



**GTA
West**

GTA West Corridor
Environmental Assessment



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Environmental Assessment**

**Area Transportation System
Alternatives Report
Executive Summary**

Revised Draft

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McCORMICK RANKIN
CORPORATION
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EXECUTIVE SUMMARY

1. The Challenges and Opportunities of Growth

Within the Greater Toronto Area West study area, significant growth is anticipated in the *Growth Plan* in the north and west GTA but also in the Guelph-Kitchener / Waterloo-Cambridge triangle to 2031. While this rapid growth creates new opportunities and economic potential, it is not without challenges. It is critically important that this growth is supported and planned for through appropriate land use and transportation planning that recognizes and seeks to address fundamental questions such as: Where will people live, work and play? How will we protect our important natural, social and cultural features? How will we maintain a high level of mobility for the residents and businesses within the region as well as visitors to the region?

While this rapid growth creates extraordinary opportunities and economic potential, it is not without challenges. It is critically important that this growth is supported and planned for through wise land use and transportation planning that recognizes and seeks to address fundamental questions such as: Where will people live, work and play? How will we protect our important natural, social and cultural features? And how will we maintain a high level of mobility for the residents within the region as well as visitors to the region? At the same time, improving the movement of goods is among the highest priorities for the GTA West area. Future population and employment growth in major urban centres will result in an increase in travel demand for both people and goods movement. It is vital to grow the goods movement and logistics industry by improving the essential infrastructure needed to move goods from our ports throughout the province and to the rest of the study area. Improving the goods movement infrastructure is also pivotal to relieving congestion on freeways and increasing mobility.

From a transportation planning perspective, this growth poses a significant challenge, as many of our existing facilities are already operating at or near capacity during peak periods. By 2031, the existing transportation network within the GTA West study area will not be able to support the additional commuter, tourist and goods movement travel that corresponds to the projected growth.

To address these issues, the Ontario government has begun the process of planning for the future. *The Growth Plan* and *The Greenbelt Plan* provide an important policy context and foundation. Through these policies, municipalities and the Ontario government can plan for communities with land use that is supportive of a more balanced transportation system that in turn 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, the Ontario government has initiated a *Regional Transportation Plan (RTP)* for the Greater Toronto and Hamilton Area (GTHA), which is being led by Metrolinx and GO Transit. The *RTP's* vision is of an integrated transportation system that enhances quality of life, environment and prosperity. The *RTP* contains ten strategies needed to achieve the vision, goals and objectives, each including priority actions and supporting policies. Nine of the actions and policies were identified as Big Moves, those measures that will have the largest and most transformational impacts on the GTHA's transportation system:

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

Improvements are not only planned for the future in the GTHA but several are being provided currently to address today’s transportation challenges. The Ontario Ministry of Transportation (MTO) has programs underway to make more efficient use of existing infrastructure. These programs include:

- **Intelligent Transportation Systems (ITS).** This system known as COMPASS includes elements such as changeable message signs, detectors, closed circuit television (CCTV) cameras and ramp metering signals, all of which are connected to a central Traffic Operation Centre. ITS provides a mechanism for incident detection and management, motorist advisory and congestion management.
- **Traveller’s Information.** This website (www.mto.gov.on.ca/english/traveller/), operated by MTO, displays up-to-date information. It includes an interactive system map of MTO facilities in the GTHA, traffic and road information (road conditions, closure, restrictions, construction, GTA traffic flow and HOV lanes) and locations of traffic cameras and carpool lots.
- **MTO HOV Network.** MTO has a High Occupancy Vehicle (HOV) network in the GTHA. To date, this includes Highway 404 (from Highway 401 to 16th Avenue) and Highway 403 (from 407 ETR to Highway 401). By 2031, the network is planned to include 450 kilometres of HOV lanes, including Highway 401 from Milton to Highway 403, Highway 403 / 410 from Hamilton to Brampton, Highway 427 from Highway 409 to 407 ETR, and Highway 400 from Major Mackenzie Drive to Highway 9.
- **Carpool Lots (MTO).** Commuters currently have access to 50 carpool parking lots in the Greater Golden Horseshoe with more than 5,000 parking spaces.
- **Variable Electronic Toll (407 ETR).** 407 ETR uses license plate cameras and transponders to charge tolls to users of the facility automatically. The cost of each trip depends on factors such as time of day, vehicle class, distance travelled, section(s) travelled, and correct mounting and use of a valid transponder.

At a municipal level, all municipalities within the Greater Golden Horseshoe (GGH) are working on their Official Plan updates to align with *The Growth Plan*, which

promotes more compact, transit-supportive development. They are also addressing their transportation needs through local and regional improvement programs.

While all of these initiatives will help to address the future travel demand that is anticipated by 2031, more is needed. This study, the GTA West Corridor Planning and Environmental Assessment (EA) 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 level Transportation Development Strategy (TDS) for the GTA West study area that builds upon all of the Ontario and municipal government's current plans such as York Region's VIVA and Brampton's Züm transit initiatives, and identifies additional multi-modal transportation improvements to address the future needs.

A key step in this process is the development of multi-modal Area Transportation System Alternatives. These are groups of modal improvements that could be applied in the area to address future transportation challenges. The purpose of this report is to summarize the process and methodology that was used to develop a broad range of the Area Transportation System Alternatives and to document the key findings of this work.

The *Area Transportation System Alternatives Report* will serve to document a critical stage in the study providing a foundation for the further assessment, evaluation, and selection of Preliminary Planning Alternatives that will be incorporated into the ultimate Transportation Development Strategy for Stage 1 of the GTA West Planning and EA Study.

2. The Creative Process

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.

This process is documented in **Section 1.6** of this report and is illustrated schematically in **Exhibit E-1**. As seen in the exhibit, the process has followed a two-stage approach which begins 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 during the previous phase of work, (refer to **Section 1.5** of this report, as well as the *Draft Area Transportation System Problems and Opportunities Report (July 2009)* which is available under separate cover).

