CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT
Environment & Sustainable Infrastructure Division

and

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Economic Development and Real Estate Division

TO: Mayor and Members General Issues Committee	**WARD(S) AFFECTED:** City Wide
COMMITTEE DATE: May 9, 2011	
SUBJECT/REPORT NO: Niagara to GTA Corridor Planning and Environmental Assessment Study - Phase 1, Draft Transportation Development Strategy (PW05054b/PED10213a) - (City Wide)	
SUBMITTED BY: Gerry Davis, CMA General Manager Public Works Department Tim McCabe General Manager Planning and Economic Development Department	**PREPARED BY:** Neil Everson (905)546-2424, Extension 2359 Alan Kirkpatrick (905)546-2424, Extension 4173
SIGNATURES:	

RECOMMENDATION

That the General Manager of Public Works be authorized to forward correspondence to the Ministry of Transportation (MTO) with regard to the *Niagara to GTA Corridor Planning and Environmental Assessment Study, Phase 1 - Draft Transportation Development Strategy Report* and indicate:

(a) That the City of Hamilton supports the previous City Council motion approved on October 13, 2010, Report PW05054a/PED10213, as amended, with the following resolution:

(i) That based on previously identified economic impact analysis for the City of Hamilton and surrounding area including the endorsement of the Southern Ontario Gateway Council (SOGC), the Hamilton Chamber of Commerce, the Hamilton International Airport and the Hamilton Port Authority, that the construction of a Niagara to GTA multi-modal corridor be identified as the preferred option and that the Ministry of Transportation (MTO) be required to continue and accelerate their investigation, analysis and provision on an appropriate location for this corridor;

(ii) That the City of Hamilton supports the Study's "Group 1" concept of optimizing the existing transportation network and encourages the MTO to accelerate the implementation of these concepts;

(iii) That the City of Hamilton support the Study's "Group 2" concept that New/Expanded Non-Road Infrastructure and encourage the MTO to accelerate the implementation of these concepts with specific emphasis on:

1. GO Transit Lakeshore extension to downtown Hamilton
2. Port of Hamilton Infrastructure Development Strategy (including the Sea3 – container feeder service between Hamilton and Montreal) and the integration and utilization of Multi-modal Goods Movements infrastructure
3. Promoting the expansion of the existing taxiways and terminal at the Hamilton International Airport
4. A Hamilton-focused Inter-regional transit service
5. Transit-supportive highway corridor improvements
6. Inter-regional Transit links between Hamilton an other Urban Centres

(iv) That the City of Hamilton continues to express concerns with regard to the capacity of Highway 403 within its boundary, and that improvements should be accelerated sooner than the "Group 3" timing and any potential impact to the Niagara escarpment or possible restrictions or impacts with the City's current plans to provide Light Rail Transit (LRT) infrastructure should be addressed to ensure impacts are mitigated and costs minimized to the extent feasible;

(v) That the City of Hamilton has concerns that the Study has not identified a direct transportation system connection to the Niagara area from the Airport Employment Growth District (AEGD) area;

(vi) That the MTO confirms the required right-of-way needs for Highway 6, adjacent to the AEGD, to ensure that the capacity of the road can be provided to accommodate the projected traffic and goods movement volumes on this stretch of road;

(vii) That the City of Hamilton continues to have concerns with transportation projections in the study that will result in the use and increasing congestion of roadways under the jurisdiction of the City without consideration for operational and maintenance costs that would be borne solely by the City as a result of this additional traffic.

EXECUTIVE SUMMARY

The City of Hamilton has been actively participating in the Niagara to GTA Corridor Planning and Environmental Assessment Study, Phase 1 - Draft Transportation Development Strategy since 2006, through meetings and reviewing documents.

The Ministry of Transportation (MTO) has published their Niagara to GTA Corridor Planning and Environmental Assessment Study, Phase 1 - Draft Transportation Development Strategy Report on March 7, 2011 and commenced the ninety-day (90) public review period, ending June 6, 2011.

Over the duration of the Phase 1 study, the MTO has maintained their four (4) "Group" approach, including:

- **Group #1:** Optimizing the existing transportation network and supporting Metrolinx and Smart Commute in expanding their TDM programs
- **Group #2:** Improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the *Regional Transportation Plan* by Metrolinx and *GO 2020 Plan*
- **Group #3:** Strategic highway widening on sections of Highways 6, 401, 403, 407, and the QEW
- **Group #4:**
    - Further study for operational improvements along Highway 403 through Hamilton and Highway 6 south of Highway 401
    - Additional focused analysis (to be completed prior to finalizing the Transportation Development Strategy) to assess and evaluate the relative advantages and disadvantages of widening Highway 403 through Hamilton, a new corridor from Highway 403 to Highway 401 and the identification of advantages and disadvantages of the transportation options and corridor alternatives in the Hamilton-Halton area.
    - Proceed into Phase 2 of the Environmental Assessment to identify a preferred route for connecting Highway 406 in the Welland area to the QEW between Highway 420 and Fort Erie. MTO to monitor growth patterns and transportation system performance to determine when a new transportation corridor between Hamilton and Welland will be required.

It is staff's opinion that the MTO is taking an altered approach to the way they intend to deal with the Group #4 proposed corridor. The draft Transportation Development Strategy states, "*Given the demonstrated need for additional roadway capacity, the complexity and inter-relationship of the environmental, social and economic factors in this area and in response to the stakeholders feedback received during and subsequent to the fourth round of Public Information Centres regarding these factors, it has been determined that more focused analysis and assessment should be undertaken to better understand and compare the relative advantages and disadvantages of the transportation options and corridor alternatives in the Halton-Hamilton area. Notwithstanding the above, in the short-term, a review of traffic operations to optimize the efficiency of this section of Highway 403 is recommended*". (Study is attached as Appendix "B"). It should also be noted that the City continues to receive complaints from the private sector regarding the difficulties with goods movement and suggests that the required studies be undertaken and the corridor provided as soon as practical.

It is recommended that the City of Hamilton submit comments to the MTO on this draft report restating our previous position approved by City Council on October 13, 2010, preferring the MTO take the necessary accelerated steps towards providing a corridor for an improved transportation and goods movement network in the appropriate location based on additional studies, analysis and public consultation.

This report has been prepared to authorize the General Manager of Public Works to correspond with the MTO by June 6, 2011, with the City of Hamilton's comments.

Alternatives for Consideration – See Page 11

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial: The extent of City's financial involvement has yet to be determined as this is an inter-regional transportation system planning exercise dealing mainly with the province's inter-regional transportation system infrastructure. However, subject to final decisions on the transportation system corridor needs, there could be some impacts to the City of Hamilton's transportation infrastructure as some additional traffic may utilize the City's roadways.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

The Committee will recall Report PW05054a/PED10213, Niagara to GTA Corridor Planning & EA Study, dated October 12, 2010, that was approved by City Council on October 13, 2010 (report attached as Appendix "A"), that summarized the Ministry of Transportation's (MTO) Draft Niagara to GTA Corridor Planning and EA Study and the recommended position of the City of Hamilton to:

a) Pursue the required additional studies to implement the Corridor as a priority
b) Optimize the existing transportation network
c) Provision of New/expanded, non-road infrastructure
d) Provision of widened/improved highways

The Niagara to GTA (NGTA) Corridor Planning and Environmental Assessment (EA) Study is a planning study that is considering various options to expand the capacity of the inter-regional transportation system, between the Niagara Gateway and the Greater Toronto Area by 2031. It is suggested that the MTO undertake their investigation and detailed analysis of the required infrastructure and improvements of existing facilities over a much longer time period, i.e. fifty years (50) versus the twenty (20) year time horizon.

The transportation infrastructure of the NGTA is considered to be vitally important to the on-going economic success and prosperity of the area through the efficient movement of commuters as well as goods and services within the area, and also to markets in the Niagara Gateway, Quebec and beyond. The Ontario/Quebec transportation corridor is of specific importance to this area. The City of Hamilton is in the centre of one of the fastest growing regions in North America and requires a dynamic transportation system. Therefore, in order to support continued economic growth and manage increased transportation demand, innovative improvements and major capital investments are required to the transportation network.

The MTO released their *Niagara to GTA Corridor Planning & Environmental Assessment Study – Phase 1, Draft Transportation Development Strategy Report* on March 7, 2011 for the ninety-day (90) public review period, ending June 6, 2011. The draft strategy includes the following elements:

- **Group #1:** Optimizing the existing transportation network and supporting Metrolinx and Smart Commute in expanding their TDM programs.
- **Group #2:** Improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the *Regional Transportation Plan* by Metrolinx and *GO 2020 Plan*.
- **Group #3:** Strategic highway widening on sections of Highways 401, 407, 403, 6, and the QEW.
- **Group #4:**
    - Further study for operational improvements along Highway 403 through Hamilton and Highway 6 south of Highway 401.
    - Additional focused analysis (to be completed prior to finalizing the Transportation Development Strategy) to assess and evaluate the relative advantages and disadvantages of widening Highway 403 through Hamilton, a new corridor from Highway 403 to Highway 401 and a new corridor from Highway 403 to 407 ETR.
    - Proceed into Phase 2 of the Environmental Assessment to identify a preferred route for connecting Highway 406 in the Welland area to the QEW between Highway 420 and Fort Erie. MTO to monitor growth

patterns and transportation system performance to determine when a new transportation corridor between Hamilton and Welland will be required.

The revised recommendation in the draft Transportation Development Strategy (TDS) Study, Phase 1, are essentially the same for Groups #1, 2 and 3, while the Group #4 (above) has been altered from the previous:

Group 4 includes all of the elements from Group 1 and Group 2 and potentially some of the highway widening identified in Group 3, as well as the following new corridor alternatives:

- *New corridor connecting either:*
  - *QEW in Fort Erie / Niagara Falls area to Highway 403*
  - *QEW in Fort Erie / Niagara Falls area to Highway 401*
  - *QEW in Fort Erie / Niagara Falls area to Highway 407*
  - *QEW in Fort Erie / Niagara Falls area to Highway 6*
- *Upgrade or widening of Regional Road 20 with potential bypasses of settlement areas such as Smithville, Fonthill, etc*
- *Upgrade or widening of Highway 406 connecting to a new corridor between Highway 406 and QEW south of Niagara Falls*
- *Combination of new and existing corridors to provide bypass around urban core of the City of Hamilton*

The NGTA Environmental Assessment Study – Phase 1, Transportation Development Strategy, maintains the concept of four (4) groups of options to address the future traffic demands. In general terms, the groups include:

Group 1 - Optimize the Existing Roadway Networks

Develop an Active Traffic Management Strategy that improves performance of the existing transportation system by reducing demand and improving system efficiency.

Comment: Staff also suggest that the MTO expand their "COMPASS" Transportation Management System (overhead, changeable message signs and cameras currently seen on area highways) to provide motorists with traffic/road conditions. This system should be expanded to the "LINC", Red Hill Valley Parkway and Highway 403 and be funded by the MTO.

Group 2 - New/Expanded Non-Road Infrastructure

Focus on improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the Metrolinx - Regional Transportation Plan (RTP) and GO 2020.

The transit recommendations embodied in the *RTP* as well as *GO 2020* strategic plan illustrate the MTO plans to making transit a viable alternative to the automobile.

Group 2 includes significant transit, air and marine service expansion initiatives envisioned by the *RTP* and *GO 2020*, i.e. Hamilton International Airport (HIA) and Port of Hamilton that serve the study area.

Comment: The study makes reference to establishing Carpool lots to facilitate additional commuting opportunities. The MTO and municipalities should coordinate their efforts in the future to achieve this goal

The Hamilton focused Inter-Regional Transit Service and Linking the urban areas to access Hamilton employment districts identifies connections to the west in such areas as Kitchener, Waterloo, Brantford, and Guelph but does not make reference to the Niagara area. The report should strengthen this point.

Group 3 - Widen/Improve Roads

Widening roads and planning multi-use transportation corridors, which will provide opportunities for transit initiatives identified in the RTP and GO 2020 plan.

The trade-offs between roadway widening and new corridors are challenging and complex. Widening the existing highways can have an impact on neighbouring communities; however, impacts are focused in existing corridors. New corridors will have a larger footprint impact on the undisturbed environment. Subsequent studies will consider how mitigation efforts can be investigated to provide new economic development opportunities while protecting the adjacent communities and the environment.

Group 4 - New Transportation Corridors

The study recommends that corridors for the new highways be studied further and protected for the future. Construction of proposed corridors is forecast only after Groups 1, 2 and 3 options are implemented and the transportation network is still at capacity. Considerations for new corridors include connecting Highway 406 to the QEW in the Niagara area and a new corridor connection from Highway 403 in Hamilton to Highway 407 in the Region of Halton.

Details on exactly where these highway connection points will be located would occur in subsequent phases:

- Upgrade or widening of Regional Road 20 with potential bypasses of settlement areas such as Smithville, Fonthill, etc
- Upgrade or widening of Highway 406 connecting to a new corridor between Highway 406 and QEW south of Niagara Falls
- Combination of new and existing corridors to provide bypass around the urban core area of the City of Hamilton

Notwithstanding these proposed improvements, by the year 2031, roadway congestion will still exist, particularly at the Burlington Skyway, St. Catharines Garden City Skyway and the Freeman Interchange.

To ensure a functional transportation system that provides user choice and balance, additional roadway capacity will be required; either by widening existing highways (Group 3) and/or protecting for new transportation corridors (Group 4).

The TDS will include recommendations for Group 3 and/or Group 4 that will include the MTO's "transit first" priority during implementation.

The proposed new corridor will divert a significant amount of inter-regional traffic from existing facilities, but future congestion issues will remain in some areas, necessitating some highway widening. The containment of future trips within municipalities and future transit ridership are not significantly affected by any of the alternatives.

Summary of NGTA EA Study – Phase 1, Transportation Development Strategy

The MTO's "The Niagara to GTA (NGTA) Corridor Planning and Environmental Assessment (EA) Study, Phase 1 – Transportation Development Strategy" has identified the process the MTO has undertaken and the options the MTO has been considering to address the future transportation system in this area, i.e. Groups 1, 2, 3 and 4 and the three geographic areas.

It is evident that additional roadway capacity is required to realize the vision and transportation needs of the Niagara to GTA Corridor. The study faces the challenging task of deciding whether to widen the existing highways and/or protect for new transportation corridors. Each option presents challenging and complex trade-offs:

- Alternatives for widening existing highways:
    - Make good use of existing transportation infrastructure and maintain origin and destination patterns
    - Provide the capacity to accommodate long-term inter-regional transportation needs to 2031
    - Provide limited flexibility to accommodate growth beyond the planned and projected future
    - Limited system redundancy in the highway network
    - Require significant expansion to the Burlington Skyway, Garden City Skyway and Freeman interchange
    - Would result in unavoidable impacts to adjacent natural and community features, including significant displacements along the QEW through St. Catharines and along Highway 403 through Hamilton
    - Result in widening of existing corridors through the Niagara Escarpment
- Alternatives for new transportation corridors may still require widening of some provincial facilities and would therefore result in some of the impacts associated with Group 3. In addition, new transportation corridors:
    - Provide the capacity and flexibility to accommodate the long-term inter-regional transportation needs to 2031 and well into the future
    - Provide enhanced system redundancy and choice in the transportation network

- Provide superior economic growth and development opportunities through an enhanced trade corridor connecting the GTA to the Niagara Frontier and markets in the United States
- Result in potentially extensive impacts to greenfield areas, including significant changes to the character and use of undisturbed rural areas, as well as displacement and severance of agricultural lands
- Potentially impact undisturbed natural habitats, but also provides the opportunity to minimize and avoid important natural and built features through route planning
- Would potentially require a new crossing of the Niagara Escarpment
- Are generally more costly alternatives to construct

Staff are recommending that the construction of a Niagara to GTA multi-modal corridor be identified as the preferred option, instead of the last possible alternative currently recommended in the MTO's Planning & EA Study. Additional studies, analysis, alternatives and public consultation will be required during this process to identify the appropriate location for the proposed corridor.

Appendix "C" is a recent letter from the Ministry of Transportation, which identifies the Ministry's release of the draft Transportation Development Strategy report. It is also noted, that the study team is responding to the public's desire for further analysis and consultation. *"This further study is expected to take 1 – 2 years following the 90-day review period for the draft Strategy report. We invite public comment at this time on the entire draft Strategy report as well as on the recommendation for further study of the Hamilton-Halton section of the study area."*

POLICY IMPLICATIONS

As a result of the current stage of the NGTA Corridor Planning and Environmental Assessment Study, there are no policy changes identified at this time. However, as the MTO continues to develop future inter-regional transportation system plans that influence and impact the City of Hamilton, transportation, traffic, economic development and land use planning policies will be affected.

The City's involvement in the NGTA Corridor Planning and Environmental Assessment Study supports the Public Works Business Plan, "Innovate Now": through sustainable infrastructure planning to enhance business and employment opportunities, to be a leader in the greening and stewardship of the City with the protection of the Niagara Escarpment, improved air quality, protection of other natural resources and to engage the community in the awareness of future services and programs that could affect their quality of life.

RELEVANT CONSULTATION

The NGTA Study has been underway since 2005, at which time a NGTA Staff Advisory Committee was organized. This Committee is comprised of representatives from the

Planning Department (Economic Development and Real Estate), Strategic Services - Special Projects, Growth Management, Public Health Department (Chronic Disease Prevention - Child and Youth), and Public Works Department (Traffic, Transportation and Environmental Planning). This group met on an as-needed-basis and also met with representatives from the *Niagara to GTA Corridor Planning and Environmental Assessment Study* project team on occasion to provide comments and feedback as the project proceeded.

Public Works Engineering Strategic Planning	Public Works staff supports the direction identified in this report and acknowledges future collaboration required to integrate the City's transportation network plans with the MTO's plans. Staff are encouraged and supportive of additional public transit opportunities and specifically the Hamilton focussed Inter-Regional Transit Feasibility Service
Public Health	Public Health staff support the direction of the report endorsing any programs that promote active transportation initiatives and the need to address the impacts of new transportation facilities on the community's health
Growth Management Business Development	Planning staff supports the direction identified in this report and the key connections to facilitate transportation infrastructure as it relates to population growth, increased employment and improved goods movement.

Staff are aware of the position of the Southern Ontario Gateway Council and the Chamber of Commerce on their position on the proposed corridor. Both groups representing the community's business interests are in favour of providing the corridor for goods movement sooner than later. In addition, staff is also aware of the position of Citizens groups, such as; "Citizens Opposed to Paving the Escarpment" (COPE), that are against any corridor, east of Highway 403, through Flamborough, to Highway 407 in the Region of Halton.

ANALYSIS / RATIONALE FOR RECOMMENDATION

The previous Council resolution recommended that the construction of a Niagara to GTA multi-modal corridor be identified as the preferred option, instead of the last possible alternative currently recommended in the MTO's Planning and EA Study. The absence of a multi-modal corridor from the GTA to Niagara significantly compromises Hamilton's economic growth potential as identified in an "Economic Impact Analysis Study" jointly prepared by the City of Hamilton and the Region of Niagara in 2006.

The TDS Study's Group 1 and 2 steps have identified development of an active traffic management strategy that improves performance of the existing transportation system by reducing demand and improving system efficiency. The Study also identifies improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the Regional Transportation Plan (RTP) and GO 2020.

Issues of concern involving Groups 3:

- widening highways, including potential escarpment crossings
- widening of Highway 403 and potential impacts to the City's proposed Light Rail Transit system crossing Highway 403,
- no corridor identified adjacent to Airport Employment Growth District (AEGD)

The required number of lanes to address future traffic projections and goods movement on Highway 6, adjacent to the AEGD, could result in the use of the City of Hamilton's transportation infrastructure being utilized instead of new provincial infrastructure without any compensation identified for the City.

ALTERNATIVES FOR CONSIDERATION

The MTO has undertaken an extensive public consultation and stakeholder process to explain the Niagara to GTA Corridor Planning and Environmental Assessment Study and requested feedback and comments throughout. Staff are recommending that the General Manager of Public Works be authorized to forward comments contained in Report PW05054a/PED10213b to the MTO to be considered and included in the process and their final decisions.

If Committee and Council decide not to forward comments to the province on this study, the province will continue with their planning process on the NGTA and not incorporate the City of Hamilton's concerns in their work plans.

