Would Benefit From HSR**

  The service firms that have a market beyond the Kingston area will take advantage of HSR. Others that have a local market may seek to export their expertise while some will suffer from competition of Ottawa-Hull firms. Thus, the effect could be either positive or negative depending on the capacity of Kingston entrepreneurs to take advantage of the opportunities offered in the Ottawa-Hull market in particular.

  Moreover, it is conceivable that research facilities could be attracted to Kingston rather than locate in Ottawa. Queen's University, the National Defense department, the hospitals, Alcan and other private enterprises already constitute an important nucleus of research activity. Kingston's new accessibility to Toronto and Montréal and its almost immediate proximity to Ottawa-Hull with HSR would attract such research establishments. As well, the quality of the cultural milieu with a lively historical district and waterfront location would attract these establishments.

- **New Residents Could Locate In Kingston With The HSR Service**

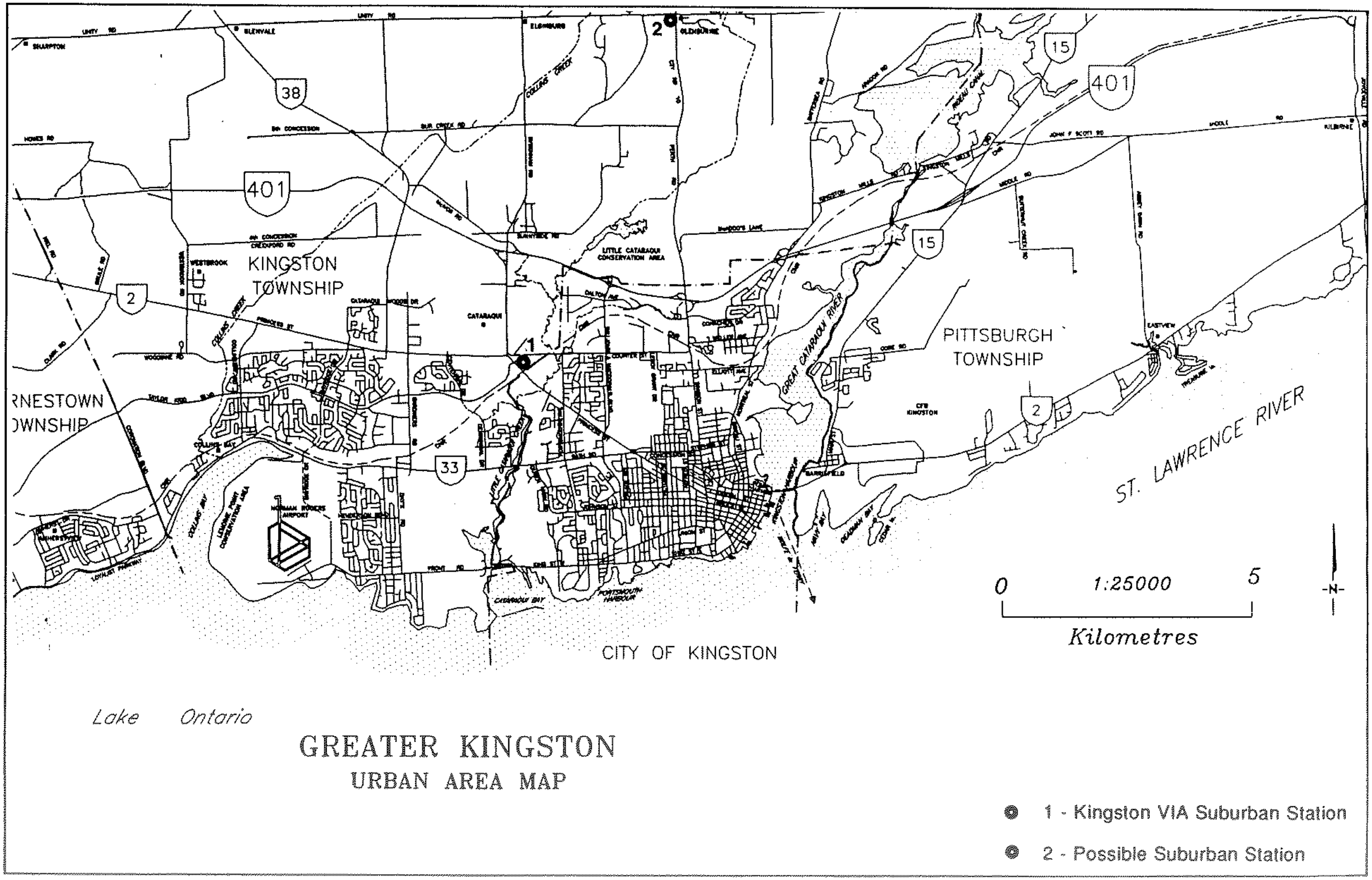
  Kingston already attracts an important number of new residents who decide to retire in Kingston. These pensioners take advantage of the quality of life offered by Kingston (low residential cost, hospitals, parks, cultural events, etc.) and its proximity to larger centres. Kingston also attracts weekend sailors from Ottawa-Hull who sleep on their boat or have secondary residences in the area. Moreover, as reported by the last census, some individuals, although not a large number, live in Kingston and work in Ottawa-Hull. All these trends will be encouraged, to some extent, by the HSR.

5.3 STATION LOCATION ISSUES

Two different station locations are proposed to serve Kingston, depending on the route:

Exhibit C5.3

Kingston - Station Location



- The existing VIA suburban station located near the intersection of Princess and Counter Streets, which is proposed for the 200+ kph route; and
- A new suburban station, 10 km north of downtown Kingston near the country road 10, which is proposed for the 300+ kph route bypassing the Kingston area.

The merits of the two proposed locations will be presented. A case for a new station to serve Kingston to be located near Highway 401 is presented. It is argued that the routing of the 300+ HSR should be established so as to locate the station closer to the urbanized area.

5.3.1 The Existing VIA Station Is A Good Location

The existing VIA station can be reached in 10 to 15 minutes by car from the Kingston downtown area. Although it is a suburban location, given the compact nature and the limited size of the urban area, the station is very close to downtown Kingston.

The inter-city bus station is situated close to the railway tracks but not in the same area as the existing train station. Ideally, the train station and the bus station should be consolidated together in a single station so that HSR can serve the other communities of Eastern Ontario.

Development and redevelopment near the HSR station could be stimulated by the location of an HSR station provided a development plan was prepared to co-ordinate the various private development initiatives. New industries ideally would like to locate near the 401 to benefit from good road access.

As opposed to the new proposed station ten kilometres away from the downtown, the potential new station near Highway 401 would be part of Kingston's urbanized area rather than separated from it. The physical and psychological proximity would encourage HSR ridership. It would be noted that Kingston is a compact city where most of the important activities are located downtown. It is an objective of the Official Plan to favour the consolidation of urban development rather than its dispersion.

5.3.2 The New Proposed Suburban Station Location Would Be Isolated

For the 300 kph route, the HSR station would be located some 10km north of Kingston. The new station will benefit from good road accessibility, just like the existing VIA station. However, it would be quite distant from downtown Kingston compared to the existing station which is about 6 km from the waterfront compared to 10 km for the proposed new suburban station. The station would be located about 20 to 30 minutes from downtown compared to 10 to 15 minutes from the existing VIA station.

Urban growth in the Kingston area follows an east-west axis parallel to the waterfront. The station would then remain isolated from the urban area as it is not in the direction of growth and about 4 km from the fringe of the urban area. In this respect, it is an outlying station rather than a suburban station.

This "remoteness" would suggest that little or no development would occur in the vicinity of the HSR station, other than traffic-related activities such as taxi stands, parking lots, bus loops, etc.

6: OTTAWA-HULL CMA

This appendix provides a profile of the effect of the HSR on Ottawa-Hull. Key conclusions of this appendix are as follows:

- Ottawa-Hull's economy is strong and diversified and has a positive growth outlook. The economy is gradually shifting from government-related jobs to a stronger manufacturing base in communications, electronics, and computers. The presence of research centres and government agencies will support this trend;
- Ottawa-Hull's role as the nation's capital is considered a determining factor in assessing HSR impacts both in terms of job structure and tourism activities;
- Historically a bi-provincial region with numerous administrative levels, the Ottawa-Hull area is gradually evolving towards a more coordinated process for urban and transportation development. This could facilitate a more logical implementation of HSR facilities in the region;
- An HSR system would be highly beneficial to the Ottawa-Hull region. It will strengthen its role as the national capital and its economy. Effects will be felt mostly in the business and tourism sectors. An HSR system will favour the service-to-business management and high tech sectors as well as support development of the tourism industry;
- Ottawa-Hull would be best served by a station located in downtown Ottawa or in downtown Hull. The existing VIA station is not as accessible as would be a potential downtown station, especially for the Outaouais residents;;
- Both potential downtown stations (Hull and Le Breton Flat) would be a catalyst to the redevelopment of their surroundings and would have a positive effect on both downtown Ottawa and Hull. The development of the public transportation system should, as an objective, provide easy access to the potential HSR station from both sides of the Ottawa River;

- A suburban station in addition to a downtown station is not needed and would only increase travel time for all trips going by Ottawa-Hull.

6.1 SOCIO-ECONOMIC OUTLOOK

6.1.1 Ottawa-Hull Is a Centre Characterized By Its Diversified Economy And Dynamic Population

- **Ottawa-Hull Has Important Links With Montréal And Toronto**

  Ottawa-Hull was originally a community relying on the lumber industry and its location on the Outaouais River was ideal for the development of that specific industry. Subsequently, it was chosen as the capital of United Canada because of its position at the border of the then Lower and Upper Canada, now Québec and Ontario. The new national capital was a reasonable distance from both Montréal (which was then the financial, manufacturing and commercial metropolis of Canada), and Kingston, a very important centre at the time. But the location is somewhat removed from the major development axis along the St. Lawrence River (Highways 401 and 20).

  The construction of the Trans-Canada Highway and the growing role of air travel has gradually brought Ottawa-Hull closer to Montréal and Toronto. Ottawa-Hull can be reached by car in two hours from Montréal and in four hours from Toronto. Travel between Montréal and Ottawa-Hull account for a significant number of total trips in the Corridor with 4.5 million passenger trips annually. These figures demonstrate the importance of links with Ottawa-Hull for the two major centres of the Corridor. Travel between Toronto and Ottawa-Hull is comparable in total volume, at 2.7 million passenger trips, with travel between Toronto and Montréal, at 2.9 million passenger trips.

- **Ottawa-Hull Is Comprised Of Two Distinct Communities**

  In 1991, the Ottawa-Hull Census Metropolitan Area (CMA) had a population of approximately 920,000. The Québec part of the CMA has a population of 228,500 people of which about 80 per cent are French-speaking[1]. The Ontario part of CMA has a population of 691,500 people of which about 80 per cent are English-speaking. The francophone population is more evenly distributed between the two parts of the CMA and the ethnic composition of the population is more varied in the Ontario part of the CMA as international migrants tend to locate principally in Ontario.

Ottawa-Hull's location at the border of two provinces and its role as Canada's Capital has brought about a multiplicity of government agencies at the national, provincial and regional levels. The CMA thus contains, in addition to the federal, provincial and municipal governments, the following administrative units (Exhibit C-6.1):

- The National Capital Commission;

- The Regional Municipality of Ottawa-Carleton (RMOC) regrouping Ontario municipalities of the CMA;

- The Communauté urbaine de l'Outaouais (CUO) which regroups the more important cities of the Québec part of the CMA; and

- The Municipalité régionale de Comté des Collines de l'Outaouais which regroups rural municipalities of the Québec part of the CMA.

More importantly, the unique communication of adjacent English and French communities has promoted a competitiveness for institutions and infrastructure which, at times, has impeded development. Recent efforts have been made to create a better institutional climate so as to foster development. The implementation of HSR infrastructures should be seen in this renewed context.

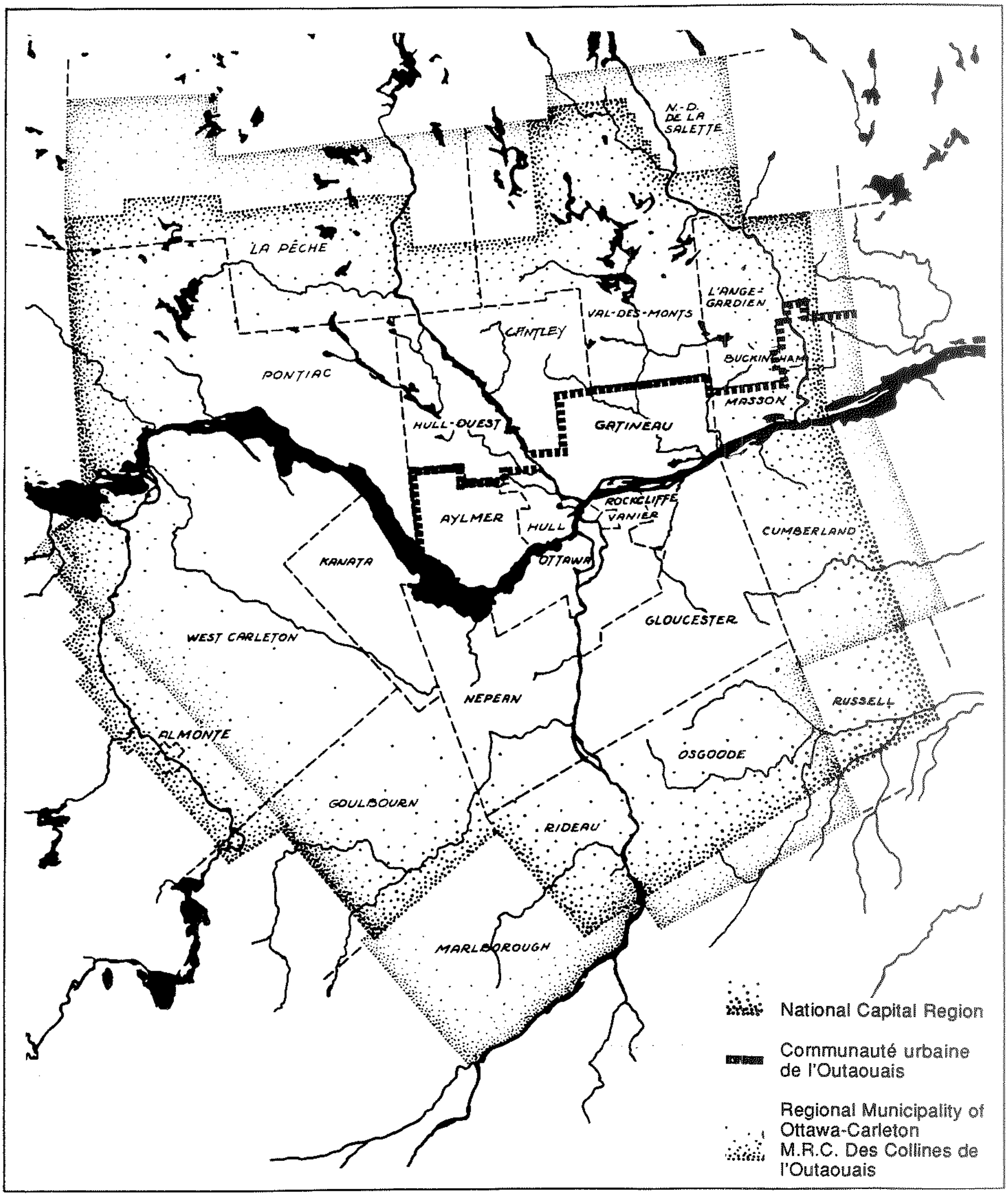
- **Employment Is Mostly Concentrated Inside The Ontario Side Of The Region**

In 1991, there were about 383,000 jobs located in the RMOC and slightly more then 80,000 in the CUO according to regional

[1] *First official language spoken, Table 1, Cat 94-230, Statistics Canada.*

Exhibit C6.1

Ottawa/Hull - Regional Map



planning authorities. Of the total for the RMOC, about 343,000 are located inside the Green Belt[2] and it is where most of the net new jobs were added according to a recent RMOC survey. Within the Green Belt, the central area (Ottawa and vicinity) accounts for 82,000 jobs or about 20 per cent of total employment in the RMOC.

The Québec portion of the CMA has a smaller component of total employment relative to its population than the Ontario portion. Most of the employment in the Québec portion of the region is concentrated in Hull with about 50,000 jobs. Federal employment has increased from about 5,000 jobs in 1971 to approximately 22,000 jobs in 1991. This transfer of federal activities has benefited the Outaouais and has improved job distribution between Ontario and Québec in the region.

This concentration of employment in downtown Ottawa and across the Outaouais in downtown Hull is certainly a distinctive characteristic of the Ottawa-Hull region.

- **Ottawa-Hull's Population Is Both Young And Educated**

Some 16 per cent of the total population has a university degree, compared to 9 per cent in Montréal and 11 per cent in Toronto (Exhibit C-6.2). Good employment opportunities and a reasonable cost of living make Ottawa-Hull an attractive work location for individuals looking for new employment. The presence of the federal government and the possibility of employment it offers is certainly part of this appeal. It should be noted that even though total federal employment is likely to decrease in the future, a younger labour force will still be attracted to the region as a result of attrition and administrative reorganization.

Employment will also continue to grow in firms offering services to the federal government (public relations, translation services, legal and fiscal advisers, economic and management consultants, etc.). The various federal policies aimed at encouraging research and development will also favour employment growth in the region.

[2] *As defined in the Federal land use plan prepared by the NCC.*

Exhibit C6.2

POPULATION / HOUSEHOLD DATA

	1986	1991	% Increase
Population	819,263	920,857	12.4%
	1986	% of Total	
Pop. >65	81,720	8.9%	
Postsecondary Education	279,220	34.1%	
University Degree	129,885	15.9%	
	1986	1991	% Increase
Total Households	302,275	349,260	15.5%
Average Household Income	50,960	54,398	6.7%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA

1991 Total Labour Force			531,080
	1981	1986	1991
Employed Labour Force	283,768	322,198	366,777
	1991	15-24	25+
1991 Unemployment Rate	7.3%	11.8%	6.3%
1991 Participation Rate			72.9%

Source: Statistics Canada

EMPLOYMENT BY SIC

	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	35,005	44,905	12.8%	28.3%
Services	125,940	147,905	42.0%	17.4%
Government	82,785	89,425	25.4%	8.0%
Trans./Comm.	20,500	23,125	6.6%	12.8%
Retail/Wholesale	41,225	46,385	13.2%	12.5%

Source: Statistics Canada

REAL ESTATE INDICATORS

	1992
Average House Price	$143,869
	1988-92 Annual Average
Res. Units Sold	8,907
Value of Construction	
Residential	$610,831
Industrial	44,495
Comercial	347,181
Institutional	122,716

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	691,300	816,700	1,010,600	125,400	1.29%	193,900	1.1%
Household	268,700	343,500	445,000	74,800	1.91%	101,500	1.3%
Employment	354,600	438,600	482,300	84,000	1.65%	43,700	0.5%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

- **Ottawa-Hull's Economy Is Strong And Diversified**

  The economy of Ottawa-Hull continues to diversify and is growing in new areas of manufacturing (communications, electronics, computers, etc.). During the same period, most other centres of the Corridor have suffered from a decline in their manufacturing base. Thus, between 1981 and 1986 manufacturing employment increased 28.3 per cent more than any other corridor centre in the same time period.

  Between 1981 and 1986, the growth of services to the business management sector was the most significant of all other Corridor centres. This sector is very important to the economy of Ottawa, a characteristic it shares with Toronto and Montréal.

  More recently, between 1986 and 1991, the number of manufacturing jobs has declined by 16.7 per cent in Ontario, where the RMOC suffered a modest 3.2 per cent decline[3]. Service activities have also experienced growth partly as a result of population growth but also through the growth of the service-to-business management sector of the economy.

  According to the same survey, employment has grown in the high tech industries and services by an estimated 6,000 new jobs between 1986 and 1991 in the RMOC, which represents an increase of about 30 per cent. Research activity is largely concentrated in the fields of communication, electronic equipment and computer science.

- **National Museums And Recreational Opportunities Are An Asset To The Region**

  The National Capital is the seat of government as well as the house of many national institutions and museums. National Capital is a unique status that is certainly a key asset to the Ottawa-Hull region.

[3] *1991 Ottawa-Carleton employment survey, RMOC Planning Department, November 1992.*

The main "national" attractions of the capital are:

- Parliament Hill
- Supreme Court of Canada
- National Arts Centre
- National Gallery of Canada
- Canadian Museum of Civilization
- Canadian War Museum
- Royal Canadian Mint
- Rideau Hall
- National Aviation Museum
- Gatineau Park

These attractions, as well as the lively urban ambience and the green spaces in the region, make Ottawa-Hull an attractive destination for both Canadians and foreigners. It is often part of a visit to Canada (or to Central Canada for westerners and easterners). Simply put, one has to visit the capital because it is *the* capital. Overnight leisure trips to Ottawa-Hull total 1.8 million person-trips annually, which places it on equal footing with Québec City (1.7 million) as a destination. Only Toronto (3.4 million) and Montréal (2.5 million) are more important destinations within Canada.

The natural environment is a distinctive landmark of Ottawa-Hull thanks to the presence of the Outaouais, Gatineau and Rideau Rivers and the bicycle paths and trails that follow them. The numerous urban parks, the Parkways and Green Belt are all elements which contribute to the green image of the capital.

6.1.2 Growth Outlook Is Positive

- **Socio-Economic Forecasts Call For Strong Growth**

Ottawa-Hull's outlook for population growth is positive. Its projected growth rate is higher than the average rate of Corridor communities. Nonetheless, the projected growth rate is low compared with the 1.9 per cent annual growth rate experienced between 1986 and 1991. In line with regional authorities' projections, an annual growth rate of 1.6 per cent for the overall CMA between for 1992 - 2005 and 1.2 per cent for 2005 - 2025 should be considered. The resulting population would be

1,150,000 in 2005 and 1,460,000 in 2025. The number of households is also likely to grow at a rate somewhat similar to the 1986 - 1991 rate which would double the actual number of households by 2025.

Employment projections are consistent with past trends. At 1.65 per cent annually over the next 15 years and 0.9 per cent thereafter, an estimated 125,000 new jobs would be created by 2025.

- **The Diversification Of The Economy Will Provide The Basis For Future Growth**

Employment with the federal government is more likely to decline, at least in the medium and long-terms. Nonetheless, other sectors of the regional economy will continue to experience growth. Research and development activities supported by governmental research facilities will produce spill-over in the high tech manufacturing and service sectors.

Service firms will tend to increase the export of their expertise world-wide. They will take advantage of the presence of foreign embassies, of the Canadian International Development Agency and the Ministry of External Affairs.

- **Both The Outaouais And Out-Of-The-Green-Belt Communities Will Benefit From Growth**

The supply of land and the capacity of the road networks are limited inside the Green Belt. As a result, urban development will cross the river and the Green Belt. This phenomenon has already started; at present, most of the residential and industrial growth occurs outside of the inner area.

In the Outaouais, the development will take place mostly in the City of Gatineau. Nonetheless, the centre of Hull could accommodate more commercial office growth as a result of the expansion of the central area of Ottawa. In Ottawa-Carleton, urban development will be oriented toward Kanata, Orleans and Barr Haven. This new development should be structured around the transit way network.

As stated before, the need to coordinate growth and development of transportation infrastructures will foster more co-operation between the CUO, the RMOC and the National Capital Commission.

There is also a growing realization from local and regional authorities of the importance of co-ordinating administrative policies and regulations on both sides of the Outaouais. One solution to solve the problem of conflicting policies and regulations across borders is to grant a special administrative status to a set territory where uniform rules would apply to all businesses and persons. Save for any major constitutional changes in the Canadian federation, all solutions to coordinate rules and requirements will likely have positive impacts for the region. The general abolition of inter-provincial barriers to trade would also favour the growth of the region by fostering more interaction between its two components.

6.2 EFFECT OF HSR ON OTTAWA-HULL

6.2.1 Ottawa-Hull Has Links With All HSR Centres In The Corridor

- **Ottawa-Hull Is The Centre That Has The Most Balanced Trip Origin-Destination Distribution**

Corridor centres west of Ottawa have few exchanges with Corridor centres east of Ottawa and vice-versa. The following illustrates that:

- Three passenger trips take place between Ottawa and Kingston for every passenger trip between Montréal and Kingston;
- More passenger trips take place between Québec and Ottawa than between Québec and Toronto; and
- More passenger trips take place between Windsor and Ottawa than between Windsor and Montréal.

Part of this trip pattern can be attributed to Ottawa-Hull's middle position in the Corridor, a location which translates into shorter overall travel time using ground transportation to reach other

Corridor communities. Part of this particular trip pattern has to do with Ottawa-Hull's status as national capital. By definition a capital has relationships with other centres of the country.

With Ottawa-Hull being a bi-provincial region, it is also natural that it maintains relationships with centres in both Québec and Ontario. Moreover, the importance of Ottawa-Hull as a tourist destination also explains this particular pattern of trip distribution.

- **Ottawa-Hull's Main Link Is To/From Montréal**

  Links with Montréal account for 4.5 million passenger trips annually and represent 50 per cent of all trips originating from Ottawa-Hull. That link is very important to Ottawa-Hull and to Montréal. For Ottawa-Hull, it is the first link in importance and for Montréal it is the second following the Montréal-Québec link which accounts for 6.8 million passenger trips. Auto passenger trips account for 85 per cent of total passenger trips between Ottawa-Hull and Montréal.