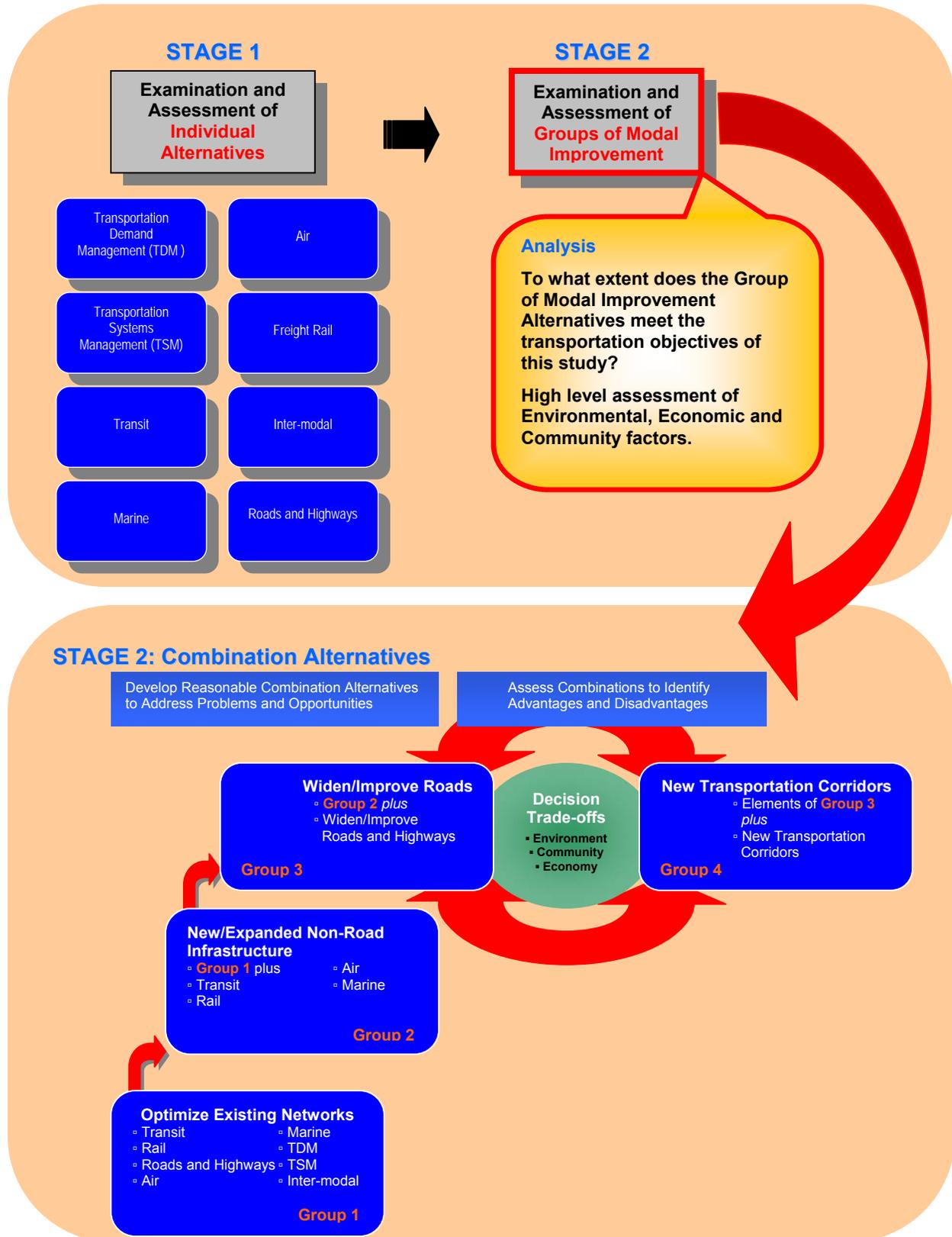
Based on this assessment, individual transportation alternatives considered capable of substantively contributing to addressing these problems and opportunities are carried forward to the second stage of the process, which involves assembling these alternatives into groups.

A “building block” approach is used to assemble the groups based on the philosophy of first optimizing the existing transportation network, and then if necessary, incorporating non-roadway infrastructure improvements and expansion before considering the provision of new roads and / or highways. This approach has been developed to align with the underlying principles of *The Growth Plan* and *The Greenbelt Plan*.

The study team’s objectives throughout the process have been to fully explore the potential of all transportation modes, the potential of optimization techniques aimed at managing transportation demand (Transportation Demand Management) as well as enhancing and improving the existing transportation systems using emerging technologies (Transportation Systems Management). The study team’s findings with regard to each of the individual alternatives are described briefly in the next section, and in more detail in **Chapter 2** of this report.

As part of this exercise, study team specialists carried out a review of transportation practices in other jurisdictions elsewhere in Canada and around the world to determine which elements of these practices can be readily applied to the unique set of circumstances inherent in the transportation, environmental, economic, social features and conditions within the GTA West study area.

Exhibit E-1: Two-Stage Process for Developing and Assessing Area Transportation System Alternatives



In addition, they have met and corresponded with transportation service providers such as Metrolinx, GO Transit, VIA Rail, CNR, CPR, St. Lawrence Seaway Authority, Ontario Motor Coach Association and the Greater Toronto Airports Authority (GTAA) managing the Toronto Pearson International Airport. The goal of these meetings has been to identify opportunities 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 our specialists are documented in **Chapter 2** of this report. These findings 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 create the development of an innovative and creative 'long-list' of multi-modal transportation alternatives. The 'long list' of alternatives for each mode of transportation is documented in each of the corresponding sections of **Chapter 2** of this report.

In developing the initial 'long-list', the study team set aside consideration of policy constraints and previous expectations. 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 that had been identified by the study team during the previous phase of work. Alternatives that were not considered capable of addressing the inter-regional transportation problems and opportunities were not carried forward for further consideration. The remaining alternatives were categorized as being worthy of pursuit as part of subsequent stages of this study, or by other studies and initiatives.