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Financial Sustainability

- Effective and sustainable Growth Management
- Full life-cycle costing for capital
- Address infrastructure deficiencies and unfunded liabilities
- Generate assessment growth/non-tax revenues
- Sustainable Tri-parti Government Agreement

Intergovernmental Relationships

- Influence federal and provincial policy development to benefit Hamilton
- Acquire greater share of Provincial and Federal grants (including those that meet specific needs)
- Maintain effective relationships with other public agencies

Growing Our Economy

- Newly created or revitalized employment sites
- Competitive business environment
- A skilled and creative labour pool that supports new employers

Social Development

- Hamilton residents are optimally employed earning a living wage
- Residents in need have access to adequate support services

Environmental Stewardship

- Natural resources are protected and enhanced
- Reduced impact of City activities on the environment
- Reduce the impact of Hamilton's industrial, commercial Private and Public operations on the environment
- Aspiring to the highest environmental standards

Healthy Community

- Plan and manage the built environment
- An engaged Citizenry

APPENDICES / SCHEDULES

Appendix “A”: Report PW05054a/PED10213
Appendix “B”: NGTA – Transportation Development Strategy – Executive Summary
Appendix “C”: Letter from Ministry of Transportation Re: NGTA Corridor Planning & EA Study

Hamilton

APPENDIX "A"
PW05054b/PED10213a

CITY OF HAMILTON

PUBLIC WORKS DEPARTMENT
Environment and Sustainable Infrastructure Division

and

PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Economic Development and Real Estate Division

TO: Mayor and Members Committee of the Whole	**WARD(S) AFFECTED:** CITY WIDE
COMMITTEE DATE: October 12, 2010	
SUBJECT/REPORT NO: Niagara to GTA Corridor Planning and EA Study Update (PW05054a/PED10213) - (City Wide)	
SUBMITTED BY: Gerry Davis, CMA General Manager Public Works Department Tim McCabe General Manager Planning & Economic Development Department	**PREPARED BY:** Alan Kirkpatrick (905) 546-2424, Extension 4173 Neil Everson (905) 546-2424, Extension 2359
SIGNATURE:	

RECOMMENDATION

That the General Manager of Public Works be authorized to forward correspondence to the Ministry of Transportation (MTO) with regard to the *Niagara to GTA Corridor Planning and Environmental Assessment Study*, and indicate:

(a) That based on the economic impact analysis already conducted, the endorsement of the Southern Ontario Gateway Council (SOGC), the Hamilton Chamber of Commerce, the Hamilton International Airport and the Hamilton Port Authority, that the construction of a Niagara to GTA multi-modal corridor must be identified as the **preferred option** instead of the last possible alternative currently recommended in the Province of Ontario's Planning & EA Study;

(b) That in principle, the City of Hamilton supports the Study's "Group 1" concept of optimizing the existing transportation network prior to undertaking additional work;

(c) That in principle, the City of Hamilton supports the Study's "Group 2" concept that New/Expanded Non-Road Infrastructure be implemented;

(d) That not withstanding Highway 403 capacity issues through Hamilton, the City of Hamilton has concerns with the proposed widening of Highway 403 identified in "Group 3" with regard to potential impacts on the Niagara Escarpment and any improvements that would conflict with the City's current plans to provide Light Rail Transit (LRT) infrastructure across this corridor in the King Street and Main Street areas;

(e) That the City of Hamilton has concerns that the Study has not proposed a direct transportation system connection to the Niagara area from the Airport Employment Growth District (AEGD) area;

(f) That the City of Hamilton has concerns that the Study is suggesting that Highway 6, adjacent to the AEGD, be protected for four-lanes, when a previous MTO pre-design report suggested that this highway section be six-lanes;

(g) That the City of Hamilton has concerns with transportation projections in the study that will result in the use of roadways under the jurisdiction of the City without consideration for operational and maintenance costs that would be borne solely by the City as a result of this additional traffic;

(h) That prior to the MTO finalizing their current NGTA Corridor Planning and Environmental Study, Ministry representatives provide a presentation to the Committee of the Whole.

EXECUTIVE SUMMARY

Today, the majority of Canada-US trade remains on the Highway 401 corridor to Detroit. However, the North American auto industry continues to change and Michigan /Ohio are no longer the "centre of the automobile universe". What has now resulted is an increased demand for a north-south corridor from the GTA to Upstate New York and connecting to the Corridor 1 Route from Buffalo to the southern United States. This is supported by the addition of extra commercial traffic lanes and capacity planned for both the Lewiston/Queenston and Buffalo/Fort Erie crossings.

The role of transportation in business location decisions is critical for industries focused on supply chains and just-in-time production. This has recently been evidenced locally with the location of companies like Canada Bread, Tim Horton's Coffee Roasting Facility and Parrish & Heimbecker. In economic development, business location and growth is the principal driver for jobs and prosperity. The absence of a multi-modal corridor from the GTA to Niagara significantly compromises Hamilton's economic growth potential as identified in an "Economic Impact Analysis Study" jointly prepared by the City of Hamilton and the Region of Niagara in 2006.

The Ministry of Transportation (MTO) is currently undertaking a detailed review of the transportation system needs in the Niagara to Greater Toronto Area (NGTA) corridor. The *Niagara to GTA Corridor Planning and Environmental Assessment Study* is a comprehensive planning process to investigate, evaluate and present preferred options to address the forecasted transportation impacts as a result of continued growth in the area and to support the projected population and employment demands. This area is the central point and key link for one of the fastest growing areas in North America. In order to foster continued prosperity, a sustainable transportation system must include a wide-variety of features to support the economic growth but also be sensitive to environmental and social impacts that growth includes.

The NGTA Corridor Planning and Environmental Assessment Study is presenting a range of suggested improvements, referred to as "Groups", with the understanding that the process would undertake and implement a group and not move to the next group until a need has been demonstrated and further investigation is conducted. Overall, the study acknowledges that the transportation system will experience forms of congestion, but will not move into a new group until justified. However, some of the solutions require long-term planning that could involve widened corridors and/or new corridors. These improvements need to be identified now so that details can be worked out and land set aside for future uses. If appropriate actions are not taken early-on, opportunities could be lost resulting in unnecessary processes required in the future for the corridors.

Staff supports the majority of the Group 1 and 2 solutions that the study has identified as being useful and meaningful. However, staff is recommending that the MTO pursue their "Group 4" concept as the preferred option to deal with the identified future traffic issues and the economic development opportunities resulting from a new corridor. Issues of concern involve Group 3 options dealing with the Niagara Escarpment crossings; potential widening of Highway 403; potential impacts to the City's proposed Light Rail Transit system crossing Highway 403; that a corridor adjacent to Airport Employment Growth District (AEGD) has not been identified; that Highway 6, adjacent to the AEGD, is planned for four lanes instead of 6 lanes and that some of the future transportation forecasts in the study could result in the use of the City of Hamilton's transportation infrastructure being utilized instead of new provincial infrastructure without any compensation identified for the City.

The City is aware that the NGTA Corridor Planning and Environmental Assessment Study project is undertaking an extensive public consultation process and including key stakeholder groups. Both the Hamilton Chamber of Commerce and the Southern Ontario Gateway Council have expressed concerns to the MTO and City with regard to the study's purpose, timelines, options and preferred solutions.

This report is summarizing the current status of the NGTA Corridor Planning and Environmental Assessment Study project and recommends that the City's concerns be identified and documented for the province prior to the preparation of a final report on this phase and moving onto subsequent phases. Staff is recommending that a

representative from the MTO be requested to make a presentation to the Committee to provide additional information and answer Committee's questions.

Alternatives for Consideration - See Page 17

FINANCIAL / STAFFING / LEGAL IMPLICATIONS

Financial: Extent of City's financial involvement has yet to be determined as this is an inter-regional transportation system planning exercise dealing mainly with the province's inter-regional transportation system infrastructure. However, subject to final decisions on the transportation system corridor needs, there could be some impacts to the City of Hamilton's transportation infrastructure as some additional traffic may utilize the City's roadways.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

On July 12, 2006, Hamilton City Council approved the participation in a joint study with the Niagara Region Economic Development Corporation to prepare an Economic Impact Analysis Study for the development of a transportation corridor from the GTA to the Niagara Region. City Council additionally approved a $100,000 contribution to the study that was conducted by Wilbur Smith Associates of South Carolina - the leading authority on "High Priority Corridors" and their impact on growth and job creation.

On September 26, 2007, a presentation was made to Committee of the Whole by Wilbur Smith regarding the findings and recommendations from the completed study. The study identified the economic benefits of building the Niagara-GTA corridor and the opportunity costs of doing nothing. The following are some of the highlights from the study (attached as Appendix "A"):

- Within 15 years after completion of the corridor, the economic development opportunities are estimated at 76,000 - 101,000 new jobs and $2.6 - $3.2 billion in new income.
- During the construction period the Hamilton–Niagara region could increase employment from 4,500 to over 9,000 a year for the 5 year construction with annual income benefits of $350 - $675 million.
- The corridor is just not about attracting new business and investment. It is preventing the loss of existing businesses. The study identified that failure to construct the Niagara-GTA corridor with highway and rail capacity would result in the loss of $2.4 billion in income and more than 30,000 jobs in Hamilton and Niagara by 2030.
- The study recommended a Hamilton and Niagara regional approach that integrates transportation, land use and quality of life. In order to implement this, it

requires the following; 1) development of a market vision, 2) a regional leadership, 3) establishing private sector collaboration, 4) make a long term financial commitment, and; 5) adopting a regional strategic plan for the integration of transportation and land use planning

This joint initiative with Hamilton and Niagara along with the Economic Impact Analysis Study resulted in Economic Development representatives from both Niagara and Hamilton sitting as members of the Province's Municipal Executive Advisory Group for the Niagara to GTA Corridor Planning & Environmental Assessment Study.

The Niagara to GTA (NGTA) Corridor Planning and Environmental Assessment (EA) Study is a planning study that is considering a wide variety of options to expand the capacity of the inter-regional transportation system between the Niagara Gateway and the Greater Toronto Area by 2031. This study has been divided into three zones;

East - Fort Erie, Welland, Niagara Falls and St. Catharine's
Central - West Niagara to Stoney Creek/Hamilton
West - Hamilton, Burlington, Oakville

The transportation infrastructure of the NGTA is considered to be vitally important to the on-going economic success and prosperity of the area through the efficient movement of commuters and goods and services within the area and also to markets in the Niagara Gateway, Quebec and beyond. The City of Hamilton is in the centre of one of the fastest growing regions in North America and requires a dynamic transportation system. Therefore, in order to support continued economic growth and manage increased transportation demand, innovative improvements and major capital investments are required to the transportation network.

The following chart illustrates the projected growth in population, employment and traffic in the GTA for 2031:

Projected Growth in the NGTA Corridor, 2001-2031
(Draft Area Transportation System Problems and Opportunities Report)

	2001	2031	% Change
Population	1,277,000	1,853,000	45%
Employment	570,000	874,000	53%
Total PM* Peak Period Person Trips	686,264	1,107,418	61%
PM* Peak Period Auto Trips	536,489	814,590	52%
PM* Peak Period Transit Trips	27,625	79,701	189%
PM* Peak Period Transit Mode Share	4%	7%	75%

* refers to afternoon/evening
Source: GGH Model land use allocation and trip data, October 2008

Phase 1 of the NGTA study, initiated in December 2006, examined transportation problems and opportunities the area will be faced with to 2031. Phase 1 of the study

examined all modal options to increase capacity to the transportation systems and explores the role of rail, road, transit, marine, and airports in the future transportation strategy. The transportation alternatives have been assessed based on the environment, community, economy and overall transportation benefits.

In June 2010, the MTO issued a draft *Transportation Development Strategy* (TDS) identifying the preferred future transportation alternative within the Study Area and hosted Public Information Centres (PIC) to explain their progress in the study and requested comments.

The NGTA Environmental Assessment Study has identified four groups of options to address the future traffic demands. In general terms, the groups include:

Group 1 - Optimize the Existing Roadway Networks

Develop an Active Traffic Management Strategy that improves performance of the existing transportation system by reducing demand and improving system efficiency, i.e.

- Improving access to transit stations for pedestrians and motorists and advancing the concept of mobility hubs;
- Transit vehicles utilizing highway shoulders;
- Improving schedule and fare integration between transit providers;
- Providing real time information to transit riders in stations and vehicles along with remote access via telephone and the internet;
- Optimizing use of commuter rail system through the use of longer trains, (12 cars);
- Making active transportation a viable choice - secure bike storage at transit terminals, bicycles on transit vehicles;
- Providing drivers with real time trip planning information;
- Adjustable highway speed limits
- Highway Ramp metering
- Reversible lanes during peak hours
- High-Occupancy Vehicle (HOV) lanes
- Transportation Demand Management (TDM) initiatives: use of technology, carpooling, policies, etc.

Group 2 - New/Expanded Non-Road Infrastructure

Focus on improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the Metrolinx - Regional Transportation Plan (RTP) and GO 2020.

The transit recommendations embodied in the *RTP* as well as *GO 2020* strategic plan illustrate the MTO plans to making transit a viable alternative to the automobile.

Group 2 includes significant transit, air and marine service expansion initiatives envisioned by the *RTP* and *GO 2020*, i.e. Hamilton International Airport (HIA) and Port of Hamilton that serve the study area. Group 2 initiatives include:

- Express rail service along GO Transit Lakeshore Corridor;
- GO Transit Lakeshore extension to downtown Hamilton;

- GO Transit expanded service to Niagara Falls;
- Improved connections between GO Transit services, other inter-city carriers, and supporting local transit services;
- Rapid transit in Hamilton area;
- Rapid transit along Highway 5, along Trafalgar Road, along Brant Street;
- Bus Rapid Transit and Transitway along Highway 407/403;
- Undertake a *Hamilton Focused Inter-Regional Transit Service Study* - transit service bringing commuters to Hamilton's City-centre from outlying areas
- New Inter-Regional Transit Links between Western Urban Growth Centres such as Guelph and Waterloo;
- Expanded and improved parking facilities at some transit stations.
- Port of Hamilton Infrastructure Development Strategy;
- Sea3 - container feeder service between Hamilton and Montreal;
- Hamilton International Airport - expansion of existing taxiways and terminal;
- Improved access to Hamilton's port and airport

Group 3 - Widen/Improve Roads

Widening roads and planning multi-use transportation corridors, which will provide opportunities for transit initiatives identified in the RTP and GO 2020 plan

- Highway realignment & upgrades
- Strategic Highway widening
- Enhanced public transit facilities
- New multi-lane corridors
- Monitor growth and system performance

The Group 3 alternative has been developed to address the future transportation problems that have been identified within the study area. As such, the additional roadway widening is based on providing adequate traffic capacity, operations and safety conditions on existing provincial facilities to the year 2031.

Group 3 includes all of the elements from Group 1 and Group 2 as well as the widening of the following existing provincial inter-regional transportation facilities:

- QEW and Highway's: 6, 401, 403 and 407

The Study indicates that the Group 3 alternative would not fully address many of the transportation opportunities that have been identified. In contrast, the MTO identifies the provision of a new transportation corridor presents the opportunity to:

- Support Niagara's "Grow South" plans and relieve development pressures on the tender fruit & grape lands.
- Support Hamilton's plans to develop employment lands around Hamilton International Airport.

Staff do not support this last bullet-statement above as there is no indication of a direct corridor from the AEGD area to the Niagara gateway region and their markets.

The trade-offs between roadway widening and new corridors are challenging and complex. Widening the existing highways can have an impact on neighbouring communities; however, impacts are focused in existing corridors. New corridors will have a larger footprint impact on the undisturbed environment. Subsequent studies will consider how mitigation efforts can be investigated to provide new economic development opportunities while protecting the adjacent communities and the environment.

Group 4 - New Transportation Corridors

The study recommends that corridors for the new highways be studied further and protected for. Construction of proposed corridors only after Groups 1, 2 and 3 options are implemented and the transportation network is still at capacity. Considerations for new corridors include connecting Highway 406 to the QEW in the Niagara area and a new corridor connection from Highway 403 in Hamilton to Highway 407 in the Region of Halton. Details on exactly where these highway connection points will be located would occur in subsequent phases.

Group 4 includes all of the elements from Group 1 and Group 2 and potentially some of the highway widening identified in Group 3, as well as the following new corridor alternatives:

- New corridor connecting either:
  - QEW in Fort Erie / Niagara Falls area to Highway 403;
  - QEW in Fort Erie / Niagara Falls area to Highway 401;
  - QEW in Fort Erie / Niagara Falls area to Highway 407; or,
  - QEW in Fort Erie / Niagara Falls area to Highway 6.
- Upgrade or widening of Regional Road 20 with potential bypasses of settlement areas such as Smithville, Fonthill, etc.
- Combination of new and existing corridors to provide bypass around urban core of the City of Hamilton.
- Upgrade or widening of Highway 406 connecting to a new corridor between Highway 406 and QEW south of Niagara Falls.

Notwithstanding these proposed improvements, by the year 2031, roadway congestion will still exist, particularly at the Burlington Skyway, St. Catherines Garden City Skyway and the Freeman Interchange.

To ensure a functional transportation system that provides user choice and balance, additional roadway capacity will be required: either by widening existing highways (Group 3) and / or protecting for new transportation corridors (Group 4).

The Transportation Development Strategy will include recommendations for Group 3 and/or Group 4 that will include the MTO's "transit first" priority during implementation.

Group 3 and Group 4 generally address the future transportation deficiencies. Overall, Group 4 is slightly preferred to Group 3 from a transportation performance perspective. Group 4 is better than Group 3 at removing inter-regional trucks and autos from local roads. Group 4 provides additional network flexibility, and presents opportunities for

longer-term network planning. Group 4 will better serve the transportation needs beyond the planning horizon.

A new corridor will divert a significant amount of inter-regional traffic from existing facilities, but future congestion issues will remain in some areas, necessitating some highway widening. The containment of future trips within municipalities and future transit ridership are not significantly affected by any of the alternatives.

NGTA Corridor Study - Preferred Roadway Alternative

The MTO's study indicates that the proposed strategy represents a balanced approach and considers impacts on economics, social, natural environment and transportation systems.

- The main components of the strategy are optimizing existing networks, new/expanded non road infrastructure, widening existing highways (including Highway 403 through Hamilton and the QEW from St. Catharine's to Hamilton) and two new corridors.
- In terms of job creation, the new corridor and widening options created similar results with highway widening providing the most benefits.
- Economic growth adjacent to a southern connection would not be permitted due to the greenbelt.
- Much of the platform to widen the QEW is already there.
- Without the Highway 403/407 connection, the impacts to Hamilton would be much more significant (ten lane Highway 403 widening with a core - collector system).
- Highway 407 connection is best to alleviate congestion through Hamilton.
- The study would recommend the corridors for the new highways be protected. Construction only after Group 1 and 2 options were implemented and transportation still at capacity.
- The MTO has also been reviewing a hybrid alternative to Group 3 and 4 to include some strategic widening of provincial highways as well as development of new transportation corridors in the east and west ends of the study area. These alternatives include:

  East Area - a new corridor from the QEW (Fort Erie) to Highway 406 in Welland

  Central Area - widening of the existing QEW from Highway 406 to Highway 403. This would include an ultimate QEW width of:
  - eight lanes (two additional lanes) to Highway 20
  - eight lanes (two additional lanes) to the Red Hill Valley Parkway
  - ten lanes (two additional lanes) across the Burlington Skyway Bridge to Highway 403

  West Area - a new corridor connecting Highway 403 in Ancaster to the Highway 407 ETR at Walkers Line (exact locations to be determined)

Highway 6 south of Highway 401	Highway realignments and upgrades
Highway 6 south of Highway 403 (Hamilton)	Upgrade to four lane freeway
Highways 403 and 401	Widening for HOV lanes
Highway 407	Widening

Issues for consideration

The City recognizes the importance of conducting study's of this nature to be in a position to examine and identify the problems and opportunities and to initiate steps to implement the long-term transportation strategy. This draft study has raised a number of issues that staff believes requires additional consideration in order to minimize the problems and provide satisfactory solutions.

Widening of Highway 403

The study states, "Operational improvements on Highway 403 in the short term, and a new corridor study to connect Highway 403 to Highway 407 is preferred."

The staff has the following concerns related to this proposal:

- Expansion into Niagara Escarpment:
  - Bridge replacements (thirteen)
  - Extensive rock cuts and cantilevered road widening in the Escarpment Section
  - Significant property impacts including Combined Storm Overflow tanks
  - Maintaining traffic during construction

Significant issues with the proposed City's B-Line Light Rapid Transit (LRT) project. The current focus of our review is how the MTO roadway deficiency/improvements will impact the proposed BLAST Transit network. The current planning, design and engineering (PDE) and the Feasibility Study of the A-Line, note:

1. There are basically three (3) roadway crossings of Highway 403 in Lower Hamilton over the Chedoke Valley and they are: Longwood, Main Street and King Street. These roadways connect the "west section of Hamilton" to the central and east sections. The Main and King Street structures also include on/off ramps to Highway 403. The initial design of the Light Rail Transit (LRT) has included alternatives of crossing the Chedoke Valley on both the current Main and King Street bridges. If the City constructs the LRT on the current Main/King Street Bridge structures, there will be significant impacts to the LRT line and service interruption throughout the construction phase should the bridges be replaced. Secondly, if the LRT is constructed on the existing bridge structures, the ramp configurations on/off the Highway 403 may require significant alterations/redesign/reconstruction. All this work will be at significant cost and mostly non-recoverable should the MTO replace the bridge structures at a later time.

2. The study suggests that the MTO complete an operational improvement study on Highway 403 to determine what operational improvements can be constructed within the short to medium term. Subject to approval and funding, the City

intends to commence construction of the B-Line LRT in 2016. Prior to that, all the planning, design and engineering (PDE) must be completed. It is likely that utility and construction work for the LRT may begin prior to 2016. The City and Metrolinx are working together to complete the preliminary planning, design and engineering (PDE) for the B-Line LRT Corridor for June 2011. It is anticipated that the Transit Environmental Assessment process will begin late January or early February 2011. This timeframe is well in advance of any detailed design or programming for Highway 403 that the MTO will likely complete prior to this time.

In view of the fact that the MTO has identified corridor capacity deficiencies on Highway 403 in the City and the fact that plans have not been prepared to address these deficiencies, it is imperative that the engineering study to complete the preliminary design of the B-Line LRT Corridor proceed and that the MTO work cooperatively with the City/Metrolinx to accommodate this planning, design and engineering process through the Chedoke Valley. One of the NGTA study options is to expand Highway 403 to a ten lane cross-section and replace all bridge structures. This option has significant impacts as noted above. The option of constructing a separate LRT structure over Highway 403 and the Chedoke Valley would avoid any future disruptions compared to a LRT transitway constructed on the current structures. This separate structure option would require a one-time construction investment of LRT track and substructure instead of future costs associated with the relocation/reconstruction on the current/proposed bridge structures. Further, maintaining a LRT transit service over the Corridor during future Highway 403 construction will be important in mitigating future construction traffic congestion and will be key in maintaining the travel connection between West Hamilton and the downtown area during this period as well.