- **Links With Toronto And Kingston Are Also Important**

  With 2.7 million trips, the link between Toronto and Ottawa-Hull is almost as important as the link between Toronto and Montréal. In fact, of the 10 million trips between Ottawa-Hull, Toronto and Montréal, trips having Ottawa-Hull as a destination account for 7 million trips. This is a clear indication of the importance of Ottawa for Montréal and Toronto. Business trips account for about 40 per cent of all passenger trips between Toronto and Ottawa-Hull; compared to 50 per cent for the Toronto-Montréal link.

  As for Ottawa-Hull's relationship with Kingston, it generates 0.9 million passenger trips a year. That volume of trips is three times the volume between Kingston and Montréal and half of the volume between Toronto and Kingston. Business trips represent around 20 per cent of passenger trips between Ottawa-Hull and Kingston, which is the same proportion as for business trips between Ottawa-Hull and Montréal.

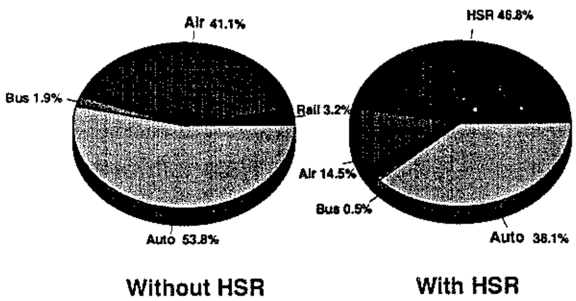
6.2.2 HSR Will Strengthen The National Capital Role Of Ottawa-Hull And Its Economy

- **HSR Improves Transportation Choice To All Centres**

With the 300 kph HSR, all other centres in the Corridor could be reached in less than three hours, with the exception of Windsor with a four hour travel time. These travel times are comparable to those offered by the plane. In addition, HSR would offer more comfort, equal frequency, the possibility of direct access to the city centre and cheaper fares. The 300 kph HSR offers shorter travel time compared to the automobile from all centres, except Kingston and Montréal.

Thus, one of the most significant effects of the HSR will be to alter the modal choice of travel between Ottawa and other corridor centres. As an example, travel between Ottawa and Toronto is currently undertaken primarily by the automobile. VIA rail only accommodates approximately 8 per cent of trips to Toronto. With the HSR, however, this pattern of modal choice is projected to change.

MODAL SPLIT IN 2025
OTTAWA - TORONTO

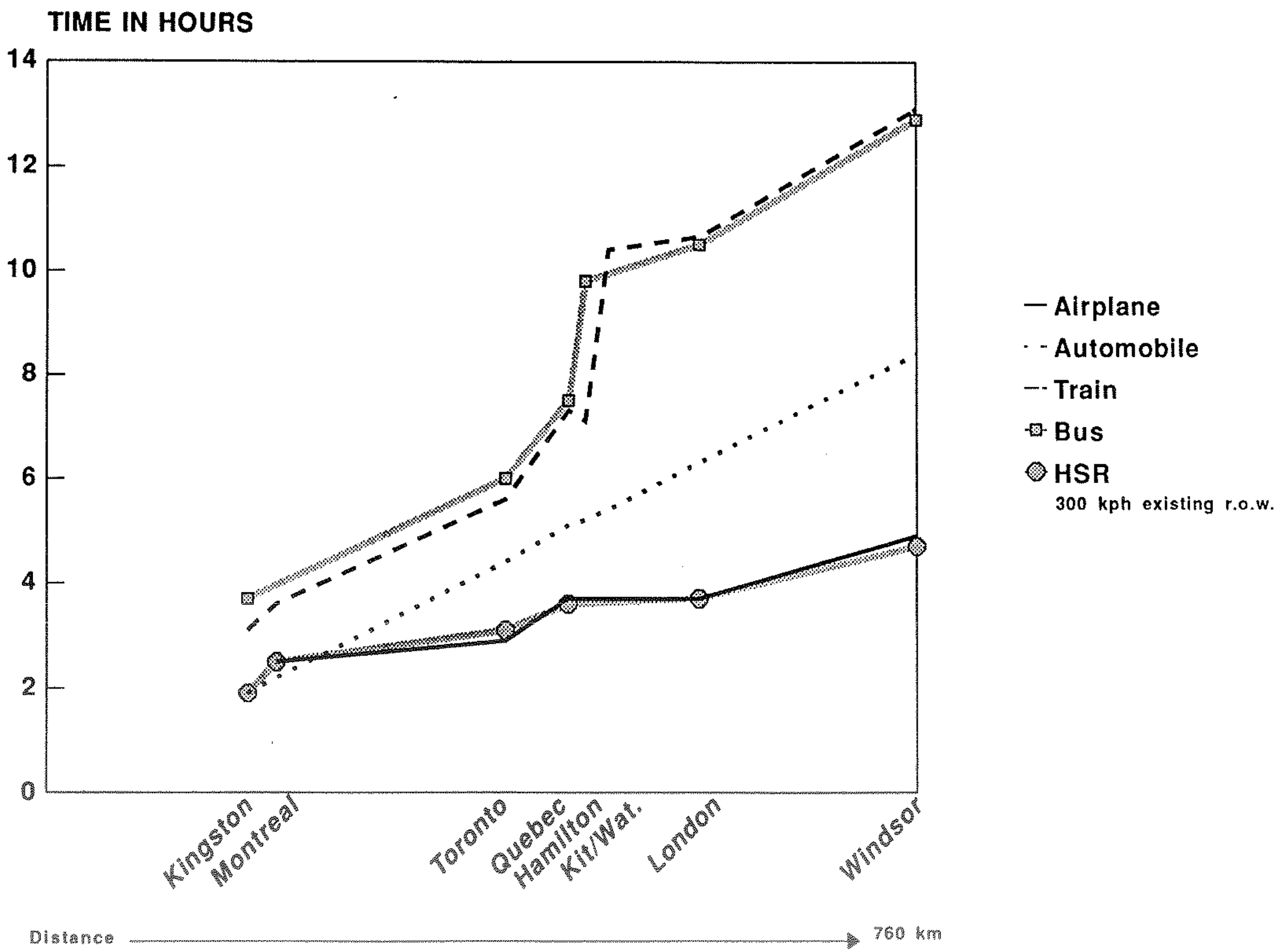


Notes: - *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

By 2025 it is anticipated that close to 47 per cent of all trips will be taken by HSR to Toronto. A similar shift in modal choice is projected to occur between Ottawa and other centres, although trips

Exhibit C6.3

DOOR TO DOOR TRAVEL TIME: BY MODE (OTTAWA TO OTHER CORRIDOR CENTRES)



HEMSON

pluram inc.

to Montreal would still be dominated by the car. While the HSR is not likely to be the primary mode of travel, the importance of rail travel is certainly expected to increase with the HSR in place.

- **HSR Will Induce New Business And Pleasure Trips**

Because HSR will reduce travel time and/or provide more comfort, it will induce new travel to the National Capital. The most significant increase in travel is likely to take place between Ottawa-Hull and Toronto, given the importance of the business component of total passenger trips for that link and the advantage of the HSR for direct access to downtown Toronto. Passenger forecasts tend to support this conclusion. The number of induced trips is forecast to represent a 12.3 per cent increase over the base level of demand in 2025 between the two cities.

For Montréal/Ottawa-Hull, it is forecasted that non-business travel will remain the most important component of new trips, as forecasts reflect the current pattern of trip distribution. The increase in accessibility between downtown Ottawa-Hull and downtown Montréal brought about by HSR could, as a result, increase the number of business trips between the two centres.

HSR will increase the number of pleasure trips (tourism and friend/family visits) to Ottawa-Hull from all origin centres thanks to the quality and the diversity of the Capital's attractions. HSR will also make it easier for foreign visitors to travel to Ottawa from major international airports in Toronto and Montréal.

HSR will make it possible to offer new kinds of package tours. An example would be a trip that would include a boat cruise from Montréal to Ottawa-Hull, an HSR ride between Ottawa-Hull and Kingston, and a scenic bus tour of the Thousand Islands. HSR's interest relies on a fast and easy link between tourist destinations combined with the experience of the new train as an attraction on its own.

- **HSR Will Be An Asset For The Diversification Of The Economy**

  The service-to-business management and high tech sectors are important for the diversification of the regional economy. The critical mass is now sufficient in Ottawa-Hull for these two sectors to export their services to other centres. The French experience has demonstrated that activities involving face-to-face contact and exchange of information have more to gain from increased inter-centre accessibility.

  As previously mentioned, the HSR will also favour tourism, which in turn will favour growth of the restaurant and accommodation sectors.

6.2.3 HSR Impact In Ottawa-Hull Will Vary Depending On Technology And Station Location

- **Relationship Between Ottawa-Hull And Montréal Will Be Altered If HSR Travel Time Can Be Lowered To One Hour**

  Downtown-to-downtown HSR service in approximately one hour would certainly encourage HSR use between Montréal and Ottawa-Hull. The trip time evaluation indicates that it would be possible to reach the two centres in one hour. This would have the effect of creating a more direct relationship between the two CBD's, provided the Ottawa-Hull station is located at the core of the CBD, as one hour is considered the travel time that defines a CBD's prime area of influence in a region.

  The overall effect would certainly be more economic interaction. Corporations could split their operation between the two cities. New companies and research facilities could be attracted by Ottawa-Hull's green image and quality of life. Individuals would also have more choices in recreational and cultural activities, living in one centre and working or doing business in the other.

- **Travel Time Between Ottawa-Hull And Toronto Is Much Lower With The 300 kph HSR**

  There is an important difference between station-to-station travel time of an hour and one-half compared to more than two hours. In psychological perception, an hour and one half is considered a more reasonable travel time. The travel time achieved with the present option could encourage half day trips between Ottawa-Hull and Toronto.

- **Ottawa-Hull Could Become More Central**

  As previously mentioned, while Ottawa-Hull is at the mid-point of the Québec-Windsor axis, it is off the direct line between Montréal and Toronto. With the HSR route passing through Ottawa-Hull, the centre would gradually assume a more central role in the corridor beyond that of being the capital city.

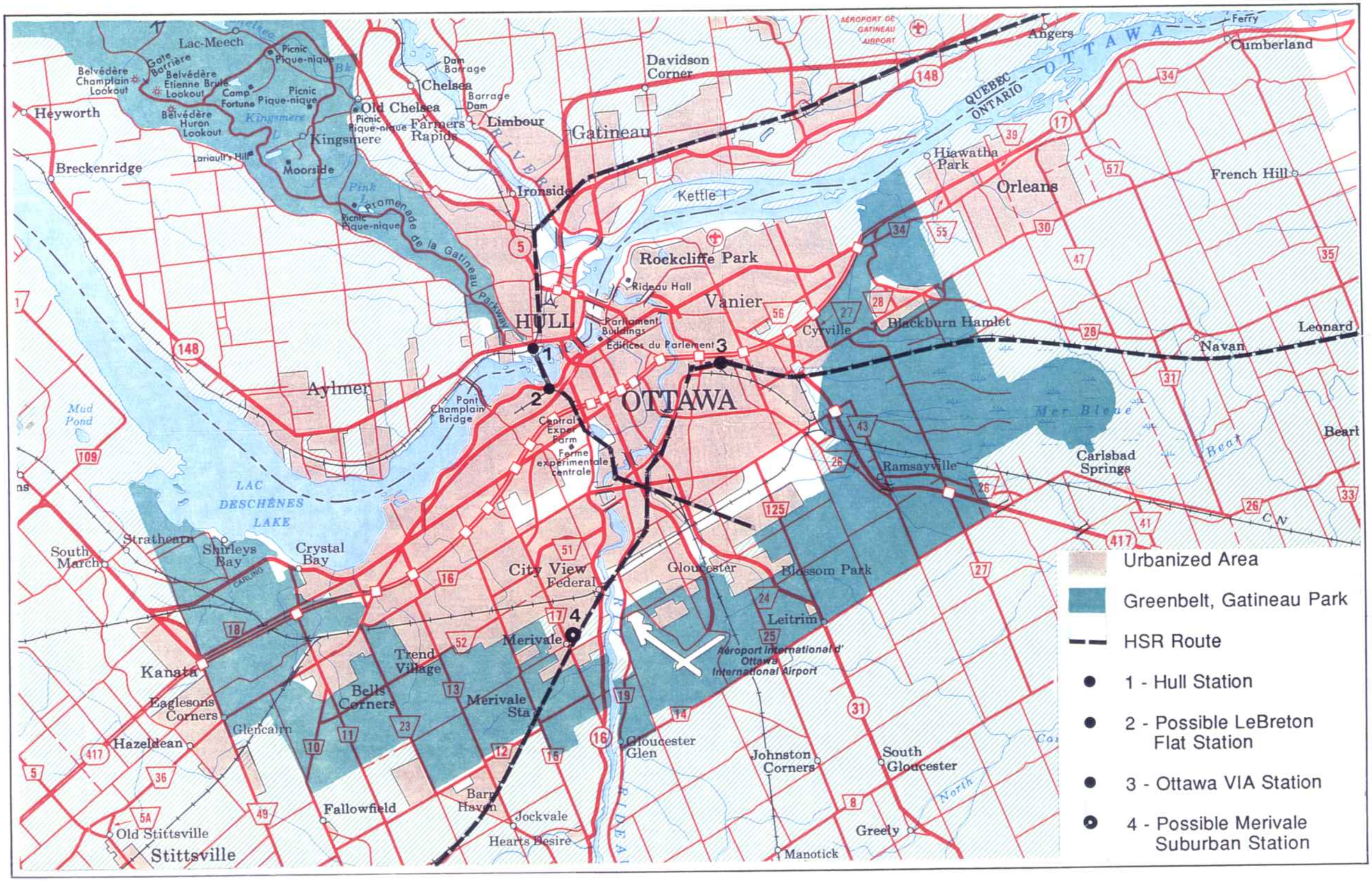
6.3 STATION LOCATION ANALYSIS

Three possible stations are proposed by the Preliminary Routing Assessment and Costing Study:

- Existing VIA station in Ottawa with the 200 kph routes;
- Existing VIA station in Hull with the 300 kph routes;
- A new suburban station in Merivale in Ottawa which could complement either one of the two possible stations.

An evaluation of the merits of a new station at the Breton Flat in downtown Ottawa is also presented. The Le Breton Flat station could be located on the right-of-way accessing the Lemieux Island rail bridge (Exhibit C-6.4).

Ottawa/Hull - Station Location



Source:
The National Capital Commission - Cartography by JLC Repro Graphic, 1992

6.3.1 Existing VIA Station Is Accessible But Not As Prestigious As A "Downtown" Location

- **Highway 417 Guarantees Good Accessibility To The Existing VIA Station From Ottawa And Surrounding Communities**

  The location of the station on Highway 417 is very accessible from Ottawa and surrounding communities since it is the main regional axis for the Ontario part of the region. However, the station is not particularly accessible from communities located in the Québec part of the region.

  The station can be reached in about 15 minutes by taxi from Parliament Hill. Proximity to the central portion of Ottawa where the majority of jobs are located is key to the success of HSR.

- **Existing VIA Station Is Located On The Transit Way System**

  Access to public transportation from the station is excellent. A five minute walk separates travellers from the train's stopping point to the transit way bus terminal which is located close to the taxi and car drop-off points. A frequent service is offered to downtown Ottawa.

- **Development Around The Station Will Be Difficult**

  Apart from the land immediately surrounding the station, there are no large parcels of vacant land in the station vicinity. Located outside of the central area, from which it is separated by the Rideau River, the area near the station could accommodate a suburban type of office research park. However, to achieve this, numerous industrial properties would have to be redeveloped.

- **Station Surroundings Do Not Convey The Image Of Ottawa As An Important Centre**

  When visitors travel by train to a large city, they expect to arrive in the downtown. That is the idea many people have in mind based on the experience of Union or Central Station and stations in other major centres.

  Since the existing station in Ottawa-Hull is not located at the core of the urban area, the image of the region would not be enhanced.

6.3.2 Both The Le Breton Flat Site And Hull's Existing VIA Station Offer Excellent Accessibility And Exciting Development Opportunities

- **Le Breton And Hull Are Located At The Core Of The Region**

  Both potential station locations are in the core area of the region. As a large segment of HSR users will be business travellers from the service sector and since many of their destinations are located downtown, a downtown HSR station would suit their needs ideally.

- **Le Breton And Hull Are Within Walking Distance of Key Capital Attractions**

  From the Hull station, one could walk to the Museum of Civilization in less than 20 minutes. From Le Breton Flats, Parliament Hill and surrounding attractions can be reached in less than 20 minutes. Many hotels are also located in the vicinity of both station locations.

  Moreover, both sites have the potential to become tourist attractions on their own. Development plans for these two areas that are being prepared by the National Capital Commission, in co-operation with local authorities, include tourism components.

- **Le Breton And Hull Offer Excellent Road Accessibility**

  The HSR station location in Hull is situated on Autoroute 50 which has numerous urban arterial links to Hull and Ottawa. Le Breton is adjacent to the Ottawa River Parkway. A new arterial road is planned along the existing railway track to link the Ottawa River Parkway with Highway 417.

- **Le Breton Would Provide A Better Access By Public Transportation**

  A transitway station could be integrated in the new HSR station at Le Breton Flat since the transitway traverses the site from east to west. The transitway system servicing the Ontario side of the region offers a frequent and efficient service to the main employment sub-centre and the downtown area. It is an objective of the Official Plan to consolidate employment growth in downtown and in the sub-centre which can be reached by the current or planned system.

On the Quebec side of the region the public transportation system is not as well developed. Moreover, the two systems are not well integrated. Nevertheless, proposals are being considered to solve the problems. A commuter rail system from Gatineau and Aylmer to downtown Hull and Ottawa is considered in the long-term. A new rail station in Ottawa on Le Breton Flat would be required to service downtown Ottawa from Aylmer, Gatineau and Hull. Such a commuter rail station could be consolidated with the HSR station and, in addition, a new intercity bus terminal in order to create a new regional intermodal station.

If the HSR station is located in downtown Hull, convenient public transportation access could also be provided but it would require the extension of the transitway system to downtown Hull.

- **Le Breton And Hull Offer Exciting Development Potential**

Le Breton Flat is a 63 hectare vacant site and it is difficult to imagine a more prestigious location in downtown Ottawa. A preliminary development plan has been prepared which calls for a variety of uses including a large urban park, an office zone and medium density residential development.

The HSR station is not part of the plan. Nevertheless, the plan has put aside a zone reserved for future development between the rail track and the proposed office zone. The area reserved for future development is sufficient to plan for a new station and part of a new office zone that could include a hotel. The cost of development is expensive since the land is partly contaminated but with the appropriate development density such a plan would interest private promoters.[4]

The existing Hull station is surrounded by vacant land along the rail tracks. The site was identified as the most appropriate for an eventual relocation of the National Museum of Science and Technology. It is well connected to the trail and bicycle network and various conceptual proposals for its development recommended physically linking the site to the Ruisseau de la Brasserie parks.

[4] *A detailed financial study would have to be undertaken to evaluate if such a plan could provide financial support for the station construction.*

The various proposals also call for small-scale commercial development surrounding the Museum.

The location of the HSR adjacent to the relocated National Museum of Science and Technology would certainly be an asset for the Museum. The office development potential of the site is limited in area compared to Le Breton Flat but land is available in downtown Hull.

- **Le Breton And Hull Would Stimulate Ottawa-Hull Demand For Downtown Office Space**

  Over the past four years, 1.1 million sq.ft. of downtown office space was added to an inventory of 12 million sq.ft. in Ottawa. New demand for office space will arise in the future, given the positive growth outlook for the regional economy and importance of the service sector.

  Locating the HSR station downtown would encourage the development in the centre rather than on the periphery. The HSR station is an asset that will encourage activity downtown because of the ease of travel it could provide to downtown Montréal and Toronto. A suburban station would not benefit existing firms already located downtown, nor is it likely to attract much growth since downtown will remain the preferred location for a large number of firms with or without HSR service.

6.3.3 Merivale Station Has A Number Of Weaknesses

- **There Is No Need In Ottawa-Hull For Two Stations**

  The region has a well developed road network that makes it possible to access downtown quickly from any point of the region. If feasibility studies preclude a downtown station, then the existing VIA station would be an appropriate compromise between a suburban and downtown station. From an urban development standpoint, two HSR stations are not considered necessary to service the Ottawa-Hull region.

- **Merivale Station Would Not Serve The Outaouais Travellers**

  A downtown location for an HSR station would best serve the population on both sides of the Outaouais River. The configuration of both regional road networks in Hull and Ottawa is such that they generally converge at the central downtowns of the region to cross the Outaouais River. A suburban station on one side of the river would be inconvenient for people on the other side.

- **There Is No Strong Need For An Airport Station**

  The proposed Merivale station would not be an effective airport station. Although located close to the airport, it would not provide direct connections to the airport terminal. Arguably, it would be more advantageous for the Ottawa-Hull region to have improved access to Mirabel Airport in Montréal since it offers a wider range of connections than does the Ottawa airport.

- **Merivale Station Is Less Consistent With Regional Transportation Policies**

  The Official Plan for the Regional Municipality of Ottawa-Carleton has clearly articulated policies to foster compact urban growth and "transit-friendly" development. Of the possible HSR stations, the Merivale option is least consistent with these policies as it is remote for the central urbanized core, and it is not well connected to the regional transitway system.

7: MONTRÉAL CMA

This appendix provides an analysis of the HSR effect on the Montréal CMA. Key conclusions of this appendix are as follows:

- Montréal is an important urban area (home to 3.4 million residents) at the intersection of important east-west and north-south links;
- Montréal's important influence is both economic and cultural;
- Montréal's economy is in the process of restructuring and its prospects are positive;
- Montréal is the home of important international institutions of leading North American universities and is, along with Washington and New York, a prime international convention destination in North America.
- Montréal has important overall exchanges with Ottawa-Hull and Québec and important business relations with Toronto;
- The HSR will enhance the image of Montréal as an international city, an important North American industrial centre, and a prime tourist/ convention destination;
- The HSR will stimulate downtown activities and encourage the export of business services;
- Montréal's downtown is the key location for an HSR station but a "suburban" station should also be provided;
- Dorval as a "suburban" station location would allow both the Saint-Laurent West Island clientele and the air connection clientele to benefit from the HSR service;

- Boulevard Saint-Martin in Laval is not a good location for an HSR station since it does not offer redevelopment potential and would serve a limited clientele compared to a suburban station in the Saint-Laurent/West-Island area;
- It would be logical to either consolidate all flights at Mirabel or, if Dorval should maintain its current activities, service both airports with HSR; and
- The ridership forecast indicates that the benefit of an HSR station in terms of air connection clientele would be more important for a Dorval station than a Mirabel station.

The appendix is organized into three sections: socio-economic outlook, effect of HSR on Montreal and the effect of HSR station location.

7.1 SOCIO-ECONOMIC OUTLOOK

Montréal is a large urban area with almost 3.4 million residents. As the second largest Canadian city, it accounts for about 45 per cent of the total population of Québec and a total of 1.5 million employees. The economy of Montréal is in transition and its growth outlook is positive.

7.1.1 Montréal Is An Important North American Metropolis And The Engine Of The Québec Economy

- **Montréal Has Links With Eastern And Western Canada And The United States**

  Montréal is located at the centre of the St. Lawrence River Valley, in the southern part of Québec, near the United States border. It is the converging point of important east-west and north-south highways.

  The major highway links are:

- Autoroute 20, part of the Trans-Canada Highway, and also called Autoroute Jean-Lesage which travels along the south shore of the St. Lawrence River and links with Highway 401, in Ontario;

- Autoroute 40, also called Autoroute Métropolitaine within the island of Montréal, reaches Ottawa via Highway 417 in Ontario and Québec City by travelling on the north shore of the St. Lawrence River;

- Autoroute 10, also called Autoroute des Cantons de l'Est (Eastern Townships), gives access to Sherbrooke and links with Interstates 89, 91 and 93 in the United States; and

- Autoroute 15, also called Autoroute des Laurentides (north of Highway 40), gives access to the important cottage and recreational area of the Laurentian Mountains and links with Interstate 87, reaching New York State.

Moreover, Montréal is equally important as Winnipeg is to Western Canada as a convergence point for continental rail merchandise transportation linking with the United Sates, central and eastern Canada. As a result of its location at the head of the St. Lawrence, it is also an important trans-shipment point for container traffic.

- **Montréal Is A Large Urban Area**

Almost 3.4 million residents live in the Montréal CMA, which includes Montréal Island, Laval, the North Shore, the South Shore and part of the Vaudreuil area. "Montréal" can refer to different geographic areas:

- The City of Montréal, the largest Canadian city with one million inhabitants, is more or less at the centre of the metropolitan region. The financial and commercial core of the region between Mount Royal and the St. Lawrence River, is now referred to as Ville-Marie;

- The Island of Montréal accommodates 1.8 million residents. The largest regional municipality of the region, the Montréal Urban Community (MUC) includes all 29 municipalities of the Island under a single regional body with responsibilities for property assessment, police protection, environmental regulation, regional parks, planning and economic promotion. The MUC is composed of the municipalities of the West Island (Dorval, Saint-Laurent, Dollard-des-Ormeaux, Pierrefonds, Lachine, etc.), of the East End (St. Leonard, Montréal-North, part of Montréal, etc.), of the South West (Verdun, LaSalle, part of Montréal, etc.) and of the Central Part (most of Montréal and surrounding municipalities) (Exhibit C-7.1);

- The Montréal region which, depending on the source, has an area that varies by incorporating surrounding areas in the CMA.[1] As stated, the region includes Laval, the North Shore, the South Shore and part of the Vaudreuil area. The ten most important cities of the region surrounding the Island of Montréal are Laval, Longueuil, St. Hubert, Brossard, Repentigny, Terrebonne, Chateauguay, St. Eustache, Boucherville and Valleyfield. In total, there are more than 100 municipalities in the larger Montréal Area (see Exhibit) and 13 regional municipalities, a unique feature when compared with other North American metropolises.