The study team's assessment of the 'long list' of individual transportation alternatives, as well as the generation and assessment of the group alternatives is documented in **Chapter 3** of this report.

3. Assessment of the Individual Transportation Alternatives

The 'long list' of alternatives were assessed according to the degree to which each alternative could meaningfully contribute to addressing the inter-regional transportation problems and opportunities that were identified (as summarized in **Table E-1**).

Table E-1: Assessment of Individual Transportation Alternatives

MODE	CARRIED FORWARD	RATIONALE
Transportation Demand Management (TDM)	✓	Is recognized as an important component of transportation networks but on its own it does not provide a significant improvement to transportation problems in the GTA West study area.
Transportation Systems Management (TSM)	✓	Is recognized as an important component of transportation networks but on its own it does not provide a significant improvement to transportation problems in the GTA West study area.
Transit	✓	Is recognized as an important component of a transportation network for the movement of people; however, on its own it does not provide a significant resolution of the full range of transportation problems in the GTA West study area.
Air	✓	Improved multi-modal connections to the Toronto Pearson International Airport have some potential to reduce dependence on the road network in the GTA West study area. Recommended to be pursued by others or are already being pursued by others.
Marine	✓	Improved multi-modal connections to Port of Toronto / Port of Hamilton have some potential to reduce congestion on the road network in the GTA West study area. Recommended to be pursued by others or are already being pursued by others.
Freight Rail	✓	Will continue to be an important aspect of goods movement in the GTA West study area, however there are no specific freight rail transportation alternatives to be pursued as part of this study.
Inter-modal	✓	Improved inter-modal facilities have some potential to address transportation problems in the GTA West study area, especially as they relate to the movement of goods (i.e., rail to truck transfers etc.).
Roads and Highways	✓	Are expected to provide significant improvement to transportation problems in the GTA West study area through widening of existing roads and / or highways and potentially introduction of a new transportation corridor.

The findings of this assessment identified that numerous alternatives from among the several transportation modes could be used to provide improvement. One of the key findings, however, was that no single mode of transportation is capable of fully addressing all of the identified transportation problems and opportunities. As such, all of

the individual transportation alternatives were carried forward for further consideration to the second stage of the process – the assembly of the group alternatives.

4. Group Transportation Alternatives

The primary focus of the second stage of the process was to assemble groups of alternatives based on the 'long list' of alternatives that was generated initially by the study team and supplemented based on consultation with municipalities, agencies, members of the public, transportation service providers and other stakeholders. Four groups were established, using the building block approach. Each of the four group alternatives are described briefly as follows:

- **Group #1: Optimize Existing 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 / Expanded Non-Road Infrastructure**

This alternative incorporates and 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 / Improve Roads**

This alternative incorporates and 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 which is currently planned or contemplated by municipalities and the Province of Ontario.

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

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

Based on the study team's assessment of the 'long list' of alternatives, the alternatives considered worthy of pursuing as part of the current study were grouped into each of the above categories. The following sections provide an overview of each of the group alternatives.

4.1 Overview of Group #1

Group #1 builds upon comprehensive optimization strategies embodied in the Metrolinx *RTP*, *GO 2020 Strategic Plan*, MTO's *High Occupancy Vehicle Lane Network Plan* and *Carpool Lot Program* and municipal transportation plans. These strategies are based on the following objectives:

- Improving access to transit stations for pedestrians and motorists and advancing the concept of mobility hubs for key stations.
- Improving integration of active transportation opportunities and transit such as secure storage facilities at transit stations, bicycle storage on transit vehicles, etc.
- Expanding use of roadway shoulders during peak travel periods.

- Improving scheduling and fare integration between inter-regional and local transit providers.
- Using real-time trip planning information technologies for transit users and drivers.
- Increasing / improving transit service frequency.

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

Speed Harmonization

The concept of speed harmonization is used widely in numerous European jurisdictions and essentially involves adjusting the speed limit on inter-regional road facilities based on prevailing congestion levels. Changeable message speed signs which are connected through an electronic system to vehicle sensors in the pavement are used to reduce the speed limit during times of road congestion. The reduced speed limits promote a more even traffic flow which increases throughput and improves road safety.

Provincial / Employer Led TDM Programs

Transportation Demand Management (TDM) programs currently operating could be improved by expanding the Metrolinx Smart Commute Program beyond the Greater Toronto and Hamilton Area (GTHA).

In addition to providing broader coverage, this program could also involve introducing a regional organization which would provide strategic direction or potentially reach out to employers. The program could be managed by the provincial government.

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 would also involve providing additional carpool parking lots at key locations.

Long Combination Vehicles (LCV's)

Long Combination Vehicles (LCV's) feature a single tractor with two 53 foot (16 metre) trailers. Increased use of these types of vehicles is anticipated to reduce the number of trucks on provincial facilities, thereby improving traffic operations. MTO recently initiated a pilot project to allow up to 100 LCV's on the provincial highway network outside of urban areas.

Ramp Metering

Ramp metering involves the implementation of traffic signal control on highway entrance ramps to control the platoons of vehicles entering the highway and therefore provide a smoother downstream traffic flow. Ramp metering is already in operation on portions of the QEW in Mississauga. Expanding the ramp metering program to other highways in the GTA West study area is a consideration.

HOV / Transit Bypass at Key Locations

This strategy involves providing bypass lanes on metered ramps, ramps accessing transit stations, and ramps in vicinity of carpool lots for HOV and transit vehicles that would allow HOV and transit vehicles to bypass traffic queues on these ramps and access carpool lots and/or transit stations.

Improved Incident Management

This concept involves increased utilization of emerging technologies including ITS to improve detection of incidents, improve Emergency Management Services (EMS) response times, and as a result reduce the duration and extent of congestion and delays resulting from traffic incidents.