The NGTA study also points out the following issues related to the widening of Highway 403:

Community:
Widening of Highway 403 through Hamilton will result in major impacts to residences, businesses and community features.

Economy:
Group 3 provides capacity to key employment growth areas through widening of Highway 407, QEW, and Highway 403 to the Hamilton Airport area. Group 4 provides new access to south Niagara and redundancy to the border, but does not provide economic corridor benefits or local economic development benefits.

Environment:
A new corridor will result in impacts on the Niagara Escarpment and to the Greenbelt but there are more options for mitigation of impacts. Widening of Highway 403 will impact an existing crossing of the Niagara Escarpment, as well as important natural areas such as Cootes Paradise and the Royal Botanical Gardens. While localized, these impacts are likely to be severe.

Transportation:

A new corridor will divert a significant amount of traffic from Highway 403, by providing an alternative route. Without a new corridor, widening of Highway 403 through Hamilton to ten lanes will be required within the planning horizon. Beyond 2031 the ability to provide additional capacity in the Highway 403 corridor would be severely limited.

Flamborough

The NGTA study indicates: "A new corridor connecting Highway 403 to Highway 407 is preferred."

The MTO study also points out the following issues related to the widening of Highway 403:

Community:
The Highway 407 connection results in greater community impacts based on its location within Waterdown and Burlington.

Economy:
The Highway 407 connection better serves the population growth areas of Hamilton and Halton and provides a more direct connection to the employment areas in the western part of the Greater Toronto Area (GTA).

Environment:
There is a higher density of significant and core features along the Highway 401 connection which will make avoidance of major impacts much more difficult than for the Highway 407 connection. The environmental features through the Highway 401 connection are in a more un-disturbed state with limited impact from existing infrastructure and development. The Highway 407 connection results in a new crossing of the Niagara Escarpment, whereas the Highway 401 connection will require a widening of Highway 401 through the Niagara Escarpment. Overall, the corridor connecting to Highway 407 is preferred from a natural environmental perspective.

Transportation:
The Highway 407 connection better alleviates future congestion issues on Highway 403 and generally performs better than a connection to Highway 401.

Airport Employment Growth District

The NGTA study indicates: "Widening of existing QEW is preferred. Continue to monitor growth needs for the long-term."

The 2007 Hamilton Transportation Master Plan (HTMP) states:

> "Appropriate goods movement access to the Hamilton International Airport from the north and east has been identified as a significant issue. The 2005 Hamilton Goods Movement Study identifies the need to provide a connection between the Red Hill Valley Parkway and the Airport as a designated truck route. This is due to the current lack of truck access opportunities from the northeast to the Airport, south of the Lincoln Alexander Parkway. Following this TMP, a Schedule C EA should be initiated to identify specific routing alternatives as well as a phasing

strategy. It is possible that existing roads could serve to provide this link in the short - medium term. The specific routing also depends to some extent on the location of the proposed Niagara to GTA Corridor".

The need for this link should be considered in the context of the proposed strategy which does not include a new roadway corridor.

The solutions identified within the NGTA study are proposed to be "incremental". The first group of priorities optimizes existing networks and the second group of priorities expands or builds new non-road infrastructure (e.g. transit, rail, HOV).

The study proposes a combination of widening existing highways (including Highway 403 through Hamilton, the QEW from St. Catherines to Hamilton, and Highway 6) and constructing new corridors (i.e. connecting Highway 403 to Highway 407 in the west and connecting Highway 406 to the QEW in the Niagara region). Should congestion reach unacceptable levels on the QEW in the Niagara area, a new multi-modal corridor between Welland and Hamilton would then be explored. None of these potential projects are proposed to create a direct link with the Hamilton AEGD. The result is that once the Red Hill Business Park is fully developed there will be inadequate transportation infrastructure necessary to realize the economic benefits from Hamilton's last remaining "Greenfield" business park.

The draft AEGD Transportation Master Plan - June 2010, (Dillon Consulting) considered a Trinity Church Connection; Upper James Street and the Red Hill Valley / Lincoln Alexander Exchange, to more accurately reflect the City's infrastructure proposed to be in place by 2031. Exact alignments for this roadway link have yet to be determined, but a link was included for modeling purposes with the following assumptions:

- This corridor has been identified in the Rymal Road Planning Area Study (ROPA 9) and the Trinity Church Arterial Corridor Class EA (however alignment yet to be determined).
- The connection to the AEGD study area was approximated at Upper James Street between Airport Road and White Church Road.
- The location of this roadway connection to the AEGD would not significantly affect model results.

In the draft AEGD Transportation Master Plan - June 2010 (Dillon Consulting), it is indicated that only a "modest number of vehicles would use a Trinity Church Road connection to access the Red Hill Valley Parkway (RHVP). Upper James Street is the most direct route to RHVP for most road users". It was further assumed that this connection will be in place in 2031, but if it is not, there will not be a major impact to AEGD traffic".

AEGD Highway 6 improvements

The AEGD TMP modeling undertaken examined travel demand needs and phasing between 2009 and 2031. Results of this modeling indicated that Highway 6 may need six lanes of capacity by the 2031 horizon year. This is consistent with the MTO Highway

6 Pre-Design Report which recommends providing a six lane divided facility for Highway 6 beyond the year 2021.

The NGTA study listed a potential need to widen Highway 6 to four lanes as part of the Draft Transportation Development Strategy as noted above. That may well signal that a more detailed study of phasing for Highway 6 should be undertaken once the NGTA Study is completed.

The need for six lanes on Highway 6 is not explicitly written into the AEGD TMP report. It can be said that the expansion of Highway 6 is likely necessary and that it *may* need to be expanded to six lanes as per the MTO Pre-design report. Staff is recommending that this option be included in the NGTA report and protected for.

The MTO study also points out the following issues related to an additional corridor easterly from Hamilton:

Community:
Adding HOV lanes to QEW can generally be accommodated within the existing right-of-way. A new corridor has the potential to fragment agricultural land and separate small communities.

Economy:
Widening would not provide a redundant route to the border and does not directly serve the Hamilton Airport. A new corridor does not serve some existing and future growth areas in Hamilton and Niagara.

Environment:
Minimal additional footprint impacts as the addition of HOV lanes on QEW can generally be accommodated within the existing right-of-way. A new corridor is anticipated to impact numerous watercourses, provincially significant wetlands, significant woodlands, and the Greenbelt.

Transportation:
A new corridor will not divert enough traffic from QEW to avoid the need to widen QEW. Widening of QEW to eight lanes will incorporate HOV lanes, which support TDM and transit. Further widening of QEW to ten lanes will not be required until beyond 2031. In the long term, a new corridor will help to alleviate future congestion on QEW and provide network flexibility.

Business concerns

Staff are aware that the Hamilton Chamber of Commerce and the Southern Ontario Gateway Council has reviewed the Ministry's draft report and have a number of concerns that the vision of the study is too short and that the proposed transportation network improvements does not satisfactorily address businesses that will rely on the efficient movement of goods and services to remain competitive. In general, the comments include:

- Not sure that the economic development objectives of the province are being considered.

- The widening of the QEW through Niagara will put pressure for development of lands in the tender fruit belt.
- Proposed strategy would provide good access from the AEGD to the GTA, but access to the US market is just as critical.
- The planning horizon (2031) is too short, should be thirty or fifty years.
- The strategy should have more emphasis on economic development rather than moving people and goods.

Summary of NGTA Corridor Planning and EA Study

The MTO's "The Niagara to GTA (NGTA) Corridor Planning and Environmental Assessment (EA) Study" has identified the process the Ministry has undertaken and the options the Ministry has been considering to address the future transportation system in this area, i.e. Groups 1, 2, 3 and 4 and the three geographic areas.

It is quite evident that additional roadway capacity is required to realize the vision and transportation needs of the Niagara to GTA Corridor. The study faces the challenging task of deciding whether to widen the existing highways and / or protect for new transportation corridors. Each option presents challenging and complex trade-offs:

- Alternatives for widening existing highways:
  - Make good use of existing transportation infrastructure and maintain origin and destination patterns.
  - Provide the capacity to accommodate long-term inter-regional transportation needs to 2031.
  - Provide limited flexibility to accommodate growth beyond the planned and projected future.
  - Limited system redundancy in the highway network.
  - Require significant expansion to the Burlington Skyway, Garden City Skyway and Freeman interchange.
  - Would result in unavoidable impacts to adjacent natural and community features, including significant displacements along the QEW through St. Catherines and along Highway 403 through Hamilton.
  - Result in widening of existing corridors through the Niagara Escarpment.
- Alternatives for new transportation corridors may still require widening of some provincial facilities and would therefore result in some of the impacts associated with Group 3. In addition, new transportation corridors:
  - Provide the capacity and flexibility to accommodate the long-term inter-regional transportation needs to 2031 and beyond.
  - Provide enhanced system redundancy and choice in the transportation network.
  - Provide superior economic growth and development opportunities through an enhanced trade corridor connecting the GTA to the Niagara Frontier and markets in the United States.
  - Result in potentially extensive impacts to greenfield areas, including significant changes to the character and use of undisturbed rural areas, as well as displacement and severance of agricultural lands.

- Potentially impact undisturbed natural habitats, but also provides the opportunity to minimize and avoid important natural and built features through route planning.
- Would potentially require a new crossing of the Niagara Escarpment.
- Are generally more costly alternatives to construct.

Staff is recommending that the construction of a Niagara to GTA multi-modal corridor must be identified as the preferred option instead of the last possible alternative currently recommended in the MTO's Planning & EA Study. In addition, all the issues discussed in this report should be forwarded to the Ministry for them to address on behalf of the City of Hamilton and Ministry representatives make a presentation to the Committee of the Whole prior to the final version of the study being completed.

POLICY IMPLICATIONS

As a result of the current stage of the NGTA Corridor Planning and Environmental Assessment Study, there are no policy changes identified at this time. However, as the MTO continues to develop future inter-regional transportation system plans that influence and impact the City of Hamilton, transportation, traffic, economic development and land use planning policies will be affected.

The City's involvement in the NGTA Corridor Planning and Environmental Assessment Study supports the Public Works Business Plan, Innovate Now, through sustainable Infrastructure planning to enhance business and employment opportunities, to be a leader in the greening and stewardship of the City with the protection of the Niagara Escarpment, improved air quality, protection of other natural resources and to engage the community in the awareness of future services and programs that could affect their quality of life.

RELEVANT CONSULTATION

The NGTA Study has been underway since 2005, at which time a NGTA Staff Advisory Committee was organized. This Committee is comprised of representatives from the Planning Department (Economic Development and Real Estate; Strategic Services - Special Projects; Development Engineering), Public Health Department (Chronic Disease Prevention - Child and Youth), and Public Works Department (Traffic, Transportation and Environmental Planning). This group met on an as-needed-basis and also met with representatives from the *Niagara to GTA Corridor Planning and Environmental Assessment Study* project team on occasion to provide comments and feedback as the project proceeded.

ANALYSIS / RATIONALE FOR RECOMMENDATION

Staff is recommending that the construction of a Niagara to GTA multi-modal corridor must be identified as the preferred option instead of the last possible alternative currently recommended in the MTO's Planning & EA Study. The absence of a multi-

modal corridor from the GTA to Niagara significantly compromises Hamilton's economic growth potential as identified in an "Economic Impact Analysis Study" jointly prepared by the City of Hamilton and the Region of Niagara in 2006.

Staff supports in-principle the majority of the Group 1 and 2 solutions that the study has identified to; develop an active traffic management strategy that improves performance of the existing transportation system by reducing demand and improving system efficiency and Improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the Regional Transportation Plan (RTP) and GO 2020.

Issues of concern involve Groups 3; widening highways, including potential escarpment crossings; widening of Highway 403 and potential impacts to the City's proposed Light Rail Transit system crossing Highway 403, no corridor identified adjacent to Airport Employment Growth District (AEGD), that Highway 6, adjacent to the AEGD, is planned for four lanes instead of 6 lanes and that some of the future transportation forecasts in the study could result in the use of the City of Hamilton's transportation infrastructure being utilized instead of new provincial infrastructure without any compensation identified for the City.

Staff are requesting that Group 3 and 4 issues require additional information on the impacts to the City of Hamilton prior to the MTO producing their final report.

ALTERNATIVES FOR CONSIDERATION

The MTO is undertaking an extensive public consultation and stakeholder process to explain the Niagara to GTA Corridor Planning and Environmental Assessment Study and are requesting feedback and comments. Staff is recommending that the General Manager of Public Works be authorized to forward comments contained in Report PW05054a/PED10213 to the province to be considered and included in the process and final decisions.

If Committee and Council decides not to forward comments to the province on this study, the province will continue with their planning process on the NGTA and not incorporate the City of Hamilton's concerns in their work plans.

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Financial Sustainability

- Effective and sustainable Growth Management
- Full life-cycle costing for capital
- Address infrastructure deficiencies and unfunded liabilities
- Generate assessment growth/non-tax revenues

- Sustainable Tri-parti Government Agreement

Intergovernmental Relationships

- Influence federal and provincial policy development to benefit Hamilton
- Acquire greater share of Provincial and Federal grants (including those that meet specific needs)
- Maintain effective relationships with other public agencies

Growing Our Economy

- Newly created or revitalized employment sites
- Competitive business environment
- A skilled and creative labour pool that supports new employers

Social Development

- Hamilton residents are optimally employed earning a living wage
- Residents in need have access to adequate support services

Environmental Stewardship

- Natural resources are protected and enhanced
- Reduced impact of City activities on the environment
- Reduce the impact of Hamilton's industrial, commercial Private and Public operations on the environment
- Aspiring to the highest environmental standards

Healthy Community

- Plan and manage the built environment
- An engaged Citizenry

APPENDICES / SCHEDULES

Appendix 'A' - "Niagara to GTA Corridor: Opening New Economic Opportunities" (2006) Executive Summary and Concluding Remarks & Recommendations
Appendix 'B' - NGTA Public Information Centre (PIC) #4 Brochure

APPENDIX "A"
REPORT PW05054a/PED10213

Executive Summary

The Niagara Economic Development Corporation, with the participation and collaboration of the City of Hamilton and the Regional Municipality of Niagara, commissioned a study to examine the potential economic benefits of developing a transportation corridor that connects the Greater Golden Horseshoe of Ontario from the border region of Niagara to the City of Hamilton and the Greater Toronto Area (GTA). The study provides a comprehensive assessment of the relationship between the sufficiency of transportation infrastructure and services and economic conditions and opportunities occurring within the Hamilton-Niagara region. The study corridor, commonly known as the Niagara to GTA Corridor stretches from the southern U.S.-Canadian border at Niagara and Fort Erie to the east and the GTA to the west. Unlike the Queen Elizabeth Way (QEW) which runs along the northern border of the region, the Niagara to GTA corridor follows a more southern route in lesser developed portions of the region.

The economic performance of sub-regions within the broad study area has been uneven. Generally, more urbanized areas have experienced growth in population and jobs but this growth has come at the expense of more rural hinterlands, which have continued to under perform in population and employment growth. While conditions vary across the region, in general the area's strengths include a strategic geographic location as a gateway to major economic markets in both Canada and the US; a skilled labor force; a system of multi-modal transportation assets including the Port of Hamilton, Hamilton International Airport, the Welland Canal, and rail corridors served by two Class 1 railroads; an abundance of relatively low cost, developable land; and a growing tourism base. These strengths, combined with expanding opportunities arising from increasing global trade, present opportunities that can potentially be capitalized on by improved transportation connections via the Niagara to GTA corridor. The purpose of this report is to identify the potential economic opportunities arising from the Niagara to GTA corridor and to provide an estimate of the benefits in terms of income, employment and tax revenue.

This study represents an initial analysis of the potential economic impacts of the Niagara to GTA Corridor based on a general analysis of economic opportunities that could benefit from, and depend on its development. The study used available data on trade and modal performance, insight gleaned from stakeholder interviews (see Appendix G for a complete listing of interviewees), technical tools developed by the consultant team (see Appendix C-F for details on the economic tools) and information learned from real case studies in North America (see Appendix B for listing of referenced materials). Following is a summary of key findings.

- The Hamilton-Niagara Region enjoys many competitive advantages and key requirements for sustainable economic growth including:
  - Strategic geographic location that provides access to major markets;
  - Multi-modal transportation assets including an air cargo hub, marine ports, Class 1 rail corridors and international border crossings; and
  - Developable land in close proximity to key transportation nodes.
- The region has a multi-modal transportation system capable of meeting the demands of the new global economy with the exception of one key component – the highway that provides the link between the international gateways and multi-modal transportation nodes, and the key economic markets. The proposed Niagara to GTA Corridor could provide that link and position the region for economic prosperity and diversity.

◆ Niagara to GTA Corridor: Opening New Economic Opportunities ◆

- The role of the Niagara to GTA Corridor as a catalyst for new and enhanced economic opportunities includes but is not limited to providing:
  - Critical access and connectivity for Hamilton International Airport and its surrounding development lands;
  - Alternative truck access and expanding potential markets in support of the planned intermodal terminals at the Port of Hamilton;
  - More efficient connectivity between industrial employment lands in Welland and Port Colborne and points to the west including HIA and economic centers such as the GTA and Windsor; and
  - Alternative access to international border crossings.
- The total potential economic gains arising from the Niagara to GTA Corridor are estimated in three categories including construction benefits, opening up of new economic opportunities, and the mitigation of lost opportunity costs. By 2030, the economic benefits from these three categories are estimated to range from nearly 130,000 to 177,000 full-time equivalent jobs, $7.0 to $9.0 billion in additional income and $3.4 to $4.4 billion in tax revenue. This translates into an average annual benefit of 7,700 jobs, $400 million in income and nearly $195 million in tax revenue. These estimates include the benefits arising from increased economic development opportunities, construction of the corridor and efficiency gains accruing to existing businesses and residents and do not account for the on-going benefits beyond 2030.
- The potential impacts of increased economic development opportunities arising from the Niagara to GTA Corridor are significant. The employment benefit is estimated to range from approximately 76,000 to more than 101,500 full-time equivalent jobs within the first 15 years of corridor development. The potential corresponding income benefit is estimated to range from more than $2.7 billion to nearly $3.2 billion, resulting in tax revenue ranging from $1.3 billion to 1.5 billion. Details on the analysis are provided in Section 4 of the report.

Estimated Regional Economic Impacts of the Niagara to GTA Corridor based on Increased Economic Development Opportunities (15 years after completion)

Impact Source	Number of Jobs Full-time Equivalent	Income (in million $2005)	Tax Revenue (in million $2005)
Direct Impacts	24,900 - 33,195	$1,018.1 - $1,200.5	$493.8 - $582.2
Indirect and Multiplier	51,287 - 68,375	$1,680.0 - $1,980.0	$814.8 - $960.3
Total	76,187 - 101,570	$2,698.1 - $3,181.5	$1,308.6 - $1,542.5

- Based on these estimates, the Niagara to GTA Corridor could lead to an average annual growth rate of 2.73 percent (2001-2031) compared to 1.03 percent which is currently projected for the Hamilton-Niagara Region.
- In addition to the long-term economic development benefits, the construction activity associated with the Niagara to GTA Corridor will give rise to significant economic benefits. On average, the region could experience an increase in employment ranging from 5,000 to over 9,500 a year over a five year construction period. This translates into annual income benefits ranging from over $375 million to nearly $710 million, and annual tax revenue benefits as much as $345 million.

6. Concluding Remarks and Recommendations

The analysis of the potential economic opportunities arising from the Niagara to GTA Corridor demonstrates that the region stands to reap significant gains from the investment. It also demonstrates that there is a substantial cost in terms of lost jobs and income if the investment is not made. While the analysis points to the corridor as the catalyst for future development opportunities in the Hamilton-Niagara Region, it is imperative that the community recognizes that the Niagara to GTA Corridor may well be a necessary element for future development, but is not a sufficient condition for matching the success of regions such as Alliance, Texas or Huntsville, Alabama.