- **Montréal's Influence Stems From Its Economic And Cultural Role**

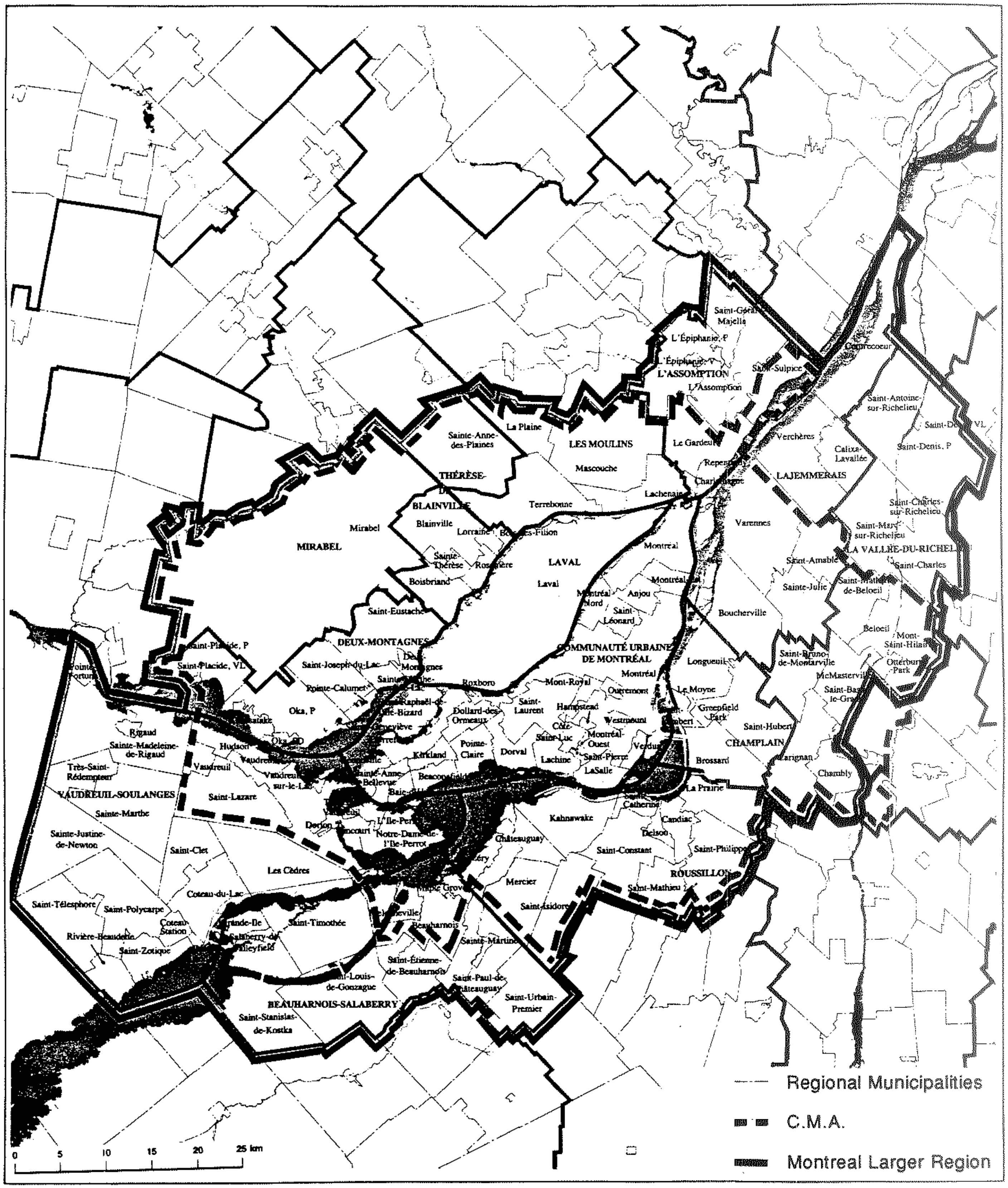
The Montréal region is surrounded by the satellite cities of St. Jérôme, Joliette, Sorel, St. Hyacinthe, Saint-Jean-sur-Richelieu, Granby and Cowansville all located less than 45 minutes from the centre of the region. These cities, although of relatively significant sizes, are not as important as those surrounding Toronto. In a hierarchy of cities, these are third-order cities whereas those surrounding Toronto are second-order cities much like Québec City. Thus, the urban structure in Québec is more polarized than in Ontario.

The relationship between the satellite cities and Montréal are extensive although they retain some autonomy and have their own area of influence. It is mostly for specialized services and

[1] *It should be noted that the CMA limits do not correspond with regional municipality boundaries and that its area varies from one census to the next.*

Exhibit C7.1

Montreal - Regional Map



equipments and for certain cultural and recreational activities that these communities rely on Montréal.

On the other hand, Montréal depends on the surrounding region and on the Laurentians and Eastern Townships for recreational and leisure pursuits. In fact, it is not uncommon for the more affluent residents of Montréal to have a secondary home located about one to two hours from the centre of the region, particularly in the Laurentians and Eastern Townships.

Montréal's importance within Québec is demonstrated by the fact that it accounts for half of the Province's economic production and by the polarized nature of the urban structure. Montréal's influence also has to do with its cultural importance. Montréal is the world's second largest francophone city and a centre of dynamic, contemporary artistic production in the fields of the visual arts, the performing arts as well as music and literature.

- **Montréal Remains An Important North American Manufacturing Centre**

Montréal's demographic and economic growth has been moderate in the last 20 years when compared to the growth rate of Toronto. Nevertheless it has attracted an important number of international migrants and its manufacturing sector has performed well compared to other North American centres.

Compared to other North American centres, Montréal is an important metropolis and it has larger manufacturing employment than, for example, Boston, Cleveland and Dallas. While, over the last 20 years, a large number of the North American cities have suffered a decline in their manufacturing sector, Montréal has maintained its level of manufacturing employment.[2]

But like the Canadian economy in general, it has suffered during the 1980 - 1981 and 1990 - 1991 recessions which badly affected the manufacturing sector. The relative importance of this sector to the overall economy of the region has declined over the last 20

[2] *Between 1978 and 1984, the metropolises of St.Louis, Baltimore, Cincinnati, New York, Milwaukee and Chicago lost more than 2% of their manufacturing jobs annually while Cleveland, Detroit, Buffalo and Pittsburgh lost more than 4% annually.*

years. However, this is a result of employment growth in the service sector rather than from de-industrialization.

Employment In Manufacturing Selected Canadian and U.S. Metropolitan Areas, 1990		
	(000)	% Of Total Employment
• Montréal	296	20.7
• Toronto	381	18.7
• Vancouver	88	N.A.
• Hamilton	77	26.2
• Boston	240	14.4
• Cleveland	207	21.7
• Dallas	221	16.1
• Detroit	444	22.9
• New York	410	11.7
• Pittsburgh	119	13.0

- **Montréal Is An International City And An Important Tourist/Convention Centre**

Montréal is a fully functional bilingual city, an important consideration for the attraction of international institutions and conventions. It is the seat of the International Civil Aviation Organization and of the NAFTA environment tribunal. It is also a first order destination for international conventions in North America, along with Washington and New York.

Montréal has a presence in the list of key tourist centres in North America thanks, in part, to the 1967 Expo and to the 1976 Olympics. These events certainly contributed to its image as a tourist destination for foreigners visiting Canada.

- **Montréal Benefits From A Diversified Economy And A Dynamic Downtown**

  Montréal has an important industrial base in some of the more advanced industrial sectors. Telecommunication, pharmaceutical and aero-space are growing sectors. The services-to-business sectors and the tourist sector are also well developed. Its four universities, of which two are amongst North America's leading universities, also contribute to Montréal's economic development. Museums, universities, research hospitals, and head offices are located downtown. Their presence, combined with important commercial, service and residential concentrations, makes Montréal's downtown a very dynamic and attractive urban environment. Tourist attractions, hotels and important cultural facilities are also largely concentrated downtown.

7.1.2 Montréal's Economy Suffers From A High Rate Of Unemployment And Is Undergoing A Difficult Transition

The decline of Montréal's position compared to Toronto took place over a number of years and can be attributed to a different industrial structure and disadvantageous governmental policies. Unemployment will not decline in the short-term, however, the current transformation of Montréal's economy will assist in improving the long-term job market situation.

- **Montréal's Lachine Canal Was The Industrial Heartland Of Canada**

  The history of Montréal is a very particular one since it was settled by missionaries with the purpose of converting the "indians". But its ideal location for trade rapidly favoured the growth of commerce between the new European settlers and the Hurons. Like New York and Boston, Montréal was directly accessible to ocean-going vessels and was therefore a natural point of entry to North America for Atlantic shipping. The Lachine rapids constituted an important barrier to navigation, the then dominant means of transportation, and encouraged the growth of trans-shipment and warehousing activities.

When the first industrial revolution (steam power, coal, railway, pig-iron, textile and food products) completely transformed the economy, Montréal became the leading centre of the industrialization in Canada. It benefitted greatly from the construction of railways and the settlement of Western Canada. The Lachine Canal, which passed the Rapids was the heartland of industry and St. James Street (now rue Saint-Jacques) was the financial centre of the Canada.

Its early industrialization explains in part Montréal's older industrial structure. In fact, some of the original industries are still very important today (Imperial Tobacco, Redpath Sugar Refinery and Molson Breweries). However, by the time the second industrial revolution (electric power, petroleum, automobile, steel, fertilizer and consumer goods) took place in the earlier half of the 20th Century, Montréal had an important competitor, Toronto, which was located closer to the growing markets of Western Canada and the American Mid-West.

- **Key Federal Policies Disadvantaged Montréal**

The completion of the St. Lawrence seaway (1959) was to diminish Montréal's advantages as a trans-shipment point. With the seaway, goods exported and imported did not have to rely on rail transportation to Montréal and, as a result, the relative importance of the port of Montréal amongst Canadian ports declined.

The Auto Pact (1965) and the Borden Line (1961) were to favour the growth of manufacturing industries in Ontario, in new and dynamic areas. The Borden Line separated the petroleum market in two territories by imposing a limited area where eastern refineries could sell refined petroleum products. This artificial boundary severely constrained the market for Montréal refineries which then constituted the most important component of the Canadian petro-chemical sector. By 1973, when the policy was abolished, Ontario and Western Canada had a petro-chemical sector that surpassed its early competitor[3].

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[3] *Today there is only one refinery left in Montréal.*

- **Expo 1967's Euphoria And Governmental Activities Masked Montréal's Difficult Economic Situation**

By 1950, as a consequence of the move of population and production toward the centre of the continent, Toronto had surpassed Montréal as a manufacturing centre. Following the development of manufacturing activities, together with the increasing importance of American capital for Canadian manufacturing growth, the financial and service-to-production sectors gained importance in Toronto.

Montréal's economy was still growing but at a slower pace than its Toronto partner. Moreover, as a result of continued increase of the labour force resulting from the baby boom, it was put under more pressure to create jobs. In the 1960s, the growth of the provincial public service brought about by the "Quiet Revolution" created numerous employment opportunities for new university graduates. Important infrastructure projects were also undertaken during that decade. In addition to the seaway, new highway construction was begun and the Montréal subway system was opened.

The 1967 International Expo which had "Man and His World" as a theme, was an important event for Montrealers. It represented the recent opening of Québec Society to outside influence, but the general euphoria masked the declining role of Montréal within the Canadian economy.

By 1970, unemployment rose to a high level but important infrastructure projects kept it at a reasonable level by today's standards. The highway network was widened, hydro-electrical projects had important spin-offs for the Montréal service and construction sectors, the Mirabel airport and the Olympic stadium were constructed and the Metro was expanded. It is not surprising that engineering firms constitute such a large segment of Montréal's service to production today sector.

- **The 1980s Were Characterized By Important Structural Changes**

Montréal was hardest hit by the 1980 - 1981 recession. The number of manufacturing jobs declined sharply so that it is only because of the remarkable performance of the year following the recession that earlier levels of total manufacturing jobs were attained.

Nevertheless, Montréal suffered from the loss of head offices and financial institutions to the benefit of Toronto, a cost that can be attributed to the growing importance of Toronto on the national economic scene but also to the language and taxation policies of the Québec government. The number of company head offices gives a measure of the increasing control of Toronto over the Canadian economy, in 1950 Montréal had 20 per cent more head offices than Toronto where in 1990 it had 60 per cent less. The move of head offices was also coupled with a migration of many anglophone Montrealers to Toronto. Some people were transferred but many, especially the younger segment of the community, left to take advantage of the economic opportunities available in Toronto[4].

- **Unemployment Levels Remain Very High**

The 1991 level of employment at 12.2 per cent was almost comparable to the 12.9 per cent level attained during the last recession. Recovery is slow and job creation remains low. Moreover, the unemployed labour does not have the skills to fill the new openings. Unemployment in Montréal in 1991 was at comparable levels to Windsor and unemployment for the 15 -24 age groups was the highest of all communities except Trois-Rivières. Such high unemployment levels amongst the younger group in a community with a diverse economy like Montréal is certainly not the sign of a healthy situation and can bring about a long term withdraw from the labour force of a portion of that age group.

[4] *Francophones often have the burden of having to master a new language if they migrate, whereas the anglophones are more mobile when better opportunities are opening elsewhere. This lack of mobility of part of the Québec labour force explains in part the persistantly high unemployment level.*

7.1.3 Outlook For Montréal Is Positive

The outlook for the next 30 years is positive, yet it will depend on the outcome of the current restructuring and on key government initiatives[5]. As a result of the slow increase in the population and of the growth of new manufacturing and services activities the unemployment rate will decline. Still, average income will likely remain lower than in Ontario.

Doomsday scenarios are often formulated in times of economic hardship. Those proposed for Montréal do not take account of the global importance of its economy in Québec and its important diversification. Nevertheless, they can serve as a warning of what could happen if nothing is done about the present difficult situation. Montréal certainly needs a strategy aimed at retraining the work force, integration of migrants, development of tourism and recreation activities, co-ordination of planning and infrastructure decisions, transformation of the manufacturing sector, development of knowledge-based industries and services.

These important issues need some consideration before the contribution of HSR to the outlook for Montréal can be considered.

- **Population And Employment Growth Rates Are Positive But Moderate**

  A moderate amount of population growth is forecasted for Montréal. The forecast of 0.9 per cent annual compounded rate for 1992 to 2005 and a moderate 0.7 per cent between 2005 and 2025 are in line with other predictions for population growth[6]. The following tables result from forecasted growth rates as applied to 1991 CMA population, employed labour force and households.

  The 1991 - 2005 absolute increases in population, household and employment in Montréal are about half of the increases for Toronto. Nevertheless, with about 4 million people in 2025, compared with 6.5 million for Toronto, Montréal will remain the second largest Canadian city and four times more populated than Ottawa, the third largest city of the Corridor.

[5] *The long-term outlook could be marked by a demographic decline, a situation that presents itself with many yet unknown social and economic challenges.*

[6] *A study prepared for the Groupe de travail sur Montréal et sa région established Montréal larger area population in 2025 to 3.8 million.*

HEMSON

MONTREAL CMA

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	2,921,357	3,127,242	7.0%
	1986	% of Total	
Pop. >65	327,720	10.5%	
Postsecondary Education	782,585	26.8%	
University Degree	257,595	8.8%	
	1986	1991	% Increase
Total Households	1,115,380	1,199,910	7.6%
Average Household Income	41,139	43,405	5.5%

Source: Statistics Canada

LABOURCE FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			1,673,805
	1981	1986	1991
Employed Labour Force	1,291,749	1,314,368	1,477,805
	1991	15-24	25+
1991 Unemployment Rate	11.7%	17.5%	10.6%
1991 Participation Rate			66.7%

Source: Statistics Canada

EMPLOYMENT BY SIC				
	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	399,410	379,985	25.8%	-4.9%
Services	569,415	620,025	42.2%	8.9%
Government	78,120	80,390	5.5%	2.9%
Trans./Comm.	135,325	129,725	8.8%	-4.1%
Retail/Wholesale	241,930	260,085	17.7%	7.5%

Source: Statistics Canada

REAL EASTATE INDICATORS	
	1992
Average House Price	$113,688
	1988-92 Annual Average
Res. Units Sold	20,287
Value of Construction	
Residential	$1,880,391
Industrial	329,904
Comercial	951,214
Institutional	315,263

Source: MLS, Statistics Canada

GROWTH OUTLOOK

				1992-2005		2005-2025	
	1992	2005	2025	Increase	Annual Growth	Increase	Annual Growth
Population	3,127,200	3,545,200	4,076,000	418,000	1.0%	530,800	0.7%
Household	1,198,900	1,418,100	1,766,000	219,200	1.3%	347,900	1.1%
Employment	1,477,600	1,725,500	1,983,800	247,900	1.2%	258,300	0.7%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

pluram inc.

Due to actual age structure and to its lower attractiveness for migrants, Montréal's population will grow older as compared to Toronto. As a positive result, this aging of the population should reduce the unemployment rate as the baby boom group retires from the work force.

- **Migrant Integration And Labour Training Will Be Important Issues**

In order to achieve the projected population growth, Montréal will have to rely on important levels of international migration. It is forecasted that in ten years, one fifth of the region's population will be composed of persons of non-european origin. Whether migrants will adopt French as their spoken language is an important issue for Francophone Quebecers[7]. Special efforts will then continue to be required to provide migrants with a knowledge of French.

Montréal's portion of the population with a university degree is lower than both Toronto's and Ottawa's, which has the most educated population of the three. As most of the new jobs will be created in the knowledge-based sector, the education and training of the work force is becoming an important issue for all Corridor centres and especially in Montréal which has one the highest levels of youth unemployment. In the last seven years in Canada, the high tech industries (computers and software, telecommunications, medical/scientific industries and health care) created 90 per cent of all new jobs, according to a recent study, a figure that demonstrates the importance of adapting the work force to this new situation[8]. Another factor that needs special consideration in Montréal is the high number of workers in traditional industrial sectors that will need retraining as a result of the diminishing number and the changing nature of jobs.

[7] *An unlikely scenario can be constructed where if the large majority of migrants chose English as their spoken language, only half of the Montréal population would be francophone in 2025.*

[8] *Results by Nuala Beack and Associates study reported in La Presse, July 13, 1993.*

- **Business Service And Tourism Will Be The Two Important Sources Of Employment Growth**

  As a result of the good performance of manufacturing enterprises in Montréal and the rest of Québec, the service-to-production sectors will likely continue to grow. Enterprises oriented towards outside markets and high tech industries in particular required services from a larger number of computer services, accounting and engineering firms. In Montréal, the good prospects for the pharmaceutical, telecommunications and air-space industries will encourage the development of support activities.

  Important projects were achieved for Montréal's 350th anniversary celebration to improve the quality and choice of activities to visitors (Biodome natural museum, Montréal Museum of Fine Arts enlargement, Montréal Contemporary Art Museum relocation, Ste. Hélène Island park, restoration, etc.). Montréal's unique architectural variety, the St. Lawrence River, Mount Royal, the European ambience of boutiques and cafés, the numerous museums, the various festivals and events make Montréal an attractive city to visit and enjoy. The enlargement of the Convention Centre will contribute to the development of tourist activities. The selection of Québec City for the 2002 winter Olympics could, if it becomes reality, also favour the growth of tourism in Montréal.

- **Research And Development Will Develop**

  Montréal is the city that receives the largest share of federal funding for research and that has to do with the importance of its two anglophone and two francophone universities. Research in the area of health care and engineering are particularly important. The concentration of research activities in downtown and the West Island favour the interaction of research groups amongst one another. The bilingual feature of the universities and research centres link them with a large international network.

- **There Will Be More Co-ordination Of Urban Growth And Infrastructure Development**

  Montréal's subway system is both every attractive and efficient but, unlike Toronto, the region lacks a good commuter train network. The road network also presents some deficiencies, the chronic congestion of the Metropolitan highway being one of the most significant ones. The protection and rehabilitation of the region's waterways and shores also requires urgent attention. These issues along with a need to better plan the urban growth in a context of slower expansion will likely force the reorganization of the regional government structure. A commission created by the province, the Groupe de travail sur Montréal et sa région, has looked at the issue of municipal and regional structure in the Montréal region.

7.2 HSR EFFECTS ON MONTRÉAL

HSR will increase Montréal links with Québec City and Ottawa-Hull and will offer an attractive alternative to air travel to reach Toronto. The HSR could foster more exchange of information between research centres and universities between Ottawa-Montréal-Québec City. It will also improve the overall attractiveness of Ottawa-Montréal-Québec City as a tourist destination for visitors and conference participants. HSR will have an important impact in downtown Montréal where it will foster office, hotel and commercial development.

7.2.1 Montréal Is A Central Focus Of Inter-City Travel Within The Corridor

- **Montréal's Importance As Focus Of Inter-City Travel Is Comparable Only To Toronto**

  A review of inter-city statistics indicates that with 15 million inter-city trips annually, Montréal is second only to Toronto in global magnitude of relationships with other communities. Toronto's relationship with communities located at more than an hour's car travel time is identical to Montréal in volume (once Toronto relations with Kitchener-Waterloo and Hamilton which are in a sense part of Toronto's region are subtracted). Montréal is the key focus of trips for the portion of the Corridor east of Ottawa-Hull where Toronto is the focus of the other portion.

Montréal also has, along with Ottawa-Hull, important links with Toronto. As described in the discussion of Toronto's links with other communities, there are few inter-provincial linkages between Corridor urban centres with the exception of Toronto-Montréal and Ottawa-Hull-Montréal. Generally this reflects a hierarchical urban system in which smaller communities have their linkages to higher order centres such as Montréal, with Montréal having the primary link between Ontario and Québec. This corresponds with urban systems theory which suggests that both Toronto and Montréal are at the top of the urban hierarchies within the Provinces of Ontario and Québec respectively.

- **Montréal's Link To/From Ottawa-Hull And Québec City Represents 11 Million Trips**

The relationship between Montréal-Québec City and Montréal-Ottawa-Hull represents 11.1 million passenger trips annually. Relationships with Québec City are particularly important with 6.8 million trips annually.

For both destinations, business trips represent about a quarter of the total passenger trips with 22 per cent for Ottawa-Hull and 26 per cent for Québec, links between Montréal and those two destinations are accomplished mostly by car, which account for 90 per cent of all passenger trips.

- **Business Trips Represent An Important Share**

Business trips between Montréal and Toronto account for 1.4 million passenger trips annually, of which one million are performed by airplanes. This volume of passenger trips is very significant taking into account the distance of the two communities to one another and their different areas of economic influence. The high level of economic integration between Québec and Ontario account for the important relationship between those two high order centres.

The following table presents the magnitude of business trips between the most important corridor origin-destination pairs as for business trip volume. It shows the importance of business relationships between Montréal and Toronto. The volume of business trips between Québec and Montréal is also very important since it surpasses the number of business trips between Toronto and Ottawa-Hull but unlike the Montréal-Toronto link, it is predominantly car-oriented.

	Origin - Destination (O-D) Pairs		
	O-D Pairs Total Business Trips (million)	Business Trips Share Of Total	Air Travel Share Of Business Trips
Montréal-Québec	1.8	26%	2%
Toronto-Montréal	1.4	48%	72%
Toronto-London	1.2	26%	1%
Toronto-Ottawa-Hull	1.1	40%	55%
Montréal-Ottawa-Hull	1.0	22%	3%

In total, the business trips between Montréal and other centres account for 4.2 million trips at a level comparable with Toronto for inter-city trips (excluding Hamilton and Kitchener). It should be noted that Toronto unlike Montréal is surrounded by four CMAs and three Cas which are less than an hour's car travel distance which forms a megalopolis in which considerable business exchanges are taking place.

These large volumes of business travel to and from Montréal are not surprising, given the economic importance of Montréal in Québec and in Canada. The reliance of Montréal on Toronto for certain specialized services and in a similar way that of Québec and Ottawa-Hull on Montréal, accounts for these important exchanges between Montréal and other centres.

- **The Downtown And West Island/St. Laurent Areas Are The Primary Destinations Of Inter-City Travellers**

A large portion of business travel to the Montréal region is destined to the downtown area and the West Island. About 40 per cent of all inter-city business trips have as an arriving or departing point a hotel or an office located in downtown Montréal. For trips other than those by car, the orientation towards downtown is even more important with almost half of all trips.

The West Island/St. Laurent area has the two important infrastructure facilities that have attracted business establishments, the Dorval airport and the Trans-Canada Highway. The West Island/ St. Laurent is second in importance with about 20 per cent of all inter-city business trips that have as origin or destination a hotel or an office.

The focus of business trips toward downtown and the West Island/St. Laurent area are not surprising given the concentration of higher order activities in those two areas. In the Montréal region, employment is highly concentrated on the island of Montréal, the downtown area itself accounts for about 150,000 jobs in the area of financial and production services or about half of the total CMA.