Improved Inter-regional Transit Systems

The goal is to improve transit service between urban centres by maximizing coverage within jurisdictions and connections to local trip generators (i.e. schools, malls and urban centres). GO Transit currently provides inter-regional service that connects the municipalities of the GTA West study area to each other and to Toronto. Future plans for transit systems, such as improved integration between GO Transit, Greyhound, Coach Canada and other inter-regional carriers, are identified in Go Transit's *2020 Strategic Service Plan* and Metrolinx' Regional Transit Plan *The Big Move*.

Assessment

Although the Group #1 strategies will have some potential to improve transportation system operations with relatively few impacts to the natural environmental features, they will not sufficiently address all of the identified transportation problems and opportunities. Additional types of improvement are required.

4.2 Overview of Group #2

The extensive transit recommendations embodied in the Metrolinx *RTP* as well as GO Transit's *GO 2020 Strategic Plan* demonstrate the Ontario government's commitment to making transit a viable alternative to the automobile in the GTA and Hamilton area. The concepts proposed by this study build upon the recommendations of the Metrolinx *RTP* and *GO 2020*.

Group #2 includes significant transit and air service expansion initiatives envisioned by the *Metrolinx RTP*, *GO 2020*, and Toronto Pearson International Airport. These include:

- Additional expanded and improved parking facilities at transit stations.
- New bus storage in Aberfoyle.
- Freight rail, air and marine initiatives to be pursued by others.
- Rapid Transit along:
 - Steeles Ave. area (Lisgar GO to Highway 427)
 - Highway 427 (Toronto Pearson International Airport to Queen Street in Brampton)
 - Hurontario St. (Port Credit to downtown Brampton)
 - 407 ETR (Toronto Pearson International Airport to Highway 427)
 - Finch Ave. West (Toronto Pearson International Airport to Finch Station)
 - Hurontario Street (Mayfield West to downtown Brampton)
 - Regional Road 7 (Peel-York boundary to Locust Hill / Markham)
 - 407 ETR (Halton to Durham)

- Trafalgar Rd. / Main St. (downtown Milton to 407 ETR)
- Brampton Züm (downtown Brampton to Peel-York Boundary)
- Regional Rail Service:
 - Bolton to Union Station
 - Expansion of the Georgetown north corridor
 - Toronto Pearson International Airport to Union Station
 - Service extension from Milton to Cambridge
 - Service extension from Georgetown to Kitchener

The Group 2 alternatives are illustrated in **Exhibits E-2 to E-10**. In addition to these strategies, the study team has identified a number of complementary strategies, which may be further supplemented and refined. These strategies are described in further detail below:

Expanded Inter-regional GO Bus Routes

Currently GO Transit service is focused on the Toronto area and particularly on Union Station. As such, the scheduling of these services is based on arrival / departure from Union Station during peak commuter times. In turn, commuters that are destined for areas west of Toronto arrive at these destinations very early in the morning and arrive home quite late in the evening.

Improvements to the current inter-regional GO Bus service would be seamlessly integrated with the Toronto-centric services to provide expanded coverage from Toronto to areas west of Georgetown such as Guelph and Kitchener-Waterloo. Existing bus services to these areas would be improved by more frequent buses and better coordination with local services.

Transit Supportive Corridors

This concept involves introducing reserved bus lanes, HOV lanes, bus bypass shoulders and other transit supportive measures within existing provincial facilities in the GTA West study area. These would serve to make bus transit a more reliable and viable service. While these types of improvements could result in some level of impact to properties that abut these corridors, it is envisioned that these impacts would be relatively minor in nature and could be mitigated to a significant extent.

Inter-regional Transit Hubs where local transit and GO Transit Connect

This concept involves the introduction of transit hubs in downtown Guelph, downtown Brampton, downtown Milton, the Vaughan Metropolitan Centre and also Toronto Pearson International Airport. Transit hubs can result in land use improvement opportunities as they tend to attract more accessible development patterns.

New Bus Rapid Transit links between Urban Growth Centres

This concept involves providing better transit connections between Urban Growth Centres in the GTA West study area including downtown Brampton, downtown Milton, downtown Guelph and the Vaughan Metropolitan Centre. Given that these are smaller growth centres as compared to some and the potential ridership may not be as significant, there is potential to use buses or in the longer term, small train systems or even self-propelled railcars (which could be individual or clustered). Stations would be

multi-modal facilities to provide for a well-connected and integrated transportation system.

Assessment

Although the Group #2 strategies will have some potential to improve transportation system operations (e.g. linkages between Urban Growth Centres, introduction of new transit routes, etc.) with relatively few impacts to the natural environmental features, they will not sufficiently address all of the identified transportation problems and opportunities. Additional types of improvement are required.

4.3 The Need for Roadway-Based Solutions

By 2031, the population in the Greater Golden Horseshoe 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 mix of compatible 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 Greater Toronto and Hamilton Area will be accommodated annually.
- All current provincial transportation plans such as Metrolinx *RTP* and *GO 2020* will be implemented.
- More commuters will switch from single occupant cars to transit and carpools.
- A significant share 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.
- More non-road based infrastructure such as the Group #2 initiatives will be implemented, along with additional related initiatives.

Based on the above, the potential of all transportation modes are assumed to be realized and together with the *Metrolinx RTP* and GO Transit's *GO 2020 Strategic Plan*, the province will have maximized the existing infrastructure to its fullest potential.

Notwithstanding these positive improvements, by the year 2031, significant roadway congestion will still exist, particularly on Highways 401, 400, 427 and 410 in the GTA West study area.

To truly achieve the vision of a functional transportation network that provides user choice and balance, additional roadway capacity will be required; either by widening existing roads and / or highways (Group #3) and / or introducing new transportation corridors (Group #4).