Capitalizing on the opportunities that the Niagara to GTA Corridor will present to the Hamilton-Niagara and GTA region will require a regional approach that integrates transportation, land use and quality of life. To accomplish this coordinated regional approach, the following recommendations are put forth:

- *Develop Market Vision* – In today's fast changing global economy, leaders need to ensure that they understand emerging global trends and their implications on the region. This includes understanding the region's potential role in the global marketplace and what is necessary to achieve that role. Being able to see the bigger market and the factors that are shaping its future will allow the region to be proactive and on the cutting edge as opposed to reacting after the fact and trying to catch up. The Niagara to GTA Corridor can play a key role in the market vision for the region. But simply building it is not enough; policymakers and community planners must ensure that the region is equipped to create and take advantage of the opportunities that the corridor presents.
- *Provide Regional Leadership* – Regional leadership is vital to a successful coordinated development strategy. Regional leadership has to focus on the good of the region and champion the development of a plan that allows all communities to move toward their vision while recognizing and mitigating any negative implications of their actions on surrounding communities. Businesses do make location decisions based on the attributes of a single community but rather they evaluate what the region offers. The public sector should do the same and coordinate so as to maximize the regional good and strive for sustainability as opposed to short-term gains.
- *Establish Private Sector Collaboration* – Understanding the needs and requirements of private sector stakeholders is key in developing the strategic plan for the Niagara to GTA Corridor. If the region is to be successful in attracting logistics based businesses and advanced manufacturing firms, planners are going to have to understand how decisions made in the public sector impact decisions made by private sector. Developing partnerships and giving a voice to the needs of the region's employers and transportation service providers is critical to "developing a product they will want to buy." As to how to collaborate, remember- "early and often."
- *Make a Financial Commitment* – Accomplishing the first three recommendations will facilitate the ability to make a financial commitment. The way in which transportation investments are funded is changing due to the realization that needs far exceed available resources. This has resulted in innovative financing techniques including public-private partnerships, new credit instruments, various types of user fees and revenue streams and leveraging strategies. In the end, if the region is to be successful in attracting the attention of the private sector such as major warehousing and distribution center developers, transportation service providers and shippers, it will have to demonstrate financial commitment to Niagara to GTA Corridor, therefore establishing it as a priority.
- *Adopt a Regional Strategic Plan for Integrated Transportation and Land Use Planning* – Perhaps the most important component of being able to capitalize on the development opportunities presented by

the building of the Niagara to GTA Corridor is the development and adoption of a regional plan that is based on maximizing the development benefits and sustainability at a corridor level as opposed to a community by community level. This means regulating development in manner that accommodates both freight and passenger needs and making decisions based on the impacts to the industrial lands. Making a commitment to protecting the corridor for long-term regional sustainability decreases the risk to private investors and communicates a progressive and cooperative business climate. Again, accomplishing this will require the implementation of many of the previous recommendations, but the ability to realize the magnitude of benefits from the investment in the Niagara to GTA Corridor will be dependent on the making part of a larger regional strategy.

APPENDIX "B"
PW05054a/PED10213

June 17, 21, & 23, 2010

NGTA PUBLIC INFORMATION CENTRE #4

Niagara to GTA Corridor Planning and Environmental Assessment Study

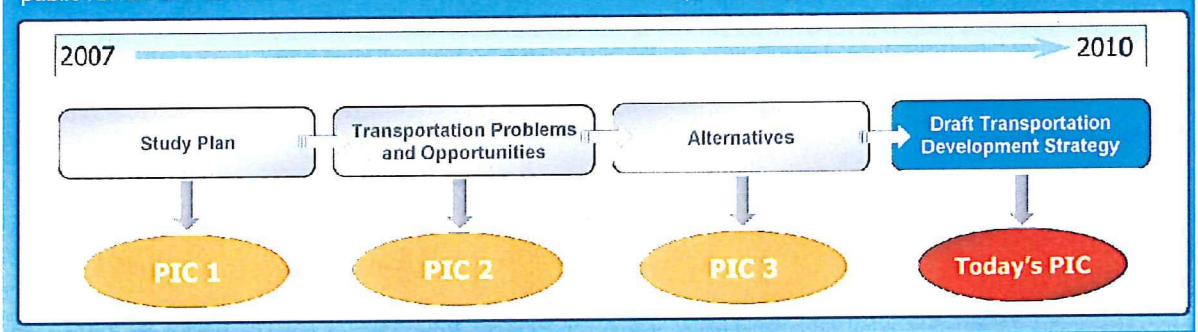
STUDY PURPOSE

The purpose of this study is to provide additional transportation capacity within the Niagara to GTA Corridor. All travel modes are being considered: transit, road, rail, marine, and air.

The purpose of this PIC is to present the draft Transportation Development Strategy for public review and comment.

WORK COMPLETED SINCE PIC #3

- Draft *Area Transportation System Alternatives Report* (available since March 2010);
- Consultation with municipalities and advisory groups; and,
- Assess transportation alternatives based on environment, community, economy, and transportation.



GROWTH BRINGS CHALLENGES AND OPPORTUNITIES

The Greater Golden Horseshoe will continue to experience the benefits that come from growth:

- Vibrant, diversified communities and economies;
- New and expanded community services; and
- Arts, culture, and recreation facilities.

Without properly managing growth, communities will experience the negative aspects associated with rapid growth, including increased transportation demand and traffic congestion.

To accommodate this growth, improvements to the existing transportation network will be necessary

MANY HAVE BEEN CONSULTED

The study team has consulted with leading experts and transportation service providers such as CN, CP, St. Lawrence Seaway Authority, Hamilton Port Authority, Hamilton International Airport...

In addition, the study team has sought advise from municipalities, government agencies, and public stakeholders through forty-nine (49) agency and stakeholder group meetings, thirty-five (35) presentations and meetings with municipal councils and committees, and six (6) meetings with First Nations. There are over 100 municipalities and agencies, approximately 400 interest groups, and over 1,600 public stakeholders on the contact list.

Three (3) Public Information Centres have been held:

- PIC 1 – June 2007 (219 attendees)
- PIC 2 – February / March 2009 (270 attendees)
- PIC 3 – November / December 2009 (334 attendees)

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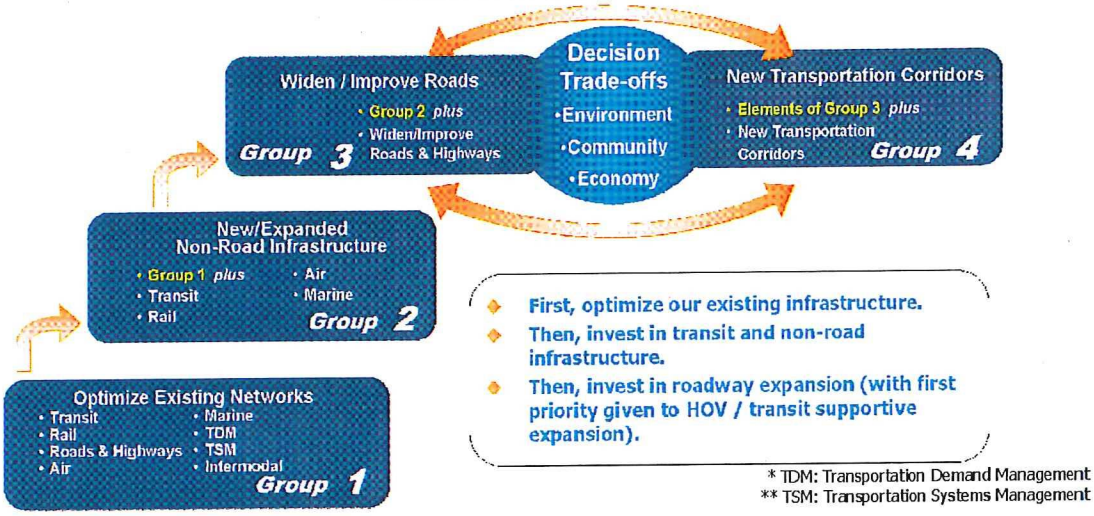
THE GROUP ALTERNATIVES

ASSEMBLING & ASSESSING ALTERNATIVES

1 Develop Reasonable Combination Alternatives To Address Problems & Opportunities

2 Assess Combinations to Identify Advantages & Disadvantages

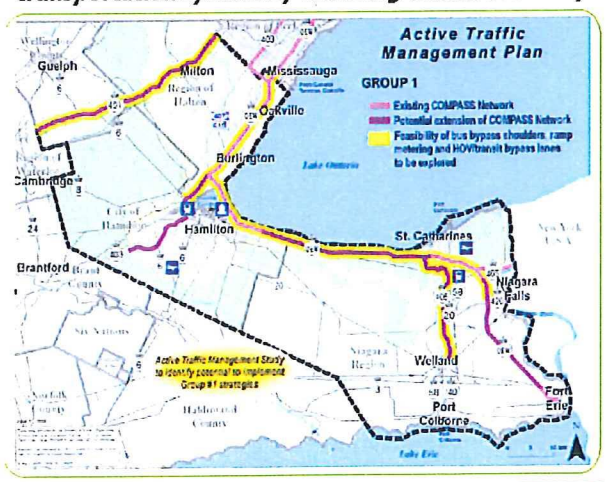


- First, optimize our existing infrastructure.
- Then, invest in transit and non-road infrastructure.
- Then, invest in roadway expansion (with first priority given to HOV / transit supportive expansion).

* TDM: Transportation Demand Management
** TSM: Transportation Systems Management

OPTIMIZE EXISTING INFRASTRUCTURE

Priority: ***Develop an Active Traffic Management strategy that improves performance of the existing transportation system by reducing demand and improving system efficiency.***



Provide frequent updates on traffic conditions

Adjustable speed limits (speed harmonization) to avoid stop and go traffic

Smooth vehicle access to highways with signals on ramps (ramp metering)

Transit use of highway shoulders to bypass congestion

Innovative technologies

Encourage commuting via transit

Reversible (contra-flow) lanes and moveable barriers

HOV / Transit only bypasses on ramps

Support TDM Programs (e.g. carpooling)

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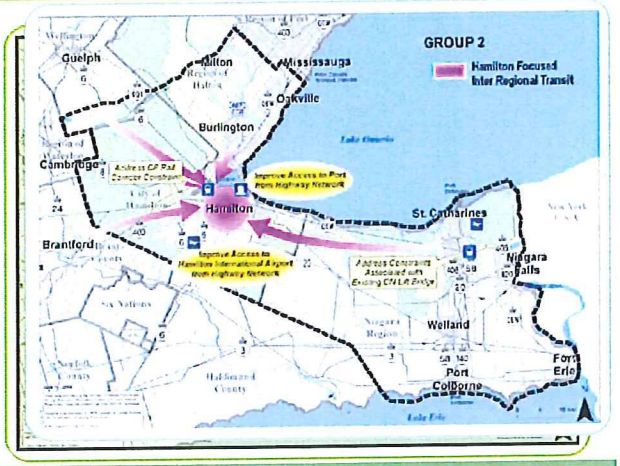
THE STRATEGY
DRAFT TRANSPORTATION DEVELOPMENT STRATEGY
Draft Transportation Development Strategy
Legend
NGTA Preliminary Study Area
Metrolinx RTP
Municipal Boundaries
Protected Countryside of the Greenbelt Area
Niagara Escarpment Plan Area
Potential Expansion of COMPASS Network
Total Lanes Where Widening is Proposed
High Occupancy Vehicle Lane
Lake Ontario
Lake Erie
Niagara River
New York U.S.A.
Region of Peel
Mississauga
Add ramps to facilitate all moves
Oakville
Burlington
Hamilton
Milton
Region of Halton
Highway widening subject to preferred GTA West alternative
Approved Realignment
Corridor Planning Area
Future Study for Short to Medium Term Operational Improvements
Wellington County
Guelph
Region of Waterloo
Cambridge
City of Hamilton
Brant County
Brantford
Haldimand County
Norfolk County
Niagara Region
St. Catharines
Transit Rail Services Expanded
Continue Monitoring Needs
Route Planning Area
Welland
Port Colborne
Fort Erie
Niagara Falls
GROUP 1 includes:
Bus Bypass Shoulders
Incident/Congestion Management
Ramp Metering
HOV/Transit Bypass Lanes
Speed Harmonization
Contraflow Lanes
Support Metrolinx/Smart Commute TDM Programs
GROUP 2 includes:
Hamilton-Focused Inter-Regional Transit
New inter-regional transit links between western urban areas
Explore policy areas to provide additional support for local transit initiatives
Support freight rail and marine goods movement initiatives
0 2.5 5 km

NEW / EXPANDED NON-ROAD INFRASTRUCTURE

PRIORITY: ***Focus on improving existing and/or providing new non-road infrastructure and transit, building on the recommendations of the "RTP" and GO 2020.***

- Hamilton Focused Inter-Regional Transit - radial transit services bring commuters to Hamilton city centre from outlying areas
- New inter-regional transit links between western urban areas - potential exists for a "Western Web" transit system
- Explore policy areas to provide additional support for local transit initiatives
- Support freight rail and marine goods movement initiatives

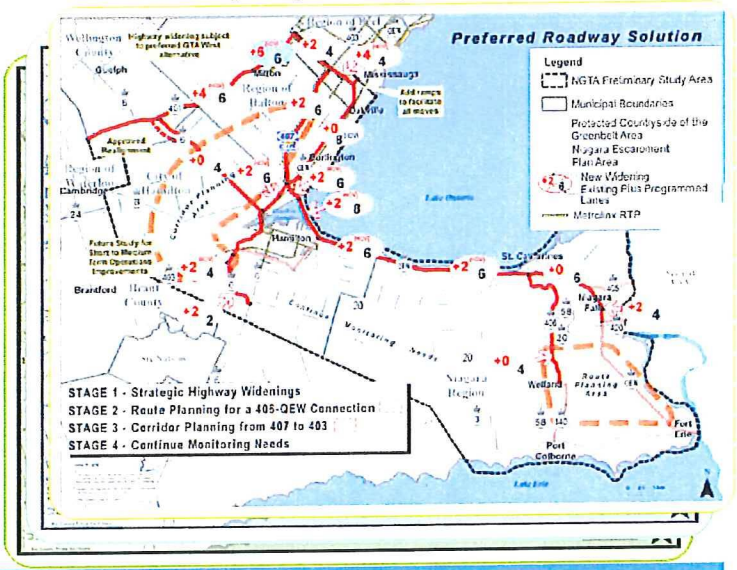


WIDENED HIGHWAYS / NEW TRANSPORTATION CORRIDORS

LONG-TERM STRATEGY: ***Widening roads and planning multi-use transportation corridors, which will provide opportunities for transit initiatives like those in the "RTP" and GO 2020 to grow and prosper.***

In addition to the first priorities of optimizing the existing transportation network and increasing transit ridership, the balanced draft Transportation Development Strategy includes longer term strategic highway widening and new transportation corridor planning.

- **Highway realignments and upgrades** (*required in the short to medium term*): Operational improvement study on Highway 403 through Hamilton; Highway 6 south of Highway 401; Highway 6 south of Highway 403 (Hamilton); Highway 403 from QEW northerly to Highway 407; Highway 401; and complete QEW widening to Highway 420.
- **Strategic Highway Widening** (*required in the medium to long term*): Widening for HOV lanes on QEW (Oakville to St. Catharines), Highway 403 (west of Hamilton) and Highway 401 (east and west of Milton); and widening Highway 407 through Halton.
- **New Multiuse Corridors** (*required in the long term*): New corridor between Highway 406 and QEW; and new corridor between Highway 407 and Highway 403 in Hamilton.
- **Monitor Growth and System Performance** (*required in the very long term*): Actively monitor how the transportation system performs with the strategy elements underway, and how population and employment growth rates and patterns are changing, to determine when corridor planning should be undertaken between Welland and Hamilton.



CONGESTION IS GOOD?

Some level of congestion is inevitable in urban areas, and some urban congestion may actually have a positive effect, as studies have shown that congestion will encourage travelers to get out of their cars and onto transit. On the other hand, severe and prolonged congestion on roadways or on transit can undermine economic growth, limit mobility, reduce safety conditions, and impair our quality of life.

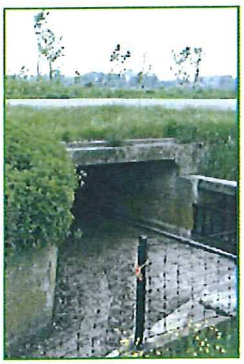
GOOD CONGESTION
Every major city in the world has congestion that builds during the peak period and as you get closer to the core. Many of these cities thrive and grow, and offer quality of life and opportunity (New York, Paris, Rome, Toronto, Vancouver, etc.). These cities continue to invest in a balanced transportation network that includes transit and roadway expansion.

BAD CONGESTION
Many emerging economies and third world cities experience sustained and damaging levels of congestion. This congestion limits the potential of these cities to grow and prosper as quality of life is inhibited and goods cannot get to market in a timely manner. In these cities lack of infrastructure is one of the fundamental barriers to prosperity.

MITIGATION MEASURES

Several types of mitigation measures can be utilized to minimize adverse environmental effects to natural, community and cultural features associated with the widening of existing highways and the construction of new facilities, including:

- Tunnels to avoid sensitive features
- Underpasses for animals
- Below grade freeways
- Rural Cross-Sections



LOOKING AHEAD

Following this PIC, the study team will:

- Review all questions and comments received;
- Revise and finalize the draft Transportation Development Strategy based on input received;
- Draft the Transportation Needs Assessment Report and make available for stakeholder review.

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HOW TO CONTACT THE STUDY TEAM

shaping our transportation plan *together*

Niagara to GTA Corridor
Planning and Environmental Assessment Study

1.866.890.6441
project_team@niagara-gta.com
www.niagara-gta.com

NGTA URS AECOM Ontario

Niagara to GTA Corridor

Planning and Environmental Assessment Study

TRANSPORTATION DEVELOPMENT STRATEGY

EXECUTIVE SUMMARY

Draft for Consultation

February 2011

www.niagara-gta.com

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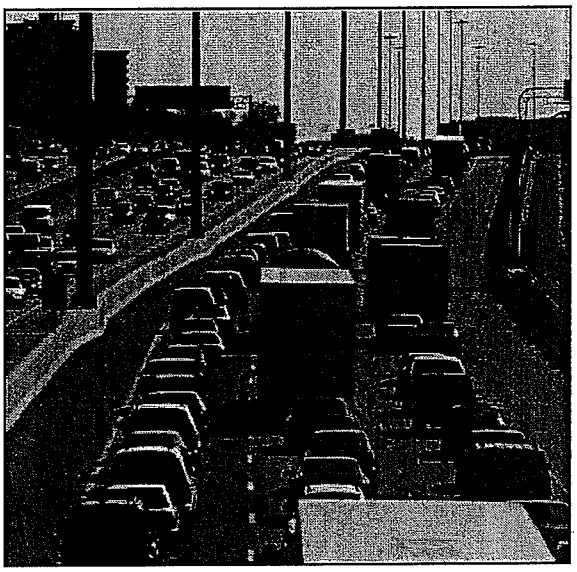
EXECUTIVE SUMMARY

The Challenges and Opportunities of Growth

The study area is located within the Greater Golden Horseshoe (GGH), which stretches from Niagara Region to Waterloo Region, from Simcoe County to Northumberland. As one of the fastest growing regions in North America, the population of this region is expected to increase to 11.5 million people with 5.5 million jobs in the area by 2031.

In order to deal with this anticipated growth, the Ontario government released *The Growth Plan for the Greater Golden Horseshoe (The Growth Plan)* in 2006, which provides a framework for building strong and prosperous communities by managing growth. *The Growth Plan* also provides the strategic policy framework for the transportation system in the GGH that provides for more transportation choices, promotes public transit and active transportation and gives priority to goods movement on highway corridors. Under this policy framework, the Niagara to GTA Corridor Planning and Environmental Assessment study (NGTA study) is designed to explore all modes of transportation for facilitating the efficient inter-regional movement of people and goods.



The GGH will continue to experience the benefits that come from growth, with vibrant, diversified communities and economies, new and expanded community services, and arts, culture and recreation facilities. However, without properly managing growth, communities will experience the negative aspects associated with rapid growth, such as inefficient land use and infrastructure, increased transportation demand and traffic congestion, declining economic productivity, and development pressure on agricultural lands and natural resources.

The Niagara to GTA study area (NGTA study area) is in a strategically important location critical to Ontario's long term economic competitiveness as part of the Ontario-Quebec Continental Gateway and Trade Corridor, ensuring the efficient movement of people and goods between Ontario communities and US markets. Within the NGTA study area the municipalities of Hamilton, Halton and Niagara expect over 445,000 new residents and 195,000 new jobs by 2031.

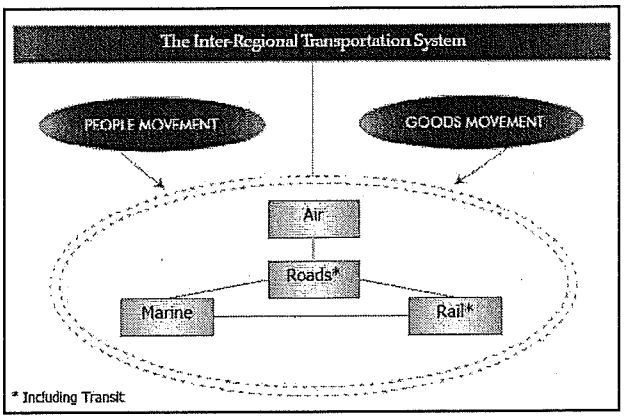
From a transportation planning perspective, this growth poses a significant challenge, as many of the existing transportation facilities are already operating at or near capacity during peak periods. By 2031, according to the analysis undertaken for this study, the existing transportation network within the NGTA study area will not be able to support the additional transportation demands that correspond with the projected growth.

Transportation Problems and Opportunities

Transportation in the study area is characterized by a high degree of reliance on the road network as the vast majority of trips in the NGTA Corridor are made by automobile and truck.

Furthermore, as established by analysis and stakeholder consultation, the road network is important to the operation of all travel modes in the study area including transit, rail, air and marine.

All of these modes rely upon and connect to the road network. All travel modes have been considered in generating alternative transportation solutions to address the identified transportation problems.



Transportation service providers for rail, air and marine have indicated that their systems generally have sufficient capacity to accommodate future travel growth. Enhancements to these individual modes to accommodate growth and / or changing travel markets (for example, a further shift to containerization of goods) can generally be made within the existing lands / corridors of the railways, ports and airports. The key transportation issues identified by all of the service providers relate to the following:

- Lack of capacity on the road network to handle growth;
- Need for improved connections between different travel modes; and
- Roadway congestion particularly during the weekday peak period commute, especially in the Hamilton and Halton areas, as well as high volumes of summer tourism and recreation travellers, particularly in the Niagara area.