7.2.2 HSR Will Reinforce Montréal's Relationship With Other Centres And Will Stimulate Downtown Activities

- **HSR Will Increase Business Travel Between Ottawa-Hull, Québec City And Montréal**

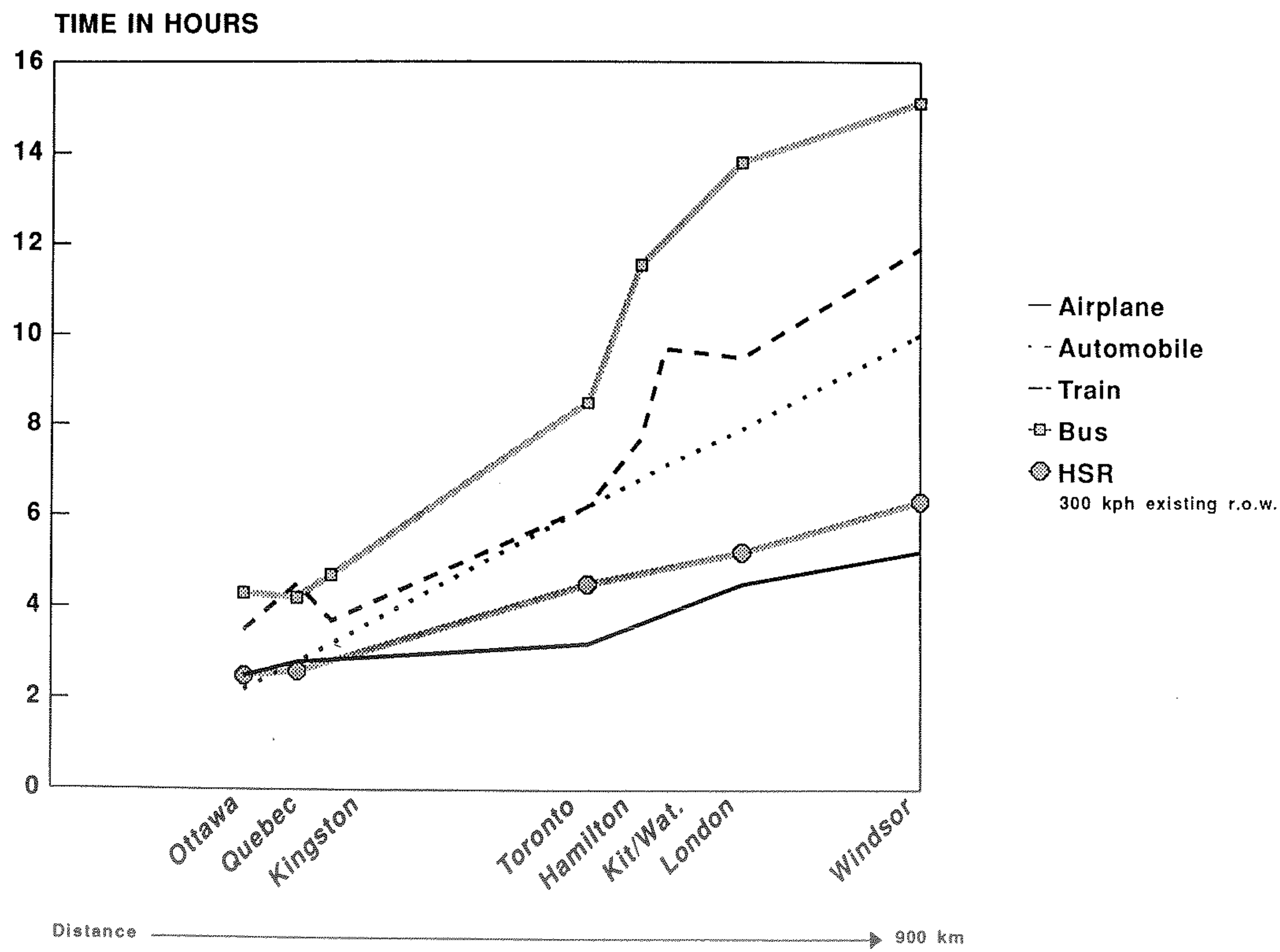
Unlike Toronto, Montréal is not surrounded by important centres within its immediate area of influence. Montréal has significant relationships with two important centres that can be reached in slightly less than three hours for Québec and two hours for Ottawa-Hull. The HSR 300 option could reduce the travel time to reach Québec by about 45 minutes, however, Québec is relatively easy to reach by car so the effect of HSR would be modest.

The relationships between Montréal and those two important centres will not be dramatically altered given the small reduction in travel time. Nevertheless, the possibility for business travellers to travel comfortably while working in the train will encourage new trips. Activities located near rail stations would benefit from the maximum of travel time saving.

Since station-to-station travel time from Montréal will be one hour for Ottawa and one hour and a quarter for Québec, a significant amount of half day trips could take place between these centres and Montréal. Montréal service firms will then be in a better situation to serve their existing Québec and Ottawa-Hull markets.

Exhibit C7.3

DOOR TO DOOR TRAVEL TIME: BY MODE (MONTREAL TO OTHER CORRIDOR CENTRES)



With downtown-to-downtown links and given to the advantageous downtown location of research centres and universities in Montréal, more exchanges could take place between researchers in the three centres. Small groups of researchers or professionals could conduct work in the train to prepare for meetings with the host in Ottawa or Québec. Taken together, the research activities in Québec City, Montréal and Ottawa-Hull would gain from the ease of information exchange provided by HSR.

- **HSR Will Offer An Alternative To Air Travel For The Montréal-Toronto Link**

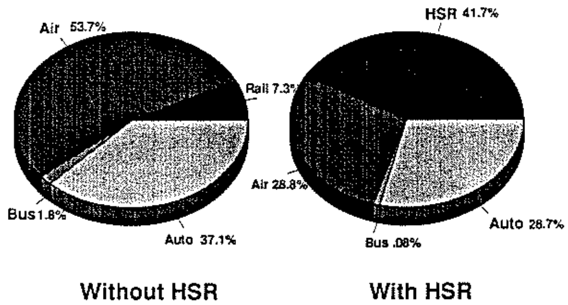
  It is projected by the passenger forecast studies that the HSR could divert about 40 per cent of the Montréal-Toronto air clientele to the HSR or about 1.3 million passenger trips. Although HSR does not provide a shorter travel time it offers an attractive alternative for the clientele sensitive to a lower fare and for those who prefer a direct downtown arrival.

  With HSR, new linkages between downtown Toronto and downtown Montréal will take place. It is not foreseeable that half-day trips would now be accomplished between the two centres but more single day trips would increase given the comfort offered by the HSR. It is projected that about 700,000 additional trips between Montréal and Toronto (a 12 per cent increase) would be induced by the HSR.

- **Train Travel Will Become More Popular**

  One of the most significant effects of the HSR will be to alter the modal choice of travel between Montréal and other Corridor centres, particularly Québec and Toronto. As an example, travel between Montréal and Québec is currently undertaken primarily by the automobile. VIA rail only accommodates approximately 2% of trips to Québec. With the HSR, however, this pattern of modal choice is projected to change.

MODAL SPLIT IN 2025
TORONTO - MONTREAL



Notes: - *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

While the HSR is not likely to be the primary mode of travel, the importance of rail travel is certainly expected to increase with the HSR in place, particularly between Montréal and Toronto. By 2025 it is anticipated that close to 17 per cent of all trips will be taken by HSR.

- **HSR Could Support The Restructuring Of Montréal's Economy**

As presented earlier, Montréal is an important North American manufacturing centre. Although its manufacturing base is diversified, traditional industries are an important share of the total activity and like other centres it competes with, Montréal has to restructure its economy by seeking new opportunities. There is no fool-proof strategy to replace the jobs that will be lost in traditional sectors but a recent study of the experience of American cities suggests the following strategies for economic restructuring[9].

- The modernization and diversification of an export oriented manufacturing sector which provides support to research activities.

[9] *Pierre Lamonde and Yvon Martineau, p. 48*

- The growth of business service-to-production and financial sectors in the national/provincial economy in order to sustain its exporting capacity.

- The relocation of government and para-government activities within the central area and the tightening of its links with service firms and head offices since governmental activities support these sectors and stabilize employment.

- The development of more co-operation amongst public and private research centres and universities located downtown.

- The attraction of international tourism and conventions to Montréal, which has to be seen as a higher order exporting sector of downtown Montréal.

HSR is tailored to the needs of the researcher and professional clientele with its fast downtown-to-downtown access and as such it could favour the growth of these activities, especially if appropriate facilities can be offered near the HSR station. The support role the HSR can play for tourism and conferences can also be captured by the improvement of facilities near the HSR station. Moreover, HSR could foster the link between the government activities located in Québec City and in Montréal downtown's clientele.

HSR realisation could then support a global economic strategy as outlined above, provided that important efforts are devoted to capture and magnify the effect of the HSR. The French experience has demonstrated that communities that "planned for HSR arrival" have benefitted more than those who waited for the train to arrive before taking action.

- **HSR Will Improve The Position Of Montréal As A Tourist Destination And Generate Downtown Activities**

HSR clientele arriving/departing from Montréal is estimated to total about 8 million trips in the year 2025. Such a large number of travellers of which a large number arrive/depart from downtown will generate more activities in downtown Montréal. As a point of comparison, is it estimated that about 6 million passengers are passing through Dorval and Mirabel combined.[10]

Montréal boutiques, restaurants and hotels will certainly benefit from the concentration of inter-city trips arrival and departure downtown while establishments that are part of Dorval and Mirabel airports could suffer. Downtown Montréal's important restaurant and accommodation sectors will have plenty to offer to the HSR clientele. Once downtown, some visitors will be tempted by the numerous activities and attractions at walking distance. A fair number of arrival-departures will take place after or before 9-to-5 business hours, a feature that will reinforce the 24-hour downtown animation.

7.3 STATION LOCATION ANALYSIS

Four possible station sites were proposed by the routing study (Exhibit C-7.4). These are:

- Existing Central Station in Montréal;
- New suburban station in Laval near Boulevard Saint Martin;
- Dorval Airport terminal, with the 200 kph HSR proposed routes; and
- Mirabel Airport terminal[11].

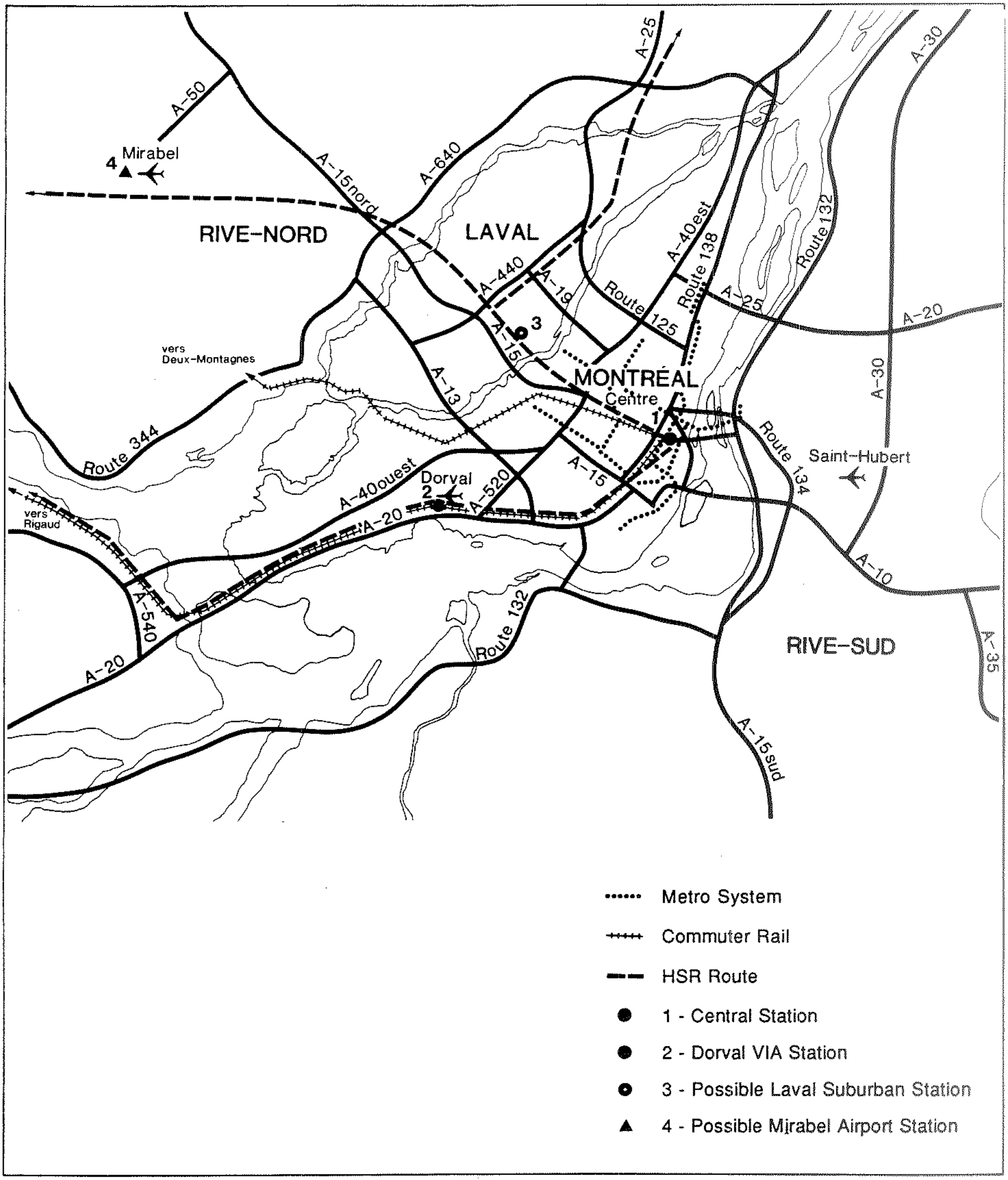
The merit of a suburban station in Laval at a different location than the one being proposed will be discussed in addition to the merit of the Saint-Martin station. The merit of a "suburban" station in Ville Saint-Laurent will, in the same fashion, be analyzed with the Dorval terminal proposal. To conclude the discussion of the

[10] *Statistics Canada, 1991.*

[11] *At the time of the construction of the airport, space was reserved for a future train station as part of the terminal.*

Exhibit C7.4

Montreal - Station Location



different suburban stations, potential benefit of a South Shore location will also be evaluated.

7.3.1 Central Station Is An Excellent Downtown Location

An HSR station in Montréal's downtown at Central Station has a number of important advantages.

- **Downtown Is The Logical Location For HSR Service**

  A station in downtown Montréal is the ideal location to service the overall region since, by definition, the downtown area is highly accessible from all directions by road and is centrally located. Downtown Montréal is the converging point of the regional public transportation network with subway, commuter train and regional commuter bus systems.

  Downtown Montréal offers the largest concentration of employment, commerce, hotels and services. Higher order service activities, international organisations, universities and research hospitals are located downtown as well as important private research centres. Not surprisingly, downtown is the prime destination of business travellers. A downtown station would also provide direct access to a very wide range of potential HSR travellers.

- **Central Station Is Well Connected To Other Travel Modes And Is Centrally Located**

  Central Station is located at the very core of Montréal's downtown office sector. Montréal's three largest office towers (Place Ville-Marie, 1000 de LaGauchetière and 1250 René-Lévesque West, each having more than 1 million sq.ft. of floor area) are within a five minute walk of Central Station. The station itself is important for commuter rail (as it services the Deux Montagnes line and the proposed Ste. Thérèse and St. Hilaire lines) and is the departing point of the two VIA transcontinental lines (Montréal-Vancouver and Montréal-Halifax). It also offers Amtrack rail service to Boston and New York. From Central Station, using the underground network, it is possible to easily access:

- Two subway stations on two different lines (Bonaventure and McGill);
- Windsor commuter train station (serving the Dorion line and the proposed Chateauguay line); and
- The South Shore bus terminal (the arrival point of two reserved lane networks).

The station benefits from excellent road access with its location at the intersection of two important highways: the Bonaventure and Ville-Marie Highways. Plenty of parking spaces are offered in the Place Bonaventure immediately south of the station and Place Ville-Marie just to the north.

- **Montréal's Most Important Shopping Complexes, Luxury Hotels And Tourist Attractions Are Located Within Walking Distance**

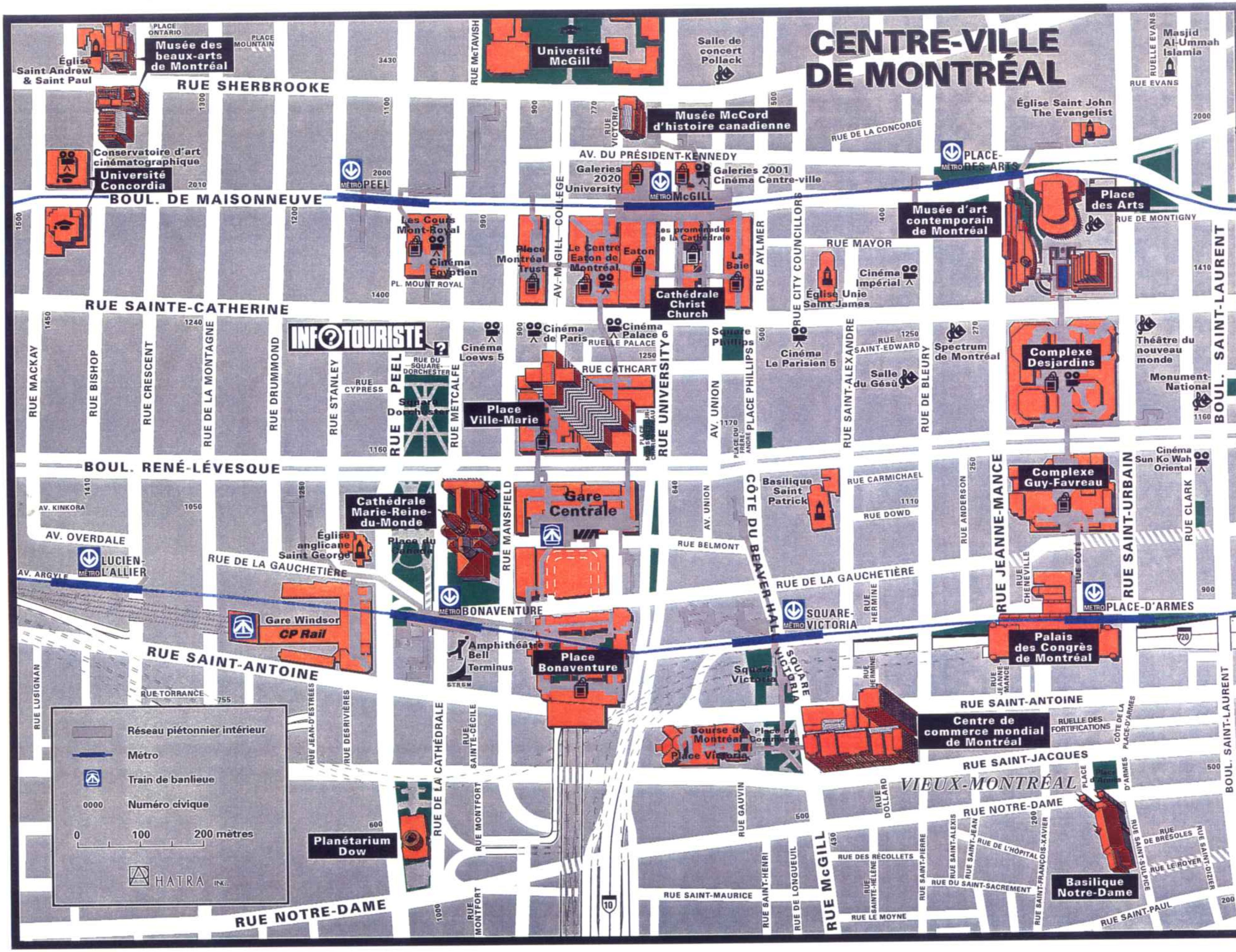
Two of Montréal's best known hotels, the Bonaventure and the Queen Elizabeth, are located above the station. The station also provides access via the underground system to St. Catherine street, one of Canada's most notable shopping areas, and its numerous shopping complexes (Place ville-Marie, Place Montréal Trust, Eaton Centre, Place de la Cathédrale, Complexe Desjardins, etc.). (Exhibit C-7.5). The station is less than 1,000 metres away from Old Montréal, Place des Arts, the Museum of Contemporary Arts, China Town, the Palais des Congrès (the convention centre), the McCord Museum and the new Montréal Forum which is currently under construction.

- **HSR Service From Central Station Will Accelerate Nearby Commercial Development**

On the site of Windsor Station, located two blocks from Central Station, a 3 million sq.ft. commercial office project which includes the new Montréal Forum is under construction.

To the south-west there are plenty of vacant sites available for development. Immediately to the south, development could take place above the existing tracks as was done for the Place Ville-Marie and Place Bonaventure projects. These vacant sites are zoned for high density office development. The area to the east of

Exhibit C7.5


CENTRE-VILLE DE MONTRÉAL
Musée des beaux-arts de Montréal
Église Saint Andrew & Saint Paul
Université McGill
Salle de concert Pollack
Masjid Al-Ummah Islamia
Musée McCord d'histoire canadienne
Église Saint John The Evangelist
Conservatoire d'art cinématographique
Université Concordia
Galeries 2020 University
Galeries 2001 Cinéma Centre-ville
PLACE-DES-ARTS
PEEL
McGILL
Place des Arts
Musée d'art contemporain de Montréal
Les Cours Mont-Royal
Cinéma Égyptien
Place Montréal Trust
Le Centre Eaton de Montréal
Eaton
Les promenades de la Cathédrale
La Baie
Cathédrale Christ Church
Cinéma Impérial
Église Unie Saint James
INFOTOURISTE
Cinéma de Paris
Cinéma Palace 6
Cinéma Loews 5
Square Phillips
Cinéma Le Parisien 5
Salle du Gesù
Spectrum de Montréal
Complexe Desjardins
Théâtre du nouveau monde
Monument-National
Square Dorchester
Place Ville-Marie
Cinéma Sun Ko Wah Oriental
Basilique Saint Patrick
Complexe Guy-Favreau
Cathédrale Marie-Reine-du-Monde
Gare Centrale
Église anglicane Saint George
Place du Canada
LUCIEN-L'ALLIER
BONAVENTURE
SQUARE-VICTORIA
PLACE-D'ARMES
Gare Windsor
CP Rail
Amphithéâtre Bell
Terminus
Place Bonaventure
Palais des Congrès de Montréal
Square Victoria
Bourse de Montréal
Place du Commerce
Place Victoria
Centre de commerce mondial de Montréal
VIEUX-MONTRÉAL
Place d'Armes
Planétarium Dow
Basilique Notre-Dame
RUE SHERBROOKE
BOUL. DE MAISONNEUVE
AV. DU PRÉSIDENT-KENNEDY
RUE SAINTE-CATHERINE
BOUL. RENÉ-LÉVESQUE
RUE DE LA GAUCHETIÈRE
RUE SAINT-ANTOINE
RUE SAINT-JACQUES
RUE NOTRE-DAME
RUE MACKAY
RUE BISHOP
RUE CRESCENT
RUE DE LA MONTAGNE
RUE DRUMMOND
RUE STANLEY
RUE PEEL
RUE METCALFE
RUE MANSFIELD
RUE UNIVERSITY
AV. UNION
PLACE PHILLIPS
CÔTE DU BEAVER HALL
RUE AYLMER
RUE CITY COUNCILLORS
RUE SAINT-ALEXANDRE
RUE DE BLEURY
RUE JEANNE-MANCE
RUE SAINT-URBAIN
BOUL. SAINT-LAURENT
RUE McGILL
RUE DE LA CATHÉDRALE
RUE MAYOR
RUE CATHCART
RUE CLARK
AV. OVERDALE
AV. ARGYLE
Réseau piétonnier intérieur
Métro
Train de banlieue
0000 Numéro civique
0 100 200 mètres
HATRA INC.

the station, above the underground Ville-Marie express way, (referred to as the International City) was selected for the relocation of the ICAO (International Civil Aviation Organization). It also offers sufficient land for the Convention Centre and the World Trade Centre's future expansion. The International City could accommodate about 3 million sq.ft. of commercial office space when completed.

Research and high tech production activities could take place further south, in Griffintown and in Montréal's techno-park about 10 minutes by car from the station. Professional and small-scale service firms could locate near Old Montréal and Faubourg des Récolets to the south-east of the station.

HSR could foster the development of these areas as many firms will want to locate near the station if they can find space meeting their particular needs at competitive prices. The HSR station could be used to provide a focus for the development of the area above the tracks south of the station and be used as its trademark for its marketing.

By providing pedestrian animation with its millions of travellers, the HSR will make the area more attractive, provided services for HSR users are appropriately located nearby. The station itself is completely surrounded by numerous office towers and by the Queen Elizabeth Hotel. The main entrance is located on LaGauchetière, rather than on René-Lévesque Boulevard or University Street, even though these are more significant thoroughfares (only minor pedestrian access through the various lobbies are available on those streets). The entrance is somewhat unwelcoming for pedestrians and difficult to find for auto drivers. These fundamental issues as well as the overall exterior architecture and interior design of the station will need further attention.

The importance of the station and its "modernness" or high tech features should be identifiable from a distance. The pedestrian areas that will be part of the development surrounding the station will need to be planned so as to facilitate access to the station. The underground pedestrian path system and its future extension should be planned in light of the system's relationship to the HSR station.

7.3.2 St. Martin In Laval Is Not The Ideal Location For A Suburban Station

The proposed HSR station in Laval has a number of weaknesses.

- **Laval's Proposed Station Connection To Regional Transportation Network Is Yet To Be Completed**

  The proposed Laval Station would be located near St. Martin Boulevard to serve as a station for both the Toronto-Montréal and Québec-Montréal service. St. Martin Boulevard is a major municipal road and an important commercial axis. Ideally, an HSR suburban station should be combined with a regional bus terminal and a subway or rapid rail station to be accessible by public transportation from a large area. At present, there is a proposal to link Central Station to St. Jérôme via the same rail corridor as the HSR; the station could then serve both a commuter rail and HSR. From that criteria of intermodality, the proposed St. Martin location would not be a good choice because of inadequate space to locate a parking area, a drop-off point as well as municipal and regional bus terminals.