4.4 Overview of Group #3

The Group #3 alternatives have been developed to address the future transportation problems that have been identified within the GTA West Preliminary Study Area. As

such, the additional roadway widening described in the following section is based on providing adequate traffic capacity, operations and road safety conditions on existing provincial and / or municipal road facilities to the year 2031.

Group #3 includes all of the elements from Group #1 and Group #2 as well as the widening and improvement of combinations of the following existing highways and municipal inter-regional transportation facilities in the GTA West study area and beyond:

- Highway 401;
- Highway 410;
- 407 ETR;
- Highway 400;
- Highway 427;
- County Road 124 / Regional Road 24 / Highway 9;
- Highway 7;
- Highway 6
- Mayfield Road / Kirby Road; and
- Trafalgar Road.

Roadway widening alternatives include:

- Highway widening (1 alternative); or
- Highway and arterial road widening (2 alternatives).

The above road facilities have been selected from all of the potential candidate roadways on the basis that they provide suitable inter-regional east-west linkage through the GTA West study area or connection between major east-west corridors. Other key roadways that currently cross the Niagara Escarpment such as Regional Road 25 between Milton and Acton are not included to reduce impacts that could otherwise be significant. It is also anticipated that in areas of built community such as Rockwood, Acton, Georgetown and Erin, short sections of new road (i.e. bypass) may be required to offset major community impacts that would occur with major road widening.

The three Group 3 alternatives are illustrated in **Exhibits E-2 to E-10** with more details provided in **Section 3.7**.

4.5 Overview of Group #4

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 transportation corridor alternatives:

- New corridor connecting either:
 - Highway 400 to Highway 410;
 - Highway 400 to Highway 401 / 407 ETR (coincident with the recently proposed Halton-Peel Freeway – a municipal initiative);
 - Highway 400 to Highway 401 west of Milton;
 - Highway 400 to north of Guelph; or

- Highway 400 to south of Guelph.

These selected corridors represent the introduction of major capacity improvements in areas that have been identified as having significant transportation deficiencies. The focal area for improvement is along Highway 401 between Highway 400 and Highway 427. As a result, each new corridor alternative terminates at Highway 400 – it is and will continue to be the most critical section of transportation deficiency in the area north and west of Toronto. The western termini of the Group 4 alternatives have been identified to represent significantly different points of network connection that are anticipated to attract different trucking activity and commuters throughout the area.

The transportation corridors that are presented could include one of or a combination of:

- A median separated highway with interchanges and no direct access;
- A transitway with stations and bus access at key points;
- A dedicated truckway that restricts use to trucks that have permission.

These corridor concepts are illustrated in **Exhibits E-2 to E-10** with more details provided in **Section 3.8**.

4.6 Assessment of Group #3 vs. Group #4

Widening of the existing municipal roads and / or provincial inter-regional highways within the study area could provide both benefits and challenges. These types of improvements reflect significantly different types of impacts than a new corridor would.

While many of the transportation problems could be addressed by Group #3 (incorporating Groups #1 and #2), the provision of a new transportation corridor presents the opportunity to:

- Improve linkages and accessibility between the urban areas in the GTA West Corridor.
- Accommodate significant development in Peel and York Regions.
- Provide economic opportunities for industry and improved trade.
- Support improved connections for intra-provincial and international tourism, including to / from Toronto Pearson International Airport.

The trade-offs between road widenings and new corridors are challenging and complex. As noted above, widening the existing roads and highways can have an impact on neighbouring communities; however, impacts are focused in existing corridors except where local bypasses may be required in which case impacts to undeveloped lands will occur. New corridors will have a larger footprint impact on the agricultural or natural environment, but some effects can be mitigated through careful environmental planning. However, some impacts to natural heritage features/functions and agricultural lands will be unavoidable.

A high level assessment of all group alternatives is summarized in **Appendix B** on the basis of potential community, economic, environmental impacts as well as transportation considerations.

4.7 Summary of Key Trade-Offs

With due consideration of the benefits that can likely be achieved with Group #1 and #2 alternatives, additional roadway capacity will be required to achieve the vision and

transportation needs of the GTA West Corridor. The Ontario government faces the challenging task of deciding whether to widen the existing roads and / or highways and / or introduce new transportation corridors. Each option presents challenging and complex trade-offs:

- Alternatives for widening existing roads and / or highways:
 - Make good use of existing transportation infrastructure and maintain established origin and destination travel patterns.
 - Provide the capacity to accommodate long-term inter-regional transportation needs to 2031.
 - May require municipal roads to accommodate inter-regional travel.
 - Provide limited flexibility to accommodate growth beyond the planned and projected future of 2031.
 - Provide limited system redundancy in the highway network.
 - Require significant and costly expansion to complex interchanges in the GTA West study area and beyond.
 - Would result in significant impacts to adjacent natural, agricultural and existing community features, with significant cost implications also.
- Alternatives for new transportation corridors would still require widening of some provincial highway 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 Windsor area and markets in the United States in addition to Northern Ontario and Western Canada.
 - 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.
 - Are generally costly alternatives to construct.

Selecting the right solution will require identifying the best balance between benefits and impacts.

4.8 Next Steps

The next steps for this study will involve further refining each of the group alternatives and will ultimately culminate in the development of the Transportation Development Strategy, which will be presented in draft form to members of the public and other stakeholders at the fourth round of Public Information Centres (PIC #4) for Stage 1 of the EA process.

In further refining the Group #1 and Group #2 alternatives, the study team will consult with Metrolinx, GO Transit, Transportation Demand Management / Transportation Systems Management (TDM / TSM) specialists within the MTO and other relevant industry representatives, government agencies and provincial ministries. Through this consultation process, the study team will seek endorsement and a commitment to further identify and consider improvements that could be incorporated into the draft Transportation Development Strategy.

In addition, the study team will further refine the Group #3 and Group #4 alternatives to a preliminary planning level of detail. A more comprehensive assessment and detailed evaluation of these alternatives will be completed, using the broad range of approved Environmental Assessment criteria from the *GTA West Environmental Assessment Terms of Reference* that was prepared and approved at the outset of this stage of the study.