In addition to the transportation problems, there are also numerous transportation opportunities that can be achieved within the study area by providing an efficient multi-modal transportation system. These include:

- Improved multi-modal connections to the GTA and areas west of the Corridor;
- Improved access to Niagara Falls and the US border for tourism and trade;
- Improved access to inter-modal facilities such as Hamilton International Airport and the Port of Hamilton;
- Support for approved municipal land use planning:
  - Niagara's "Grow South" plan to protect the tender fruit lands;
  - Hamilton's planned Airport Employment Growth District (AEGD); and
  - Halton's planned employment growth lands in Milton, Oakville and Burlington.
- Minimized impacts to the natural, social, economic and cultural environments, through measures including optimizing existing transportation infrastructure.

The Province's Action Plan

To address these issues, the Ontario government has begun the process of planning for the future. *The Growth Plan, The Greenbelt Plan,* and *the Niagara Escarpment Plan* provide an important policy context and foundation for future growth. These policies provide a basis for municipalities and the Ontario government to plan for communities with land use that is supportive of a more balanced transportation system that makes best use of the existing infrastructure, and prioritizes the use of transit and other non-roadway modes of transportation for people and goods movement.

In addition to providing a sustainable policy framework, a *Regional Transportation Plan* (*RTP*) for the Greater Toronto and Hamilton Area (GTHA), also known as "The Big Move," has been completed by Metrolinx (including GO Transit) and adopted by the Metrolinx Board of Directors in accordance with the Metrolinx Act. This plan includes a number of initiatives referred to as "Quick Wins" to be in service within five years or less and "The Big 5" to be in service within ten years.

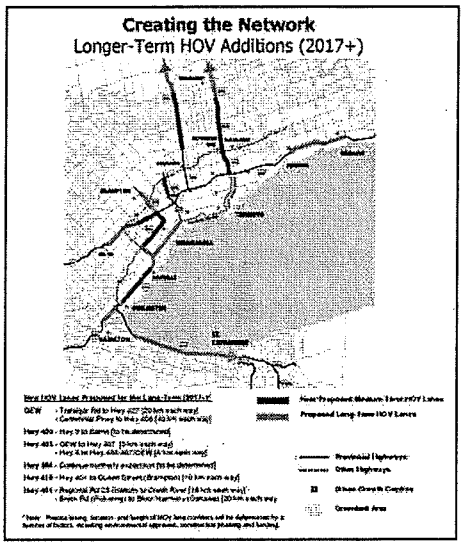
Projects have started:

- **Metrolinx "Quick Wins" in the NGTA study area**
  - Hamilton A and B Line Bus Rapid Transit (BRT) improvements
  - Hamilton James Street North GO / VIA Station – gateway to Niagara
  - Halton Region BRT
- **The Big 5 Metrolinx Big Move Projects**
  - Sheppard LRT
  - Eglinton LRT
  - York Viva
  - Scarborough RT
  - Finch LRT
- **GO service expansion into Niagara Region**
- **High Occupancy Vehicle Lane Network Plan (2007-2011)**
  - Highway 404 – construction complete
  - Highway 403 – construction complete
  - Queen Elizabeth Way (QEW) – construction underway with HOV lanes now open between Trafalgar Road and Guelph Line
  - Highway 400 – construction underway
  - Highway 427 – study underway
- **MTO's 2008-2012 Southern Highways Program**
  - Over $2 billion to repair and expand highways, roads and bridges across the province
  - $927 million designated for Southern Ontario highway construction

In addition, the Ontario Ministry of Transportation (MTO) has developed a *High Occupancy Vehicle (HOV) Lane Network Plan (2007-2011)* to encourage car-pooling and to support bus transit. Several elements of this plan have already been constructed, including new HOV lanes on:

- Highway 404 between 407 ETR and Highway 401;
- Highway 403 through Mississauga; and
- The Queen Elizabeth Way (QEW) between Trafalgar Road in Oakville and Guelph Line in Burlington.

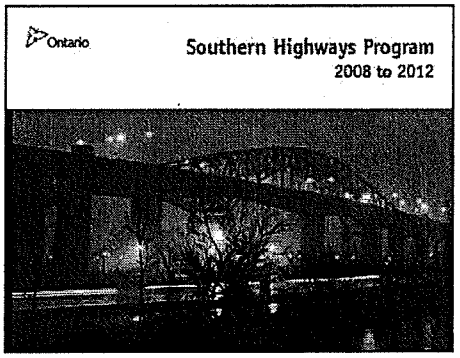
Construction is underway on sections of other provincial facilities such as Highway 400.



In addition to these initiatives, the MTO's *2008-2012 Southern Highways Program* has invested more than $2 billion to repair and expand highways, roads and bridges across the province, with $927 million designated for Southern Ontario highway construction.

At a municipal level, all municipalities within the GGH either have approved or are working on Official Plan amendments to conform to *The Growth Plan*, which promotes more compact, transit-supportive development. This is the first step towards building compact transit supportive complete communities.

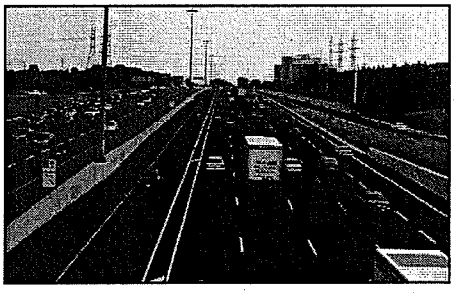
While all of these initiatives will help to address the future travel demand that is anticipated by 2031, more is needed.

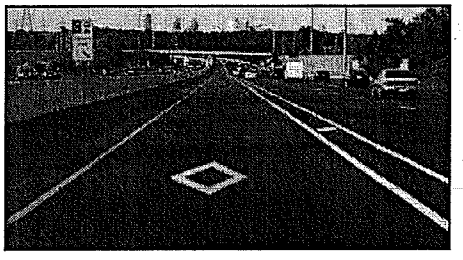


This *NGTA Study* has been initiated to explore all modes of transportation, including:

- transit,
- freight rail,
- marine,
- air,
- freight inter-modal, and
- roads and highways.

The objective of this study is to develop a broad, multi-modal Transportation Development Strategy (the Strategy) for the NGTA study area that builds upon all of the Ontario government's current plans and identifies multi-modal transportation improvements to address the future needs.





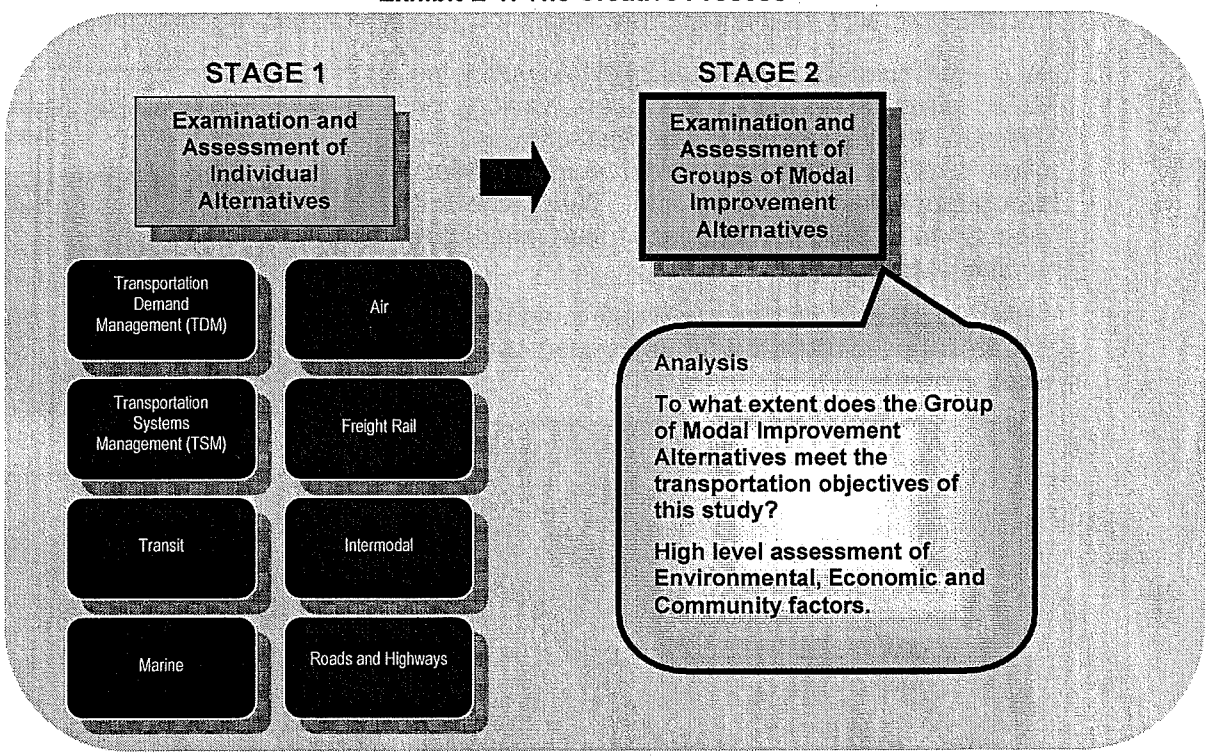
The Building Block Approach

On the basis of the identified future transportation needs, the study team developed a series of multi-modal Area Transportation System Alternatives to address these needs (refer to **Chapter 3** of this report). The development of the Area Transportation System Alternatives has involved a unique and creative process, built upon an extensive consultation program with a wide range of stakeholders and other transportation service providers.

The process has followed a two-stage approach which began with a comprehensive assessment of the individual transportation alternatives to assess their ability to address the future inter-regional transportation problems and opportunities identified by the study team.

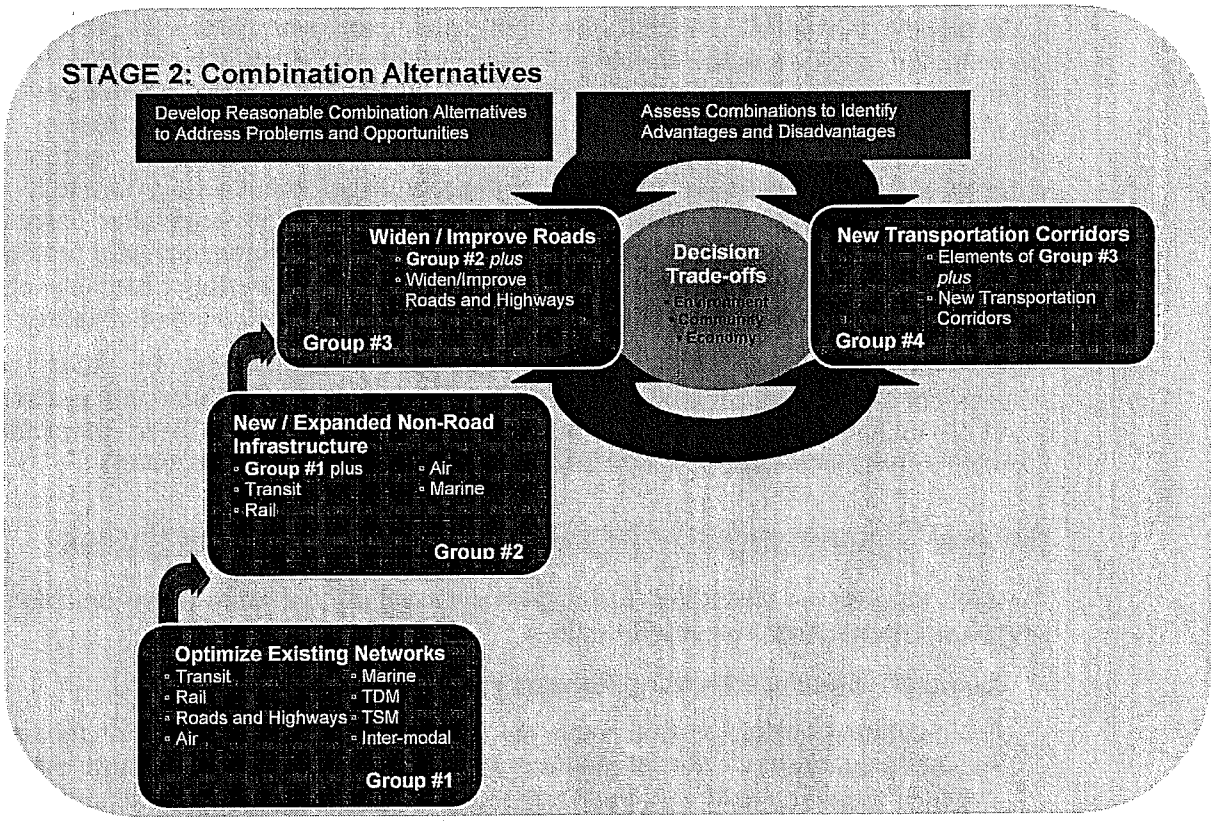
Based on this assessment, multi-modal alternatives considered capable of substantively contributing to addressing these problems and opportunities were carried forward to the second stage of the process, which involved assembling the multi-modal individual alternatives into group alternatives (**Exhibit E-1**).

Exhibit E-1: The Creative Process



The "building block" approach (**Exhibit E-2**) is consistent with current government policies and priorities of first optimizing the existing transportation network, and then if necessary, incorporating non-roadway infrastructure improvements and expansion, before moving to consider the widening of existing roadways or the provision of new roads and / or highways.

Exhibit E–2: The "Building Block" Approach



The study team's objectives throughout the process have been to fully explore the potential of all transportation modes, as well as the potential of optimization techniques aimed at managing transportation demand (Transportation Demand Management – TDM) and enhancing and improving the existing transportation system using emerging technologies (Transportation Systems Management – TSM).

As part of this exercise, study team specialists for each of the modes of transportation were tasked with reviewing transportation practices in other jurisdictions around the world to determine which elements of these practices can be applied to the unique set of circumstances presented by the transportation, environmental, economic and social features and conditions within the NGTA study area.

In addition, the specialists have conducted numerous meetings with other transportation service providers such as Metrolinx (including GO Transit), CN Rail, CP Rail, Ontario Motor Coach Association, St. Lawrence Seaway Authority, Hamilton Port Authority and the Hamilton International Airport. The goal of these meetings has been to discuss with these agencies the potential to increase the utilization of their respective mode of transportation for the movement of people and goods, and to gain valuable insight with

regard to the specific policy issues and constraints that govern their ability to provide transportation services.

The findings of the specialists have been used by the broader study team through numerous workshops, as well as through meetings with municipalities, government agencies, members of the public and First Nations, to inform the development of an innovative and creative 'long-list' of multi-modal transportation alternatives.

In developing the initial 'long-list', the study team removed perceived barriers from consideration, such as policy constraints and / or pre-conceived notions based on past experience. This fostered the development of a truly creative set of alternatives. This list was subsequently analyzed and refined by the study team's specialists. Each alternative was examined on the basis of its ability to substantively contribute to addressing the transportation problems and opportunities identified by the study team during the previous phase of work. Concepts that were not considered capable of addressing the inter-regional transportation problems and opportunities were not carried forward for further consideration. The remaining concepts were categorized as worthy of pursuit as part of subsequent phases of this study or by other studies and initiatives.

The findings of the specialists, the initial 'long-list' of alternatives, the study team's assessment of the 'long list' of alternatives, together with the generation and assessment of the group alternatives are all documented in the *Niagara to GTA Area Transportation Systems Alternatives Report (March 2010)* (available under separate cover).

Area Transportation System Alternatives

Through the process described in the previous section, the study team identified four groups of Area Transportation Alternatives:

- **Group #1: Optimize Existing Transportation Networks**

  Transportation initiatives that focus on improving the performance of the existing transportation system for all modes of travel and transport through strategies designed to reduce auto and truck demand and improve system operating efficiency.

- **Group #2: New or Improved Non-Road Infrastructure**

  This alternative builds upon the transportation system performance enhancements provided by Group #1 through provision of additional "non-road-based" capacity such as new air, marine, transit, and freight rail infrastructure to address potential shortfalls in addressing the transportation problems and opportunities inherent in Group #1.

- **Group #3: Widen or Improve Roads**

  This alternative builds upon the transportation system enhancements and non-road capacity improvements provided by Group #2 and adds new capacity by widening existing roads or highways beyond that planned or contemplated by municipalities and the Ontario government.

- **Group #4: New Transportation Corridors**

  This alternative builds upon the transportation system enhancements and both road and non-road capacity improvements provided by Group #1 and #2, as well as some existing road widening from Group #3, and adds new road and / or highway capacity on a new corridor to address identified transportation problems and opportunities.

The following provides a summary of each of the group alternatives.

OVERVIEW OF GROUP #1

The Group #1 alternatives build upon comprehensive optimization strategies embodied in the *RTP*, *GO 2020 Strategic Plan,* MTO's *High Occupancy Vehicle Lane Network Plan* and Carpool Lot Program, and municipal transportation plans. These strategies aim at:

- Improving access to transit stations for pedestrians and motorists and advancing the concept of mobility hubs;
- Making active transportation a viable choice. Potential strategies include secure storage at transit terminals and bicycles on transit vehicles;
- Expanding the use of bus bypass shoulders during peak periods;
- Improving schedule and fare integration between transit providers;
- Providing drivers with real time trip planning information;
- Providing real time information to transit riders in stations and vehicles along with remote access via telephone and the internet;
- Optimizing use of commuter rail system (e.g., use of longer trains comprising 12 cars); and
- More aggressive use of TDM and TSM.

In addition to these strategies, the study team identified a number of complementary strategies, which may be further supplemented and refined. These strategies are described in further detail below:

Speed Harmonization

Speed harmonization is used widely in numerous European jurisdictions and essentially involves adjusting the speed limit on inter-regional facilities based on prevailing congestion levels. In the US, pilot projects have been initiated to assess the feasibility of implementing speed harmonization. Changeable message speed signs which are connected through an electronic system to sensors in the pavement are used to reduce the speed limit during times of congestion. The reduced speeds promote a more even traffic flow which increases throughput and improves safety.

Provincial / Employer Led TDM Programs

TDM programs could be improved upon by expanding the Smart Commute program beyond the GTHA. Other potential initiatives to support TDM include marketing of carpooling using overhead signage in the corridor or at carpool lots in the area, and providing support for municipalities along the corridor to implement TDM measures.

Experience in other jurisdictions has shown that regional organization of TDM initiatives leads to operational and economic efficiencies that translate into increased awareness of the programs, a greater variety of services and higher utilization. This concept may also involve providing additional Park 'n Ride lots at key locations.

Long Combination Vehicles (LCVs)

Long Combination Vehicles (LCVs) consist of a single tractor with two 16-metre (53 foot) trailers. MTO recently initiated a pilot program to allow up to 100 LCVs on the provincial highway network. This program improves fuel efficiency and traffic operations for goods movement and MTO is reviewing the experience with the LCVs to determine the next stage of the program.

Ramp Metering

Ramp metering involves the implementation of signal control measures on a freeway on-ramp to control the traffic entering the highway in order to ensure a smooth downstream traffic flow. Ramp metering is already in existence on portions of the QEW. The draft Strategy recommends exploring the potential of expanding the ramp metering program to other sections of QEW, Highway 403 and 407 ETR in the Hamilton, Halton and Niagara areas.

HOV / Transit Bypass at Key Locations

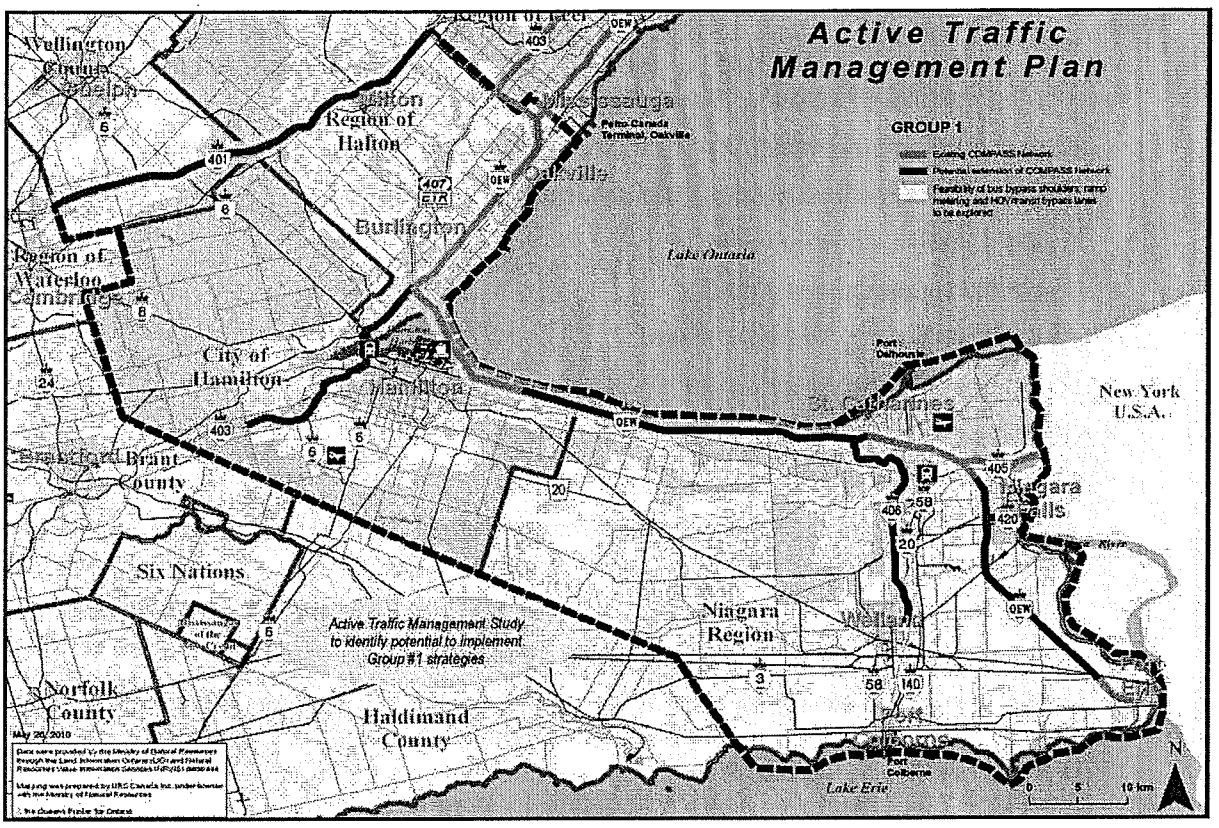
This concept involves providing bypass lanes on metered ramps, ramps accessing transit stations, and ramps in vicinity of carpool lots for HOV and transit vehicles. This would allow HOV and transit vehicles to bypass traffic queues on these ramps and access facilities more efficiently.