- **Available Land Is An Important Constraint**

  Vacant land is scarce along the track as it cuts through existing residential and industrial areas. The implementation of the station itself requires some expropriation and available space will not permit the establishment of a regional transportation terminal unless an important number of industrial facilities are relocated.

- **The HSR Station Benefits Will Be Limited Given Its Limited Accessibility**

  Because of its limited road access compared to a station that would be located along a major highway, the station will then be more beneficial to Laval travellers. Moreover, the proposed location does not provide an opportunity to create a research business park with the station as a focus point.

  The City of Laval planned for the creation of a commercial office sector and a high tech industrial park along Highway 13. The HSR station's ideal location, if there is to be a station in Laval, would be in this area but the proposed route to access Montréal would have to be re-evaluated to serve that location.

7.3.3 Dorval And Saint-Laurent Would Be The Ideal Locations For A "Suburban" Station

A Dorval terminal station can perform two roles: accessing Dorval Airport or serving the West Island clientele. The two issues should be analyzed separately. If the establishment of a station at Dorval Airport in the terminal is rejected, a station should nevertheless be provided to service the West Island and Saint-Laurent area.

- **A Dorval Terminal Station Would Be An Asset To The Airport**

  The best way to serve an airport, as demonstrated by the French experience, is to have the HSR station as the arrival/departure point for the airport by all methods of transportation. This will avoid the duplication of access points and provide for an optimal intermobility between the transportation mode. This arrival/departure point could be part of the airport terminal *or* separated from it, provided the two are adequately linked.

  A station linked to the terminal by a people mover would provide a more than adequate service, provided it is located at a markable distance from the airport terminal.

  - Access by car and public transportation is optimal; and

  - Parking is provided for travellers using the station to access the HSR system.

  Service to Dorval would permit HSR users from Montréal, Québec City and Ottawa to access Canadian and United States flight destinations while international flights would still be handled at Mirabel Airport. Thus, there is a reduced rationale to offer HSR service to Dorval airport if Mirabel is not also connected to the HSR system. Of the two airports, Dorval is the one which offers more potential for air connection ridership, according to the forecast of clientele.

- **Dorval's HSR Station Would Be The Best Location For A Suburban Station**

  Providing an HSR service to the West Island and Saint-Laurent area would certainly be advantageous to that component of the Montréal region. The West Island and the Saint-Laurent area account for a large number of jobs in manufacturing and in the higher order services. Moreover, the areas accommodate a large number of research centres and, therefore, a clientele that can benefit from HSR service. The West Island and Saint-Laurent area is also easily accessible via Highway 13 from the north and via Highway 40 from the west. Therefore, it is a good location to serve clients leaving their homes who reside on the North Shore, in Laval, in Vaudreuil and in the West Island and Saint-Laurent area.

  Providing a station at Dorval airport would then serve both the airport and the regional clientele. A station located near Highway 13 in the West Island would provide good accessibility to the overall western part of the region. It is logical to locate that station near Dorval airport if the CP right-of-way is used to access downtown Montréal.

- **A Station In Ville Saint-Laurent Should Be Provided If A Station Can Not Be Located Near Dorval Airport**

  If downtown Montréal is accessed via Mirabel, providing a station in Ville Saint-Laurent rather than in Laval would provide more benefit in terms of potential clientele. Such a station could serve the overall western part of the region well. Moreover, the West Island and Saint-Laurent area is a more important employment centre than Laval. That "suburban" station could be located at the junction of Highway 13 and the Deux-Montagnes train line.

7.3.4 Mirabel Airport Station

A station at Mirabel would significantly reduce the Airport's isolation. This would have a number of benefits.

- **HSR Would Permit Rapid Access To Mirabel**

  HSR could allow the consolidation of air travel at Mirabel since it would solve the problem of its isolation from downtown Montréal. With the HSR infrastructure, the airport terminal could be reached in about 30 minutes from the Central Station.[12]

- **Mirabel Role Could Change With The HSR Link**

  Following the establishment of an efficient link between Mirabel and downtown Montréal, it would be possible to consolidate all regular domestic and international flights at Mirabel which can easily accommodate increased traffic.

  One of the main arguments against the closure of Dorval was that Mirabel is not a convenient airport, being too far from downtown Montréal. That argument would no longer hold, however, a new use for Dorval would need to be found.

- **HSR Link With Mirabel Would Serve Québec And Ottawa**

  In the event that domestic and international flights would be consolidated at Mirabel, and that a regular HSR service would be offered between Ottawa-Mirabel and Québec-Mirabel, Mirabel's role would increase. The Ottawa and Québec airports' roles could then also change as more inter-city trips would be performed by HSR and international departures taking place from Ottawa and Québec Airport could be consolidated to a larger extent at Mirabel. It should also be noted that Dorval's role would be reduced even if it stays open since less flight would take place between Montréal and Toronto.

- **Should Dorval Maintain Its Current Activity, HSR Should Service Both Airports**

  If both airports are to stay open, it would be important to improve the connection between the two airports since both should benefit from the improved ease of access HSR provides. Not providing

[12] *That time was evaluated using the CP right-of-way with a stop at Saint Martin in Laval. It could be possible to achieve a lower travel time with a new right-of-way travelling first along Highway 13 and then reaching Central Station via the Deux-Montagnes line.*

HSR access to Dorval would reduce the benefit of the Mirabel to downtown Montréal linkage.

7.3.5 The South Shore Is Well Serviced By A Downtown Station

The south shore is close to downtown Montréal. From the cities situated on the South Shore closer to Montréal, such as Brossard, and Saint-Lambert, it is relatively easy to reach downtown Montréal. Even though that area is important in terms of population and employment, a suburban station would not provide a key advantage to the South Shore as it would for Laval or the Island.

8: TROIS-RIVIÈRES

Cet appendice contient un profil socio-économique de la région de Trois-Rivières ainsi que ses perspectives de croissance future. Les impacts possibles d'un système de train rapide, aussi bien que les localisations préférables de station(s), sont présentés en regard de ses perspectives.

Les conclusions de cet appendice sont les suivantes:

- La région bénéficie de sa localisation à mi-chemin entre Montréal et Québec et sert de point d'accès à la région du coeur du Québec. Son rôle de capital régionale et sa population la placent au même rang que Hull, Chicoutimi/Jonquière et Sherbrooke dans la hiérarchie urbaine du Québec. Cependant, Trois-Rivières a des perspectives de croissance largement dépendantes des secteurs primaire et secondaire, de même que les activités de recherches qui y sont rattachées.

- Trois-Rivières offre des avantages notables pour l'établissement d'importantes industries, soit une bonne accessibilité depuis Montréal et Québec, des infrastructures industrielles et portuaires répondant aux besoins de l'industrie lourde, une structure commerciale et de services relativement développée et une main-d'oeuvre éduquée.

- Un service de train rapide n'apporte pas d'avantages importants pour Trois-Rivières au plan du temps de déplacement depuis Montréal ou Québec. Le train rapide confirme cependant l'importance de Trois-Rivières comme capitale régionale.

- Un système de train rapide desservant Trois-Rivières aurait pour effet de susciter plus des échanges interprofessionnels et interuniversitaires avec Montréal, Québec et Ottawa, en attirant surtout les scientifiques et professeurs de Montréal vers Trois-Rivières, mais sans nécessairement qu'ils aient à y élire domicile.

- La localisation d'une station de train rapide au nord de Trois-Rivières, dans l'axe de l'autoroute 55, plutôt qu'au centre-ville, serait le meilleur choix parce qu'elle implique le moins de contraintes d'opération à son implantation et qu'elle est accessible depuis l'ensemble de la région.

Trois (3) chapitres sont inclus dans cet appendice:

- profil et perspectives socio-économiques de l'aire de Trois-Rivières;
- les effets du train rapide sur l'agglomération de Trois-Rivières;
- les effets de la localisation des stations.

8.1 PERSPECTIVES SOCIO-ÉCONOMIQUES

L'exploitation des ressources naturelles est à la base même de l'économie régionale de Trois-Rivières. La chasse, le trappage et la pêche, la fabrication des pâtes et papiers et de l'hydroélectricité, le nucléaire et l'ensemble de ses industries et de ses manufactures en constituent des éléments caractéristiques de l'intérêt et de l'énergie de la région. La réserve faunique du Saint-Maurice et la réserve Mastigouche constituent des espaces intacts privilégiés pour faire corps avec la nature.

Bien qu'ayant connu des problèmes sérieux au début des années '80 compte tenu principalement des difficultés dans le secteur des pâtes et papiers, l'économie de la région est maintenant en reprise. La récente réouverture de l'usine PFCP sous le nom de TRIPAP confirme ce fait.

8.1.1 Trois-Rivières est un centre manufacturier à mi-chemin entre Québec et Montréal

- **Trois-Rivières est à mi-chemin entre Québec et Montréal**

  Situé entre les deux pôles urbains les plus importants du Québec, Trois-Rivières se trouve au coeur même des échanges socio-économiques de Québec et de Montréal.

Trois-Rivières est en bordure du fleuve Saint-Laurent et un pont imposant (le pont Laviolette) y relie ses deux rives depuis 1967. Le nord de la région est occupé par les contreforts des Laurentides. Le sud de la région appartient à la plaine du Saint-Laurent qui s'étend jusqu'aux Appalaches. Voilà quelques-uns des éléments particuliers qui caractérisent le profil géographique de la région de Trois-Rivières.

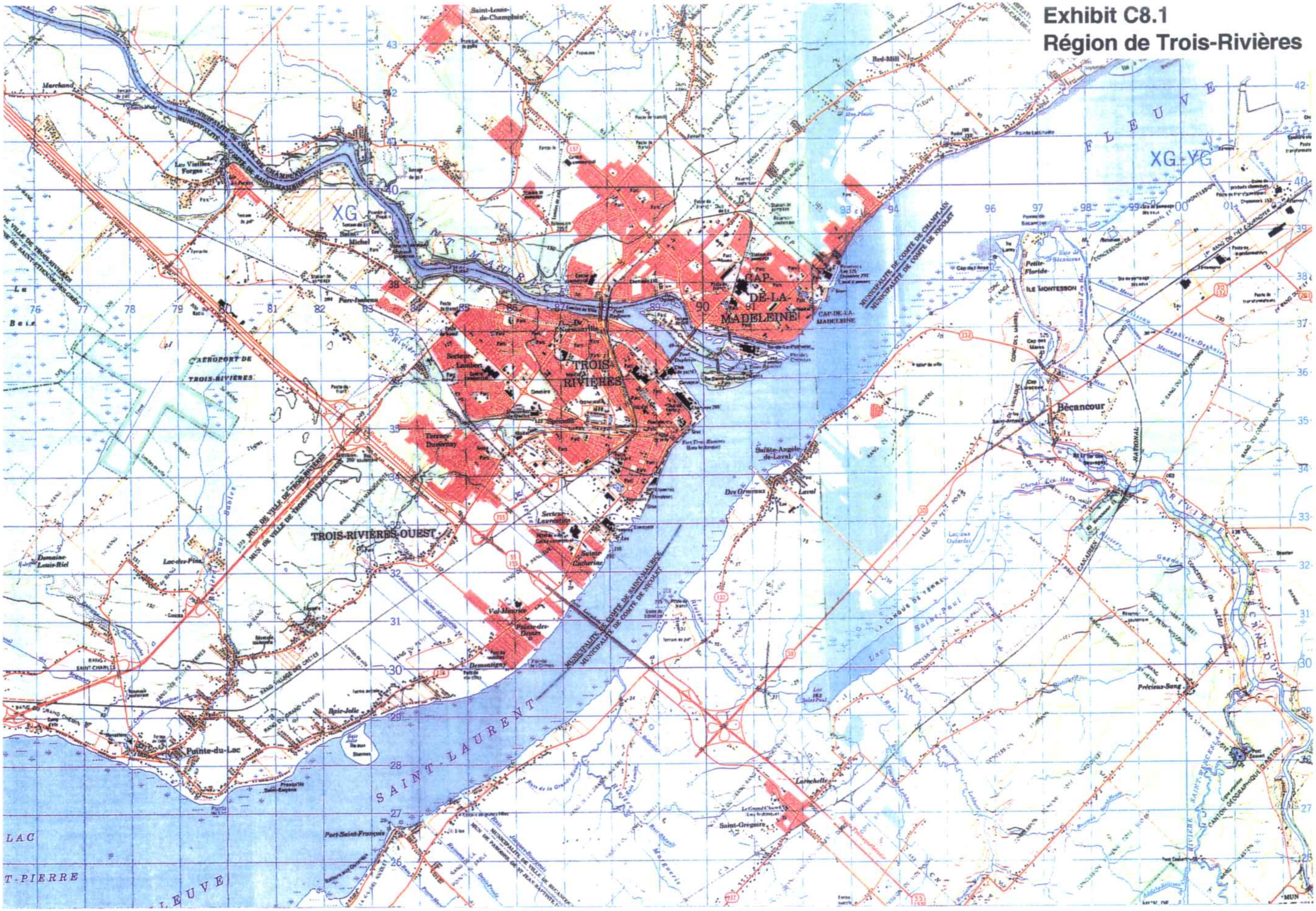
La région de Trois-Rivières est bien desservie par son réseau d'autoroutes, les déplacements y sont des plus faciles. On peut y faire une traverse tous azimuts en deçà de 20 minutes. Les principales autoroutes sont:

- l'Autoroute de la Rive-Nord (40) vers Montréal et Québec;
- l'Autoroute Transquébécoise 55 vers Shawinigan;
- l'Autoroute Jean Lesage (20) vers Montréal et Québec, par la rive-sud;
- l'Autoroute 30 vers Bécancour.

- **Trois-Rivières a connu un développement résidentiel important depuis vingt-cinq ans**

Le Trois-Rivières métropolitain comprend les municipalités de même que l'ensemble des municipalités sises sur la rive sud du Saint-Laurent autour de Bécancour. Ces municipalités ainsi que la Ville de Trois-Rivières font partie de la Municipalité régionale de comté de Francheville (Exhibit C-8.1).

Exhibit C8.1
Région de Trois-Rivières



Le développement résidentiel du Trois-Rivières métropolitain a subi l'influence de la présence de ses autoroutes, ce qui a contribué à favoriser l'étalement urbain. Comme les développements des secteurs centraux sont de plus en plus complétés, l'expansion résidentielle s'oriente davantage vers le nord. Les croissances les plus significatives du nombre de logements sont survenues dans trois secteurs particuliers, en périphérie des deux grandes villes (Trois-Rivières et Cap-de-la-Madeleine), ce sont les secteurs de Trois-Rivières-Ouest, Saint-Louis-de-France et Sainte-Marthe-du-Cap. La région de Trois-Rivières englobe également tout le secteur de Bécancour sur la rive sud du fleuve. Bien qu'Il s'agira essentiellement d'un secteur dédié à l'industrie lourde, il n'en constitue pas moins un bassin d'emploi majeur occupé principalement par des résidents de la région métropolitaine.

Le centre-ville de Trois-Rivières quant à lui fait face à des difficultés puisqu'il est composé essentiellement de vieux quartiers dont la population diminue de plus en plus depuis les vingt (20) dernières années. Des efforts de revitalisation entrepris au cours des dernières années ont permis de modifier significativement le visage des vieux quartiers en commençant principalement par le centre-ville et le Vieux-Port, et ce vu l'apparition de nombreux nouveaux usages dont l'hôtellerie et la restauration.

Avec la révision du schéma d'aménagement de la MRC de Francheville, des nouveaux projets d'aménagement routier sont envisagés afin d'éliminer l'engorgement actuel qui se produit à l'angle des routes 40 et 755. La réalisation de ce projet créera, en quelque sorte, une voie de contournement du secteur urbanisé de Trois-Rivières. Cependant, ce projet pourrait entraîner une baisse des activités commerciales dans le secteur central et une accélération de l'étalement résidentiel.

- **L'agglomération de Trois-Rivières a une population qui augmente de façon modérée**

En 1991, l'agglomération de Trois-Rivières avait une population de 136 303 habitants pour une moyenne de 2,52 personnes par ménage, soit 54 180 ménages. De 1986 à 1991, le nombre de ménages a augmenté de 14,1 %, tandis que la population augmentait de 5,8 %. Les personnes âgées de 65 ans et plus représentaient une proportion grandissante de 10,9 % (14 810) de l'ensemble de la population. Le tableau qui suit (Exhibit C-8.2) fournit un résumé des caractéristiques socio-économiques de l'agglomération.

TROIS RIVIERES CMA

Exhibit C8.2

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	128,888	136,303	5.8%
	1986	% of Total	
Pop. >65	14,810	10.9%	
Postsecondary Education	37,770	29.3%	
University Degree	8,160	6.3%	
	1986	1991	% Increase
Total Households	47,475	54,180	14.1%
Average Household Incom	35,692	37,296	4.5%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			66,730
	1981	1986	1991
Employed Labour Forc	-	-	57,850
	1991	15-24	25+
1991 Unemployment F	13.3%	21.1%	11.8%
1991 Participation Rate			61.4%

Source: Statistics Canada

EMPLOYMENT BY SIC		
	1981	1986
Primary/MFG/Construction	-	33.5
Services	-	29.1
Government	-	7.2
Trans./Comm.	-	9.4
Retail/Wholesale	-	20.7

Source: Statistics Canada

REAL ESTATE INDICATORS	
	1992
Average House Price	$67,685
	1988-92 Annual Average
Res. Units Sold	795
Value of Construction	
Residential	$86,187
Industrial	96686
Comercial	33067
Institutional	15286

Source: MLS, Statistics Canada

- **Une population instruite, mais davantage de niveau post-secondaire qu'universitaire**
  Au total, 37 770 personnes possédaient un niveau post-secondaire, soit 29,3 %, et 8 160 personnes déclaraient un niveau universitaire, soit 6,3 % en 1986.

- **L'économie locale est dominée par le secteur manufacturier**

  Les principales industries de la région et leur nombre d'employé(e)s sont: la Stone Consolidated, Div. Trois-Rivières/Shawinigan/Grand-Mère (2 408), l'Aluminerie Bécancour (1 100), la Kruger (1 000), les Papiers Cascades et Div. (945), Aluminium Reynolds (858), ALCAN Shawinigan (638), la Dominion Textile (550), Fruit of the Loom Canada/Trois-Rivières (501), Norsk Hydro (350), SKW (240) et TRIPAP (450).

  La ville de Trois-Rivières a un port en eau profonde qui emploie plus de 400 personnes. On y observe un ralentissement de l'activité portuaire depuis 1987, notamment une baisse dans la manutention des céréales. Un conflit ouvrier, déclenché en 1991, n'a pas amélioré la situation. Quant à l'activité qui règne dans les parcs industriels, les emplois à haute et moyennement haute technicité connaissent une remontée.

  Le parc industriel et portuaire de Bécancour est équipé d'infrastructures ultra-modernes. Des entreprises de grande et moyenne envergures y sont bien établies, telles: l'Aluminerie de Bécancour, Inc. (aluminium), Norsk Hydro Canada, Inc. (lingots de magnésium), S.K.W. Canada (ferro-alliages) et I.C.I. Canada, Inc. (chlore, acide chlorhydrique et soude caustique).

- **Trois-Rivières a des attraits touristiques qui la particularisent**

  Les attraits touristiques majeurs de l'agglomération et de sa région touristique sont, sans contredit, les Vestiges de la première industrie sidérurgique au Canada situés dans le Parc historique des Forges du Saint-Maurice, puis le Parc national de la Mauricie, la centrale nucléaire Gentilly 2, le Centre d'interprétation sur l'industrie des pâtes et papiers, et récemment le Village d'Émilie (tiré du roman «Les Filles de Caleb»). En plus de ces attraits touristiques, il importe également de mentionner les aménagements du Vieux-Port de Trois-Rivières qui attirent nombre de visiteurs à chaque année. Signalons finalement le sanctuaire de Notre-Dame-du-Cap qui constitue depuis plusieurs décennies l'un des sites touristiques les plus fréquentés au Québec.

- **Trois-Rivières a de grandes infrastructures d'accueil pouvant recevoir de nouvelles et de majeures industries**

  C'est le cas du plus grand parc industriel au Canada: le Parc industriel et portuaire de Bécancour, d'une superficie de 40 470 000 m^2, avec ses 27 entreprises et plus de 2 500 emplois. Trois-Rivières compte aussi un important port en eau profonde qui a contribué à approximativement 25,3 millions $ à l'économie de la région. Les principaux produits manutentionnés sont les céréales, le papier à journal et la pâte à papier.

  Étant donné la présence d'entreprises internationales dans ce parc industriel, d'entreprises majeures dans les autres parcs industriels et aussi de prix de terrains avantageux, des nouvelles entreprises, industries et institutions pourraient être intéressées à venir s'implanter à Trois-Rivières.

8.1.2 Trois-Rivières connaîtra une croissance modérée

- **Une croissance modérée est anticipée**

  Les prévisions de croissance pour 1992-2005-2025 à Trois-Rivières sont présentées sous l'angle d'un scénario modérément optimiste. En 1992, la population de la région métropolitaine de recensement était de 171 000 personnes. Ce scénario nous permet d'anticiper une population totale de près de 196 200 en 2005, et de 222 400 habitants en 2025.

- **Pas de reprise en vue dans le secteur des produits forestiers**

  Les secteurs traditionnels regroupent le plus grand nombre de travailleurs. Ils ont connu des baisses importantes de leur nombre d'emplois, soit respectivement 41 % pour les pâtes et papiers et 81 % pour le textile.

  Par contre, le parc industriel de Bécancour pourrait à moyen terme accueillir de nouvelles entreprises rattachées aux secteurs des produits chimiques et de l'aluminium.

- **Une université à la relève du développement économique régional**

  L'Université du Québec à Trois-Rivières est en phase d'expansion, la chiropractie y sera une des spécialités offertes. Le génie industriel avec sa spécialisation dans le secteur des pâtes et papiers contribue au développement économique du milieu.

  Une part majoritaire des nouveaux emplois se retrouve dans les services. Trois-Rivières se transforme de plus en plus comme centre de services et d'activités tertiaires. La présence active de l'Université du Québec à Trois-Rivières crée un environnement favorable au développement de la recherche appliquée.

8.2 EFFETS DU TRAIN RAPIDE SUR L'AGGLOMÉRATION DE TROIS-RIVIÈRES

L'analyse des relations existant entre Trois-Rivières et les autres centres du Corridor n'a pas été réalisée puisque l'enquête O-D ne fournit pas de résultats pour cette agglomération. Il faut supposer que les déplacements de et vers Trois-Rivières s'établissent surtout avec Montréal et, dans une moindre mesure, Québec.

- **Un effet global peu important**

  Le train rapide va légèrement modifier les relations entre les agglomérations d'Ottawa et de Toronto par une plus grande facilité de déplacement et par la diminution des temps de déplacement. Cette nouvelle liaison devrait stimuler davantage les interrelations entre les agglomérations et provoquer une fierté d'appartenance au réseau. Par contre, pour les déplacements vers Québec et Montréal, le train rapide n'offrirait pas de gains de temps importants.

- **Un impact possible sur les institutions et la fonction publique**

  Comme l'Université du Québec à Trois-Rivières prévoit de l'expansion au niveau de la recherche scientifique, les enseignants de Montréal pourraient être plus intéressés à venir y enseigner avec le train rapide. Toutefois, cela dépendrait des coûts d'utilisation du train rapide.

  De plus, les échanges interprofessionnels et les communications entre les divers fonctionnaires seraient rendus plus faciles avec l'accès à un train rapide. Ces types de déplacements pourraient gagner avec le train rapide puisqu'ils s'effectueront entre le centre-ville de Montréal ou Québec et Trois-Rivières.

8.3 EFFETS DE LA LOCALISATION DES STATIONS

8.3.1 Description des stations proposées et de leur localisation

La station proposée est située au nord de l'agglomération de Trois-Rivières (Exhibit C-8.3) à proximité de l'autoroute 55. La Municipalité régionale de comté de Francheville propose que cette station soit érigée préférablement à proximité de l'aéroport de Trois-Rivières.

Selon les orientations préférentielles d'aménagement de la MRC de Francheville, il serait souhaitable que la station soit érigée à proximité de l'aéroport de Trois-Rivières.