Exhibit E-2: Group 2 – New/Improved Non-Roadway Infrastructure

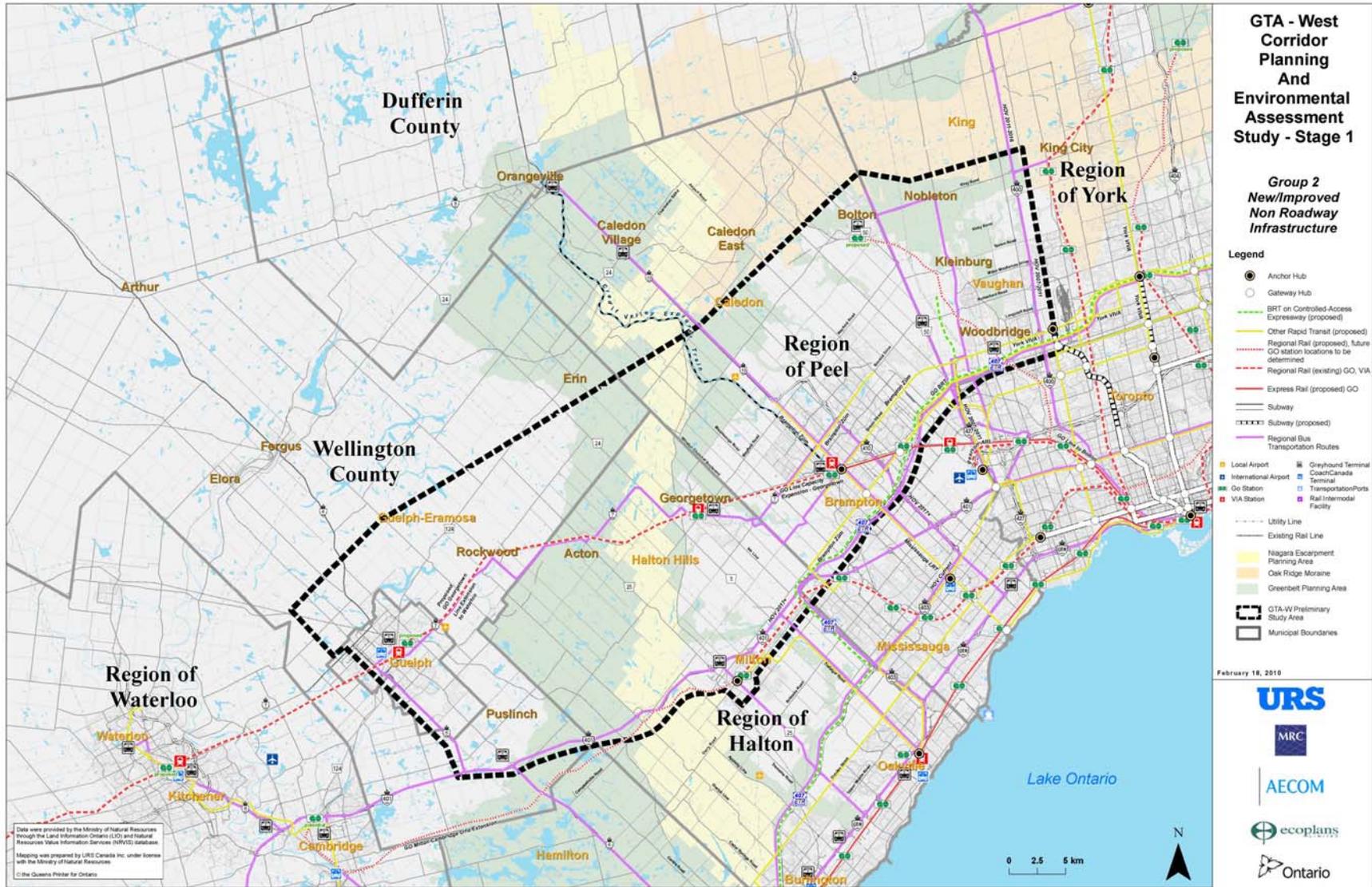


Exhibit E-3: Group 3-1 – Freeway Widening

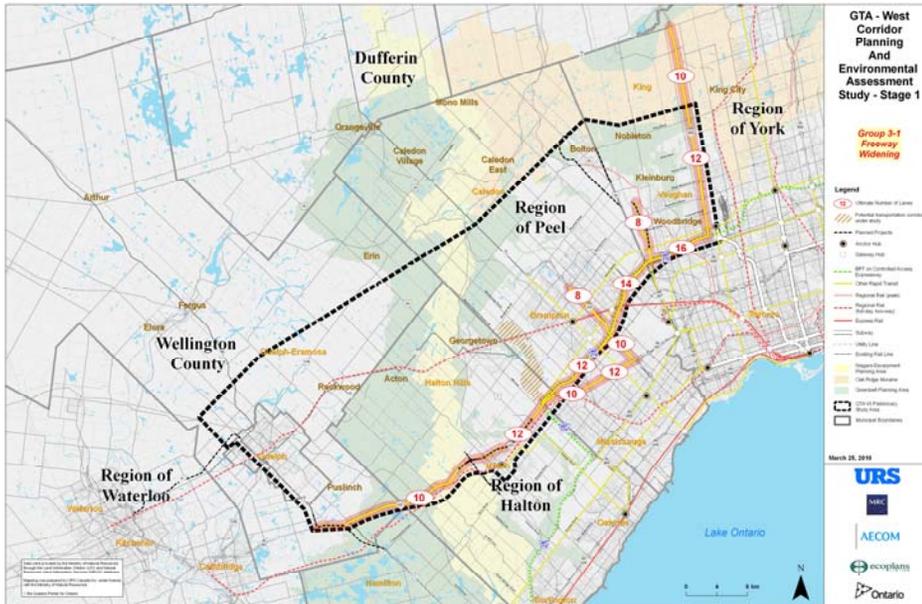


Exhibit E-4: Group 3-2 – Freeway and Arterial Road Widening

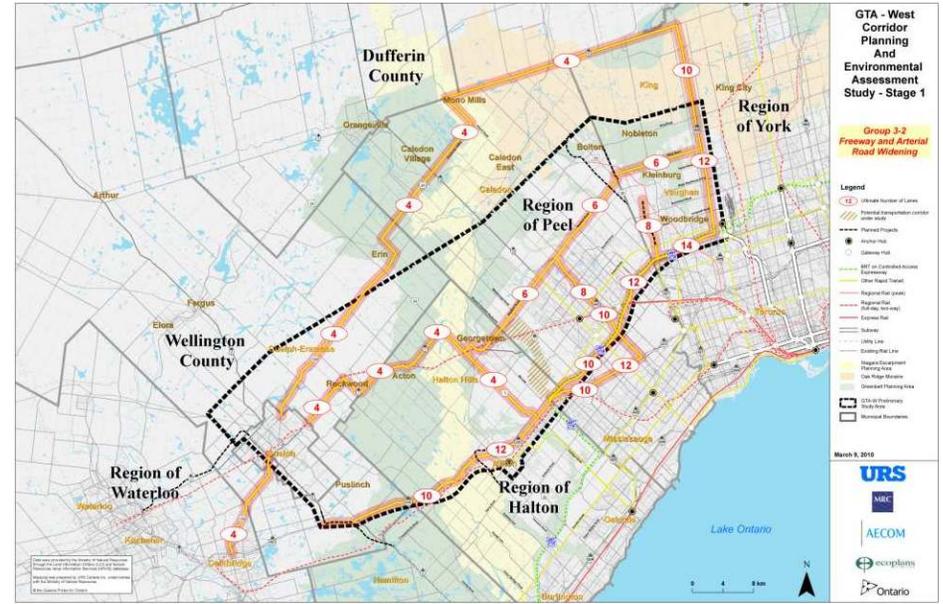