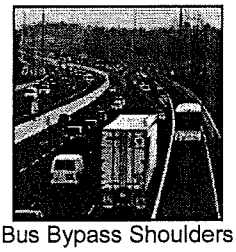
Improved Incident Management

This concept involves increased utilization of emerging technologies to improve detection of incidents, improve EMS response times, and as a result reduce the amount of congestion and delays resulting from traffic incidents.

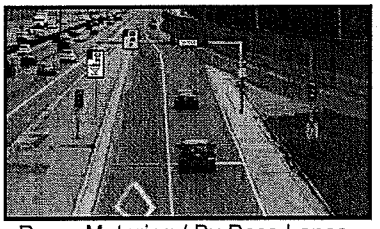
Through further analysis and consultation with Ministry of Transportation specialists in Intelligent Transportation Systems (ITS) and Advanced Traffic Management Systems (ATMS), the following concepts were carried forward to be included in the draft Transportation Development Strategy (Strategy), as illustrated in **Exhibit E-3** below:

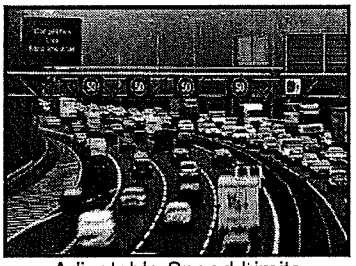
Exhibit E–3: Recommended Optimization Strategies

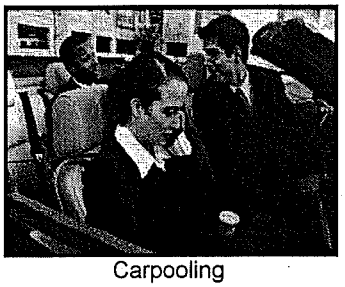


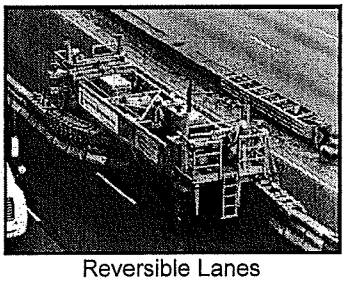

Bus Bypass Shoulders


Traffic Updates


Ramp Metering / By Pass Lanes


Adjustable Speed Limits


Carpooling


Reversible Lanes

Innovative Technologies

OVERVIEW OF GROUP #2

The Group #2 alternatives include the significant transit, marine and air service expansion initiatives envisioned by the *RTP*, *GO 2020*, Hamilton International Airport, and Port of Hamilton that serve the study area. These include:

- Express rail service along GO Transit Lakeshore Corridor;
- GO Transit Lakeshore extension to downtown Hamilton;
- Rapid transit in Hamilton area;
- Rapid transit along Highway 5;
- Rapid transit along Trafalgar Road;
- Rapid transit along Brant Street;
- Bus Rapid Transit and Transitway along 407 ETR / 403;
- GO Transit expanded service to Niagara Falls;
- Port of Hamilton Infrastructure Development Strategy (including the Sea3 – container feeder service between Hamilton and Montreal);
- Hamilton International Airport – expansion of existing taxiways and terminal; and
- Expanded and improved parking facilities at selected transit stations.

In addition to these strategies, the study team identified a number of complementary strategies, which may be further supplemented and refined. These strategies are described in further detail below:

Hamilton-Focused Inter-Regional Transit Service

The concept of a Hamilton-focused inter-regional transit service is based on Hamilton's increasing role as a significant employment area, which is anticipated to continue to increase over the coming decades. A transit service that is focused on Hamilton would offer scheduling that would allow commuters in the outlying areas surrounding the City of Hamilton to access the employment districts within Hamilton during peak periods.

Transit Supportive Highway Corridors

This concept involves introducing reserved bus lanes, HOV lanes, bus bypass shoulders and other transit supportive measures within existing provincial facilities such as the QEW, Highway 403, Highway 401, etc. that would serve to make bus transit a more reliable and viable service.

New Inter-Regional Transit Links between Urban Growth Centres

This concept involves providing a western 'web' of passenger transit services which would provide coverage to the Kitchener-Waterloo, Guelph, Cambridge, Hamilton and Brantford areas and could be combined with the Hamilton focused inter-regional transit service described above. The concept would initially focus on bus services, but in the longer term could involve providing new passenger rail services on existing rail corridors to link urban growth centres. Given that these are smaller growth centres and the potential ridership may not be significant, an opportunity exists to use smaller train systems or even self-propelled railcars, which can be individual or clustered. Rail stations would be comprised of multi-modal facilities to provide for a well-connected and integrated transportation system.

Promote Improved Integration and Utilization of Multi-Modal Goods Movement

While the existing freight rail network has sufficient capacity to address future growth in goods movement by rail, there are numerous locations where conflicts exist between passenger and freight rail services when both services use the same tracks, as well as at-grade road / rail crossings where road traffic has to stop to let trains through. These locations have an adverse effect on current rail operations.

Removal of these constraints will have an overall positive effect on passenger and freight rail operations, allowing people and goods to be moved more efficiently, which may result in a higher efficiency of this mode to attract commuters and shippers. Road / rail grade separations will improve the efficiency of the local roads intersecting increasingly busy railway tracks and improve safety.

To support increased utilization of freight rail, the Ministry will coordinate with CN Rail, CP Rail and Metrolinx in the mid-term to identify the conflict points and will support potential future initiatives aimed at removing freight rail / passenger rail conflicts and providing grade separations at road / rail crossings. Opportunities for high-speed rail on separate tracks will also be considered.

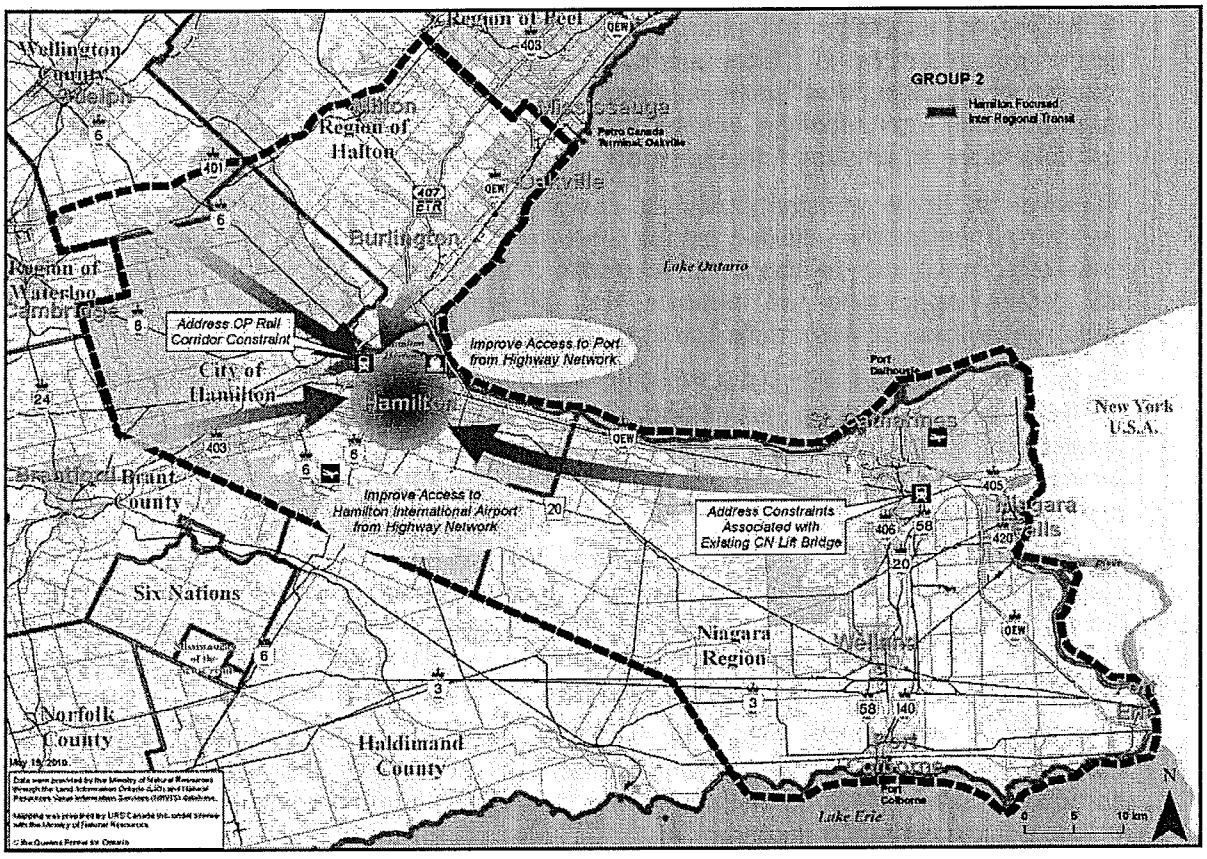
With regard to the marine mode of transportation, the Port of Hamilton and St. Lawrence Seaway have sufficient capacity to address future growth in goods movement by marine. However, the Port of Hamilton has advised that improvements to the current access to the port from the provincial highway system via Burlington Street could result in improved efficiencies and increased utilization of the Port in the future.

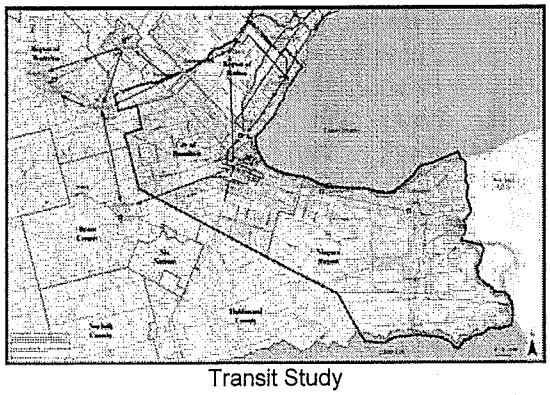
In addition, current US legislation such as the US Harbor Maintenance Tax, the Cabotage Laws and the Environmental Ballast Water Regulations affect the competitiveness of the marine mode of transportation for goods movement as compared to the other modes of transportation.

The Ministry will work with the ports in the study area (Hamilton and Port Colborne) and the St. Lawrence Seaway Authority and relevant municipalities in the mid-term regarding the provision of improved access to port lands from the provincial highway system – where warranted by increased demand. This, along with potential changes to legislation, positively affects the ability of the marine mode of transportation to compete for a larger share of the goods movement market. This may have an overall positive effect on the utilization of the marine transportation system by shippers.

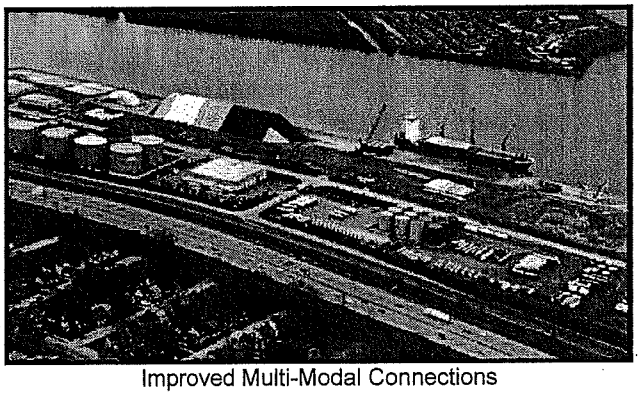
The above concepts were carried forward to be included in the draft Strategy, as illustrated in **Exhibit E-4**.

Exhibit E–4: Recommended Non-Roadway Elements

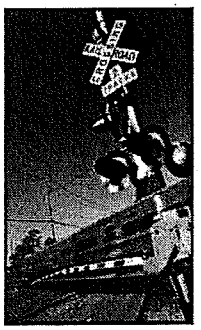




Transit Study



Improved Multi-Modal Connections



THE NEED FOR ROADWAY BASED SOLUTIONS

By 2031, the population in the GGH is expected to increase by almost 4 million people. To accommodate this growth, the study team anticipates that by 2031:

- The land use intensification targets prescribed in *The Growth Plan* will be fully achieved;
- Urban Growth Centres will be built with transit supportive densities and a healthy mix of land uses;
- The development of compact, vibrant and complete communities will be fostered in which people will live, work and play;
- An additional 700 million transit trips within the GTHA will be accommodated;
- All current provincial transportation plans, such as the *RTP* and the *GO 2020 Strategic Plan*, will be implemented;
- More commuters will switch from single occupant cars to transit, carpools and active transportation (i.e., cycling);
- A significant share (approximately 10%) of goods transport will be diverted from long distance trucks to other modes;
- The existing transportation infrastructure will be optimized through implementation of the Group #1 type initiatives; and
- More non-road based infrastructure such as the Group #2 initiatives will be investigated, along with additional related actions.

Based on the above, the potential of all transportation modes has been explored and together with the *RTP* and the *GO 2020 Strategic Plan*, the potential of existing infrastructure will be fully maximized.

Notwithstanding these positive improvements, by the year 2031, roadway conditions will become increasingly congested, with severe congestion in the vicinity of the Burlington Skyway and the QEW / Highway 403 / 407 ETR Interchange. This is fully the result of the projected growth in population and employment in the GGH.

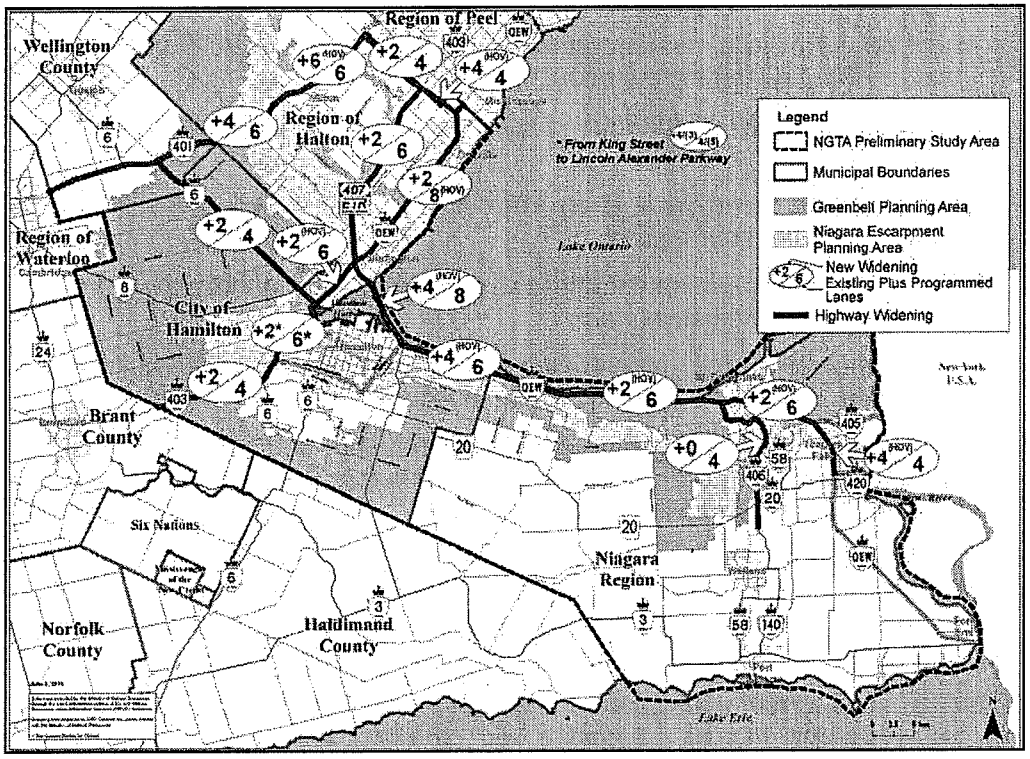
To realize the vision of a functional transportation network that provides user choice and balance, additional roadway capacity will be required: either by widening existing highways (Group #3) and / or protecting for new transportation corridors (Group #4). While the draft Strategy includes long-term roadway recommendations, the Ontario government's first priority will be on optimization of existing infrastructure and transit improvements / expansion.

OVERVIEW OF GROUP #3

The Group #3 alternatives include all of the elements from Group #1 and Group #2 as well as the widening of existing provincial inter-regional transportation facilities, as illustrated in **Exhibit E-5**.

Within the 'ovals' on this exhibit, the lower (black) number indicates the number of lanes that are existing as well as any widening that has already been planned. The upper number (red) indicates the number of lanes that will be required over and above the existing and planned lanes. The number of lanes required was calculated based on the travel demand analysis completed during the identification of Transportation Problems and Opportunities, and as summarized in the *Area Transportation System Problems and Opportunities Report, July 2009* (under separate cover). These widenings reflect what will be needed after all transit plans are implemented, all modal shifts have been made, all trips have been reduced by TDM, and all growth has been managed / intensified. This incremental widening is the basis for comparing the Group #3 alternative to the Group #4 alternative.

Exhibit E–5: Widening Alternative



OVERVIEW OF GROUP #4

The Group #4 alternatives reflect what will be needed after all transit plans are implemented, all modal shifts have been made, all trips have been reduced by TDM, all growth has been managed / intensified, and the recommended highway widenings have been made. The Group #4 alternatives include all of the elements from Group #1 and Group #2 and a portion of the highway widening identified in Group #3, as well as a consideration of the following new corridor alternatives:

- Complete new corridor connecting either:
  - QEW in Fort Erie / Niagara Falls area to Highway 403;
  - QEW in Fort Erie / Niagara Falls area to Highway 401; or
  - QEW in Fort Erie / Niagara Falls area to 407 ETR.
- A combination of new and existing corridors to provide a bypass around urban core of the City of Hamilton, together with an upgrade or widening of Highway 406 connecting to a new corridor between Highway 406 and QEW south of Niagara Falls.

Each of the new corridor alternatives is depicted in **Exhibits E–6** to **E–9**. For the detailed assessment of Group #3 and Group #4, please refer to **Chapter 4** of this report.