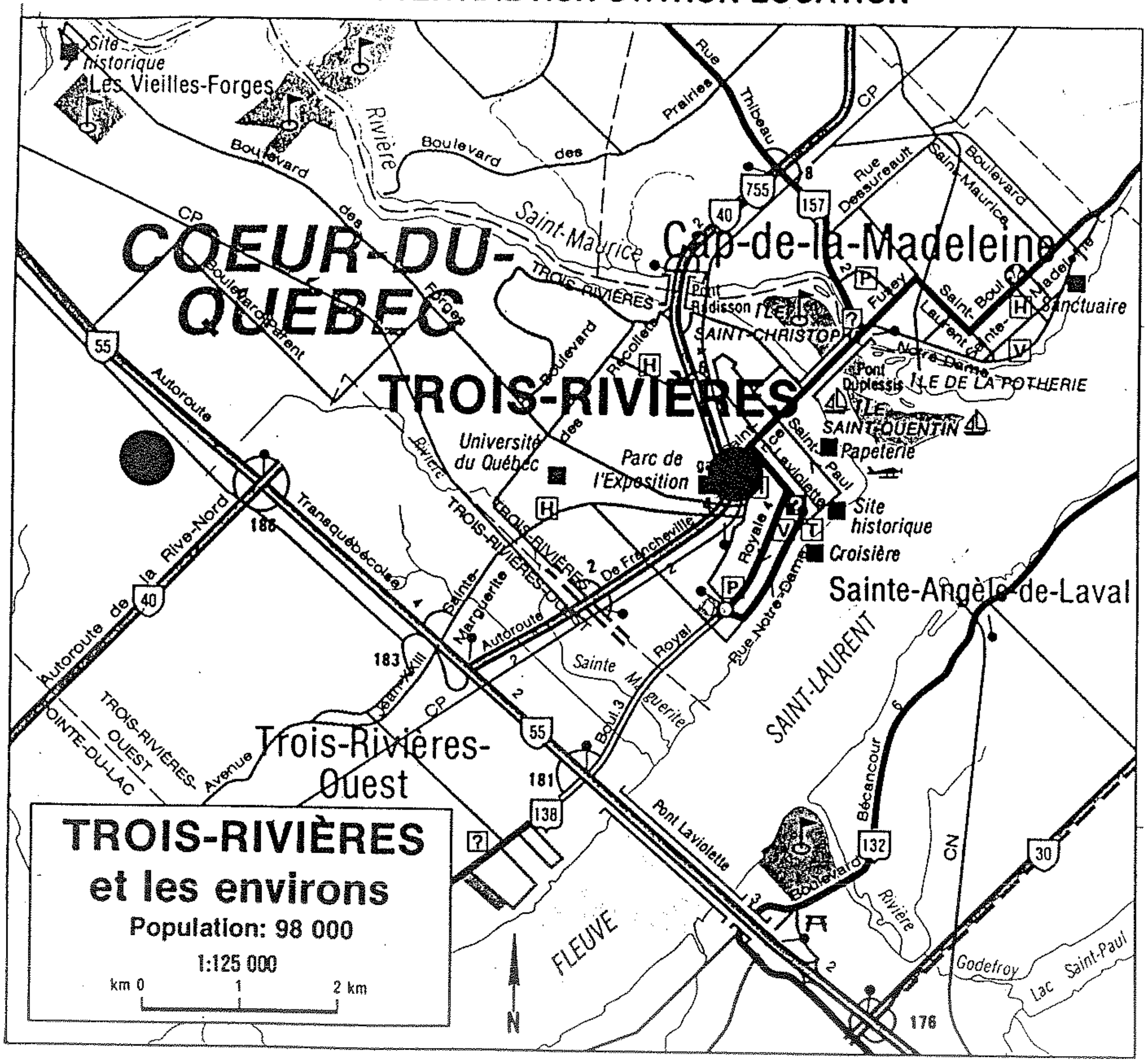
8.3.2 Une station de banlieue est proposée à proximité de l'autoroute 55 au nord de la zone urbanisée

- **Une grande facilité d'accès à la station**

  La station de banlieue serait accessible par l'autoroute transquébécoise 55. La présence d'autoroutes et de grands boulevards à proximité sont des atouts favorables à l'implantation de la station à cet endroit. Les résidents de l'agglomération de Trois-Rivières et Shawinigan pourraient l'atteindre aisément, dans un délai de moins de 20 minutes.

POTENTIAL HSR STATION LOCATION

Exhibit C8.3



- **Éloignement relatif des activités et des services du centre-ville de Trois-Rivières**

  L'arrivée à la station proposée de Trois-Rivières ne donnerait cependant pas l'image concrète de la vie économique et de l'affluence touristique présentes au centre-ville de Trois-Rivières.

  Outre l'intermodalité immédiate avec l'avion et un accès plus rapide et plus facile aux voyageurs de la région prise dans son ensemble, le site de l'aéroport souffre de son éloignement relatif des attractions et de l'accueil touristique.

8.3.3 Une station au centre-ville même de Trois-Rivières n'offre pas d'avantages déterminants

- **Le site du centre-ville présente des avantages**

  Le réseau ferroviaire du Canadien Pacific dessert le coeur même du centre-ville de Trois-Rivières. Ces infrastructures pourraient être utilisées par la station de train rapide et cette dernière pourrait desservir plus facilement la population de la partie centrale de la région.

  Une station de train rapide localisée au centre-ville permettrait de profiter plus immédiatement des activités qui s'y déroulent, de même que d'avoir accès à une quantité supérieure en hébergement hôtelier, en services de restauration, d'espaces à bureaux, de salles de réunion et de congrès, etc.

- **Le centre-ville n'est pas aussi accessible pour l'ensemble de la région**

  La localisation d'une station au centre-ville ne serait pas aussi avantageuse pour les municipalités à la frontière de Trois-Rivières et celles situées tant au nord qu'au sud de l'agglomération telles Shawinigan et Contrecoeur.

TROIS RIVIERES: ENGLISH SUMMARY OF KEY FINDINGS

Trois-Rivières, with a CMA population of just over 136,000, is located halfway between Montréal and Québec. The overall character of Trois-Rivières is one of a manufacturing and natural resources-oriented region which has experienced a relative decline in its economic importance.

HSR will have a limited impact on the outlook for Trois-Rivières for two important reasons. First, HSR would only provide a modest improvement in the accessibility of the region as the automobile will continue to be the primary mode of transportation. Secondly, Trois-Rivières does not have an economic structure that would benefit from HSR since business service, tourism activities and institutional functions are not an important component of the regional economy.

On the other hand, HSR could offer new opportunities to the region. Benefits could be realized for the industrial research centres, the University of Québec in Trois-Rivières and regional governmental offices.

The proposed station location in Trois-Rivières is located north of the urbanized area, next to Highway 55. With its excellent connection to the road network and central location, the proposed station would serve the overall region well.

The establishment of a downtown station in Trois-Rivières would not serve the overall region as well as a centrally located suburban station. The Trois-Rivières station would mostly serve as a regional transfer point between car and HSR or city bus and HSR, rather than give access to the downtown tourist attractions and service firms.

9: QUÉBEC

Cet appendice contient un profil socio-économique de l'aire de Québec ainsi que ses perspectives de croissance future. Les impacts possibles d'un système de train rapide, aussi bien que les localisations préférables de station(s), sont présentés en regard de ses perspectives.

Les conclusions de cet appendice sont les suivantes:

- Québec a des perspectives de croissance largement dépendantes du développement du secteur des fonctions publiques provinciale et fédérale. Un système de train rapide reliant Québec, Montréal et Ottawa aurait pour effet de maintenir et susciter les échanges interprofessionnels, interministériels et interfonctions publiques; ce qui pourrait même réduire et surtout empêcher les mutations et transferts vers Montréal.

- Québec offre plusieurs avantages comparatifs supérieurs à d'autres grandes villes métropolitaines, dont: un plus bas prix de location de ses espaces à bureaux; un prix inférieur de ses maisons individuelles; des taux corporatifs les plus bas au Canada; une rémunération moins élevée de ses travailleurs à l'avantage des employeurs; et une des populations les plus instruites du Québec.

- La distance par rapport aux centres urbains d'importance aurait moins d'impacts négatifs de marginalisation qu'elle n'en produit actuellement. En effet, considérant la place importante du tourisme de circuit et de visite des grandes villes, Québec ne serait plus localisée en marge de ce circuit que représentent New-York, Boston, Toronto (chutes du Niagara), Ottawa et Montréal. Cette localisation marginale de Québec, jumelée à l'insuffisance des liaisons aériennes avec les autres villes, serait améliorée par une meilleure liaison créée par le train rapide.

- Les nombreux projets soutenant l'industrie touristique de Québec sont porteurs d'avenir. L'implantation d'un système de train rapide appuierait davantage ce type de développement régional et confirmerait l'attraction de Québec comme centre urbain de services, comme centre touristique et comme Capitale.

- Le train rapide engendrerait un accroissement de l'affluence touristique du Vieux-Québec. Vu la très forte proportion de voyages d'agrément à Québec, des voyages sous la forme de forfaits vers les destinations touristiques de la région pourraient être organisés à l'intention des congressistes et autres types de voyageurs.

- La localisation d'une gare au centre-ville rentabiliserait les investissements au plan des infrastructures de transport, de stationnement et d'accueil déjà entreprises et prévues avec la revitalisation du centre-ville, telles qu'inscrites au plan directeur du Vieux-Port. Cette localisation donnerait une bonne accessibilité à la colline parlementaire et au centre des congrès, au parc technologique du Québec métropolitain, au Port de Québec et à la traverse Québec/Lévis.

Trois (3) chapitres sont inclus dans cet appendice portant sur la région de Québec:

- profil et perspectives socio-économiques;
- les effets d'un système de train rapide sur l'agglomération de Québec;
- les effets de la localisation des stations.

9.1 PROFIL ET PERSPECTIVES SOCIO-ÉCONOMIQUES

Deuxième agglomération en importance au niveau provincial et deuxième pôle économique de l'est du Canada, Québec a un secteur tertiaire fortement développé et une distribution variée de services, dont: ceux de l'administration publique, de la finance et de l'assurance, du commerce et du tourisme, des transports et des communications, de la santé et de l'éducation. L'Université Laval et l'Université du Québec avec ses constituantes (INRS, ENAP, Télé-Université et siège social) jouent un rôle moteur dans le développement régional par leur contribution aux activités de recherche du parc technologique de Québec.

De plus, le rayonnement de la région de Québec comme centre de services rejoint facilement les régions du Bas-Saint-Laurent / Gaspésie, du Saguenay-Lac-Saint-Jean / Chibougamau-Chapais, de Charlevoix et de la Côte-Nord.

Comme siège du gouvernement provincial avec son Parlement, l'activité économique de Québec est toutefois largement dépendante des politiques et des activités gouvernementales, présentement en période de restructuration. Les relations diplomatiques qu'imposent les statuts d'agglomérations de Québec comme Capitale et de Montréal comme Métropole s'insèrent de plus en plus dans un système d'échanges et de complémentarités, ouvert au contexte de mondialisation croissante de l'économie et d'internationalisation des relations commerciales.

9.1.1 Québec est un important centre de services situé à l'extrémité «est» du corridor

- **Québec est à l'extrémité «est» du corridor**

  Situé à l'est du Canada, à 290 kilomètres de Montréal la métropole économique, Québec constitue une des portes d'entrée du corridor Québec-Windsor. À l'extrémité est du corridor, Québec constitue le point de départ et d'arrivée des relations entre celui-ci et les Maritimes. Le vaste réseau de communications et d'échanges socio-économiques qui règne entre l'est du Québec, les Maritimes et les agglomérations du Corridor transite par Québec.

  La présence du fleuve Saint-Laurent, les hauteurs du Cap Diamant et la forteresse de la Citadelle font que le coeur de la région de Québec se distingue par sa situation sur un promontoire, d'où prédomine l'architecture ancestrale du Château Frontenac. Région dotée d'une ville fortifiée des débuts de la colonisation de la Nouvelle-France, c'est-à-dire le Vieux-Québec et la Place Royale, ces espaces font désormais partie des joyaux du patrimoine mondial de l'U.N.E.S.C.O.

La proximité des contreforts des Laurentides, les paysages agricoles de l'Île d'Orléans et de la Côte-de-Beaupré et le corridor des Appalaches bordant la Rive-Sud complètent le portrait géographique de l'aire de Québec.

- **Québec constitue une agglomération très étendue**

Le Québec métropolitain est composé de 46 municipalités incluant la Ville de Québec, dont 13 municipalités font partie de la Communauté urbaine de Québec (CUQ) et les autres étant, soit sur la Rive-Sud (MRC des Chutes-de-la-Chaudière et MRC de Desjardins) ou soit en périphérie (MRC de l'Île d'Orléans, MRC de La Jacques-Cartier, MRC de La Côte-de-Beaupré et MRC de Portneuf) (Exhibit C-9.1). La région a des villes de banlieue en pleine effervescence, dont les plus importantes, en termes de population, sont: Sainte-Foy, Charlesbourg, Beauport et Lévis / Lauzon.

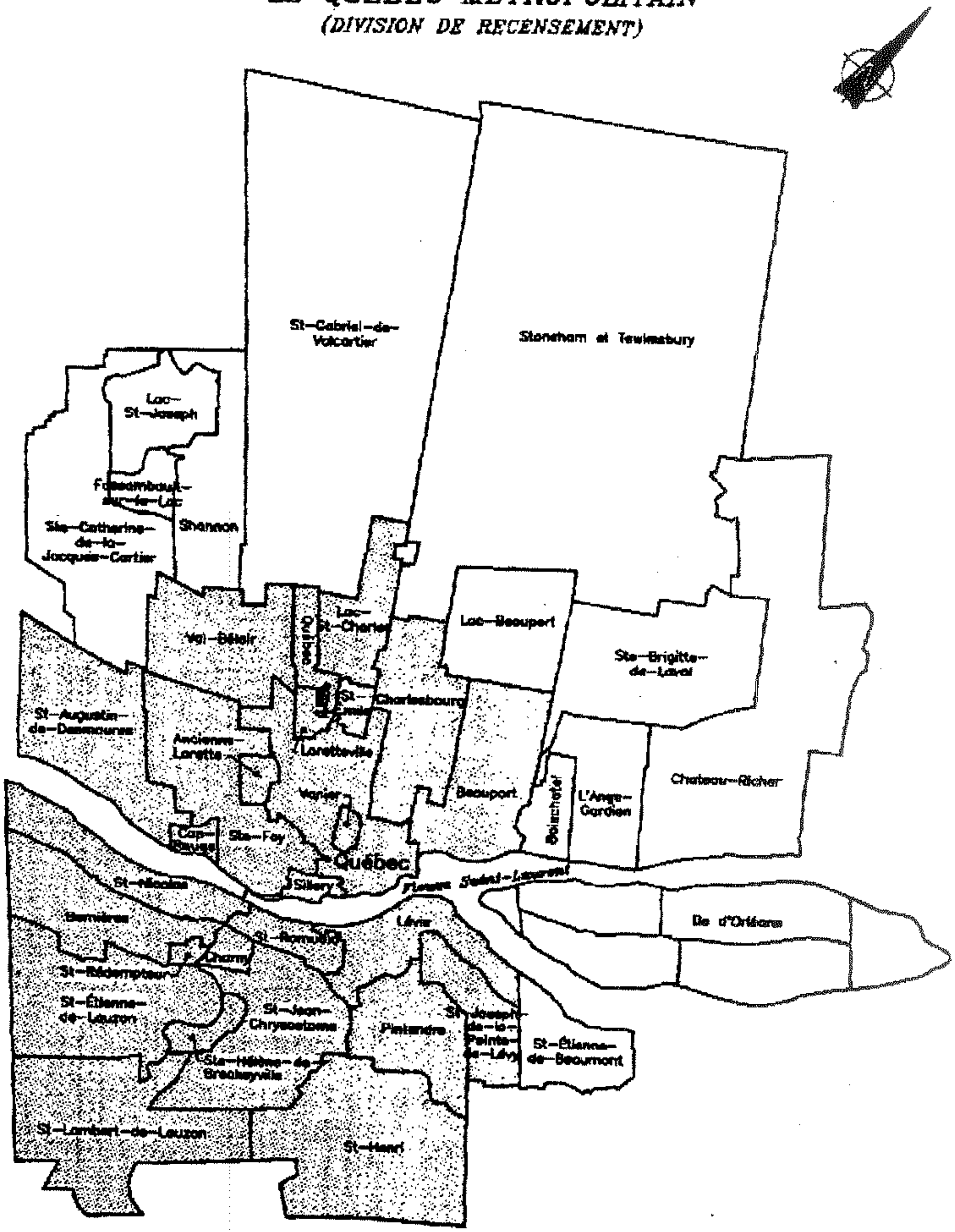
Le développement résidentiel a subi l'influence de la présence des nombreuses autoroutes périurbaines, ce qui a contribué à favoriser l'étalement urbain. Des politiques régionales déployées et soutenues par la CUQ et l'exercice des périmètres d'urbanisation auront tendance à limiter ce développement et à le consolider.

Le plan de transport qui sera annexé à la révision du schéma d'aménagement de la CUQ verra à desservir en priorité la zone centrale et urbanisée du territoire de Québec et à consolider et concentrer le développement autour des axes de transport en commun.

- **L'agglomération de Québec a une population qui augmente de façon très modérée, incluant la jeunesse en provenance des régions périphériques**

Selon le recensement de 1991 de Statistique Canada, la population totale de la région métropolitaine de Québec (RMRQ) s'élevait à 645 550 habitants pour une moyenne de 2,55 personnes par ménage. Les personnes âgées de 65 ans et plus représentaient une proportion grandissante de 10,7 % de l'ensemble de la population.

LE QUÉBEC MÉTROPOLITAIN
(DIVISION DE RECENSEMENT)



Superficie 3223 km²

L'attrait du centre urbain de Québec comme lieu de travail, de résidence et de formation se manifeste davantage auprès de la clientèle-jeunesse des régions limitrophes et nordiques. Ces mêmes régions déplorent cependant l'exode de leur relève.

Le tableau qui suit (Exhibit C-9.2) résume les caractéristiques socio-économiques de l'agglomération.

- **Québec a une économie dominée par le secteur tertiaire**

En 1991, le secteur tertiaire regroupait 85 % de la main-d'oeuvre régionale. Au total, 113 000 emplois (38,5%) étaient rattachés aux services, 55 500 emplois (18,9%) au commerce, 42 800 emplois (14,6%) à l'administration publique, 22 000 emplois (7,5%) aux finances, assurances et affaires publiques, et 15 700 emplois (5,3%) aux transports et communications.

Le secteur secondaire regroupait 26 900 emplois (9,1%) dans les 903 entreprises manufacturières et 15 300 emplois (5,2%) dans la construction. Les plus importantes entreprises en termes d'emplois manufacturiers sont la MIL Davie de Lauzon / construction navale (2 850) et la Daishowa / transformation des pâtes et papiers (1 360).

En 1986, le profil économique de l'emploi par secteur nous démontre que 46,8 % des emplois étaient rattachés aux services. Pour ce secteur, de 1981 à 1986, un accroissement de 13,9 % des emplois est relevé. Cette tendance devrait normalement se poursuivre. Au niveau du commerce et de la vente au détail, une augmentation de 12,4 % a été compilée, pour ces mêmes années.

HEMSON

QUEBEC CMA

Exhibit C9.2

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	603,267	645,550	7.0%
	1986	% of Total	
Pop. >65	62,620	9.7%	
Postsecondary Education	167,610	27.8%	
University Degree	57,010	9.5%	
	1986	1991	% Increase
Total Households	218,420	253,365	16.0%
Average Household Income	40,920	42,164	3.0%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			348,160
	1981	1986	1991
Employed Labour Force	249,805	269,692	316,405
	1991	15-24	25+
1991 Unemployment Rat	9.1%	15.7%	7.7%
1991 Participation Rate			67.2%

Source: Statistics Canada

EMPLOYMENT BY SIC				
			1986	1981-1986
	1981	1986	Distributio	% Change
Primary/MFG/Construction	45,875	43,420	14.7%	-5.4%
Services	121,440	138,310	46.8%	13.9%
Government	50,180	48,130	16.3%	-4.1%
Trans./Comm.	17,015	17,100	5.8%	0.5%
Retail/Wholesale	43,360	48,755	16.5%	12.4%

Source: Statistics Canada

REAL ESTATE INDICATORS	
	1992
Average House Price	$86,144
	1988-92 Annual Average
Res. Units Sold	3,858
Value of Construction	
Residential	$500,527
Industrial	53,061
Comercial	223,900
Institutional	72,445

Source: MLS, Statistics Canada

GROWTH OUTLOOK

				1992-2005		2005-2025	
	1992	2005	2025	Increase	Annual Growth	Increase	Annual Growth
Population	494,500	543,900	583,900	49,400	0.7%	40,000	0.4%
Household	205,900	239,000	277,800	33,100	1.2%	38,800	0.8%
Employment	216,200	247,300	265,300	31,100	1.0%	18,000	0.4%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

pluram inc.

- **Québec regroupe de nombreux centres de recherche et développement (R & D) dans le domaine de la haute technologie**

  Quelque 5 000 personnes sont impliquées dans la recherche fondamentale et appliquée et sont réparties dans plus de 95 centres de recherche, soit: gouvernementaux, privés, rattachés à des centres hospitaliers ou relevant de l'enseignement supérieur (universitaire et collégial). On y retrouve le seul institut de technologie du Magnésium au monde, un des plus importants laboratoires de Recherche & Développement du ministère canadien de la Défense, un institut d'optique et laser unique au Canada, et la plus importante concentration d'activités de recherche forestière au Canada. Plus de 41 entreprises font partie du vaste et moderne parc technologique du Québec métropolitain.

- **De tradition, les principaux sièges sociaux des compagnies d'assurances sont à Québec**

  Au total, 22 compagnies d'assurances ont leur siège social dans la région, ce qui procure de l'emploi à près de 10 500 personnes. Ce sont, par ordre d'importance: L'Industrielle-Alliance, Les Assurances générales et de vie des caisses Desjardins, La Laurentienne, Les Services de Santé du Québec (SSQ) et la Mutuelle des fonctionnaires du Québec.

9.1.2 Québec compte de nombreux atouts

- **Un environnement agréable**

  Les caractéristiques majeures de ses attraits touristiques sont définies par leur concentration (Vieux-Québec, Place Royale, Vieux-Port et colline parlementaire), leur marque de l'histoire et leur inclusion au titre de bien patrimonial mondial de l'UNESCO.

  Berceau du fait français, Québec est la région la plus européenne d'Amérique, forte de faire connaître sa culture, son expression, ses arts et ses traditions populaires.

- **De nombreux parcs industriels**

  C'est avec un choix de 50 parcs et zones industriels aménagés le long d'autoroutes et de dessertes ferroviaires à moins de 20 kilomètres du Port de Québec, de l'aéroport et du centre-ville, que Québec représente une forte capacité d'accueil de la croissance industrielle future. La récente venue de l'usine de verre plat Glaverbec et d'Alumax/Lauralco sont des exemples de réussites régionales à répéter. La création d'un centre régional de l'industrie et de l'environnement pourra aider à l'accueil et à une meilleure implantation de nouvelles industries, et la réussite des projets.

- **Un important port**

  Le Port de Québec est un port en eau profonde pouvant accueillir, hiver comme été, des navires jaugeant jusqu'à 150 000 tonnes et est situé à 1 400 kilomètres au coeur du continent. Le réseau intermodal du Port de Québec est assumé par les réseaux ferroviaires du CN et CP de même que par de nombreuses entreprises de camionnage qui ont un accès rapide aux autoroutes. Plus de 17 millions de tonnes métriques y ont été manutentionnées (produits forestiers, pétroliers, chimiques, agricoles), les principaux partenaires commerciaux sont le Canada, l'Europe (Grande-Bretagne et Norvège) et les États-Unis.

- **Un réseau d'autoroutes très développé**

  La région de Québec est une région choyée par son réseau d'autoroutes de plus de 300 kilomètres, les déplacements y sont des plus faciles. On peut y faire une traverse tous azimuts en deçà de 30 minutes, et presque en toute heure. Les principales autoroutes interrégionales sont:

  - l'Autoroute de la Rive-Nord (40) (vers Trois-Rivières et Montréal);
  - l'Autoroute Jean-Lesage (20) (vers Montréal);
  - l'Autoroute Dufferin-Montmorency (vers Baie-Saint-Paul);
  - l'Autoroute Laurentienne (vers Chicoutimi);
  - l'Autoroute Robert-Cliche (vers Saint-Georges-de-Beauce).

- **Un aéroport international en expansion**

  À l'aéroport de Québec, plus de 734 500 passagers ont utilisé les services aériens de l'aéroport de Québec en 1990. On y enregistrait 145 500 mouvements aériens. Les compagnies aériennes, dont: Air Canada, Air Alliance, Air Cubana, Air Roberval, Canadien, Air Nova, Air Atlantic, Northwest Airlink, etc. maintiennent des vols réguliers et nolisés vers les différentes villes d'Amérique du Nord et de l'Europe, qu'également les régions périphériques et nordiques de Québec peuvent utiliser. L'aéroport de Québec conservera son statut international et son rôle de plaque tournante du transport aérien régional, grâce à l'agrandissement des services d'accueil aux passagers des vols internationaux et à la modernisation de sa tour de contrôle.

- **Un réseau de transport en commun par autobus de plus en plus développé, des projets de métro de surface et de tramway et le transfert de la gare d'autobus interrégionale**

  Le transport en commun de la région de Québec est assuré par deux réseaux de transport, soit celui de la CTCUQ et celui de la Rive-Sud (Trans-Sud). Près de 40 millions d'utilisateurs par année sont véhiculés dans plus de 500 autobus en service.

  Le transfert des services de la gare d'autobus interrégionale (sise sur le boulevard Charest de la basse-ville) vers la Gare du Palais va assurer une plus grande intermodalité pour les utilisateurs de l'autobus, du train et du taxi.

  Le projet d'un métro de surface sur certains des corridors les plus fréquentés est toujours caressé par la CTCUQ qui y voit des économies et une remontée de sa clientèle. Un autre projet est d'améliorer la desserte entre Lévis et Québec via le pont de Québec par la mise en place d'un train de banlieue.

- **Une population des plus instruites du Québec**

  L'amélioration du réseau Métrobus de même que l'utilisation de technologies favorisant la circulation prioritaire des autobus permettront éventuellement d'augmenter le taux d'utilisation du transport en commun. Par ailleurs, ce phénomène devrait s'accentuer de plus en plus, puisqu'on observe une recrudescence des inscriptions à tous les niveaux universitaires.

9.1.3 Québec dépendra de plus en plus des activités du secteur des services et en particulier du tourisme

- **Québec connaîtra une croissance démographique modérée**

  Les prévisions de croissance pour 1992-2005 à Québec sont présentées sous un angle plutôt conservateur. Ainsi, on estime à 0,7 % par an l'augmentation de sa population, et à 1 % le nombre d'emplois. L'augmentation du nombre de ménages est évaluée à 1,2 %. Ce taux moyen annuel de croissance de la population étant relativement bas, soit 0,7 %, nous permet d'anticiper une population totale de plus de 700 000 habitants (711 775) en 2001.