Exhibit E-5: Group 3-3 – Freeway and Arterial Road Widening

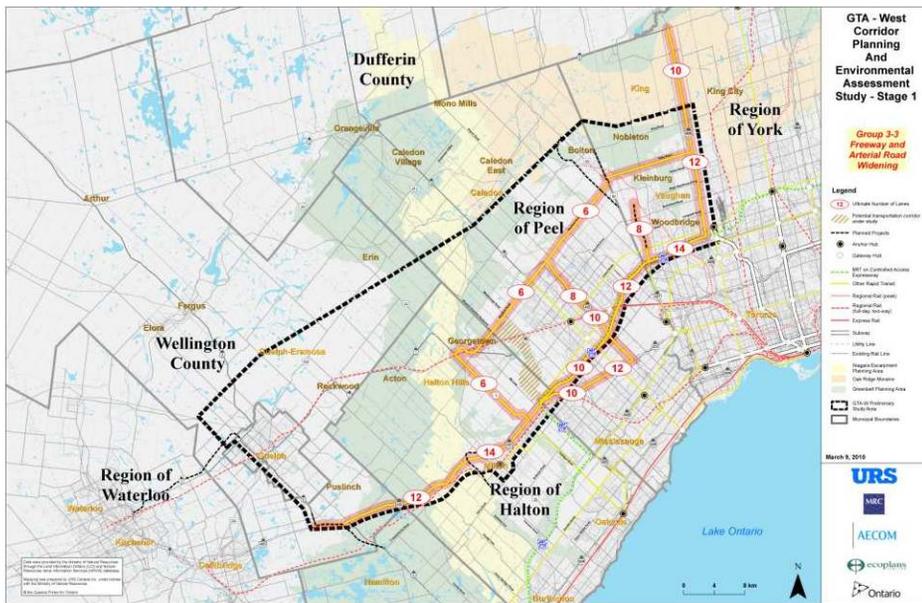


Exhibit E-6: Group 4-1 – New Transportation Corridor and Freeway Widening

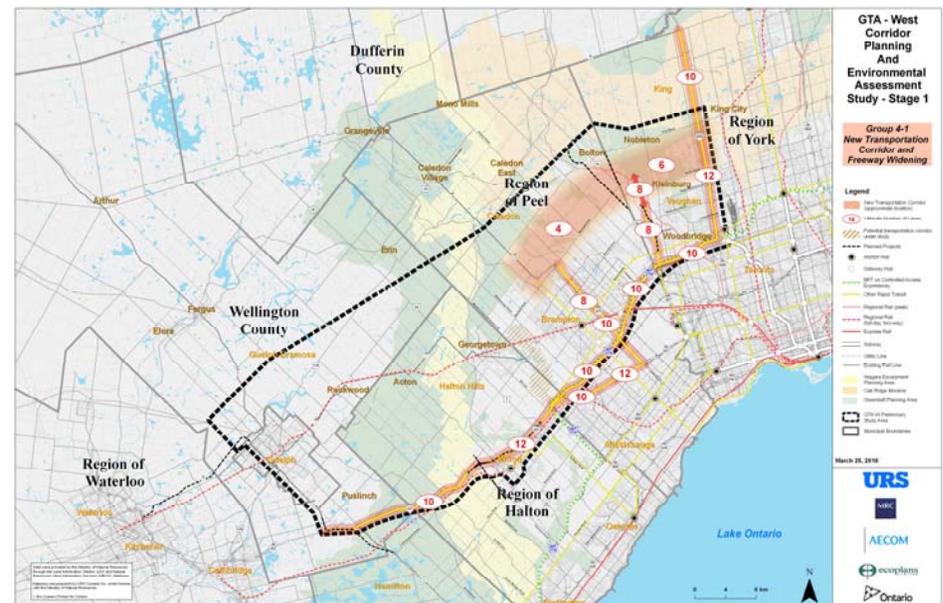


Exhibit E-7: Group 4-2 – New Transportation Corridor and Freeway Widening

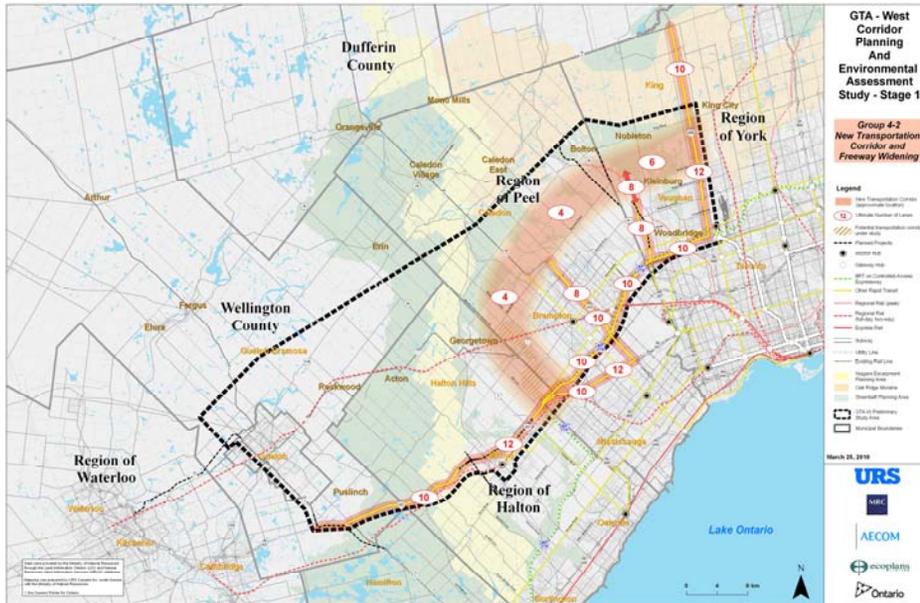