Exhibit E–6: New Corridor Connecting to Highway 403 West of Hamilton

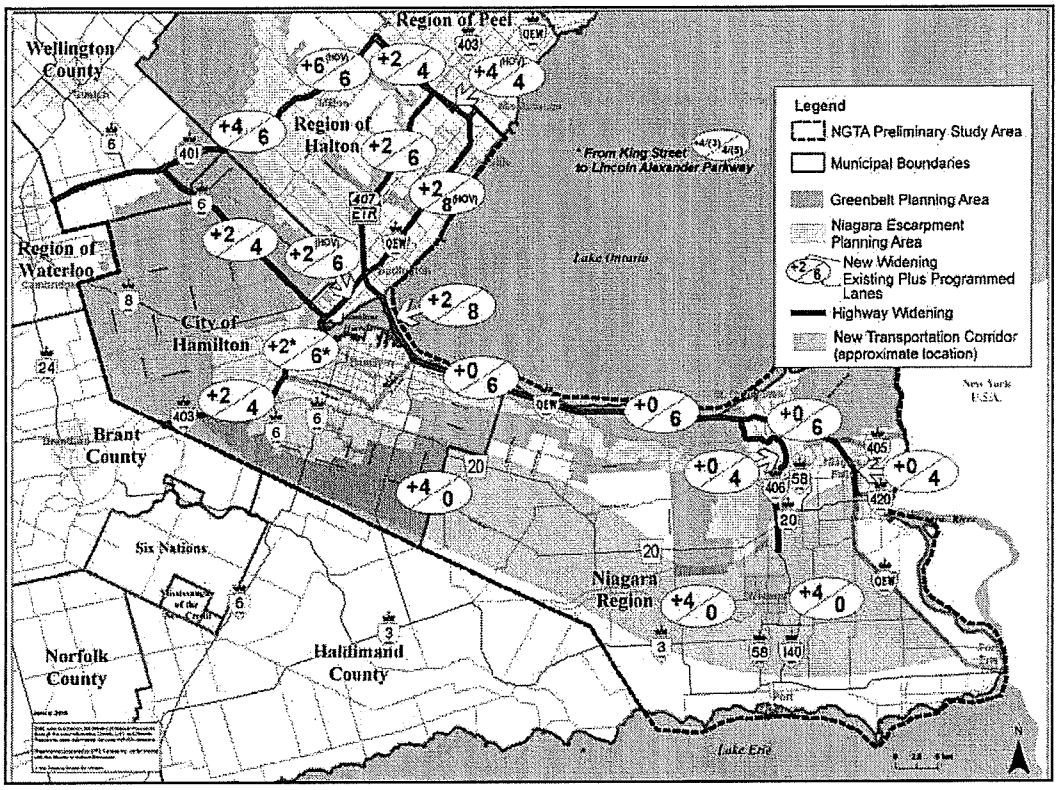


Exhibit E–7: New Corridor Connecting to Highway 401 West of Milton

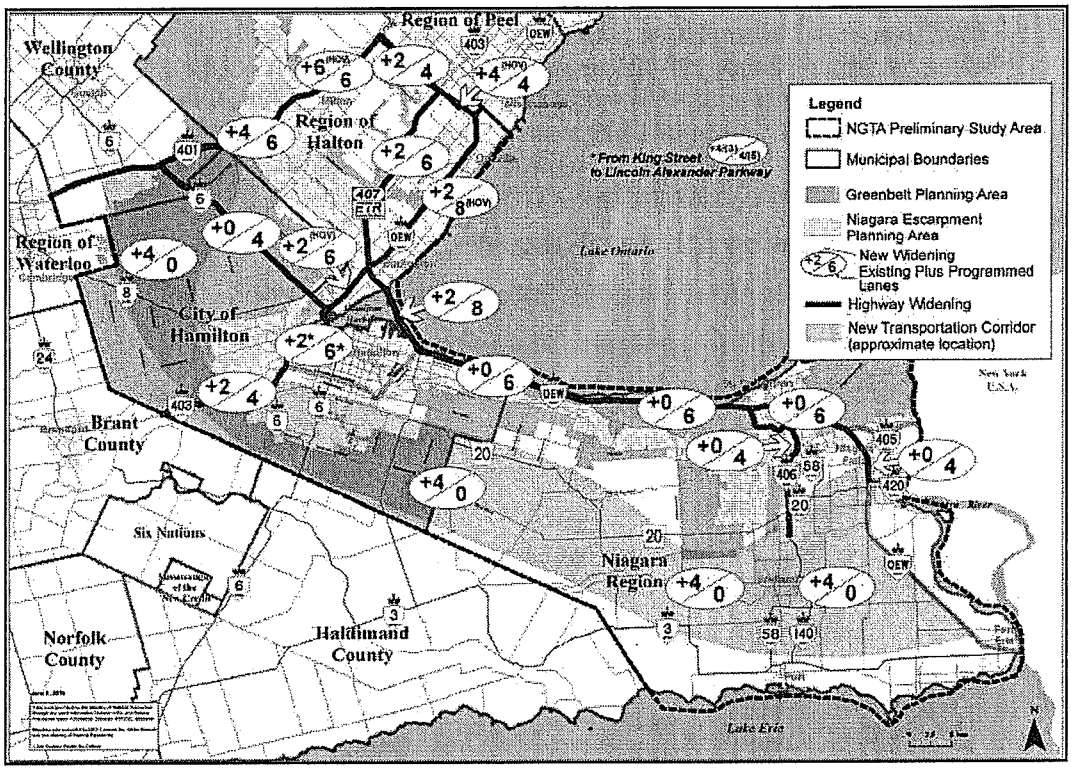


Exhibit E–8: New Corridor Connecting to 407 ETR

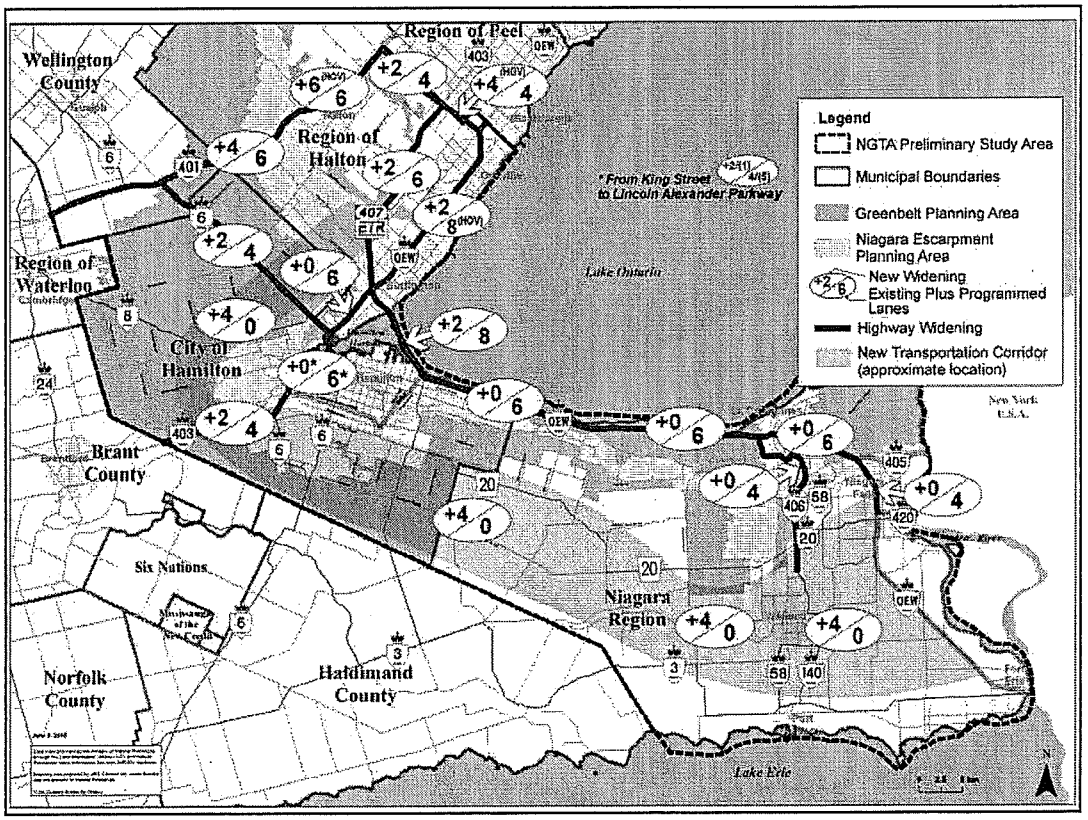
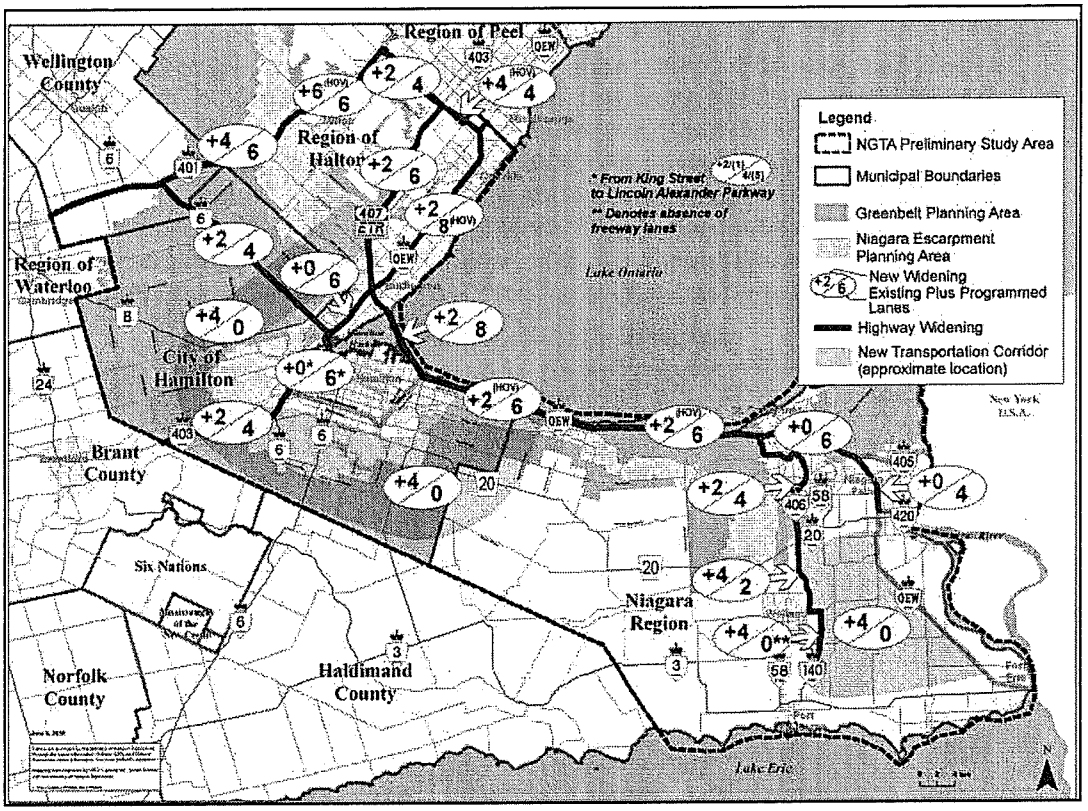


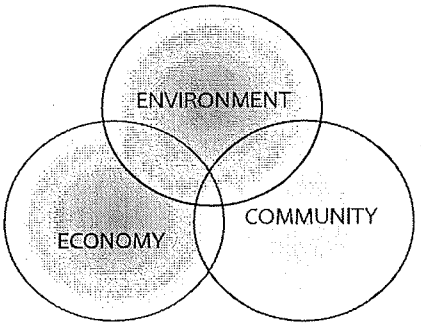
Exhibit E–9: New Bypass / Link Corridors



Analysis and Evaluation of Group #3 and Group #4 Transportation Alternatives

The analysis of Group #3 and Group #4 alternatives was divided into four work streams, based on consideration of the "Triple-bottom Line" as well as Transportation and Engineering considerations:

- **Environment** – potential impacts to fish and fish habitat; terrestrial ecosystems; groundwater; etc.
- **Community** – potential impacts to residences; businesses; agriculture; noise; air quality; built heritage; archaeology; etc.
- **Economy** – economic benefits of increased transportation capacity to all sectors of the GGH economy, as well as the ability of each alternative to support future employment growth (including tourism) and municipal economic development objectives.



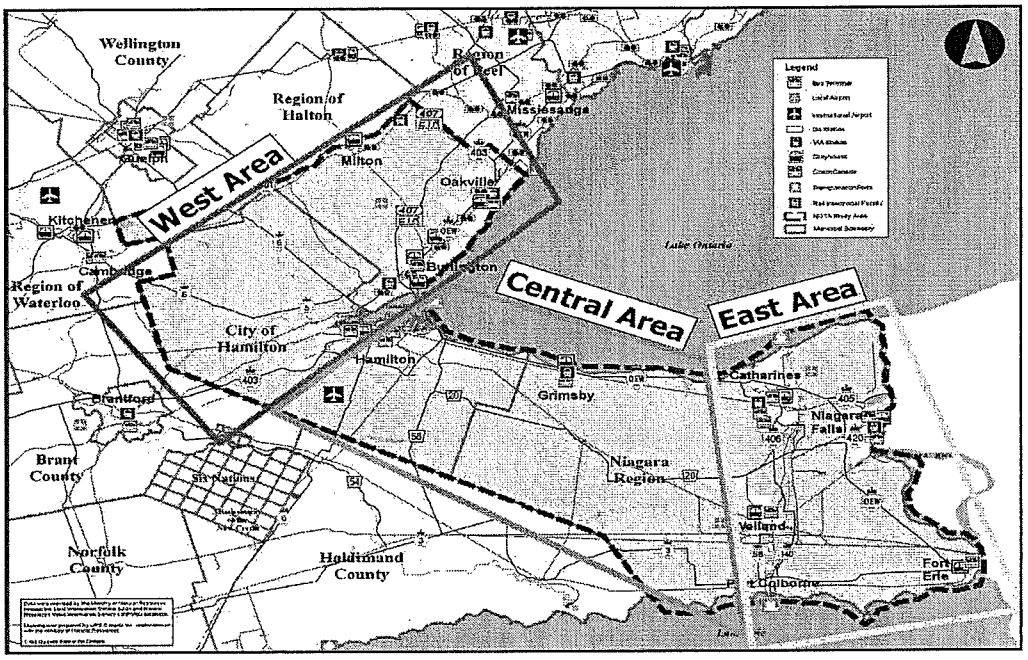
- **Transportation and Engineering** – future traffic capacity, operational and safety conditions as well as significant constructability issues and costs.

During the transportation and engineering analysis and evaluation stakeholders expressed concerns regarding the future freight forecasts. Given the demonstrated need for additional roadway capacity that promotes efficient movement of people and goods, additional analysis will be undertaken to re-examine these forecasts. The

recommendations embodied in the draft Strategy described in **Table E-1** will be reviewed in light of the findings of this additional analysis.

At a broad evaluation level, none of the alternatives as originally developed (refer to **Exhibits E–5** to **E–9**) emerged as being clearly preferred. Through the evaluation process it was clear that there were distinct geographic regions in the study area and each has its own unique set of transportation, economic, environmental and community characteristics that needed to be assessed separately. This led to the assessment of the three geographic sub areas depicted in **Exhibit E-10**. Within each region, the corresponding components of the widening and new corridor alternatives were compared and evaluated to arrive at a preferred alternative in each area.

Exhibit E–10: Geographic Specific Assessment



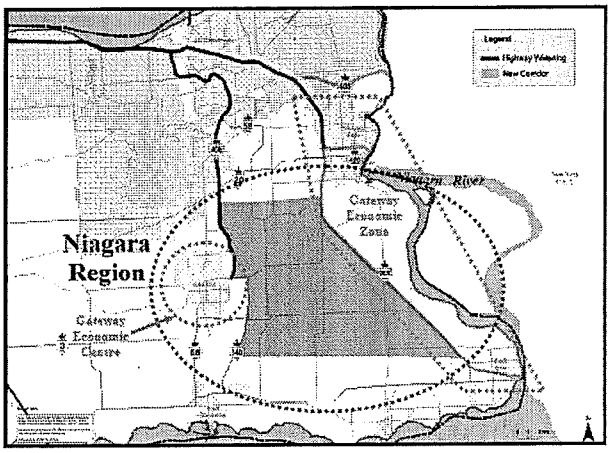
The result is a hybrid alternative that captures the most promising elements of the widening and new corridor alternatives. The following provides an overview of the study team's assessment and evaluation within each geographic area. Please refer to **Chapter 4** of this report for more details.

EAST AREA – ST. CATHARINES / NIAGARA FALLS / WELLAND / FORT ERIE

CRITERIA	ALTERNATIVES	
	Widening	New Corridor
COMMUNITY		
ECONOMY		
ENVIRONMENT		
TRANSPORTATION		

Most Benefit
Least Impact

Least Benefit
Most Impact

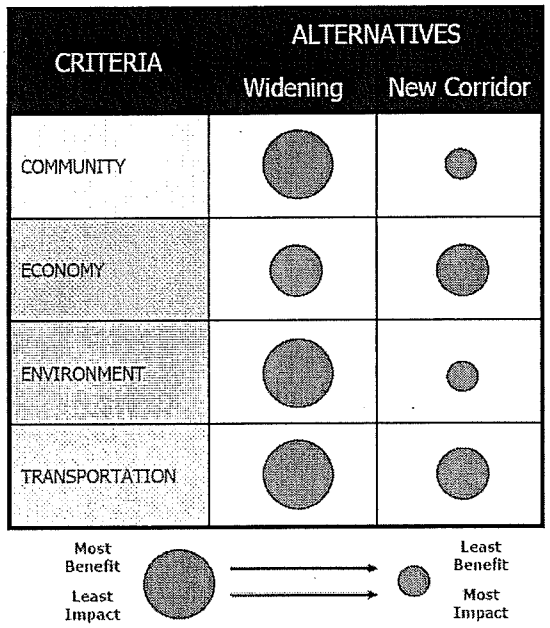


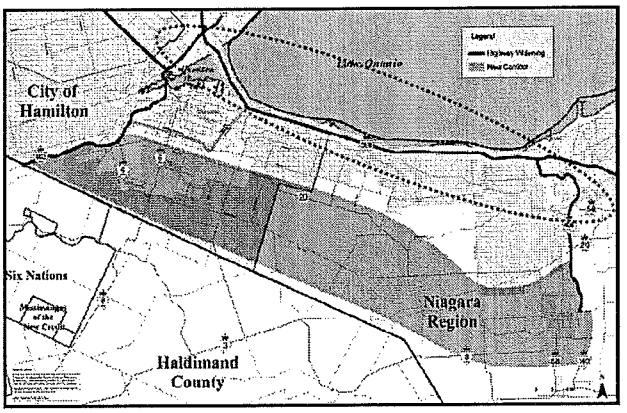
In the east end of the study area, providing a new corridor between Highway 406 in the Welland area and QEW would avoid the need for further widening of QEW through St. Catharines and crossing the Niagara Escarpment until beyond 2031. Further widening of QEW through the St. Catharines area beyond the six lanes that are currently being constructed could be expected to have a significant community impact. Well over 100 residences would have to be displaced and there would be major impacts to a number of businesses and industrial areas.

In addition, a new corridor would provide alternative access and flexibility for goods and people movement to the border, along with the economic benefits of a direct connection between the Gateway Economic Centre (in the Welland area) and Gateway Economic Zone along the Niagara River as defined in *The Growth Plan*. Moreover, a new corridor connection would allow opportunities for better border management by providing a higher order highway alternative to facilitate better distribution of traffic between the Niagara border crossings.

From an overall perspective, the study team believes that the new corridor alternative provides the best balance of advantages and disadvantages from a triple-bottom line (environment, economy and community) and a transportation perspective. Therefore a new corridor connecting Highway 406 and the QEW is preferred.

CENTRAL AREA – WEST NIAGARA TO STONEY CREEK / HAMILTON





In the Central Area, the over-arching consideration is that the future growth in traffic volumes along the section of QEW from Niagara to Hamilton by 2031 can be accommodated with the addition of HOV lanes. Much of the roadway platform for the HOV lanes is already constructed and can be accommodated generally within the existing right-of-way with minimal additional property requirements, so the impacts on adjacent communities, farmlands, and environment features associated with the widening of QEW are expected to be relatively minor.

In contrast, in the time period up to 2031 a new corridor through southern Niagara and south-eastern Hamilton is not forecasted to divert enough traffic to avoid the need to widen QEW, and would have comparatively greater impacts to natural environmental features and agricultural communities.

From an economic perspective, widening of QEW will provide additional capacity in a corridor that is still very desirable from an economic growth and economic development perspective. It is recognized, however, that a new corridor would better service the economic development areas in southern Niagara, and would provide an alternate route for goods movement to the international border.

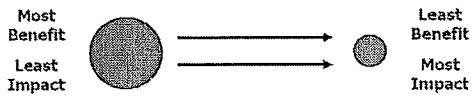
In summary, if current population and employment growth patterns continue beyond 2031, a new multi-use corridor would be required to divert future traffic growth from the QEW, to take advantage of economic development opportunities in southern Niagara, and to provide an alternative route for long-distance cars and trucks destined to Niagara Region and the international border crossing in Fort Erie. Such a corridor could be used to accommodate a variety of services, including high-speed rail, goods movement, and / or transit.

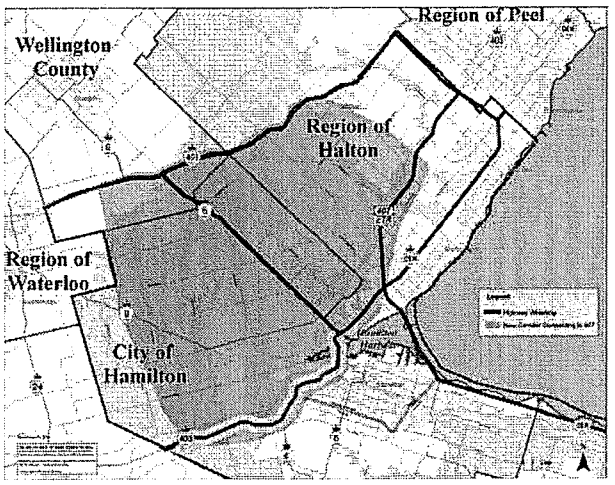
Therefore, widening of the QEW in the Central Area is the preferred alternative to the 2031 time period. It is also recommended that the ministry monitor growth patterns and transportation system performance to determine when a new transportation corridor between Hamilton and Welland will be required in the longer term. While not anticipated

to be required until beyond 2031, it is likely that the planning for this new corridor will commence before 2031 to enable corridor route identification measures to be put in place. The corridor is expected to be a multi-use corridor that could also accommodate other services such as high speed rail, transit, utilities, etc.

WEST AREA – HAMILTON TO BURLINGTON / OAKVILLE

CRITERIA	ALTERNATIVES	
	Widening	New Corridor
COMMUNITY		
ECONOMY		
ENVIRONMENT		
TRANSPORTATION		

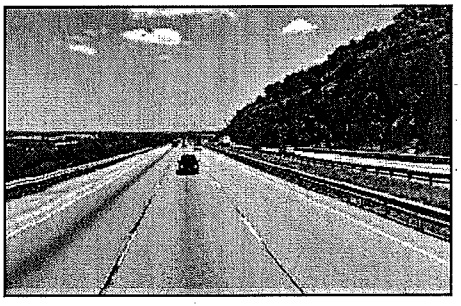




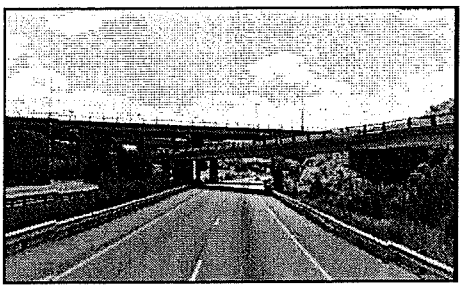
In the West Area, the traffic analysis has indicated that without an alternative transportation corridor within the planning horizon, Highway 403 through Hamilton will require widening to ten lanes to avoid severe congestion. A widening of this magnitude would have significant impacts to residences, the natural environment, businesses, and community features.