  Les prévisions de croissance pour 2005-2025 sont encore plus faibles: 0,4 % par an pour ce qui est de l'augmentation de la population, et 0,4 % pour l'augmentation du nombre d'emplois. La croissance du nombre de ménages serait de 0,8 %.

- **Une baisse inquiétante des emplois de la fonction publique gouvernementale et du secteur primaire, manufacturier et de la construction**

  De 1981 à 1986, on observait un léger fléchissement des emplois rattachés à l'administration publique, soit -4,1 %. De 1981 à 1991, plus de 7 380 emplois ont été perdus, soit -14,7%.

  Par ailleurs, au niveau des activités du secteur primaire, manufacturier et de la construction, on remarquait également une baisse du niveau d'activités de -5,4%, de 1981 à 1986.

- **Un rendez-vous touristique hautement attractif et événementiel en croissance**

  Plus de 4 042 000 touristes ont visité la région métropolitaine de Québec en 1990, pour tous les buts de voyage, dont 1 516 000 visites d'agrément et 1 433 000 visites de parents ou d'amis. Principale destination touristique de la grande région de Québec, on dénombre annuellement, uniquement pour la Ville de Québec, plus de 1 500 000 visiteurs. La Ville de Québec est reconnue comme étant un chef de file en matière d'organisation d'événements touristiques d'envergure. Le principal secteur d'intérêt est bien sûr le Vieux-Québec. Son port accueille plusieurs navires de croisière océanique de renom, 33 000 passagers ayant fait escale à Québec en 1991.

Cette notoriété s'exprime de plus en plus en toutes saisons, que ce soit au niveau du Carnaval de Québec, du Festival international d'été, des Fêtes Médiévales ou de son inscription comme ville hôtesse des Jeux olympiques d'hiver de «2002». Québec brille et excelle par ses nombreux atouts (naturels, culturels, patrimoniaux, historiques, gastronomiques, etc.) qu'elle fait connaître aux touristes de toutes provenances.

- **Un tourisme de congrès, d'expositions et de foires en progression**

  L'édification d'un vaste centre de congrès au centre-ville de Québec, dont l'ouverture, prévue pour 1995-96, placera la région de Québec dans une meilleure position de concurrence et améliorera la capacité d'accueil de la région.

  On retrouve comme troisième catégorie touristique d'importance, le tourisme d'affaires et de congrès. Au total, 883 000 personnes de toutes origines se sont rendues dans la grande région touristique de Québec pour des voyages d'affaires, des congrès, des réunions ou séminaires de formation, etc., soit 21,8 % de tous les types de voyageurs. La majorité des congressistes et gens d'affaires sont d'abord des Québécois (52,7%), puis des Américains (25,2%), des Européens et Asiatiques (16,8%), puis finalement des Canadiens (Ontariens surtout) avec 5,3%.

  Les atouts de la région seront également accrus avec la construction d'un centre de foires commerciales qui pourrait mieux répondre à une demande de plus en plus grande pour ce genre d'activités gourmand en espaces, et qui pourrait se dérouler plus efficacement et plus régulièrement dans le parc de l'Exposition de Québec.

9.2 EFFETS DU TRAIN RAPIDE SUR QUÉBEC

Un nombre très important de déplacements prennent place entre Québec et Montréal, avec 6,8 millions de déplacements par an. Les seuls autres centres du Corridor vers lesquels se destinent ou originent un nombre important de déplacements depuis Québec sont Ottawa et Toronto, soit 322 000 déplacements entre Québec et Ottawa et 209 000 déplacements entre Québec et Toronto.

Le statut de Québec comme Capitale provinciale peut expliquer les relations orientées vers Montréal tandis que les dimensions «Affaires et Tourisme» complètent leur modèle de relations. Également, les mêmes types de relations entre Ottawa et Québec sont les principales causes d'échanges entre ces deux agglomérations. Les relations entre Québec et Toronto sont plutôt attribuables à la dimension «affaires».

Comme le train rapide n'apporte pas d'amélioration significative au temps de déplacement porte à porte entre Montréal et Québec, son impact sur les relations entre les deux centres sera modeste. C'est surtout au plan touristique que des effets positifs se feront sentir. Les relations entre les centre-villes de Québec et de Montréal seront favorisées par le train rapide.

9.2.1 <u>Québec et Montréal sont en étroite relation</u>

- **Québec a des déplacements principalement avec Montréal**

  Les autres agglomérations du corridor n'offrent pas un modèle de communication comparable à celui de Québec et Montréal, considérant le nombre considérable de déplacements comptabilisés entre Québec et Montréal, soit 6,8 millions.

- **Les déplacements d'affaires se font surtout en automobile et entre Québec et Montréal**

La presque totalité des déplacements d'affaires sont entre Québec et Montréal (1 796 000 / 1 955 000 ou 91,9%). Puis c'est entre Québec et Toronto, pour seulement 89 000 déplacements. Finalement, c'est avec Ottawa pour 67 000 déplacements. Les autres déplacements entre les agglomérations de London (2 000) et de Windsor (1 000) sont négligeables.

Pour la distance Québec-Montréal, les habitudes des voyageurs sont davantage orientées vers l'usage de l'automobile. Ottawa est en deuxième position pour le nombre de voyages d'affaires en automobile; puis Toronto vient en troisième place. Pour la destination de Toronto, c'est davantage l'avion qui reçoit la préférence. En définitive, plus la distance est longue à parcourir, plus le choix vers l'avion semble se justifier par des économies de temps.

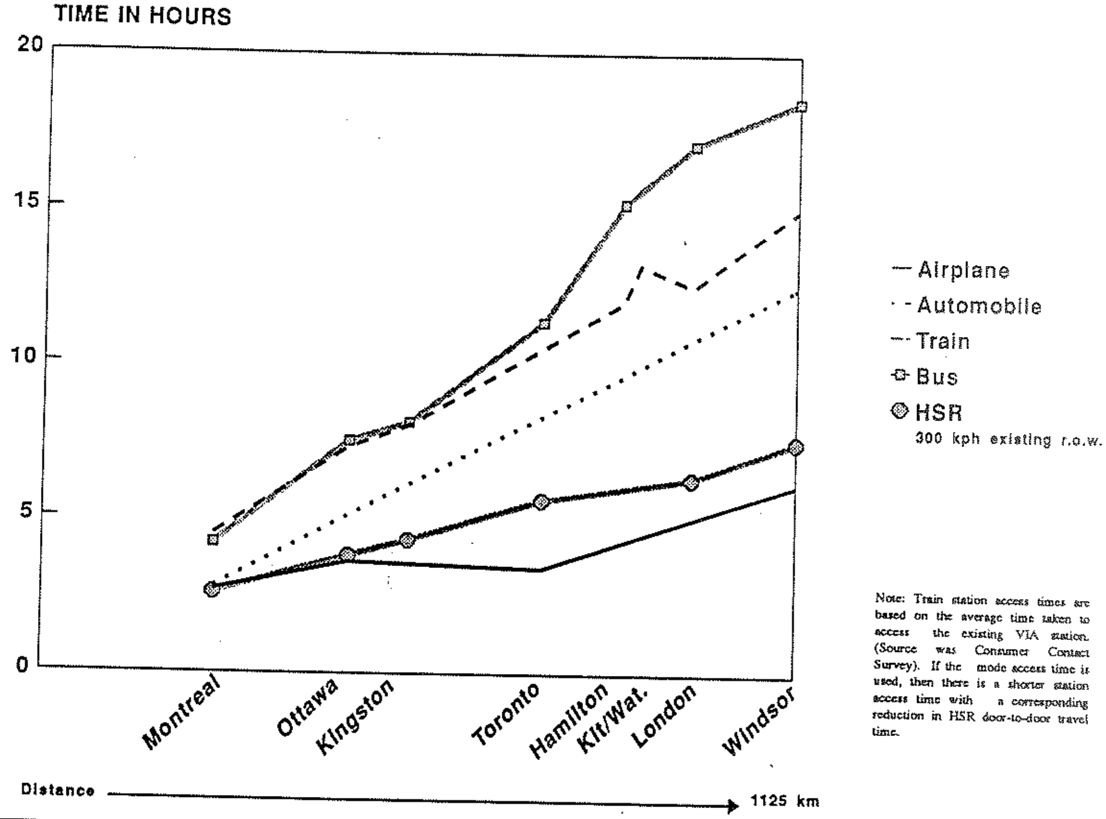
9.2.2 Les impacts du train rapide seraient surtout concentrés sur le secteur touristique

- **Le train rapide entrerait d'abord en compétition avec l'avion, le train et l'autobus**

Inévitablement, le train rapide entrera en compétition avec l'avion, le train et l'autobus. Comme les déplacements se feront davantage de centre-ville à centre-ville, le train rapide est plus avantageux parce qu'il n'exige pas un temps supplémentaire de déplacement et d'autres coûts de déplacements à partir des aéroports pour se rendre au centre-ville.

Les études d'achalandage prévoient aussi un transfert de l'automobile vers le train rapide. Cependant, les gains de temps totaux de déplacements peu importants entre Québec et Montréal réduisent l'importance de ce transfert (Exhibit C-9.3). En effet, le train rapide pourrait attirer 17 % des déplacements (Exhibit C-9.4).

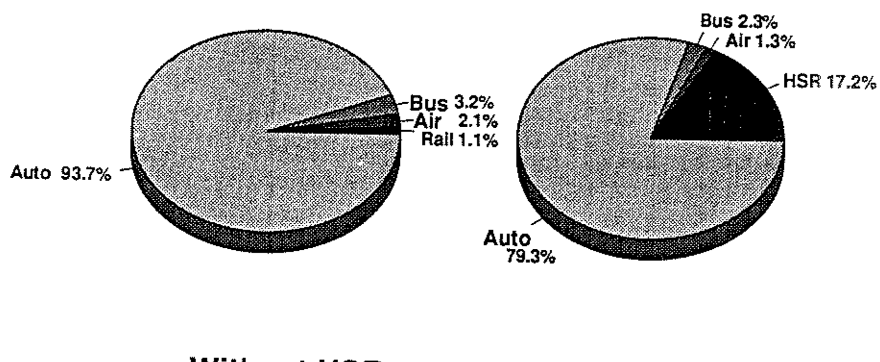
DOOR TO DOOR TRAVEL TIME: BY MODE (QUEBEC CITY TO OTHER CORRIDOR CENTRES)



Note: Train station access times are based on the average time taken to access the existing VIA station. (Source was Consumer Contact Survey). If the mode access time is used, then there is a shorter station access time with a corresponding reduction in HSR door-to-door travel time.

Exhibit C9.4

MODAL SPLIT IN 2025 QUEBEC - MONTREAL



Without HSR **With HSR**

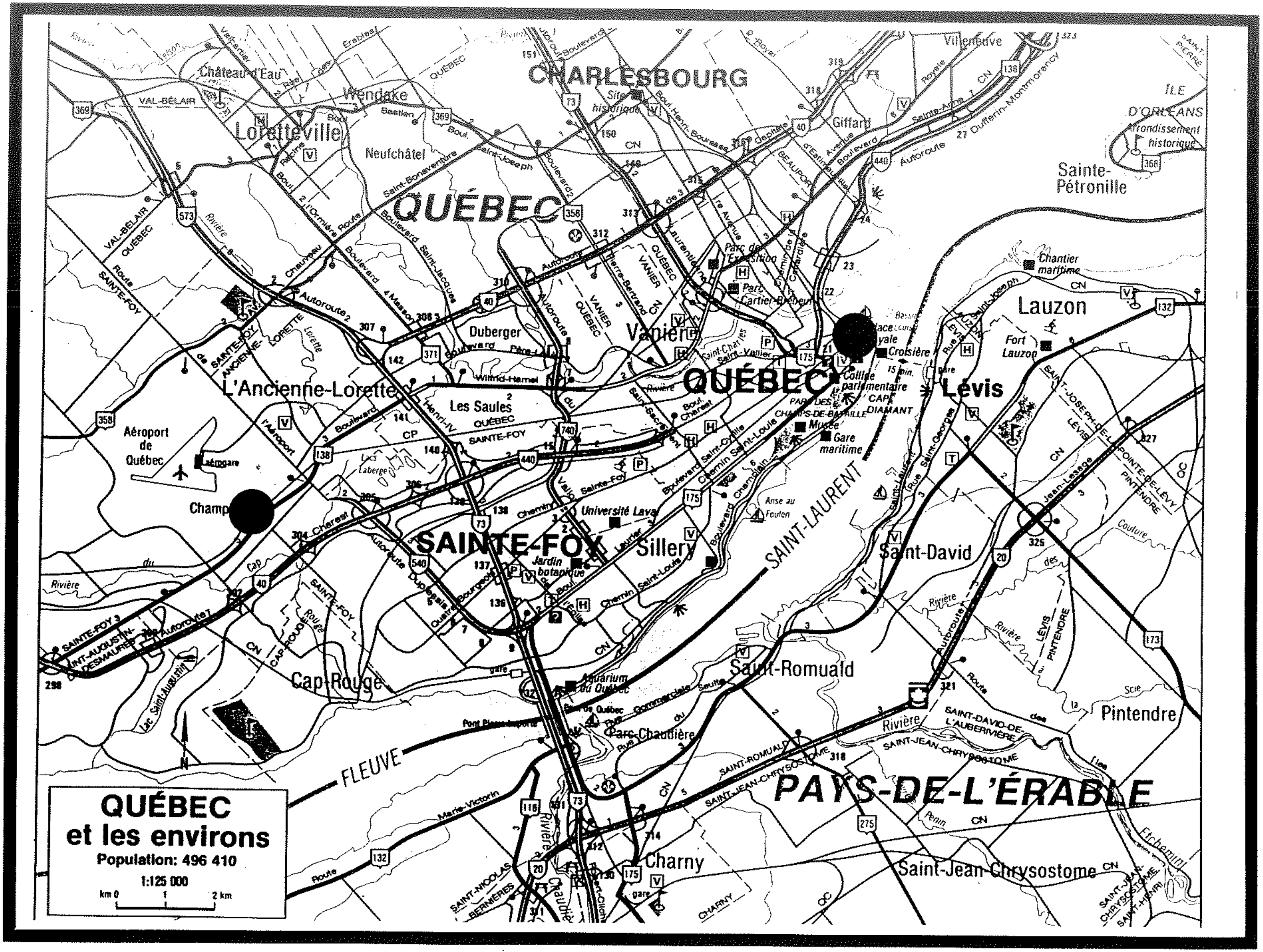
Notes:

- *2025 "Without HSR", based on Composite Total Demand Forecast, Mirabel Routing, March 31, 1994, IBI.*
- *2025 "With HSR", based on Composite Forecast #4, Quebec-Windsor Corridor - 300kph (via Mirabel), March 31, 1994, IBI.*

POTENTIAL HSR STATION LOCATION

Exhibit C9.5

HEMSON



pluram inc.

- **Le secteur touristique bénéficierait du train rapide**

  Considérant la place importante du tourisme de circuit et de visite des grandes villes, Québec serait moins localisée en marge de ce circuit des grandes villes que représentent New-York, Boston, Toronto, les Chutes du Niagara, Ottawa et Montréal. La localisation marginale de Québec serait donc réduite en palliant à l'insuffisance des liaisons aériennes et le TGV contribuerait à son développement touristique par l'augmentation des séjours de courte durée. De plus, les voyages touristiques depuis Ottawa et Toronto augmenteraient avec le train rapide.

  L'industrie touristique de Québec est en bonne santé avec des retombées de 700 millions de $ par année et plus de 12 000 emplois. L'implantation d'un système de train rapide pourrait appuyer davantage cette croissance régionale et confirmer l'attraction de Québec comme centre urbain de services, comme centre touristique et comme Capitale. La proximité du Vieux-Québec de la Gare du Palais entraînerait un accroissement de l'affluence touristique et des retombées touristiques.

- **Le train rapide pourrait aussi favoriser les activités de recherche**

  La recherche et le développement dans le domaine de la haute technologie ainsi que les activités du secteur tertiaire devraient profiter de meilleures facilités d'échanges socio-économiques et d'un contexte nouveau engendré par le train rapide. Ce serait particulièrement le cas entre Québec et Montréal qui ont déjà de fortes interrelations. De plus, cette nouvelle liaison devrait stimuler davantage les interrelations entre les agglomérations et provoquer une fierté d'appartenance au réseau.

- **Le train rapide confirmerait l'importance de Québec comme capitale régionale**

  Le train rapide favoriserait les relations entre les ministères situés à Québec et leurs clients de la région de Montréal. Les relations entre les différents fonctionnaires situés à Québec et Montréal se verraient favorisées. De plus, il est indéniable que Québec perdrait de son prestige comme capitale si elle n'était pas, contrairement à Ottawa, reliée au réseau de train rapide.

9.3 EFFETS DE LA LOCALISATION DES STATIONS

Deux stations sont proposées:

- Le premier site proposé est à l'est du territoire. Il est localisé au centre-ville même de Québec, dans le secteur de la Gare du Palais (Basse-ville), à proximité du Mail Saint-Rock, du Palais de Justice et de l'édifice de la Société de l'assurance automobile du Québec. C'est un environnement des plus fortement urbanisés et très réceptif à un tel équipement.

- Le deuxième site proposé pour une station de train rapide est le site de l'Aéroport de Québec (Aéroport Jean-Lesage) qui est à l'ouest du territoire de Québec, entouré des villes et municipalités de L'Ancienne-Lorette, de Sainte-Foy, de Neufchâtel (Québec), de Saint-Augustin-de-Desmaures et de Cap-Rouge, soit en banlieue (Exhibit C-9.5). Il s'agit d'un milieu moins urbanisé avec une densité plus faible, caractérisé par l'éloignement des divers services offerts aux touristes et gens d'affaires.

Les mérites d'une station dans le parc scientifique sont aussi évalués.

9.3.1 Une première station est proposée à la Gare du Palais du centre-ville

- **La Gare Du Palais est très accessible**

  La présence de nombreuses autoroutes et de grands boulevards à proximité de la Gare du Palais permet de l'atteindre aisément, soit dans un délai de moins de 30 minutes, pour l'ensemble des résidents de l'agglomération.

Ces principaux autoroutes et boulevards sont:

- l'Autoroute Dufferin-Montmorency qui relie le boulevard Henri-Bourassa et le boulevard René-Lévesque (boul. Saint-Cyrille/Haute-Ville);
- l'Autoroute Charest qui relie le boulevard Charest;
- l'Autoroute de la Capitale qui relie le boulevard Henri-Bourassa;
- l'Autoroute Laurentienne qui traverse l'autoroute de la Capitale.

Le transport collectif par autobus est déjà bien organisé dans ce secteur. Le service de train rapide ne devrait pas apporter de grands changements à ce titre, si ce n'est un ajustement au niveau des horaires et du nombre de véhicules disponibles aux heures de pointe.

Depuis la gare, l'intermodalité avec l'autobus, le train, le taxi, le Port de Québec (navires de croisière) et la traverse Québec/Lévis est excellente, de plus l'aéroport est situé à moins de 30 minutes.

- **Un site très attrayant**

À distance de marche de la station, les attractions touristiques majeures de la Ville de Québec sont regroupées parmi les principales attractions de la région touristique de Québec, dont la Citadelle et le Parlement, l'arrondissement du Vieux-Québec, le Château-Frontenac et la rue du Trésor, et la Place Royale et le Vieux-Port. De plus, le nouveau centre de congrès sera situé à 10 minutes en taxi de la station.

L'hôtellerie est fortement représentée dans le centre-ville de Québec avec plus de 2 738 chambres, soit la plus grande proportion d'hébergement varié offert dans la grande région de Québec, supérieure à ce qu'on peut retrouver en banlieues est et ouest.

Le milieu est stimulant pour les affaires et le commerce à cause des commerces du Mail Saint-Rock, d'édifices à bureaux et d'espaces de stationnement.

La venue prochaine d'autres établissements côtoyant le projet de La Grande Place de la Basse-ville, dont: le ministère de l'Environnement du Québec, l'École d'architecture de l'Université Laval et l'École navale au Vieux-Port vont renforcer encore plus ce choix de station de train rapide au centre-ville.

- **Une volonté de développer le Vieux-Port et la Basse-ville**

  La ville de Québec a adopté des politiques et des plans qui visent à favoriser la revitalisation du Vieux-Port et de la Basse-ville, notamment avec le plan directeur d'aménagement du Vieux-Port[1]. L'attrait de Québec comme destination touristique dépend de la qualité de l'expérience urbaine offerte aux visiteurs. À ce titre, le Vieux-Port aux abords de la Gare du Palais constitue un site stratégique. La gare TGV contribuerait à renforcer l'attrait du secteur et accélérerait la réalisation des investissements privés dans le secteur.

9.3.3 Une station près de l'aéroport de Québec présente peu d'avantages

- **Une gare ne contribuant pas à l'image de Québec comme destination touristique**

  Une station à proximité de l'aéroport de Québec ne donnerait pas une bonne et fidèle image de Québec. L'atmosphère de fête, l'affluence touristique et l'existence de services spécialisés contribuent à démontrer le dynamisme de l'organisation d'une communauté ou d'une ville. Ce ne serait pas le cas d'une station de banlieue près de l'aéroport de Québec car le secteur est éloigné des activités d'animation, n'a pas la diversité nécessaire au niveau de la restauration et n'offre pas d'attractions touristiques.

- **Risque possible d'étalement urbain**

  Malgré les politiques régionales déployées et soutenues par la CUQ et l'exercice des périmètres d'urbanisation qui auront tendance à limiter ce développement et à le consolider, l'arrivée d'une station de train rapide pourrait favoriser l'étalement urbain. Par exemple, la municipalité de Saint-Augustin-de-Desmaures, à l'ouest, qui a

[1] PLURAM inc., *Vieux-Port de Québec, Plan directeur d'aménagement,* mai 1979.

prévu une extension de son périmètre d'urbanisation pourrait bien connaître des changements majeurs au niveau du rythme d'accroissement de sa population et de ses activités de développement économique.

En effet, cette petite municipalité se trouve à proximité de l'éventuelle station près de l'aéroport et risquerait de voir multiplier ses possibilités de développement de son territoire tant industriel que commercial, en particulier à cause d'un taux de taxation plus bas qu'au centre-ville. Les secteurs de L'Ancienne-Lorette et de Sainte-Foy seraient également directement concernés et pourraient devoir répondre à une demande accrue en terrains pour divers types de développement.

9.3.4 Une station de banlieue dans le parc scientifique présente certains avantages

- **Une station de banlieue réduit la durée de certains trajets**

  Depuis la Gare centrale de Montréal, le trajet station à station aurait une durée d'une (1) heure jusqu'à une gare de banlieue à Québec, alors qu'il passe à une (1) heure dix (10) minutes pour accéder à la Gare du Palais. Pour un voyageur se dirigeant à Sainte-Foy en train rapide et en taxi depuis le centre de Montréal, un arrêt à Sainte-Foy du train rapide lui fait économiser vingt-cinq (25) minutes (10 minutes de moins en train et 15 minutes de moins en taxi) et la plus grosse partie du prix de la course. Le même exemple s'applique à un trajet vers la rive sud de Québec.

- **Une station de banlieue dans le parc scientifique de Québec serait très accessible par route**

  Contrairement à une station située près de l'aéroport de Québec, une station dans le parc scientifique serait facilement accessible. Elle bénéficierait de la proximité de l'autoroute Henri-IV donnant accès au pont Pierre-Laporte et de l'autoroute Charest.

- **Une station de banlieue dans le parc scientifique conférerait une image dynamique à la région**

  Une station dans le parc scientifique de Québec confirmerait le fait que Québec est une région à la pointe des derniers développements technologiques. Elle entraînerait des retombées positives pour le développement du parc déjà bien amorcé et pourrait être le point d'attrait du parc.

- **Sainte-Foy regroupe autant d'emplois dans le secteur des services que le centre de Québec**

  Le centre de la région de Québec n'a pas la même importance dans la région que celui de Montréal, Ottawa ou Toronto. Il accueille encore les fonctions les plus prestigieuses et est au coeur de l'attrait touristique de la région mais il n'a pas l'importance économique qu'il avait avant la croissance des services à Sainte-Foy qui compte maintenant plusieurs édifices à bureaux.

- **Une station de banlieue nuirait au dynamisme du centre-ville**

  Une station de banlieue attirerait une partie des déplacements qui auraient autrement transités par le centre-ville et contribués à son animation. Une station de banlieue diminuerait l'attrait du centre-ville pour la localisation de bureaux à proximité de la station puisque ceux-ci pourraient aussi se localiser à proximité de la station de banlieue.

- **Une station de banlieue augmenterait le temps de déplacement pour les voyageurs à destination du centre-ville**

  Une station de banlieue augmenterait quelque peu le temps de déplacement pour les voyageurs se dirigeant vers le centre-ville. Cependant, cette augmentation touche uniquement le temps de déplacement depuis et vers Québec puisque Québec est situé en bout de ligne du réseau[2].

[2] Dans le cas d'Ottawa, la situation est différente puisqu'un arrêt supplémentaire pénalise tous les déplacements du corridor passant par Ottawa.

QUEBEC CITY: ENGLISH SUMMARY OF KEY FINDINGS

Québec, with a CMA population of 645,550, is located at the eastern end of the corridor. It is the second largest centre in the Province of Québec. It is an important regional service centre and the capital of the province. Manufacturing activities are mostly concentrated in traditional and resource base sectors. Research activities associated with Laval University and various government funded centres are gaining in importance.