Exhibit E-8: Group 4-3 – New Transportation Corridor and Freeway Widening

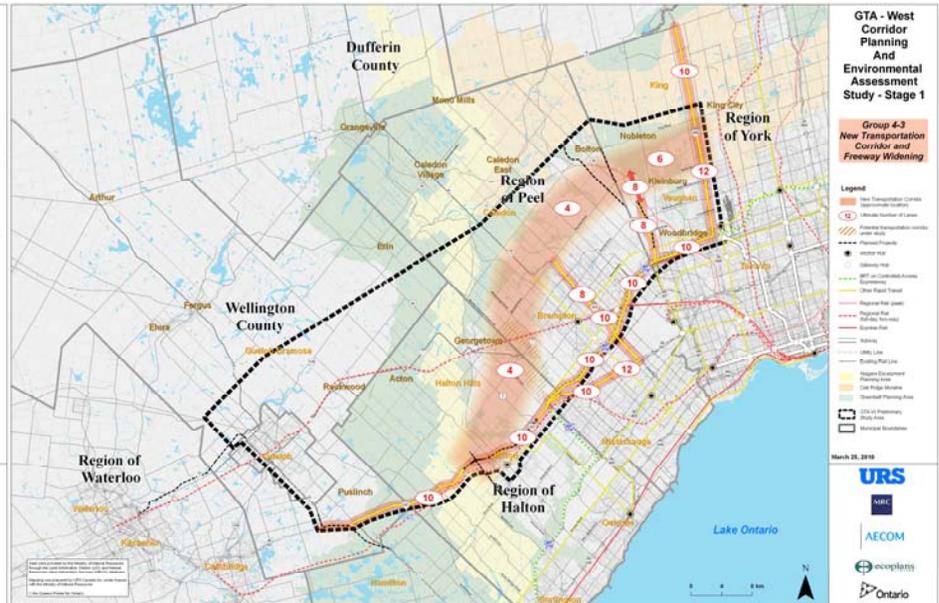


Exhibit E-9: Group 4-4 – New Transportation Corridor and Freeway Widening

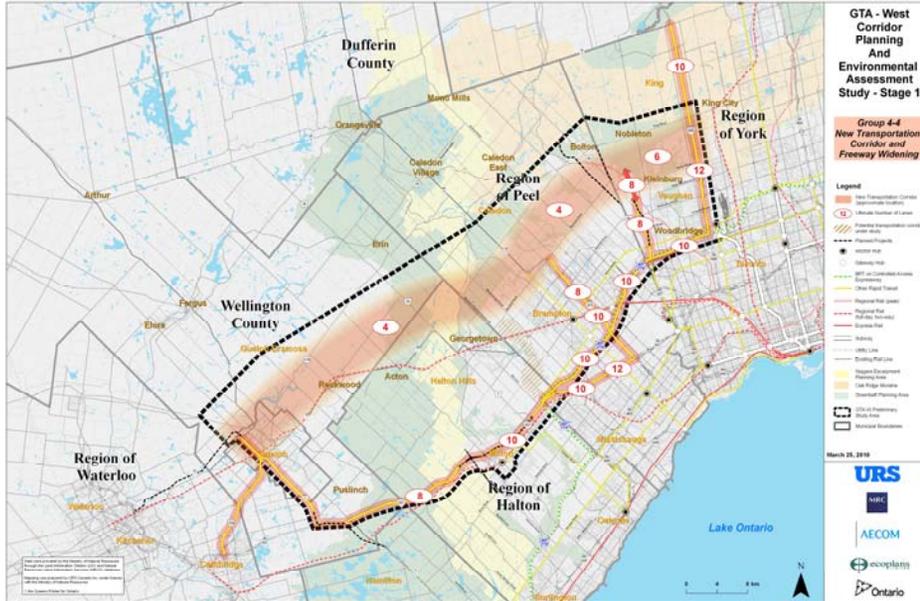


Exhibit E-10: Group 4-5 – New Transportation Corridor and Freeway Widening