From an environmental perspective, it is recognized that a new corridor could have significant environmental effects associated with a new crossing of the Niagara Escarpment, and / or impacts to the provincially significant wetlands in Flamborough.

A widening of Highway 403, however, would result in many environmental impacts to features such as Cootes Paradise, Royal Botanical Gardens, community parks and trails, and would also have a significant impact in the area of Highway 403 through the Niagara Escarpment.



Extensive community and economic impacts would also result from the widening and replacement of all of the structures along this section of Highway 403. Consideration would be given to improving the existing alignment of Highway 403, which would further increase the magnitude of community impacts.



In considering the alternative of widening Highway 403 through Hamilton in the long-term, any future expansion beyond ten lanes would require a core-collector freeway system, and would have significant negative community and environmental impacts.

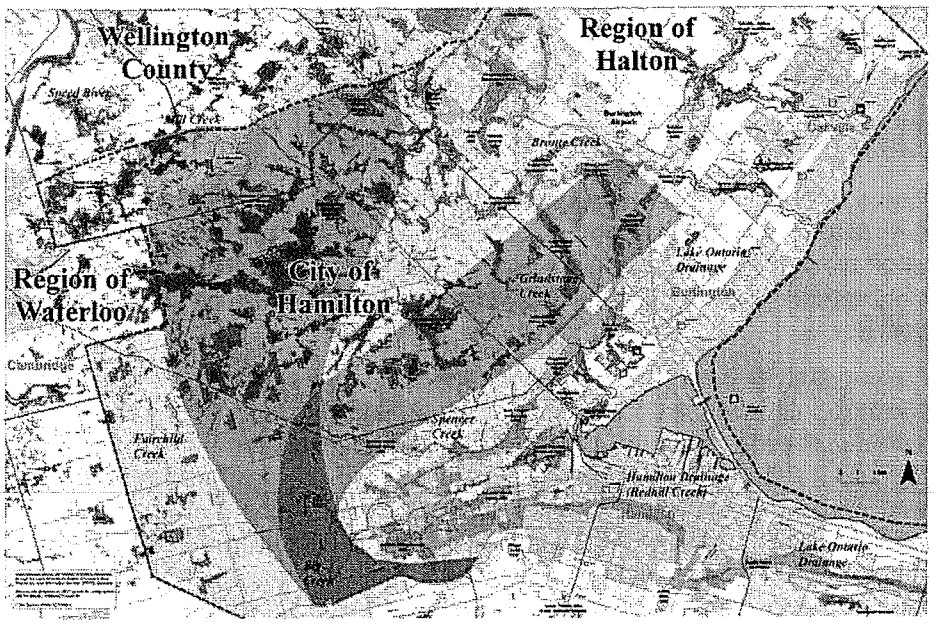
As such, potential widening of the existing highway limits the ability to accommodate future travel demands in this area whereas a new corridor would provide adequate capacity and network redundancy for the long-term.

There are two new corridor options in the Hamilton / Halton area – a corridor that connects Highway 403 to Highway 401 west of Milton, and a corridor that connects to 407 ETR in the Burlington area. In assessing these options, consideration has again been given to the triple-bottom line (environment, economy and community).

From an environmental perspective, a connection to 407 ETR requires a new crossing of the Niagara Escarpment, which is considered to be a significant environmental impact. However, the density and distribution of natural features within this corridor allows for more opportunity to avoid or mitigate removal and / or fragmentation of large natural areas. Although some features will be impacted, the extent of these impacts can be minimized through careful routing.

Along a new corridor connecting to Highway 401, there is a higher density of significant natural features such as the Beverly Swamp and its associated Provincially Significant Wetlands, as shown on the map below (**Exhibit E-11**). These important wetland complexes are continuous though the study area and fragmentation and significant impacts to these important natural features may not be avoidable through route planning. As such, there is considerably less potential to mitigate adverse natural impacts associated with a Highway 401 connection relative to a 407 ETR connection (where mitgation measures such as bridges or tunneling can be examined to minimize impacts). A new corridor connection to Highway 401 would also require additional widening of Highway 401 through the Niagara Escarpment area.

Exhibit E–11: Natural Features along the Route to Highway 401 and 407 ETR



From a community perspective, the impacts of both options are anticipated to be similar with regard to potential impacts to rural communities and agricultural lands, and both alternatives can avoid built up areas, although a 407 ETR connection has the potential to be closer to some developed areas in the Waterdown area.

From an economic perspective, a 407 ETR connection better serves the population growth areas of Hamilton and Halton and provides a more direct connection for the movement of people and goods to the major employment areas. However, a connection to Highway 401 provides a new corridor connecting Hamilton to the northern portions of Halton and the GTA which would also provide economic benefits.

From a transportation perspective, both corridor options address forecasted congestion on Highway 403 through Hamilton, but a connection to 407 ETR diverts nearly twice as much traffic off of this section of Highway 403 as compared to a connection to Highway 401. A new route connecting to 407 ETR would also connect into the proposed 407 ETR transitway, providing additional options for extending transit services in the future.

In summary, all of the alternatives in the West Area will address the future transportation needs to the 2031 planning horizon. However, both of the new corridor alternatives provide opportunities to divert future travel demands away from the Highway 403 corridor through Hamilton and may provide a better long term strategy. Of the two new corridor alternatives it is anticipated that a connection to 407 ETR will divert more traffic away from Highway 403 through Hamilton than a connection to Highway 401. In terms of community and environmental considerations, while a widening of Highway 403 through Hamilton is anticipated to result in lower environmental impacts than either of the new corridor alternatives, the new corridor alternatives are anticipated to result in lower community impacts than a widening of Highway 403 through Hamilton.

Given the demonstrated need for additional roadway capacity, the complexity and inter-relationship of the environmental, social, and economic factors in this area and in response to the stakeholder feedback received during and subsequent to the fourth round of Public Information Centres regarding these factors, it has been determined that more focused analysis and assessment should be undertaken to better understand and compare the relative advantages and disadvantages of the transportation options and corridor alternatives in the Halton-Hamilton area. The scope of this work is described in more detail in **Chapter 5**.

Notwithstanding the above, in the short-term a review of traffic operations to optimize the efficiency of this section of Highway 403 is recommended.

Draft Transportation Development Strategy

The draft Transportation Development Strategy is illustrated in **Exhibit E-11** and **Tables E-1**, **E-2** and **E-3**, and combines the results of the roadway assessments completed in each of the three geographic regions described in the previous section, together with the recommended strategies for network optimization and transit enhancements described previously.

Tables E-1, E-2 and **E-3** below provide a tabular summary of the elements of the draft Strategy, as well as the anticipated jurisdiction and timing for implementation. In general, the ministry's vision is for the roadway recommendations to be implemented in the mid- to long-term, as it will be many years before the strategic highway widenings and new corridor recommendations are fully implemented. During this time, the transportation network optimization and transit recommendations will be explored and implemented by the ministry and other agencies in concert with the RTP by Metrolinx

and the GO 2020 Strategic Plan. These include an Active Traffic Management study for the NGTA study area and beyond, as well as transit feasibility studies to investigate the potential for a Hamilton-focused inter-regional transit service, and an inter-regional transit service connecting the western urban areas of Kitchener-Waterloo, Cambridge, Brantford, Hamilton and Guelph. In general, it is envisioned that implementation of these initiatives will take priority to the roadway-based components of the draft Transportation Development Strategy.

Route planning for a new corridor from Welland to the QEW should commence – building on the work begun by Niagara Region. It is also recommended to continue planning in the Hamilton / Halton area with a review of traffic operations on Highway 403 to identify short-term operational improvements that can be undertaken.

To identify the most appropriate longer term solution in this area, additional focused analysis and assessment should be undertaken to better understand and compare the relative advantages and disadvantages of the transportation options and corridor alternatives in the Halton-Hamilton area.

The assessment of all of the transportation options and corridor alternatives will be reviewed with the relevant municipalities, agencies and interest groups to obtain input and feedback prior to finalizing the recommendations in the West Area. This input will be factored into the evaluation of the alternatives, and a preferred alternative will emerge.

The ministry will also continue to monitor growth patterns and transportation system performance to determine when a new transportation corridor between Welland and Hamilton will be required. Planning for this new corridor will commence as determined by the monitoring. The corridor is expected to be multi-use, including options for high speed rail, goods movement, and / or transit purposes.

Exhibit E–12: Draft Transportation Development Strategy

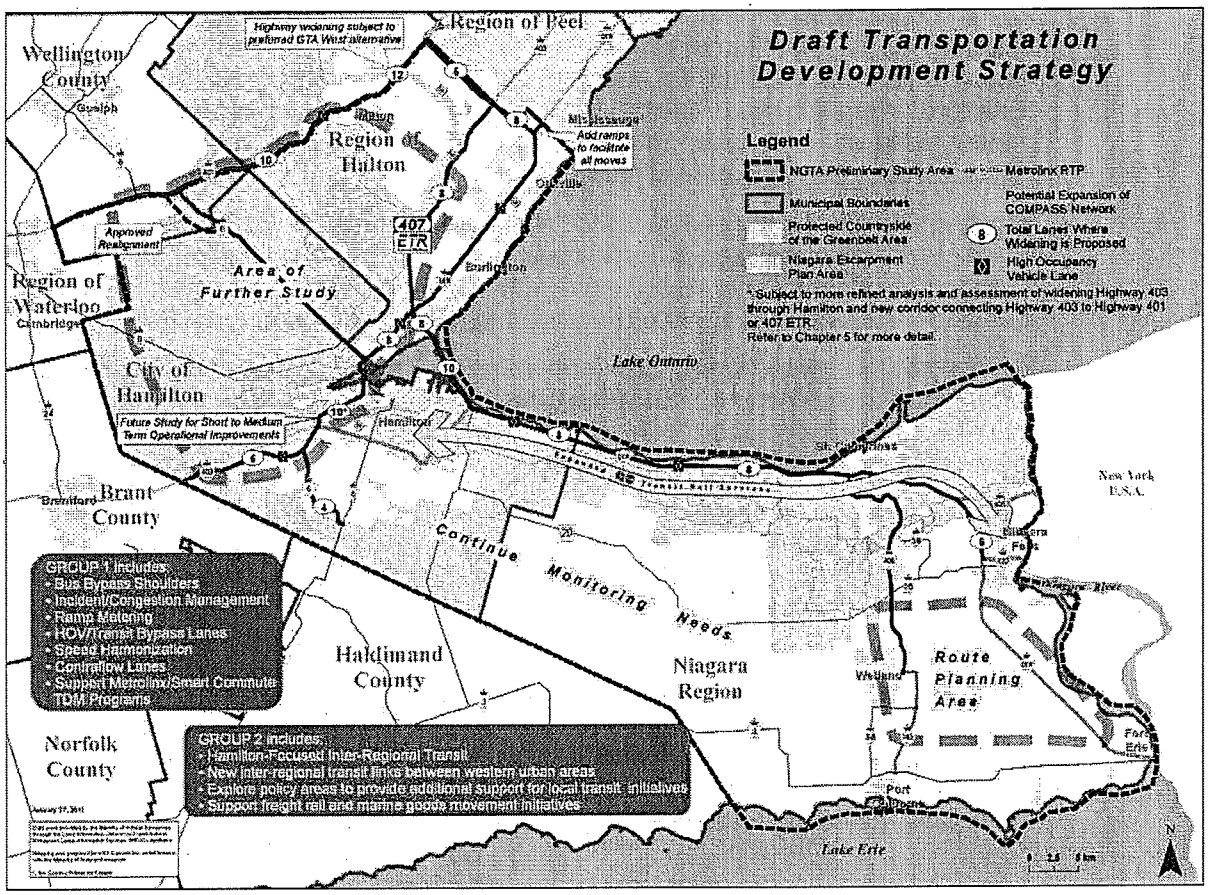


Table E–1: Draft Transportation Development Strategy (Short-Term)

Short-Term (0-5 years)		
Element	**Description**	**Jurisdiction**
Active Traffic Management Study for NGTA Study Area and Beyond	MTO to undertake an Active Traffic Management Study for the NGTA study area and beyond. The scope of this study could include: • Identifying if there are locations where bus bypass shoulders should be provided along existing provincial facilities such as QEW, Highway 403, Highway 401 and 407 ETR. • Assessing the potential for further expansion of the COMPASS system beyond the current service area. • Identifying if there are areas where ramp metering and / or HOV / transit bypass lanes would be beneficial at interchanges along existing provincial facilities such as QEW, Highway 403, and 407 ETR. • Reviewing the potential for implementing speed harmonization on existing provincial facilities based on experience with current initiatives in the US. • Reviewing the potential for implementing contra flow lanes in areas where there is a significant difference in traffic volumes in one direction as compared to the other direction during peak periods.	MTO
Support MTO, Metrolinx and Smart Commute in Expanding Their TDM Programs	While these initiatives will be led primarily by Metrolinx, MTO will explore opportunities to provide additional support as well as the potential for legislative or policy changes to address current barriers.	Metrolinx
Linking Urban Areas Through Inter-Regional Transit	MTO to initiate an "Inter-Regional Transit Feasibility Study" to investigate potential needs and opportunities for inter-regional transit connecting the western urban areas of Kitchener-Waterloo, Cambridge, Brantford, Hamilton and Guelph. MTO to work with Metrolinx / GO Transit and other transit authorities to determine the timing for such a study.	MTO, Metrolinx, Other Transit Authorities
QEW / Highway 403 Interchange	MTO to commence a study to provide a full freeway-to-freeway interchange at the QEW / Highway 403 interchange which currently only provides access to and from the west.	MTO
Further Analysis of Freight Forecasts	MTO will undertake additional analysis to re-examine the future freight forecasts that have been developed for this study.	MTO
Further Study in the West Area	MTO to undertake additional focused analysis to assess and evaluate the relative advantages and disadvantages of the transportation options and corridor alternatives in the Hamilton-Halton area.	MTO

Table E–2: Draft Transportation Development Strategy (Medium-Term)

Medium-Term (5-15 years)		
Element	**Description**	**Jurisdiction**
Hamilton-Focused Inter-Regional Transit Service	MTO and Metrolinx to consider the timing for initiating a feasibility study to assess future ridership potential for an inter-regional transit service that is focused on bringing commuters from outlying areas into the City of Hamilton during the morning peak period, and out of the City during the afternoon peak period.	Metrolinx
Support Rail Initiatives	MTO to work with CN, CP and Metrolinx to identify and study potential solutions to resolve freight rail / passenger rail conflicts and to provide road / rail grade separations at strategic locations.	MTO, CN, CP, Metrolinx
Support Marine Goods Movement Initiatives	MTO to work with the Port of Hamilton, the St. Lawrence Seaway Authority and other relevant agencies to identify potential access improvements for the Port of Hamilton and the potential for changes to current marine transport legislation that affect the competitiveness of short sea shipping and other marine initiatives.	MTO, Port of Hamilton, St. Lawrence Seaway Authority
Strategic Highway Widening ***Note: Some of these improvements may also be applicable to the Long-Term timeframe.***	MTO to undertake Class Environmental Assessment studies to investigate and confirm the need to widen the following provincial facilities within the NGTA study area. • **Highway 401** – Widen to ten lanes (including two HOV lanes) between the east junction of Highway 6 and James Snow Parkway. • **Highway 401** – Widen to 12 lanes (including two HOV lanes) between James Snow Parkway and 407 ETR. • **407 ETR** – Widen to eight lanes between the 407 ETR / Highway 403 / QEW interchange and Highway 403. • **407 ETR** – Widen to six lanes between Highway 403 and Highway 401. • **QEW / Highway 403 / 407 ETR Interchange** – Provide additional lanes to improve lane balance throughout the interchange.	MTO

Medium-Term (5-15 years)		
Element	**Description**	**Jurisdiction**
Strategic Highway Widening (Cont'd) ***Note: Some of these improvements may also be applicable to the Long-Term timeframe.***	• **Highway 403** – Add two HOV lanes between the QEW / Highway 403 / 407 ETR Interchange and the east junction of Highway 6. • **Highway 403** – Add two HOV lanes* west of Highway 6. • **Highway 6** – Widen to four lanes from Highway 403 to the Hamilton International Airport. • **QEW** – Widen to eight lanes (including two HOV lanes) between the QEW / Highway 403 / 407 ETR Interchange and the Burlington Skyway. • **QEW** – Add two HOV lanes* over the Burlington Skyway to the Red Hill Valley Parkway. • **QEW** – Add two HOV lanes from the Red Hill Valley Parkway to Highway 406. • **QEW** – Widen to six lanes between Highway 405 and Highway 420. The ultimate widening requirements will be determined at an early stage of the subsequent Class EA studies based on traffic analysis that is conducted to support these studies. If the findings of the Class EA studies differ from the recommendations in this draft Strategy, the findings of the Class EA studies will govern. * - represents an expansion of MTO's 2007 HOV Plan.	MTO
Operational Improvement Study Along Highway 403 Through the City of Hamilton	MTO will continue to seek opportunities to make strategic operational improvements to the section of Highway 403 through the City of Hamilton which may require Class EA studies to address existing operational issues during the morning and afternoon peak periods. Strategies that may be considered include widening into the median, widening through structures at interchanges by reconfiguring on-ramps to remove existing ramp lanes under structures, and contra flow lanes.	MTO
Highway 6 Freelton to Guelph	MTO to commence design for a bypass of the community of Morriston.	MTO
Undertake Route Planning for New Multi-use Transportation Corridor(s)	MTO to proceed into Phase 2 of the Environmental Assessment to identify a preferred route for connecting Highway 406 in the Welland area to the QEW between Highway 420 and Fort Erie. Subject to the results of the additional corridor planning in the West Area (short-term recommendation) a route planning study or a Class EA study may be initiated in the medium term.	MTO
Monitoring	MTO to monitor growth patterns and transportation system performance to determine when a new transportation corridor between Hamilton and Welland will be required. Planning for this new corridor will commence as determined by the monitoring.	MTO

Table E–3: Draft Transportation Development Strategy (Long-Term)

Long-Term (15-25 years)		
Element	**Description**	**Jurisdiction**
Implementing New Multi-use Transportation Corridors	MTO to implement a new multi-use transportation corridor connecting Highway 406 in the Welland area to the QEW between Highway 420 and Fort Erie based on the results of Phase 2 of the Environmental Assessment and any subsequent design studies. Subject to more refined analysis and assessment of the transportation options and corridor alternatives in the West Area, MTO may implement a new multi-use transportation corridor in the West Area. The location of the new multi-use corridor would be based on the results of the West Area further study and Phase 2 of the Environmental Assessment and any subsequent design studies.	MTO
Monitoring	MTO to continue to monitor growth patterns and transportation system performance to determine when a new transportation corridor between Hamilton and Welland will be required. Planning for this new corridor will commence as determined by the monitoring.	MTO

OFFICE OF THE MAYOR

MAR 30 2011

Ontario

Ministry of Transportation
Office of the Minister
Ferguson Block, 3rd Floor
77 Wellesley St West
Toronto, Ontario
M7A 1Z8
416 327-9200
www.mto.gov.on.ca

Ministere des Transports
Bureau du ministre
Édifice Ferguson, 3e etage
77, rue Wellesley ouest
Toronto (Ontario)
M7A 1Z8
416 327-9200
www.mto.gov.on.ca

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RE: Niagara to GTA Corridor Planning and Environmental Assessment Study
Release of the draft Transportation Development Strategy report
www.Niagara-GTA.com

The Ontario Ministry of Transportation (MTO) has released its draft Strategy on Phase 1 of the Niagara to GTA (NGTA) Corridor Environmental Assessment (EA) study. The purpose of the study is to provide a plan for future transportation capacity within the NGTA study area in support of the provincial *Growth Plan for the Greater Golden Horseshoe.*

The draft Strategy report recommends transportation improvements for the entire study area; some are short term while others are medium to long term.

Shorter term actions include: adding more transit service in the area, managing traffic on existing roads and highways more effectively, reducing travel needs by creating better alternative choices, known as transportation demand management techniques

Medium to longer term initiatives include: expanding existing roads and highways, adding High Occupancy Vehicle (HOV) lanes and transit by-pass lanes on provincial highways, and planning for increased network connectivity by identifying multi-modal transportation corridors for the long term future.

In the Hamilton-Halton section of the study area, the draft Strategy recommends additional analysis to further assess and evaluate transportation options. After extensive public consultation, the study team has heard the desire for further analysis and consultation. The study team will analyze the impacts of environmental, community and economic factors in this area, and consult further prior to bringing forward a final recommendation for this area. The additional analysis will incorporate an evaluation of the relative advantages and disadvantages of alternatives to increase capacity in this section of the study area.

This further study is expected to take 1-2 years following the 90-day review period for the draft Strategy report. We invite public comment at this time on the entire draft Strategy report as well as on the recommendation for further study of the Hamilton-Halton section of the study area. Of course, additional consultation would be an important part of the further study referenced above.

Your input on the draft Transportation Development Strategy report is appreciated, as it will help guide the study team in their next stage of work. The draft Strategy is available for review on the project website www.Niagara-GTA.com. If you would like to discuss the contents of the report, or require clarification, please do not hesitate to get in touch with the study team.

Sincerely,

Kathleen Wynne

Kathleen Wynne
Minister