The population's growth outlook is moderate since it relies mostly on migration from other centres from within the province. Québec will continue to play an important role as a service centre with a large area of influence over Beauce, Saguenay/Lac-Saint-Jean, Côte-Nord and Gaspésie. Nevertheless, some of the more specialized functions in the area of business services and finance could move to Montréal in the future since many Francophone business leaders have now established their headquarters in Montréal, whereas historically the Francophone business leaders were largely concentrated in Québec City. Some government functions could also move to Montréal as its "clients" are located there. On the other hand, the outlook is good for research activities and tourism, which should continue to gain in importance.

It is argued that the HSR impact in Québec City will be positive because the relationship between Québec and Montréal will be modified by the increased accessibility. Québec may lose more in the area of specialized services with the HSR however, depending on the policies of the provincial government, it could retain some government functions that would have otherwise normally moved to Montréal. That is, HSR could permit the Montréal service firms to expand their influence in Québec, while the government activities based in Québec could increase their influence in Montréal.

HSR will have a very positive effect on tourism in Québec City. Québec is an attractive tourist and convention destination that is known all over the world yet surprisingly, it is not an important destination for Ontario visitors. HSR would reinforce the attractiveness of Québec City for Ontario and it could also encourage combined visits of Québec City and Montréal as part of the same trip.

HSR could also encourage the further growth of research activities as their linkages with other research centres would be improved. However, it is one more area that is more dependent upon government decision than on HSR itself.

Thus, the overall effects of HSR would be moderately positive and are somewhat influenced by station location issues.

Québec's placement at the end of the proposed HSR line has important implications for the location of an HSR station. The HSR station could serve as a point of transfer and departure point for eastern destinations that would be reached by train or bus. The HSR station could also be used as a departing point to reach Mirabel Airport in Montréal from communities located east of Québec. Links with the inter-city bus and conventional passenger rail is therefore an important issue for HSR station location.

There are two proposed locations for HSR stations in the Québec region, Gare du Palais and Ancienne-Lorette. The Gare du Palais is located in Old Québec "Basse-Ville" near the St. Lawrence river in the area described as the Old Port. The proposed Ancienne-Lorette station would be located near the Québec Airport in the western part of the region.

The Gare du Palais (existing VIA station) is a very attractive station located in the heart of Québec City, a popular tourist destination year round. The station is well connected to the regional road network and is adjacent to the inter-city bus terminal. It is possible to reach the provincial legislative building and government complex or Québec techno-park in 15 minutes by taxi from the Gare du Palais. For all these reasons, the Gare du Palais would be an advantageous location for an HSR station. The HSR would also help stimulate the revitalization of the Old-Port area for which a master plan has recently been prepared.

The Ancienne-Lorette station is not considered to be an appropriate site for a suburban station as it would not serve the overall region well. The establishment of a second station in Québec could bring about a further deconcentration of service activities away from the central area as these activities would prefer a location close to the HSR. The central area is presently facing competition from offices sub-centres throughout the City. The Sainte-Foy area in particular has equalled the central area in number of service jobs. If ridership forecasts demonstrate that there should be two stations in Québec, the merits of a station in Ancienne-Lorette would have to be compared to the merits of a station closer to Sainte-Foy which would offer a more central regional location.

10: DRUMMONDVILLE

Cet appendice contient un bref profil socio-économique de la région de Drummondville et de ses perspectives de croissance future. Les impacts possibles de l'absence d'une station du système de train rapide sont évalués.

Les conclusions de cet appendice sont les suivantes:

- Les perspectives de croissance de Drummondville sont modérées et dépendent de la modernisation du secteur industriel.
- Une station de train rapide n'aurait pas d'effet sur la croissance économique et peu sur les déplacements vers les autres centres.
- Le service de transport en autobus intercités devrait être amélioré si le train rapide ne dessert pas Drummondville.

Deux (2) chapitres sont inclus dans cet appendice portant sur la région de Drummondville:

- profil et perspectives socio-économiques;
- les effets de l'absence d'une station du système de train rapide sur l'agglomération de Drummondville.

10.1 PROFIL ET PERSPECTIVES SOCIO-ÉCONOMIQUES

Les industries manufacturières du secteur du meuble et du textile occupent une place importante dans l'économie régionale. Il en va de même pour le camionnage et le commerce de gros qui profitent de la position stratégique de Drummondville. Les activités du secteur des services et de celui de la recherche sont par contre peu développées.

Dans le contexte actuel de mondialisation, la croissance du secteur manufacturier dépendra de la capacité d'adaptation des entreprises de la région. Les perspectives d'ensemble pour la région devraient donc être modérées. De plus, à l'opposé de Trois-Rivières, Drummondville ne profite pas d'un statut de capitale régionale et de ville universitaire.

10.1.1 Drummondville est un centre manufacturier au coeur des axes Montréal - Québec et Trois-Rivières - Sherbrooke

- **Drummondville est une ville de taille moyenne**

  Avec 79 654 habitants, la région de Drummondville possède environ la moitié de la population de Trois-Rivières. C'est un centre de taille moyenne tout comme Saint-Hyacinthe ou Granby. Les besoins en transport de Drummondville sont donc moins importants qu'à Trois-Rivières.

- **Drummondville possède un secteur manufacturier en transformation**

  Le secteur manufacturier compte 31,3 % des emplois à Drummondville. Les activités sont de moins en moins concentrées dans le secteur textile autre fois dominant (la moitié des emplois industriels en 1972) et se déplacent vers les secteurs en croissance. L'industrie du meuble poursuit quant à elle sa transformation afin d'accroître sa compétitivité dans un contexte de mondialisation des échanges.

DRUMMONDVILLE SOCIO-ECONOMIC PROFILE

POPULATION/HOUSEHOLD DATA

	1986	1991	%Increase
Population	75,192	79,654	5.9%
			% Of Total
Population > 65		9,450	11.9%
Post Secondary Education		22,780	28.9%
University Degree		3,595	4.5%
Total Households		30,120	-
Average Household Income		35,086	-

LABOUR FORCE/EMPLOYMENT DATA

1991 Total Labour Force	38,965
1991 Employed Labour Force	34,775
1991 Unemployment Rate	10.8%

PROFILE OF EMPLOYMENT

	1991
Primary/MFG/Construction	46.7%
Services	21.7%
Government	4.6%
Transportation/Communication	5.0%
Retail/Wholesale	22.1%

Source: Statistics Canada

- **Drummondville est situé au coeur des axes Montréal - Québec et Sherbrooke - Trois-Rivières**

  La position centrale de Drummondville à l'intersection des autoroutes 20, entre Montréal et Québec, et 55, entre Trois-Rivières et Sherbrooke, confère à Drummondville une grande accessibilité. Le camionnage et le commerce de gros y occupent donc une place relativement importante.

  Cette facilité d'accès, combinée au faible coût de la main-d'oeuvre, en font un endroit propice pour la localisation d'activités manufacturières d'assemblage et de fabrication légère. De nombreuses industries exportent vers les États-Unis qui sont accessibles par l'autoroute 55.

10.1.2 Drummondville connaîtra une croissance modérée

- **La croissance de l'emploi sera faible**

  La modernisation des industries devrait entraîner des pertes d'emplois dans ce secteur, et ce même dans un contexte de croissance des activités.

  Globalement, la croissance de l'emploi dans la région devrait être modeste et sera largement dépendante des initiatives locales. Le secteur des services et sa composante des services gouvernementaux sont peu développés à Drummondville ce qui accentue la fragilité de l'emploi face à l'évolution de la conjoncture économique.

- **La population vieillira**

  Une faible croissance de la population est prévue. Avec le départ des jeunes vers les grands centres et la faible croissance démographique, le vieillissement de la population est prévisible.

10.2 EFFETS DE L'ABSENCE D'UNE STATION DU SYSTÈME DE TRAIN RAPIDE

L'absence d'une station du système de train rapide aurait des effets neutres sur Drummondville.

- **Drummondville profiterait du système malgré l'absence de station**

  Même en utilisant l'automobile ou l'autobus pour accéder au système à partir de Montréal, des économies de temps de déplacement seraient réalisées pour joindre Toronto à partir de Drummondville.

- **Peu d'économies de temps seraient réalisables avec une station à Drummondville**

  Pour joindre Québec ou Montréal depuis un accès au système à Drummondville, les économies totales de temps de déplacement seraient peu importantes. En cela, la situation de Drummondville est comparable à celle de Trois-Rivières. La distance entre Drummondville et Montréal ou Québec n'est pas suffisante pour que le temps économisé par le train rapide compense celui perdu pour accéder à la station depuis le point d'origine et de destination.

- **Les activités économiques de Drummondville ne sont pas dépendantes de liens rapides vers les centres-villes de Montréal ou Québec**

  Les services aux entreprises et les services gouvernementaux du type administration et enseignement ne représentent pas une composante importante de l'économie de la région. Comme ces activités sont les plus susceptibles de tirer profit de liens rapides vers les centres-villes de Montréal et de Québec, le train rapide apporterait peu d'avantages au plan de la croissance économique à Drummondville.

  Il faut savoir que la conclusion de cette analyse est différente pour Trois-Rivières, une capitale régionale et une ville universitaire. Il faut aussi noter que les activités de recherche sont plus développées à Trois-Rivières qu'à Drummondville.

- **Les services d'autobus devront être améliorés**

  Avec l'entrée en opération du train rapide, la liaison par train sur la rive-sud entre Montréal et Québec ne sera plus requise. En conséquence, Drummondville perdra son service de train. Idéalement, un service de qualité égale devrait être offert par une amélioration du service d'autobus.

La qualité du service de transport en commun local et intercités prendra de plus en plus d'importance avec le vieillissement de la population dans plusieurs des régions du Québec comme les prévisions pour Drummondville le démontrent. Dans ce contexte, l'amélioration de la qualité des services aux régions devrait demeurer une préoccupation importante des gouvernements suite à la mise en place du train rapide.

DRUMMONDVILLE: ENGLISH SUMMARY OF KEY FINDINGS

With a CD population of 79,654, Drummondville is about half the size of Trois-Rivières. Light manufacturing is the major industrial activity of that centre which has a moderate forecasted growth.

The absence of an HSR station to access HSR services will have no impact on the local economy which does not have an important service sector. Following the abandonment of the current rail service, the quality of the bus service will have to be improved.

11: HAMILTON CMA

This appendix provides a profile of the HSR effect on Hamilton. As the composite routes do not pass through Hamilton, the focus of this appendix is on the effects of by-passing Hamilton. Key conclusions are as follows:

- Hamilton is physically part of the Toronto-centred urban area. There is virtually a continuous line of urban development between Hamilton and Toronto so it is difficult to characterize interactions between these communities as "inter-city".
- Spillover growth from Toronto has, to an extent, offset the decline in Hamilton's manufacturing base. This trend is expected to play an increasingly important role in the outlook for Hamilton in creating substantial growth.
- By-passing Hamilton is unlikely to have any significant negative effects. This is because GO service to Union Station in Toronto would provide the Hamilton area with a direct connection to the HSR. Hamilton already enjoys excellent accessibility to other corridor centres.

The appendix is organized into two sections: socio-economic outlook and the effect of HSR on the Hamilton community.

11.1 SOCIO-ECONOMIC OUTLOOK

11.1.1 Closer Ties To Toronto Have Offset Effect Of Steel Industry Setbacks

- **Hamilton Is Located At The Centre Of The "Golden Horseshoe"**

  The Hamilton CMA is a community of almost 600,000 residents located at the western end of Lake Ontario. It is part of a predominantly urbanized area which extends along the shore of Lake Ontario from Oshawa to St. Catharines.

Hamilton's economic boundary overlap with Toronto's, makes it important to define specific geographic areas when reviewing socio-economic information. (Exhibit C-11.1)

- The *City of Hamilton* (population 320,000) is the central core area of this region and is located on the south side of Hamilton Harbour.

- The *Region Of Hamilton-Wentworth* (population 450,000) includes the surrounding suburban communities of Stoney Creek, Ancaster, Dundas, Glanbrook, and Flamborough.

- The *Hamilton CMA* (population 600,000) covers a larger area, with Burlington and Grimsby added to the region.

These distinctions are important because the proposed HSR station is located in Burlington, which, from a number of geographic perspectives, is not considered to be within "Hamilton".

- **Population Growth Has Been Cyclical**

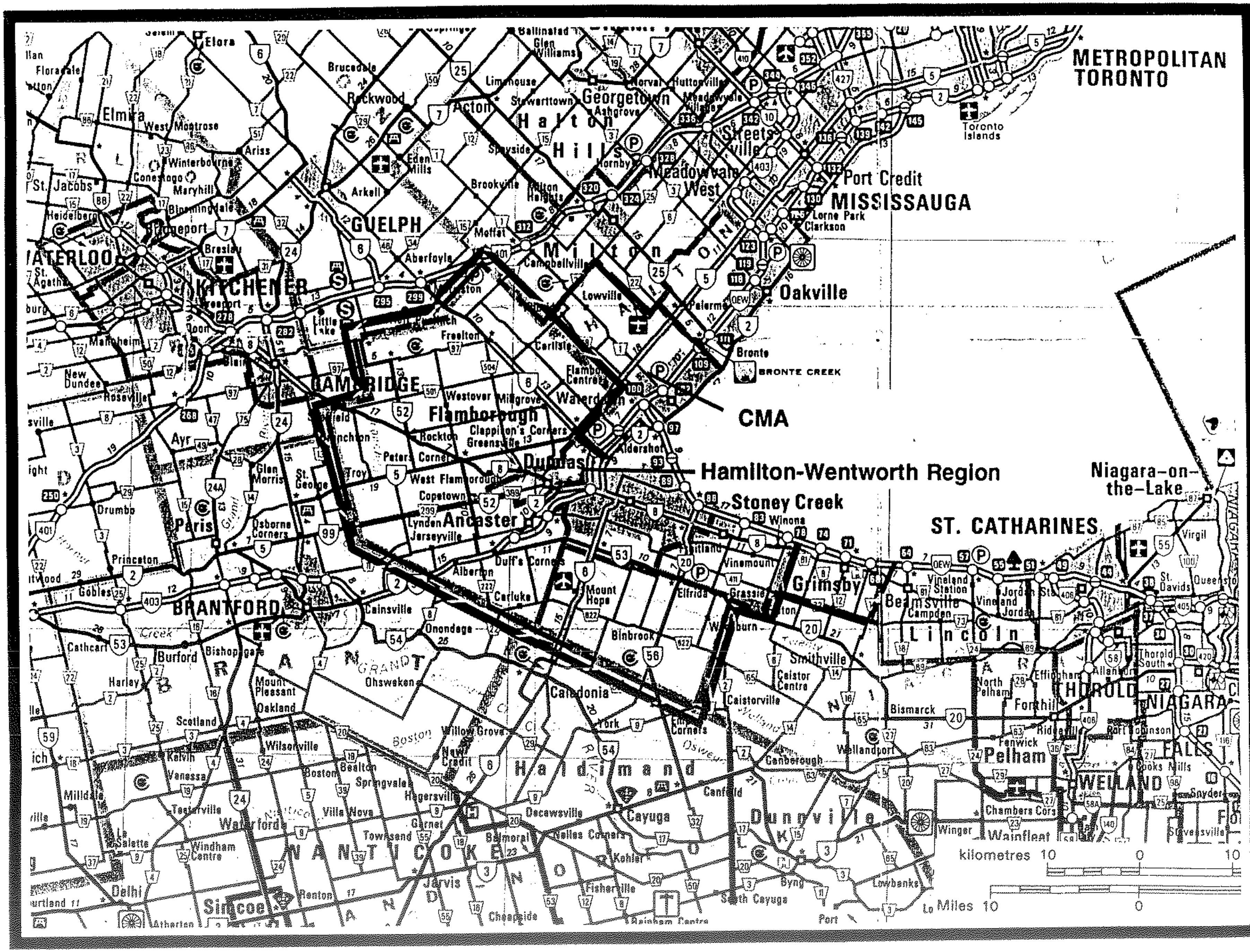
Hamilton's growth history has been cyclical as a result of two often counter-veiling forces. On one hand, the City's key steel industry has undergone tremendous restructuring with a corresponding reduction in employment and out migration. On the other hand, Hamilton's location adjacent to the fast-growing Toronto region has made it an attractive location for commuters who work within the western edge of the Toronto CMA.

- <u>Restructuring Manufacturing Has Fuelled Out Migration</u>

Hamilton is often referred to as "Steel Town" due to the presence of two major steel producers, Stelco and Dofasco. At their peak, these companies employed well over 30,000 employees. The last decade, however, has seen global competition force the steel industry to shrink. Between 1981 and 1986, the manufacturing sector of Hamilton's economy lost over 10,000 employees. This significant loss of employment resulted in out migration of Hamilton residents to other communities. At the same time, the restructuring resulted in other sectors, particularly services, increasing in importance.

Exhibit C11.1

HAMILTON REGIONAL SETTING



- Links To The Toronto Area Have Made Hamilton An Attractive Location For Commuters

  As the manufacturing sector was restructuring, growth in the western fringe of the Toronto CMA resulted in a fundamental shift in the relationship between Hamilton and Toronto. Commuting patterns have undergone a significant change since 1981 with particular significance for Burlington. Within this community, employees who previously worked in the City of Hamilton now focus on employment opportunities in Oakville and Mississauga (at the western edge of Toronto CMA). Commuting patterns show a dramatic shift in the direction of morning and evening traffic, increasing the integration and linkages between the Hamilton CMA and Toronto CMA.

This new relationship resulted in substantial population growth in the Hamilton CMA and, in particular, Burlington, which grew by over 10,000 residents over the past five years. Migrants to Hamilton have discovered an area that offers an attractive place to live, with lower average house prices and excellent accessibility to employment and other amenities of the Toronto Region. The impact of this migration trend is demonstrated by recent Statistics Canada reports which indicate that for every one Hamilton residents that moves to Toronto there is a corresponding two Toronto residents that move to Hamilton.

- **Employment Is Becoming More Diversified**

  The economic restructuring which has affected Hamilton has led to a more balanced economy with manufacturing now accounting for well under 30 per cent of total employment. This partly dispels the perception of Hamilton as a manufacturing community since it is now exceeded in manufacturing employment by a number of other communities, such as Kitchener-Waterloo, and Windsor. Socio-economic indicators for Hamilton are presented in Exhibit A-11.2.

11.1.2 Forecast Is For Increased Growth

Hamilton's location within the Golden Horseshoe will ensure that the considerable growth anticipated in Toronto will provide spill-over benefits to this community. There is ample capacity to accommodate growth in the Hamilton CMA and areas which are adjacent to the Toronto CMA will experience the greatest growth pressure.

- **Socio-Economic Forecasts Call For Growth In Hamilton**

  According to the socio-economic forecasts, population in the Hamilton CMA is anticipated to grow by a compound growth rate of 1.29 per cent annually over the next fifteen years which translates into an increase of over 100,000 new residents. In the longer-term, this growth is anticipated to continue and in fact accelerate. The same positive outlook is projected for household growth in the region with a total of 160,000 new households anticipated between now and the year 2025. (Exhibit C-11.2).

- **Hamilton Will Experience Moderate Employment Growth**

  The rate of employment growth is anticipated to increase at approximately 1.6 per cent annually, which results in a net increase of approximately 67,000 jobs over the next fifteen years. A longer-term outlook of employment is suggested at a lower rate (0.8 per cent annually) resulting in an additional 58,000 jobs.

- **There Is Ample Capacity To Accommodate Growth**

  Hamilton should not have difficulty accommodating this level of population and employment growth due to the large inventory of vacant land in the CMA, as well as a ready supply of water and sewage treatment capacity. This spillover growth will be focused in areas such as Burlington and Flamborough since these communities are nearest to the Toronto CMA.

The overall outlook for increased growth in Hamilton is somewhat of a departure from this community's historic pattern of "boom-bust" cycles. The increasing proximity of Toronto's developing fringe suggests that increased growth in the future is likely. This will reduce Hamilton's traditional reliance on the manufacturing (steel) sector and increase links between this community and the large diversified Toronto urban area. The overall outlook for this community is therefore positive.

HAMILTON CMA

Exhibit C11.2

POPULATION / HOUSEHOLD DATA			
	1986	1991	% Increase
Population	557,029	599,760	7.7%
	1986	% of Total	
Pop. >65	72,225	12.0%	
Postsecondary Education	146,630	26.3%	
University Degree	40,080	7.2%	
	1986	1991	% Increase
Total Households	201,325	221,315	9.9%
Average Household Income	45,682	50,407	10.3%

Source: Statistics Canada

LABOUR FORCE / EMPLOYMENT DATA			
1991 Total Labour Force			322,670
	1981	1986	1991
Employed Labour Force	260,136	271,470	293,845
	1991	15-24	25+
1991 Unemployment Rate	8.9%	14.9%	7.6%
1991 Participation Rate			67.7%

Source: Statistics Canada

EMPLOYMENT BY SIC				
	1981	1986	1986 Distribution	1981-1986 % Change
Primary/MFG/Construction	108,645	101,655	34.9%	-6.9%
Services	99,025	112,265	38.5%	11.8%
Government	10,830	12,020	4.1%	9.9%
Trans./Comm.	14,365	15,055	5.2%	4.6%
Retail/Wholesale	45,355	50,595	17.4%	10.4%

Source: Statistics Canada

REAL ESTATE INDICATORS	
	1992
Average House Price	$151,038
	1988-92 Annual Average
Res. Units Sold	9,454
Value of Construction (millions)	
Residential	$389,704
Industrial	69,818
Comercial	131,816
Institutional	73,209

Source: MLS, Statistics Canada

GROWTH OUTLOOK

	1992	2005	2025	1992-2005 Increase	1992-2005 Annual Growth	2005-2025 Increase	2005-2025 Annual Growth
Population	588,500	695,100	910,900	106,600	1.29%	215,800	1.36%
Household	218,900	279,600	383,200	60,700	1.90%	103,600	1.59%
Employment	282,600	349,500	408,000	66,900	1.65%	58,500	0.78%

Source: Socio-Economic Forecast

Note: Growth outlook data refers to a different geographical area than the CMA boundary. For this reason the forecast and historic data cannot be directly compared. However, the socio-economic forecast areas provide a good indication of growth trends in the urban area.

11.2 EFFECT OF HSR ON THE HAMILTON COMMUNITY

Hamilton's primary social and economic links are with Toronto, a linkage with an extremely high level of accessibility. By-passing Hamilton with the HSR would not affect this key linkage, and thus would have a modest effect on the growth prospects of Hamilton.

11.2.1 Linkages To Toronto Dominate Inter-City Travel

Consumer Contact did not survey the stretch of QEW highway between Hamilton and Toronto, and for this reason there is limited data concerning linkages between Hamilton and other corridor communities.

However, two factors suggest that Hamilton's relationships to other corridor communities are dominated by linkages to Toronto:

- Hamilton Has Merged With Toronto

  Many observers would suggest that Hamilton is really part of the large Toronto-centred urban region in south central Ontario. There is no break in the continuous urban development along the south shore of Lake Ontario in this area. With such small distances between Hamilton and Toronto there are numerous opportunities for social and economic interactions to take place between communities. It is difficult, in fact, to even characterize trips between Hamilton and Toronto as "inter-city" since there is virtually no rural vacant lands between these communities.

- Other Data Sources Indicate A High Degree Of Linkages

  Other sources, most notably Statistics Canada Place of Work and Migration data, show that there is substantial interaction between the Hamilton and Toronto CMAs.

As a result of this proximity, there are enormous linkages (particularly commuting) between Hamilton and Toronto. These linkages dominate Hamilton's inter-city travel patterns to other corridor communities.

11.2.2 Hamilton Would Be Well Connected To The HSR, Even Without A Station

Hamilton's strong relationship to Toronto, combined with the easy access between these two communities, suggest that an absence of HSR service would not significantly alter Hamilton's growth prospects. Hamilton already has frequent and reliable rail service to Union Station so the benefits of HSR service will accrue to Hamilton with or without an HSR station.

- **HSR Could Improve Accessibility, But People Will Still Drive To Key Destinations**

  The HSR could provide a modest improvement to accessibility between Hamilton and some other corridor centres. However, the key link between Hamilton and Toronto is unlikely to be improved because an HSR would offer little advantage to travellers who presently use their cars. It is simply easier to drive between these two communities.

- **Benefits Of HSR Will Be Realized Whether Or Not A Station Is Located In Hamilton**

  While the HSR experience in France suggests that there is a strong perceptual effect on community that are "on the line" and a negative association for those communities who are not, it is unlikely Hamilton's image would be adversely affected if it were not part of the HSR route. This is due to the ease of travel that already exists between Toronto and Hamilton which is facilitated by the QEW and Highway 403 and extensive GO transit service. This superior access suggests that, even without an HSR station located in Hamilton, it would be relatively easy for a passenger to board the GO Train at Burlington or Aldershot and then transfer to the HSR at Union Station. While the HSR could provide a faster link to Union Station, the time saving over this short distance would not be significant enough to fundamentally alter Hamilton's social or economic growth outlook. The fact that there is an existing GO Train service means that Hamilton will be well connected to the HSR, even if this community is by-passed during the route selection process.

* * * * *

Hamilton is a community which is likely to experience rapid growth over the next 20 to 30 years. This is because the developing fringe of the Toronto CMA has reached Hamilton with a corresponding increase in interaction between these two communities. This growth is likely to occur with or without an HSR service to Hamilton, particularly because there are already excellent linkages between Hamilton and Union Station. The existence of GO Train service means that even if Hamilton is by-passed in favour of an HSR route through Kitchener, the Hamilton community would still be well connected to the HSR system.